Capital 2.0 capital formation and legal risk in a new global economic order from fiat to exit: including case studies of the proposed transatlantic trade and investment partnership between the United States and the European Union and the financing relation between the United States and the People's Republic of China

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INCLUDING CASE STUDIES OF THE PROPOSED
TRANSATLANTIC TRADE AND INVESTMENT PARTNERSHIP
BETWEEN THE UNITED STATES AND THE EUROPEAN UNION
AND THE FINANCING RELATION BETWEEN
THE UNITED STATES AND THE PEOPLE'S REPUBLIC OF CHINA

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TO DEBBIE

ABSTRACT

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INCLUDING CASE STUDIES OF THE PROPOSED TRANSATLANTIC TRADE AND INVESTMENT PARTNERSHIP BETWEEN THE UNITED STATES AND THE EUROPEAN UNION AND THE FINANCING RELATION BETWEEN THE UNITED STATES AND THE PEOPLE'S REPUBLIC OF CHINA

Following the intrinsically linked balance sheets in his Capital Formation Life Cycle, Lukas M. Stahl explains with his Triple A Model of *Accounting*, *Allocation* and *Accountability* the stages of the Capital Formation process from *FIAT* to *EXIT.*

Based on the theoretical foundations of legal risk laid by the International Bar Association with the help of Roger McCormick and legal scholars such as Joanna Benjamin, Matthew Whalley and Tobias Mahler, and founded on the basis of Wesley Hohfeld's category theory of jural relations, Stahl develops his mutually exclusive Four Determinants of Legal Risk of *Law, Lack of Right, Liability* and *Limitation.* Those Four Determinants of Legal Risk allow us to apply, assess, and precisely describe the respective legal risk at all stages of the Capital Formation Life Cycle as demonstrated in case studies of nine industry verticals of the proposed and currently negotiated Transatlantic Trade and Investment Partnership between the United States of America and the European Union, TTIP, as well as in the case of the often cited financing relation between the United States and the People's Republic of China.

Having established the Four Determinants of Legal Risk and its application to the Capital Formation Life Cycle, Stahl then explores the theoretical foundations of capital formation, their historical basis in classical and neo-classical economics and its forefathers such as The Austrians around Eugen von Boehm-Bawerk, Ludwig von Mises and Friedrich von Hayek and most notably and controversial, Karl Marx, and their impact on today's exponential expansion of capital formation.

Starting off with the first pillar of his Triple A Model, *Accounting*, Stahl then moves on to explain the Three Factors of Capital Formation, *Man, Machines and Money* and shows how "value-added" is created with respect to the non-monetary capital factors of human resources and industrial production.

Followed by a detailed analysis discussing the roles of the Three Actors of Monetary Capital Formation, *Central Banks, Commercial Banks and Citizens* Stahl readily dismisses a number of myths regarding the creation of money providing in-depth insight into the workings of monetary policy makers, their institutions and ultimate beneficiaries, the corporate and consumer citizens.

In his second pillar, *Allocation*, Stahl continues his analysis of the balance sheets of the Capital Formation Life Cycle by discussing the role of The Five Key Accounts of Monetary Capital Formation, the *Sovereign*, *Financial*, *Corporate*, *Private* and *International* account of Monetary Capital Formation and the associated legal risks in the allocation of capital pursuant to his Four Determinants of Legal Risk.

In his third pillar, *Accountability*, Stahl discusses the ever recurring Crisis-Reaction-Acceleration-Sequence-History, in short: CRASH, since the beginning of the millennium starting with the dot-com crash at the turn of the millennium, followed seven years later by the financial crisis of 2008 and the dislocations in the global economy we are facing another seven years later today in 2015 with several sordid debt restructurings under way and hundred thousands of refugees on the way

caused by war and increasing inequality. Together with the regulatory reactions they have caused in the form of so-called landmark legislation such as the Sarbanes-Oxley Act of 2002, the Dodd-Frank Act of 2010, the JOBS Act of 2012 or the introduction of the Basel Accords, Basel II in 2004 and III in 2010, the European Financial Stability Facility of 2010, the European Stability Mechanism of 2012 and the European Banking Union of 2013, Stahl analyses the acceleration in size and scope of crises that appears to find often seemingly helpless bureaucratic responses, the inherent legal risks and the complete lack of accountability on part of those responsible.

Stahl argues that the order of the day requires to address the root cause of the problems in the form of two fundamental design defects of our Global Economic Order, namely our monetary and judicial order. Inspired by a 1933 plan of nine University of Chicago economists abolishing the fractional reserve system, he proposes the introduction of Sovereign Money as a prerequisite to void misallocations by way of judicial order in the course of domestic and transnational insolvency proceedings including the restructuring of sovereign debt throughout the entire monetary system back to its origin without causing domino effects of banking collapses and failed financial institutions.

In recognizing Austrian-American economist Schumpeter's Concept of Creative Destruction, as a process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one, Stahl responds to Schumpeter's economic chemotherapy with his Concept of Equitable Default mimicking an immunotherapy that strengthens the *corpus economicus* own immune system by providing for the judicial authority to terminate precisely those misallocations that have proven malignant causing default perusing the century old common law concept of equity that allows for the equitable reformation, rescission or restitution of contract by way of judicial order.

Following a review of the proposed mechanisms of transnational dispute resolution and current court systems with transnational jurisdiction, Stahl advocates as a first step in order to complete the Capital Formation Life Cycle from *FIAT*, the creation of money by way of credit, to *EXIT*, the termination of money by way of judicial order, the institution of a Transatlantic Trade and Investment Court constituted by a panel of judges from the U.S. Court of International Trade and the European Court of Justice by following the model of the EFTA Court of the European Free Trade Association.

Since the first time his proposal has been made public in June of 2014 after being discussed in academic circles since 2011, his or similar proposals have found numerous public supporters. Most notably, the former Vice President of the European Parliament, David Martin, has tabled an amendment in June 2015 in the course of the negotiations on TTIP calling for an independent judicial body and the Member of the European Commission, *Cecilia Malmström,* has presented her proposal of an International Investment Court on September 16, 2015.

Stahl concludes, that for the first time in the history of our generation it appears that there is a real opportunity for reform of our Global Economic Order by curing the two fundamental design defects of our monetary order and judicial order with the abolition of the fractional reserve system and the introduction of Sovereign Money and the institution of a democratically elected Transatlantic Trade and Investment Court that commensurate with its jurisdiction extending to cases concerning the Transatlantic Trade and Investment Partnership may complete the Capital Formation Life Cycle resolving cases of default with the transnational judicial authority for terminal resolution of misallocations in a New Global Economic Order without the ensuing dangers of systemic collapse from *FIAT* to *EXIT*.

ACKNOWLEDGEMENTS

I like to dedicate this work to my wife Debbie, the Love of my Life, ewigly, who supported me so unequivocally since the day we met for better and worse and always trusts in our abilities that we can make it happen until we indeed do. Sometimes, good things take a little longer but so far we have always arrived just in time. This is to you! I love you.

I like to thank my mother, Nora, who taught me first hand that patience is the recipe when you sit over hundreds of pages correcting scripts to get it done. If I would have only gotten a fraction of her talent to write even poetry it would be an enormous gift. At this point I also want to memorialize the memory of my late father, Carlone, historian, university professor, dean of cultural sciences at the University of Klagenfurt, Carinthia and an avid advocate for minority rights and European cooperation between Austria, Slovenia and South Tyrol, Italy, at a time when it was anything but popular. He taught me watching him – and my mother at our old red electronic IBM typewriter - how to spend my best summers writing dissertations. Thank god for PCs! It was probably the greatest motivation for me to complete this work. By all accounts – his students' and mine – he was the best teacher anyone could wish for.

I like to encourage my daughter, Catherine, who has already somehow followed into the footsteps of my father, her grandfather, as an art-historian to continue to follow her passion, interests and talents in arts and academia. Catherine taught me to completely trust the fact that she makes her way and puts her mind to it. I am very proud of her and hope that one day she will come to see a New Global Economic Order that eventually be more just offering equal opportunity. The future is yours!

I like to extend my great gratitude to Professor Joseph A. Tanega. Nobody mentors my mind, provokes my thoughts and sharpens my arguments like he does. Bracing up between events of Default Invariance and Hohfeldian correlatives, he has managed to have me find the time and way to open up a world that I otherwise would have never seen. I look forward to many more journeys and meetings of our minds. I also would like to thank Professor Kim Van Der Borght for his spirited support and trust in my abilities offering his almost Leibnizian infinite contingency throughout this thesis.

I like to especially thank my longstanding friend of thirty years, former Federal Chancellor of the Republic of Austria, Visiting Professor Dr. Alfred Gusenbauer who did not only recommend me for admission to this PhD program but served in numerous discussions as a sounding board for many of the ideas of this thesis some of which have already found their way into the political process. Our discussions have always been an inspiration to get to the root cause of problems and solve them. *Ad radices*!

One person without I would not have found the way into the legal profession deserves particular thanks. Dr. Ingrid Schwarzinger, attorney at law, who as my first supervising attorney was squarely responsible for opening the door into the world of counselors, attorneys and consiglieres. Thank you for fostering my interest in complex cross-border transactions right from the start and seeing this journey through with me to this date.

I also would like to acknowledge my family and friends who have extended their help, support and motivation throughout the years and this work, many times even unknown.

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Last but not least I would like to pay my respect to all those in my family who came before me and on whose shoulders and accomplishments I may stand here today. In particular, I would like to express my special gratitude to my late grandmother, Vera, actress and movie-star, anytime in and a great judge of character, who was always there for me when it mattered and without her I would not be here today; her husband, my late grandfather, Eduard, doctor of medicine and humanist, who taught me how to care for people visiting the ill from very early childhood on; he was an amazing healer who once even saved my life; my late great-grandfather, Oskar, doctor of chemistry and global communicator, who taught me that you never give up and you are never too old to start a new chapter in your life, even if it means as for so many these days to move to a new continent; my late grandmother, Anna, local politician in Vienna’s second district and social worker who taught me to be an advocate for people in need and to be never afraid to speak my mind; her husband, my late grandfather, Leo, policeman and autodidact who taught me to solve at least one problem a day and that a daily glass of red wine is medically indicated. *Nunc est bibendum!*

I. PREAMBLE

A. Research Subject

The scope of my dissertation specifically extends to legal risks in the context of capital formation. It is duly noted that despite the attention all kinds of risks received in recent years with respect to capital formation, in the context of the banking, sovereign debt and, in particular, the financial crisis of 2008, a common definition of Legal Risk[1] at this point remains elusive.

The same appears to be true with respect to the definition of Capital as the key element of capital formation. With good reason Capital[2] has been the title of some of the most influential publications of economic theory to this date and not without good reason a recent publication by economist Thomas Piketty[3] just earned the same title.

As Capital is at the core of our disputes and different views of how an economy actually works out its adverse interests that are all too often informed by ideology rather than data-driven analysis and the facts on the ground, a substantial part of this thesis is devoted to an analysis of the various definitions, views, and key actors in history and today.

This thesis will also show how those perceptions have been adapted both in the European Union, the United States and globally and how the realities have changed since the beginning of the millennium and what these changes will mean particularly for this next generation of millennials in what we call a New Global Economic Order (NGEO).[4]

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[1] See Chapter 2.I. *Literature Review of Legal Risk*

[2] Marx, Karl, Capital, *A Critique of Political Economy*, Volume I, Book One: The Process of Production of Capital, [online], available at https://www.marxists.org/archive/marx/works/1867-c1/ (Accessed at September 20, 2015)

[3] Piketty, Thomas (March 2014) *Capital in the 21st Century*, Harvard University Press.

[4] Clahoun, C. and Derluguian, G., Editors, *Aftermath: A New Global Economic Order?* New York: NYU Press (2011) Clahoun and Derluguian "question the challenges and "likely conflicts over global trade policy, currency standards, and economic cooperation." For an early influential speech made at the Graduate School of Business, University of Chicago, see: Johnson, H.G. *"The New International Economic Order,"* October 5, 1976, available at: http://www.chicagobooth.edu/~/media/0ABF9E91CCDB42C4BBA92737DCE91EEA.pdf. (Accessed at 3 September 2015) There, Professor Johnson summarises various policy demands for coupling the *creation of new international reserves or liquidity with distribution of a substantial part of the new money as aid to the less-developed countries*. Such is the *attraction of the idea that the creation of money involves bringing into existence something for nothing* that this scheme has both excited a great deal of expert discussion, and become a general operating principle of International Monetary Fund thinking about world monetary reform."

B. RESEARCH QUESTION

The research question of this thesis relates to ***how to resolve legal risks of capital formation in a new global economic order***. The current debate about the effects of globalization and the current global economic crisis is dominated by economists who in their passion for classical economic analysis do not address what, in fact, constitutes the legal level playing field[5]; the *forum*[6] as lawyers call it for their economic actors and; therefore, what legally (*de jure*) and factually (*de facto*) determines the actual framework[7] for their economic analysis. This debate finds its most vigorous application in the *forum non conveniens* doctrine that supports a court's discretionary power to decline to exercise its jurisdiction where another court may more conveniently hear a case.[8]

The author will show in his analysis as he introduces legal risk and legal certainty, not only as concepts that are dichotomous but also in a symbiotic relationship that only an institutional and legal framework that manages to reduce legal risk and thereby enhance legal certainty will successfully lead to the resolution of legal risks in capital formation.

International financial actors, the so called "Markets"[9] who are dependent to anticipate, guess or at best estimate the next steps of politicians such as German Federal Chancellor

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[5] Kapstein, E. B. (2006) *Economic Justice in an Unfair World: Toward a Level Playing Field.* N.J: Princeton University Press. This is a good example of a very competent economist trying to argue for social justice without any sense of basic accounting or real legal risk. In Chapter 1 entitled *Economic Justice In An Unfair World*, the author states, Despite this lack of common ground, *it is probably safe to say that almost everyone agrees that economic transactions should be carried out on a "level playing field*." But there is no theory, model or conception that is directly linked to the wherewithal of the everyday accounts of transactions.

[6] *Forum non conveniens* doctrine is a discretionary power that allows courts to dismiss a case where another court, or forum, is much better suited to hear the case. This dismissal does not prevent a plaintiff from refiling his or her case in the more appropriate forum. *See* Res Judicata. This doctrine may be invoked by either the defendant, or by the court, [online] available at https://www.law.cornell.edu/wex/forum_non_conveniens (Accessed at 15 August 2015) Cornell University Law School.

[7] The building of legal frameworks especially for global finance depends at least initially on individual entrepreneurial attempts to stitch together international private agreements according to an almost informal *lex juris*, or lawyer made law. See, Frankel, T. (2002) "The Law of Cross-Border Securitization: Lex Juris," 12 Duke J. Comp. & Int'l L. 475, 480, available at: http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1175&context=djcil. For a critique of *lex juris* as lacking the essential characteristics a minimum legal, see, Markell, B.A. (2002) "*Lawyer-Made Law, Lex Juris And Confusing The Message With The Messenger A Comment On Frankel*," available at: http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1176&context=djcil. For Markell, law requires a jurisdiction where adjudication can occur. As we shall see, our thesis can be read as essentially resolving legal and financial uncertainties into formal legal certainties.

[8] Id.

[9] Scott, Hal S., *An Overview of International Finance*, Harvard University (2005), [online], available at http://www.law.harvard.edu/programs/about/pifs/research/publications/4scott.pdf (Accessed 15 August 2015)

Angela Merkel[10], French President Francois Hollande[11], or more recently, German Finance Minister Wolfgang Schaeuble[12], Greek Prime Minister Alexis Tsipras[13] or for a short while Greek Finance Minister and Economics Professor[14] Yannis Varoufakis[15] that all pursue most different ideologies, interests, and particularly, represent most diverse parts of the European electorate, or on the other hand, people like U.S. President Barack Obama[16] or the Members of the U.S. Congress[17] who are in the middle of an election campaign for the Presidency of the United States, will often find as an answer *"There is no alternative*"[18] and react as rational as the decisions are that they follow.[19]

What we know is that there is no established process. There is no established rule of law[20] that pertains to the resolution and settlement in particular of a significant political, legal or financial crisis as we will show in this thesis time and time again.

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[10] Merkel, A. *Federal Chancellor of the Republic of Germany* [online], available at http://www.bundeskanzlerin.de/Webs/BKin/EN/Homepage/homepage_node.html;jsessionid=BE6A70D3E789F659659055C6AD5FE3E3.s4t1 (Accessed at 15 August 2015)

[11] Hollande, F. *President of the French Republic* [online], available at http://www.elysee.fr/la-presidence/francois-hollande-biographie/ (Accessed at 15 August 2015)

[12] Schaeuble, W. *Federal Finance Minister of the Republic of Germany*, [online] available at http://www.bundesfinanzministerium.de/Web/EN/Home/home.html (Accessed at 27 September 2015)

[13] Tsipras, A., *Prime Minister of the Hellenic Government* [online], available at http://www.wolfgang-schaeuble.de/zur-person/http://www.alexistsipras.eu/index.php/articles/about-me (Accessed at 28 September 2015) (Accessed at 20 September 2015)

[14] Varoufakis, Y., (2010b). *First as History, Then as Farce: The Euro Crisis Revisited.* [online] MR Zine. Available from: http://mrzine.monthlyreview.org/2010/varoufakis171010.html. [Accessed 21 November 2012].

[15] Varoufakis, Y., Professor of Economics at University of Texas. Austin [online], available at http://news.utexas.edu/2015/01/28/yanis-varoufakis (Accessed at 20 September 2015)

[16] Obama, Barack H., *President of the United States* [online], available at https://www.whitehouse.gov/administration/president-obama (Accessed at 20 September 2015)

[17] Member of Congress of the United States, [online], available at https://www.congress.gov/members (Accessed at 20 September 2015)

[18] McLean, Ian, *There Is No Alternative*, Margaret Thatcher and Tony Blair, [online], available at http://www.oxfordscholarship.com/view/10.1093/0198295294.001.0001/acprof-9780198295297-chapter-8 (Accessed at 15 August 2015)

[19] Kapstein (2006) in chapter 1 asks, "Does realist logic inevitably lead states toward conflict and war? The surprising answer is no. In fact, states in a multipolar system may be predicted to act in such a way as to *balance* power, so that no hegemon emerges among them. As Bruce Bueno de Mesquita and David Lalman have put it, "If there is any distinctively political theory of international politics, balance-of-power theory is it." Our investigation into the balance of power leads us to conclude that formal legal power rather than soft influential or voluntary codes of conduct is required as a matter of jurisdiction where commercial and investment uncertainties can be finally settled should be the concrete institutional goal rather than a distant dream.

[20] The concept of the rule of law can be traced to Aristotle's Politics, Part XVI available at: http://classics.mit.edu/Aristotle/politics.3.three.html where he distinguishes various forms of government vis-à-vis binary operations and bilateral relations between individuals of different class. If equal, then each takes their turn at ruling through time, which implies "the law", while those who rule for a transient duration are merely guardians or ministers of the law. Thus the rule of law has two components: equality of individuals and power over others. The rule of law requires jurisdiction. Our contention throughout this thesis is that jurisdiction is required for finality of judgement. "Wherefore it is thought to be just that among equals every one be rules as well as rule, and therefore that each one should have their turn. We thus arrive at law; for an order of succession

Therefore, the hypothesis of this thesis is that ***only once the rule of law is guaranteed by a commonly accepted transparent and democratic process of transnational judicial enforcement legal risk may be successfully resolved*** and bad actors may finally be held accountable.

Recent events such as the new lease of life that was given by President Barack Obama to the development of a Transatlantic Trade and Investment Partnership[21] appear as one example that may have the potential, if developed right and in a democratic and transparent process, to become the *Nasciturus*[22] of a New Global Economic Order. Only an environment of regulatory cooperation with institutions such as a Transatlantic Trade and Investment Court[23] that also wields jurisdiction across sovereign borders will manage to reduce legal risk,[24] enhance legal certainty,[25] and therefore lead to lower economic costs[26].

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implies law. And the rule of the law, it is argued, is preferable to that to that of any individual. On the same principles, even if it be better for certain individuals to govern, they should be made only guardians and ministers of the law."

The modern concept of rule of law is enshrined in international doctrines promoted by the United Nations documents. See below: The Charter of the United Nations. In its Preamble, one of the aims of the UN is "to establish conditions under which justice and respect for the obligations arising from treaties and other sources of international law can be maintained". A primary purpose of the Organization is "to maintain international peace and security… and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace." The Universal Declaration of Human Rights of 1948, the historic international recognition that all human beings have fundamental rights and freedoms, recognizes that "… it is essential, if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, that human rights should be protected by the rule of law…" For the UN, the Secretary-General defines the rule of law as "a principle of governance in which all persons, institutions and entities, public and private, including the State itself, are accountable to laws that are publicly promulgated, equally enforced and independently adjudicated, and which are consistent with international human rights norms and standards. It requires, as well, measures to ensure adherence to the principles of supremacy of law, equality before the law, accountability to the law, fairness in the application of the law, separation of powers, participation in decision-making, legal certainty, avoidance of arbitrariness and procedural and legal transparency." (Report of the Secretary-General: The rule of law and transitional justice in conflict and post-conflict societies" (2004))

[21] See Chapter 5, I. *The Transatlantic Trade and Investment Partnership*

[22] *Nacituru*s, The fiction of the "unborn child", Oxford Journals [online] available at http://ejil.oxfordjournals.org/content/18/1/37.full (Accessed at 4 September 2015)

[23] See Chapter 6, III. *Plea for a Transatlantic Trade and Investment Court*

[24] See, Chapter 2, II. *Four Determinants of Legal Risk*

[25] For example, in the typical financial economic argument, the caveat that additional government funding or bailing out interventions "may induce moral hazard-type concerns ex ante" generally fails to take into account the need for legal certainty. See, Acemoglu, D., Ozdaglar, A. and Tahbaz-Salehi, A. (2015) "Systemic Risk and Stability in Financial Networks," American Economic Review 2015, 105(2): 564–608, 587, http://dx.doi.org/10.1257/aer.20130456 564.

[26] While the notion of "lower economic costs" may be obvious, as a theoretical concept it exists only in reference to and within the habitat of financial accounting. This is of such fundamental importance that arguments relating to systemic crises such as the sub-prime mortgage debacle rely on the failures of "fair value accounting and insufficiency of equity capital at financial institutions" as substantial factors to financial collapse. It is also within the context of basic accounting principles, especially the balance sheet, that "flaws in financial system architecture" can be detected. As the authors state, "In thinking about regulatory reform, one must therefore go beyond considerations of individual incentives and supervision and pay attention to issues of

That in turn the author argues will lead to an ability to correct misallocations[27], free resources for increased investment, foster more sustainable capital formation also known as growth, and therefore, a higher and more sustainable formation of Gross Domestic Product (GDP)[28]. This all should help to avert the creation of unsustainable asset-price bubbles[29] and excess accumulation of capital[30].

C. Theoretical Framework

Following the intrinsically linked balance sheets in his Capital Formation Life Cycle[31], the author explains based on his Triple A Model[32] of *Accounting[33]*, *Allocation[34]* and *Accountability[35]* the stages of the Capital Formation process from *FIAT[36]* to *EXIT[37]*.

Based on the theoretical foundations of legal risk[38] laid by the International Bar Association[39] with the help of Roger McCormick[40] and legal scholars such as Joanna Benjamin[41], Matthew Whalley[42] and Tobias Mahler[43], and founded on the basis of Wesley

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systemic interdependence and transparency." See, Hellwig, M. (November 2008) *"Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis*," Max Planck Institute. Our argument is that is that such notions of interdependence and transparency are relevant and make good sense only where monetary and judicial solutions converge in legal and financial certainty. See also, Chapter 4 for discussions on legal certainty.

27 Fuchs, W., Green, B. and Papanikolaou, D. Adverse Selection, *Slow Moving Capital and Misallocation*, University of Chicago, April 16, 2014, [online], available at https://economics.uchicago.edu/pdf/Papanikolaou%20paper.pdf (Accessed at 20 August 2015)

28 United Nations, *Gross Domestic Product per Capita*, [online], available at http://www.un.org/esa/sustdev/natlinfo/indicators/methodology_sheets/econ_development/gdp_percapita.pdf (Accessed at 29 September 2015)

29 Scherbina, A., Asset Price Bubbles: A Selective Survey, International Monetary Fund, (February 2013), [online], available at https://www.imf.org/external/pubs/ft/wp/2013/wp1345.pdf (Accessed at 20 August 2015)

30 Fan-Hung, Keynes and Marx on the Theory of Capital Accumulation, Money and Interest, *The Review of Economic Studies* Vol. 7, No. 1 (Oct., 1939), pp. 28-41 Published by: Oxford University Press available at http://www.jstor.org/stable/2967594 (Accessed at 20 September 2015)

31 See Exhibit A: *Capital Formation Life Cycle*

32 See Chapter 4, I *The Triple A Model for the Analysis of Capital Formation*

33 See Chapter 4, II *Accounting And Capital Formation*

34 See Chapter 4, III *Allocation And Capital Formation*

35 See Chapter 4, IV *Accountability And Capital Formation*

36 Winston Gee, *Debt, Deficits, and Modern Monetary Theory*, Harvard International Review, October 16, 2011 Economics [online], available at http://hir.harvard.edu/archives/2853 (Accessed at 20 September 2015)

37 See Chapter 4.V.A. *From FIAT to EXIT*

38 See Chapter 2.I.A. *Theoretical Foundations of Legal Risk*

39 About the International Bar Association, [online], available at http://www.ibanet.org/About_the_IBA/About_the_IBA.aspx (Accessed at 20 July 2015)

40 McCormick, R., (2004). *The Management of Legal Risk by Financial Institutions.* [online] Federal Reserve. Available from: http://www.federalreserve.gov/SECRS/2005/August/20050818/OP-1189/OP-1189_2_1.pdf [Accessed 20 April 2012].

41 Benjamin, J., Professor at the London School of Economics, *Financial Law*, [online], available at http://www.lse.ac.uk/collections/law/staff/joanna-benjamin.htm (Accessed at 10 July 2015)

Hohfeld's[44] category theory of jural relations, the author develops his mutually exclusive Four Determinants of Legal Risk of *Law*[45], *Lack of Right*[46], *Liability*[47] and *Limitation*[48]. Those Four Determinants of Legal Risk allow us to apply, assess, and precisely describe the respective legal risk at all stages of the Capital Formation Life Cycle as demonstrated in case studies[49] of nine industry verticals of the proposed and currently negotiated Transatlantic Trade and Investment Partnership between the United States of America and the European Union, TTIP, as well as in the case of the often cited financing relation between the United States and the People's Republic of China[50].

Having established the Four Determinants of Legal Risk and its application to the Capital Formation Life Cycle, the author then explores the theoretical foundations of capital formation[51], their historical basis in classical and neo-classical economics[52] and its forefathers such as The Austrians around Eugen von Boehm-Bawerk, Ludwig von Mises and Friedrich von Hayek[53] and most notably and controversial, Karl Marx[54], and their impact on today's exponential expansion of capital formation[55].

Starting off with the first pillar of his Triple A Model, *Accounting*, the author moves on to explain the Three Factors of Capital Formation[56], *Man*[57], *Machines*[58] *and Money*

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[42] Whalley, M. *A 14 year history of legal risk*, [online], available at http://www.blplaw.com/expert-legal-insights/articles/legal-risk-definition-history/ (Accessed at 10 July 2015)
[43] Mahler, T. (2007). *Defining Legal Risk*. [online] SSRN. Available from: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1014364 [Accessed 20 April 2012].
[44] Hohfeld, Wesley N., *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, (1917) Yale Law School [online], available at http://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=5383&context=fss_papers
[45] See Chapter 2.II.A *Law*
[46] See Chapter 2.II.B *Lack of Right*
[47] See Chapter 2.II.C *Liability*
[48] See Chapter 2.II.D *Limitation*
[49] See Chapter 5: *Case Study: TTIP – Nasciturus for a New Global Economic Order*
[50] See Chapter 4.III.B. *Legal Risks in the Allocation of Capital – The China Case Study*
[51] See Chapter 3.I.A. *Theoretical Foundations of Capital Formation*
[52] See Chapter 3.I.B. *Classical and Neo-Classical Economics*
[53] See Chapter 3.I.C. *The Austrians: Eugen v. Boehm-Bawerk, Ludwig v. Mises and Friedrich v. Hayek*
[54] See Chapter 3.I.D. *Karl Marx*
[55] See Chapter 3.II. *Exponential Expansion of Capital Formation*
[56] See Chapter 3.II.A *Three Factors of Capital Formation*
[57] See Chapter 3.II.A.1 *Capital Formation by Man*
[58] See Chapter 3.II.A.2 *Capital Formation by Machines*

Creation[59] and how "value-added" is created with respect to the non-monetary capital factors of human resources or human capital[60] and industrial production[61].

Followed by a detailed analysis discussing the roles of the Three Actors of Monetary Capital Formation[62], *Central Banks*[63], *Commercial Banks*[64] *and Citizens*[65] he readily dismisses a number of myths regarding the creation of money providing in-depth insight into the workings of monetary policy makers, their institutions and ultimate beneficiaries, the Corporate and Consumer *Citizens*.

With respect to the second pillar, *Allocation*, he continues his analysis of the balance sheets of the Capital Formation Life Cycle by discussing the role of The Five Key Accounts of Monetary Capital Formation[66], the *Sovereign*[67], *Financial*[68], *Corporate*[69], *Consumer*[70] and *International*[71] account of Monetary Capital Formation and the associated legal risks in the allocation of capital pursuant to his Four Determinants of Legal Risk.

Ultimately, in his third pillar, *Accountability*, the author discusses the ever recurring Crisis-Reaction-Acceleration-Sequence-History, in short: CRASH[72], since the beginning of the millennium starting with the dot-com crash at the turn of the millennium[73], followed seven years later by the financial crisis of 2008[74] and the dislocations in the global economy we

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59 See Chapter 3.II.A.3 *Capital Formation by Money Creation*

60 Frauemeni, B. and Liu G., *Human capital measurement: country experiences and international initiatives*, Harvard University (2014) [online], available at http://scholar.harvard.edu/files/jorgenson/files/gangliu_paper_human_capital_measurement_20140512.pdf (Accessed June 25, 2015)

61 Karl Marx. Capital Volume One, Chapter Fourteen: Division of Labour and Manufacture (1867), [online], available at https://www.marxists.org/archive/marx/works/1867-c1/ch14.htm (Accessed at June 25, 2015)

62 See Chapter 4, II.A. *Three Actors of Monetary Capital Formation*

63 See Chapter 4, II.A.1 *Role of Central Banks*

64 See Chapter 4, II.A.2 *Role of Commercial Banks*

65 See Chapter 4, II.A.3 *Role of Citizens*

66 See Chapter 4, III.A *Five Key Accounts of Monetary Capital Formation*

67 See Chapter 4, III.A 1. *Sovereign*

68 See Chapter 4, III.A 2. *Financial*

69 See Chapter 4, III.A 3. *Corporate*

70 See Chapter 4, III.A 4. *Consumer*

71 See Chapter 4, III.A 5. *International*

72 See Chapter 4, VI.A *CRASH (Crisis-Reaction-Acceleration-Sequence-History)*

73 Krishna G. Palepu; Gillian Elcock, *Role of Capital Market Intermediaries in the Dot-Com Crash of 2000*, (2006), Harvard Business Publishing, available at https://cb.hbsp.harvard.edu/cbmp/product/101110-PDF-ENG

74 Krugman, P. How Did Economists get it so wrong, New York Times (September 6, 2009) [online], available at http://www.nytimes.com/2009/09/06/magazine/06Economic-t.html?_r=0 (Accessed at May 20, 2012)

are facing another seven years later today in 2015[75] with several sordid debt restructurings[76] under way and hundred thousands of refugees on the way[77] caused by war and increasing inequality[78]. Together with the regulatory reactions they have caused in the form of so-called landmark legislation such as the Sarbanes-Oxley Act of 2002[79], the Dodd-Frank Act of 2010[80], the JOBS Act of 2012[81] or the introduction of the Basel Accords[82], Basel II in 2004 and III in 2010, the European Financial Stability Facility of 2010[83], the European Stability Mechanism of 2012[84] and the European Banking Union of 2013[85], the author analyses the acceleration in size and scope of crises that appears to find often seemingly helpless bureaucratic responses, the inherent legal risks and the complete lack of accountability on part of those responsible.

However, in order to answer the research question of ***how to resolve legal risks of capital formation in a new global economic order***, he argues that the order of the day requires to address the root cause of the problems in the form of two fundamental design defects of our Global Economic Order, namely our monetary[86] and judicial order[87]. Inspired by a 1933 plan of nine University of Chicago economists abolishing the fractional reserve system[88], he supports the proposal of an introduction of Sovereign Money as a prerequisite to void misallocations by way of judicial order in the course of domestic and transnational insolvency proceedings including the restructuring of sovereign debt throughout the entire

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[75] Steve Matthews Jeanna Smialek, *Bullard Warns Delaying Fed Rate Rise Boosts Asset-Bubble Threats* (May 28, 2015) [online], available at http://www.bloomberg.com/news/articles/2015-05-28/bullard-says-fed-should-raise-interest-rates-as-economy-improves (Accessed at 15 August 2015)
[76] International Monetary Fund, *Greece : Preliminary Draft Debt Sustainability Analysis*, IMF Country Report No. 15/165 (June 2015), [online], available at https://www.imf.org/external/pubs/ft/scr/2015/cr15165.pdf
[77] SEWELL CHAN and PALKO KARASZSEPT, *Thousands of Migrants Flood Into Austria*, New York Times (19 September 2015), [online], available at http://www.nytimes.com/2015/09/20/world/europe/thousands-flood-into-austria-as-refugees-are-bounced-around-europe.html (Accessed at 20 September 2015)
[78] See Chapter IV.A.7 *Increasing Inequality*
[79] See Chapter 5.X.C *Sarbanes-Oxley (SOX) Act and Legal Risk*
[80] See Chapter IV.A.1. *Dodd-Frank Act of 2010*
[81] See Chapter IV.A.2. *Jobs Act of 2012*
[82] See Chapter IV.A.8. Basel II/III
[83] See Chapter IV.A.3. *EFSF/ESM and Euro-Group*
[84] See Chapter IV.A.3. *EFSF/ESM and Euro-Group*
[85] See Chapter IV.A.4. *Banking Union and Fiscal Union*
[86]Kelton, S., (2012c). *Stephanie Kelton on Getting Past Our Oversimplified Understanding of Money.* [online] Journal of Financial Planning. Available from: http://www.modernmoneynetwork.org/uploads/1/2/5/3/12534585/10q.pdf [Accessed 17 June 2013].
[87] Bogdandy, Armin von and Venzke, Ingo, Beyond Dispute: International Judicial Institutions as Lawmakers, [online], German Law Journal, Volume 12. No. 05, available at http://www.mpil.de/files/pdf1/pdf_vol_12_no_05_979-1004_beyond_disptue_special_bogdandy___venzke_final.pdf (Accesses at 20 June, 2015)
[88] Phillips, Ronnie J., The 'Chicago Plan" and New Deal Banking Reform, Working Paper No. 76 (June 1992), [online], available at http://www.levyinstitute.org/pubs/wp/76.pdf (Accessed at 20 June 2015)

monetary system back to its origin without causing domino effects of banking collapses and failed financial institutions.

In recognizing Austrian-American economist Schumpeter's Concept of Creative Destruction[89], as a process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one[90], Stahl responds to Schumpeter's economic chemotherapy with his Concept of Equitable Default[91] mimicking an immunotherapy[92] that strengthens the *corpus economicus*[93] own immune system by providing for the judicial authority to terminate precisely those misallocations that have proven malignant causing default perusing the century old common law concept of equity[94] that allows for the equitable reformation, rescission or restitution of contract by way of judicial order[95].

Following a review of the proposed mechanisms of transnational dispute resolution and current court systems with transnational jurisdiction[96], he advocates as a first step in order to complete the Capital Formation Life Cycle from *FIAT*[97], the creation of money by way of credit, to *EXIT*[98], the termination of money by way of judicial order, the institution of a Transatlantic Trade and Investment Court[99] constituted by a panel of judges from the U.S. Court of International Trade and the European Court of Justice by following the model of the EFTA Court of the European Free Trade Association.

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89 Schumpeter, J. A., (2010). *Prophet of Innovation: Joseph Schumpeter and Creative Destruction.* Cambridge: Harvard University Press.

90 Schumpeter, J. A., (2009). *Can Capitalism Survive? Creative Destruction and the Future of the Global Economy.* United States: Harper Perennial Modern Classics.

91 See Chapter 6.I.B. *The Concept of Equitable Default*

92 Immunotherapy is treatment that uses certain parts of a person's immune system to fight diseases such as cancer. This can be done in a couple of ways: Stimulating your own immune system to work harder or smarter to attack cancer cells and giving you immune system components, such as man-made immune system proteins. Some types of immunotherapy are also sometimes called *biologic therapy* or *biotherapy*. In the last few decades immunotherapy has become an important part of treating some types of cancer. Newer types of immune treatments are now being studied, and they will impact how we treat cancer in the future. Immunotherapy includes treatments that work in different ways. Some boost the body's immune system in a very general way. Others help train the immune system to attack cancer cells specifically. Immunotherapy works better for some types of cancer than for others. It's used by itself for some of these cancers, but for others it seems to work better when used with other types of treatment.

93 Latin for "*the body economics*", the economy as a whole seen as an organism.

94 See supra at note 91.

95 Id.

96 See Chapter 6.II. *Current Court Systems with Transnational Jurisdiction*

97 See supra at note 36.

98 See supra at note 37.

99 See Chapter 6.III. *Plea for a Transatlantic Trade and Investment Court*

D. METHODOLOGY

The methodology of this thesis is essentially multi-disciplinary. Given the appearance of this thesis covering a series of traditional and foundational disciplines, in alphabetical order such as accounting, business, economics, finance, history, law, philosophy and sociology and risk, one may be tempted to characterize it *prima facie* merely as “Law and Economics.” It is coherent with the Theoretical Framework in Chapter 1, Section I, C, the Contributions to Knowledge in Chapter 1, Section I, E, and the Argument in Chapter 1, Section 2.

Our multi-disciplinary methodology unifies the foundational disciplines into a Theory of Legal Risk (“LR”) and comprises a broad examination of the literature concerning the subject of this thesis[100] combined with a comparative analysis of legal risks concepts[101] and capital formation concepts in classic and neoclassic theory[102], an analysis of institutional and alternative actors of capital formation[103] and their inherent legal risks pertaining to the creation of money.[104]

Our multi-disciplinary methodology starts with a specific definition of Legal Risk according to the Four Legal Determinants in Chapter 2, Section II, which in turn informs the underlying Theoretical Framework in Chapter 1, Section I, C, and provides specific methods of analysis for particular case studies in Chapter 4, Section III, B.1 and Chapter 5, Section II to X. Therefore, the thesis is a methodological application of Legal Risk as defined to economic relations at all stages of the Capital Formation Life Cycle in Exhibit A and as demonstrated in the respective case studies *supra*.

It is important to distinguish between the schools of Law and Economics, Critical Legal Studies and Legal Theory of Finance, and the scientific methodology of Legal Risk. Law and Economics or economic analysis of law is the application of economic theory (specifically microeconomic theory) to the analysis of law. Law and Economics is the most

[100] See Chapter 3.I. *Literature Review of Capital Formation*
[101] See Chapter 2.I. *Literature Review of Legal Risk*
[102] See supra at note 52.
[103] See Chapter 3.III. *Institutional and Alternative Actors of Capital Formation*
[104] See Chapter II.B. *Legal Risks in the Accounting of Capital Formation*

controversial school currently employed in legal scholarship and legal education.[105] The literature is replete with emphatic denunciations and equally emphatic rebuttals.[106] L&E stresses that markets are more efficient than courts. The second characteristic of L&E is its emphasis on incentives and peoples' responses to these incentives.

While well-recognized in the scholarly literature, L&E lacks sufficient precision and must be considered inadequate to come to firm conclusions since its premises are not incontrovertible. For the purpose of meeting the standards of scientific "methodology" as pointed out below any methodology requires the application of firmly defined concepts of that may be systematically observed, tested, and measured.

To showcase the assumptions made in L&E for instance for the purpose of damage payments in accident [tort] law. L&E does not aim primarily to compensate injured parties but rather to provide incentive to potential injurers to take efficient [cost justified] precautions to avoid causing the accident assuming individuals are rational and respond to incentives. Based on the hypothesis of a direct correlation between penalties and compliance it is more likely than other legal analyses to use empirical or statistical methods to measure these responses to incentives.[107]

According to L&E scholars, the private legal system must perform three functions all related to property and property rights.

> First the system must define property rights. This is the task of property law itself. Second the system must allow for transfer of property. This is the rule of contract law. Finally the system must protect property rights. This is the function of tort law and criminal law. These are the major issues studied in law and economics. Law and economics scholars also apply the tools of economics such as game theory to purely legal questions such as various parties' litigation strategies. While these are aspects of law and economics they are of more interest to legal scholars than to students of the economy.[108]

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[105] Rahmatian, A., *International Intellectual Property Scholars Series: A Fundamental Critique of the Law-and-Economics Analysis of Intellectual Property Rights*, 17 Intellectual Property L. Rev. 191 (2013). [online], available at: http://scholarship.law.marquette.edu/iplr/vol17/iss2/2 (Accessed at 7 April 2016)

[106] Chayes, A et alt, *The Bridge, Criticisms of Economic Analysis and responses thereto*, Harvard University, [online], available at https://cyber.law.harvard.edu/bridge/LawEconomics/critique.htm (Accessed at 7 April 2016]

[107] Id.

[108] Rubin, P., *Law and Economics, The Concise Encyclopedia of Economics* (2008), Library of Economics and Liberty [online], available from http://www.econlib.org/library/Enc/LawandEconomics.html (Accessed at 7 April 2016)

Historically, modern law and economics dates from about 1960 when Ronald Coase who later received the Nobel Prize published "the problem with social cost".[109] Its success continued with University of Chicago's Gary Becker's 1968 paper on crime.[110] Also Becker received a Nobel Prize.[111] Richard Posner, also a L&E scholar, published the first edition of economic analysis of law in 1972. Today, Posner is a federal judge while remaining a prolific scholar.[112]

The Coase theorem the most fundamental result and economic study of law states:

> If rights are transferable and transactions costs are not too large, then the exact definition of property rights is not important, because parties can trade rights and rights will move to the highest valued uses.[113]

In many circumstances however who owns the right will matter. Transactions costs are never zero, especially in jurisdictions with little legal certainty and high legal risk. Hence, if transactions costs are greater than the increase in value from moving the resource to the efficient owner, in all likelihood, there will be no corrective mechanism.

Andreas Rahmatian, from the University of Glasgow School of Law seconds:

> The objection to a law and economics analysis of legal institutions and legal relations and consequently to economic propositions with regard to legal reform is threefold. First, the conditions and assumptions in which the purposed economic models rest are oversimplifying, distorting, incomplete and sometimes blatantly incorrect. Secondly even if correct conditions apply, they are still unable to translate legal institutions and legal relations into an economic abstraction as a true mirror image of the law and its extras because economic considerations are by definition largely irrelevant to the lawyer for a legal decision. Thirdly the application of a law and economics approach to legal decision making either in the context of principally law enforcement such as judicial decisions or of law making such as legal policy can have questionable and morally reprehensible effects.[114]

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[109] See supra note 108.
[110] Id.
[111] Id.
[112] Id.
[113] Coase, Ronald H. "*The Problem of Social Cost.*" Journal of Law and Economics 3, no. 1 (1960): 1–44. The key article in law and economics and the origin of the famous Coase theorem, [online], available at http://www.econ.ucsb.edu/~tedb/Courses/UCSBpf/readings/coase.pdf (Accessed at 7 April 2016)
[114] See supra note 105.

Proponents of the Austrian School of Economics stress the fact that the methodological foundations of L&E are based on the concept of law as an optimal outcome of judicial balancing of social economical costs and benefits.

For example, Tomasz Machelski from the University of Bialystok argues:

> From the Austrian perspective it is sound legal theory that can serve as the best tool to the legal practitioner. Sound legal theory can provide categorical distinctions and formal sets of descriptive relationships that can then be subjected to moral evaluation for action purposes. Challenging the judicial legal concept of causation and then assuming that economic efficiency remains the only adequate criteria of just law undoubtedly leads to a final premise that there is no justice apart from economic efficiency which is a conclusion that clearly must be refuted and disputed.[115]

In a clear distinction to the apparently flawed school of L&E and prompted by the financial crisis of 2008 that to a large extent was also caused by the flagrant lack of understanding of the oft troubling consequences of an ignorant intersection and interaction of the disciplines of law and finance, Katharina Pistor of Columbia Law School has developed her so called *Legal Theory of Finance*, in short LTF.[116] She says:

> The more a financial system moves from relational finance to entities and ultimately markets the more it depends on a formal legal system with the capacity to authoritatively vindicate rights and obligations of contractual parties or to lend its coercive powers to the enforcement of such claims. [….] Financial systems are not state or market, private or public but always and necessarily both. This falls from the facts that financial instruments must be enforceable that finance is hierarchical and that in the last instance the sovereign has to stand in to protect the financial system from self-destruction.[117]

Pistor points out that law lends credibility to financial instruments by providing for its enforceability but the actual enforcement of all legal commitments made in the past in respective of changes and circumstances would inevitably bring down the financial system. The propensity of a financial system to reach the point of crises or self-destruction at which only the suspension of *ex ante* commitments can save it is determined by how it is

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[115] Machelski, Tomasz, *A Critique of Law and economics – An Austrian School Perspective*, Studies in Logic, Grammar and Rhetoric 31 (44), University of Bialiystok (2012) [online], available at http://logika.uwb.edu.pl/studies/download.php?volid=44&artid=mt (Accessed at 8 April 2016)

[116] Pistor, Katharina, *A Legal Theory of Finance*, Columbia Law School (May 2013), Columbia Law School Public Law & Legal Theory Working Paper Group, Paper Number 13-348 (Accessed at 5 February 2016)

[117] Id.

constructed in the first place according to Pistor.[118] Pistor finds that emerging markets are more likely to issue the debt under foreign law and detailed debt covenants specify their obligations and contracts designed by law firms in London or New York and issued for the most part under the laws of these jurisdictions with underwriter involvement.[119]

In conclusion LTF as a positive theory could be seen taken together as the elements of LTF suggests that law is essential to finance in at least three respects:

> First law lends credibility to financial instruments enabling their enforceability. Second it spurs regulatory pluralism by delegating rulemaking to different stakeholders and in doing so helps draw boundaries between different markets and third it vindicates financial instruments and other financial contracts.[120]

According to Pistor the most important space of regulatory arbitrage is the transnational financial system.[121] Most financial regulation remains at the national level of regulatory standardization.

The author concurs with Pistor and would like to emphasize therefore the importance of establishing a system of transnational regulatory cooperation and jurisdiction as will be pointed out in Chapter 5, Section I, B. To be clear, this shall not be construed as an endorsement of the proposed and currently negotiated Transatlantic Trade and Investment Partnership. At this time, a final document has yet to be presented to the public and the jury is still out on the results.

Ultimately, Pistor, with her Legal Theory of Finance, stands more in the tradition of Critical Legal Studies (CLS) that can be understood as an effort to offer alternative, more radical approaches to L&E. The movement of CLS, was initiated and founded by writings of two Harvard Law School scholars, Roberto Unger and Duncan Kennedy and eventually institutionalized by the Conference on Critical Legal Studies in 1977.[122]

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[118] See supra note 116.
[119] Id.
[120] Id.
[121] Id.
[122] Kennedy, Duncan, *Law and Economics from the perspective of critical legal studies*, The New Palgrave Dictionary of Economics and the Law (1998), {online}, available at http://duncankennedy.net/documents/Law%20and%20Economics%20from%20the%20Perspective%20of%20cls.pdf (Accessed at 1 May 2016)

Aside from the distinct political convictions of the CLS and the Chicago school of L&E, arguably their shared goal was to explain the law pursuant to their own distinctive schools of thought. The major critique by CLS scholars like Duncan Kennedy may be summarized:

> [L]aw and economics, though typically couched as an apolitical, technical exercise, is in fact an intensely political project. Arguments in law and economics both rely upon and themselves embody controversial political judgment. Law and economics arguments, like legal argument, is ideological; both genres are structured by intractable though not immutable political contradictions. The dream of a meaningful technical efficiency discourse purged of political contradictions is a chimerical nightmare […].[123]

Kennedy and Kelman, have embodied within their work two main directions of their critical law and economics, namely the so called "distributive turn" analyzing the distributional consequences of contractual terms and legal rules and strategies and together with Specht[124] the so called "ideological turn", analyzing the cost-benefit and efficiency arguments in a transparent disclosure of the ideological context.[125]

Aside from housing law as the most prominent body of CLS L&E, CLS scholars have also engaged in areas such as transitional economies and international law (David Kennedy)[126] and the application of social science to law through empirical sociology (Richard Abel).[127]

In spite of the fact that CLS critique of the ideological bias of L&E has not "resulted in amicable relations between the movements", according to Eastman, "the CLS critique has likely enhanced the viability of liberal L&E". Thus given the rather inexact science of law and economics analysis, there is no alternative than to return to the fundamentals of what constitutes appropriate methods in order to come to firm conclusions.

The Oxford English Dictionary, however, defines the scientific method as:

> A method or procedure that has characterized natural science since the 17th century, consisting in systematic observation, measurement, and experiment, and the formulation, testing, and modification of hypotheses.[128]

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[123] Eastman, Wayne, *Critical Legal Studies*, Rutgers University, Graduate School of Management,[online], available at http://encyclo.findlaw.com/0660book.pdf (Accessed at 5 February 2016)
[124] Id.
[125] Id.
[126] Id.
[127] Id.

Following this definition, it is apparent, that any methodology analyzing the fundamental legal risks in our current economic order requires the application of firmly defined concepts of Legal Risk, that are universally effective, mutually exclusive and practically applicable and that more importantly can be systematically observed, tested, and measured and ultimately refined, altered or expanded.

Furthermore, pursuant to this definition it is a time tested process to describe the scientific method as an ongoing process of developing a general theory, making observations and discovering certain universally effective, mutually exclusive and practically applicable principles and the continuous testing and affirmative as well as negative validation of resulting hypotheses, the development of testable predictions and the gathering of data to test predictions.[129]

As for Pistor's LTF, we hold, that we concur with her fully discoverable observations of her theory that financial markets are legally constructed and that they as such occupy an essentially hybrid place between state and market, public and private. Pistor also points out the principle that the legal sources of financial instability are the fundamental uncertainty paired with the liquidity constraint that renders financial markets unstable.[130] These observations are fully reflected in our Legal Risk Model that defines *inter alia* Legal Risk as a combination of legal and factual uncertainty such as a liquidity constraint and describes in great detail the jural correlatives between public state and private market actors.

Pistor finds, we agree and come to similar conclusions that law is essential to the very existence of contemporary finance, that significantly changed circumstances since a contract was entered into may warrant the judicial reformation of such contracts and argues that "many see a unified regulatory regime at the transnational level as a possible solution".[131]

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[128] Oxford Dictionary, *Definition of Scientific Method,* Oxford University Press, [online], available at http://www.oxforddictionaries.com/de/definition/englisch_usa/scientific-method (Accessed 5 February 2016)
[129] Garland, Thodore J., The Scientific Method as an Ongoing Process, University of California, Riverside (2015), [online], available at http://idea.ucr.edu/documents/flash/scientific_method/story.htm (Accessed at 5 February 2016)
[130] See *supra* note 116.
[131] Id.

Pistor herself however maintains that "LTF holds potentially important lessons for future reforms of domestic and global markets. Since [she] has only introduced a theory that has not been subject to extensive testing [and therefore] it would be premature to spell out in detail what the policy implications might be."[132]

However, whilst L&E and CLS in its interpretation of L&E pride themselves as the application of economic theory to the analysis of law, the mission here was to develop a scientific methodology that provided for the application of a legal theory to the analysis of economic relations between natural persons that is universally effective, mutually exclusive and practically applicable and that could be systematically and continuously tested. In other words, the author's mutli-disciplinary methodology is completely distinguishable from Pistor, CLS and other L&E theories from its scientific character and its range of applications.

In the course of our case studies, our methodology of Legal Risk was applied both to the financing relation between the United States and China in Chapter 4, Section III, B.1 and the nine industry verticals that are currently negotiated in the context of the Transatlantic Trade and Investment Partnership (TTIP) in Chapter 5, Sections II to X with respect to any stage of the Capital Formation Life Cycle as described in great detail in Exhibit A with its discrete accounting and legal relations founded in the mathematical principles of double entry bookkeeping that were first published in a system by the Italian mathematician Luca Pacioli in 1494.[133]

Following the Triple A Model for the analysis of capital formation of Accounting, Allocation and Accountability, it was proven that aforementioned theory of Legal Risk indeed meets the bar of being universally effective, mutually exclusive and practically applicable being systematically tested both in the affirmative, i.e. with respect to the presence of Legal Risk and in the negative with respect to the absence of Legal Risk to all accounting and legal relations of the Capital Formation Life Cycle.[134]

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[132] See *supra* note 116.
[133] See *infra* note 688.
[134] See Exhibit A: *Capital Formation Life Cycle*

Whilst the system of Accounting[135] of capital formation deals with the monetary capital formation process, the process of Allocation[136] follows on the one hand the transfer of monetary capital resources from the balance sheets of the Sovereign Accounts of the Central Banks[137] via the accounts of the Financial Institutions and Commercial Banks[138] to the Domestic or International Accounts of Corporate or Consumer Citizen[139] and on the other hand the translation of the exchange value of non-monetary capital formation by human resources or industrial production.

This scientific mutli-disciplinary method that the author calls a Theory of Legal Risk consistently seeks to apply the firmly defined Four Determinants of Legal Risk[140] at each stage of the Capital Formation Life Cycle[141] determining for each of the economic relations and jural correlatives that are tested whether any of the four Legal Risks exist or not.

The resolution of Legal Risk in this thesis is understood as a process of either avoiding the realization of Legal Risk[142] in the form of default, i.e. non-payment or non-performance or once Legal Risk has actually materialized describing a process of reformation, rescission or *restitution in integrum* of contracts[143] that allows the counterparties of the transaction to return to a status *ex-ante*[144] of the realization of that Legal Risk by establishing new terms and conditions of a contract that are equitable in nature, that are sustainable and that can be enforced with or without the agreement of the counterparties of the original contract in question[145].

Ultimately, the author reviews and reflects on how may these legal risks be cured? His conclusion: Monetary capital formation must be put back from commercial banks into the hand of the sovereign central banks that neither require bail-ins nor bail-outs, that do not

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135 See Chapter 4, II *Accounting And Capital Formation*
136 See Chapter 4, III *Allocation And Capital Formation*
137 See Chapter 4, II.A.1 *Role of Central Banks*
138 See Chapter 4, II.A.2 *Role of Commercial Banks*
139 See Chapter 4, II.A.3 *Role of Corporate And Consumer Citizen*
140 See Chapter 2.II. Figure *Four Determinants of Legal Risk*
141 See supra note 134.
142 See Chapter 4.V.A. *From FIAT to EXIT*
143 See Chapter 6.B. *The Concept of Equitable Default*
144 Mavroidis, P. Remedies in the WTO Legal System: Between a Rock and a Hard Place, European Journal of International Law (2000), [online], available at http://www.ejil.org/pdfs/11/4/554.pdf (Accessed at June 21, 2015)
145 See supra note 101.

fail when they have to write off securities in default, i.e. credit-lines in default, nor do they create a systemic risk. Commercial banks take the roles brokerage firms have today with segregated accounts. Courts must be established that ensure that failed banks indeed fail in a clearly prescribed and predictable lawful process of liquidation. Domestically, most of the time, we call them bankruptcy courts, in the European Union we have no such institution, in the United States, we have an Orderly Liquidation Authority.[146] But most international financing today spans multilateral institutions, such as the IMF, the World Bank, and international commercial banks. For those cases, we do need a Transnational Trade and Investment Court.

For the first time in the history of our generation it appears that there is a real opportunity for reform our Global Economic Order with the negotiations of a Transatlantic Trade and Investment Partnership (TTIP). The EU and the United States are the two leading economies of the world. Together EU and USA represent 46.7% of global GDP, American-European trade represents about 31.1% of world trade and 56% of American Foreign Direct Investments are made in the EU whilst 71% of Foreign Direct Investments are made in the USA stem from the EU. The European Union and the United States trade $2.7 billion worth of goods and services every day. The transatlantic economy supports an estimated 15 million jobs.[147]

Those facts alone would have warranted that the author conduct a detailed Legal Risk analysis in the form of case studies of the non-tariff barriers for European businesses in nine industry verticals in the United States affected by the Transatlantic Trade and Investment Partnership[148] and with respect to the financing relation between the United States and China.[149]

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[146] Pellerin, Sabrina R. and Walter, John R., *Orderly Liquidation Authority as an Alternative to Bankruptcy*, Economic Quarterly, Volume 98, Richmond Federal Reserve (2012), [online], available at https://www.richmondfed.org/~/media/richmondfedorg/publications/research/economic_quarterly/2012/q1/pdf/walter.pdf (Accessed at 1 August 2014)

[147] Stahl, Lukas M., *Business Briefing, The Transatlantic Trade and Investment Partnership (TTIP): Potential Impact and Dimensions of the World's Largest Trade Agreement*, 21st Austria (June 2014) New York, NY, [online], available at http://www.21st-austria.at/files/21austria/files/business_briefings/21st_austria_-_businessbriefing_june_2014.pdf (Accessed at 20 September 2015).

[148] See supra at note 49.

[149] See supra at note 50.

With respect to the comparative analysis both on the side of the United States and the side of the European Union, a plethora of research, studies and analysis by both academia and professional consulting practices and think tanks were analyzed and studied.[150] With regard to the literature review concerning Legal Risk[151], Capital Formation[152] and the current and envisaged new Global Economic Order[153], the author has researched financial economic industry and technical literature and sources in the form of books, articles, economic journals, databases, public web sites and all sorts of publically and non-publically available media.

As part of his research, the author had also the privilege to personally consult, advise and discuss with a number of European and U.S. policy makers and industry representatives the fundamental systemic design defects of our monetary and judicial order and ultimately lead to the financial and banking crisis of 2008, previous asset-price bubbles and misallocations and unless repaired will continue to lead to the same dislocations. He also had the opportunity to advise on certain aspects of the envisaged Transatlantic Trade and Investment Partnership.[154]

Finally, following the application of firmly defined concepts of Legal Risk, that are universally effective, mutually exclusive and practically applicable and that more importantly can be systematically observed, tested, and measured and ultimately refined, altered or expanded and therefore meet the universal standards for scientific methodology to each of the case studies, the author could prove that regulatory cooperation and transnational jurisdiction significantly reduces Legal Risk. Combined with his radical proposals as original contributions to this multi-disciplinary area of scholarship and applied as logically coherent solutions consistent with the precise analysis of the four fundamental legal risks to each of these case studies, these proposals are a direct result of carrying out the multi-disciplinary investigatory methodology of this work.

[150] See Chapter 5.I.A. *TTIP-Nasciturus for a New Global Economic Order*
[151] See supra at note 101.
[152] See supra at note 100
[153] See supra at note 49.
[154] Stahl, Lukas M., *Business Briefing, The Transatlantic Trade and Investment Partnership (TTIP): Potential Impact and Dimensions of the World's Largest Trade Agreement*, 21st Austria (June 2014) New York, NY, [online], available at http://www.21st-austria.at/files/21austria/files/business_briefings/21st_austria_-_businessbriefing_june_2014.pdf (Accessed at 20 September 2015).

E. Contributions to Knowledge

This thesis aims to make the following contributions to knowledge. First, it aims to develop a comprehensive understanding of legal risk whilst not being limited by the descriptive nature of characterizing certain legal transactions and is rooted in a fundamental understanding of the categorically different and mutually exclusive effects of a certain legal transaction based on legal and factual qualifications. By integrating and attributing these categories of legal risk to the different forms of capital formation that are discussed in this thesis, it will hopefully contribute significantly to the body of knowledge how these legal risks can be mitigated and ultimately be resolved in the future.

Since the first time his proposal has been made public in June of 2014[155] after being discussed in academic circles since 2011[156], his or similar proposals have found numerous public supporters. Most notably, the former Vice President of the European Parliament, David Martin, has tabled an amendment in June 2015 in the course of the negotiations on TTIP calling for an independent judicial body[157] and the Member of the European Commission, *Cecilia Malmström*, has presented her proposal of an International Investment Court on September 16, 2015[158].

The author concludes, that for the first time in the history of our generation it appears that there is a real opportunity for reform of our Global Economic Order by curing the two fundamental design defects of our monetary order and judicial order with the abolition of the fractional reserve system and the introduction of Sovereign Money and the institution of a democratically elected Transatlantic Trade and Investment Court that commensurate with its jurisdiction extending to cases concerning the TTIP may complete the Capital Formation Life Cycle[159] resolving cases of default with the transnational judicial authority for terminal resolution of misallocations in a New Global Economic Order without the ensuing dangers of systemic collapse from *FIAT* to *EXIT*..

[155] See supra at note 147.
[156] Those discussion took place since the author's admission to the PhD programme at the University of Westminster in 2011 including but not limited to his supervisors and recommenders but also at numerous conferences and personal meetings with policy makers and industry representatives, *inter alia* together with one of his supervisor Prof. Joseph Tanega in the European Union and in the United States.
[157] See Chapter 6.III.C. *The Martin-Lange Proposal of the European Parliament*
[158] See Chapter 6.III.D. *The Malstroem-Proposal of the European Commission*
[159] See Chapter 6. *From FI.AT to EXIT*

II. THE ARGUMENT

A. CAPITAL 2.0

After *The Wealth of Nations* was published by Adam Smith[160], the study of economics began to accelerate. Throughout the 19th century, political economists such as Joseph A. Schumpeter[161] wrote about government, the welfare of society and the nature of its institutions, but, at the University of Vienna, concern with policy prevailed much less than it did elsewhere. In Vienna, members of the so-called Austrian School[162] were trying to make the discipline more rigorous by refusing its fixation on political issues. This was not easy. The practice of mixing economics with politics often serves as to some preconceived ideology, continues today, when the United States alone produces about 64,000 PhDs[163] in academics, business and government, yet, a preoccupation with policy clashed with Schumpeter's concept of economics as a science[164], a discipline which put the light in public debates by producing knowledge free from particular interests, which itself should aspire to neutrality.

Throughout his life, Schumpeter believed that when economists injected politics into technical discussions, they tainted their scientific integrity[165]. Albeit, I personally disagree with the notion of discussing economic developments without also reflecting upon the interests of the parties involved as being useful to insight, I would like to continue in the

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[160] Smith, Adam. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Edwin Cannan, ed. London: Methuen & Co., Ltd. 1904. Library of Economics and Liberty [Online] available from http://www.econlib.org/library/Smith/smWN.html; accessed 21 September 2015

[161] At the time when the great Austrian former minister of finance and later Harvard professor, Joseph A. Schumpeter attended university in Vienna and later became a university professor, Schumpeter, in the custom of other European universities, as a professor economics, at the University of Vienna, was part of the faculty of law. Schumpeter's degree, which he received in 1906, was therefore not in economics but in civil and in Roman law, a type of training that deepened his sense of both politics and history. Later on, he practiced briefly as an attorney and then, with that experience, broadened his sense of the way business actually works. As the 20th century began, German-speaking universities led the world in most of the physical and social sciences and then, the University of Vienna was one of the three or four best places on Earth to study economics and it didn't take Schumpeter long to find that he had a special gift for the subject. At the time, knowledge of economics lagged far behind that of law, which many great scholars had analyzed over thousands of years.

[162] See supra note 53.

[163] *The Disposable Academic*, The Economist (16 December 2010) [online], available at http://www.economist.com/node/17723223 (Accessed at September 21, 2015)

[164] Dalziel, Paul C., Schumpeter's "Vision" and the Teaching of Principles of Economics, Lincoln University, New Zealand, (17 March 2008), [online], available at http://www.sciencedirect.com/science/article/pii/S1477388015300281 (Accessed at 16 June 2014)

[165] Id.

tradition of the great University of Vienna of that time with the interdisciplinary nature of law, finance, economics and social sciences, in general, in this thesis[166].

Although this thesis will elaborate a great deal on the workings of monetary policy[167], economic policy[168] and fiscal policy[169] over the last years and its impact on distribution, inequality and in general, allocation of resources, the focus of this work will remain on the issue of Legal Risk and Capital Formation in a New Global Economic Order that we are proclaiming today.

Therefore, we will discuss predominantly the relationships of the different counterparties[170] involved in each of the legal relationships[171] and transactions[172] that constitute the respective processes of capital formation[173]. This discussion will lead us in a very structured process through the main issues of this debate, starting with what represents legal risk[174]. How does legal risk differentiate itself from general risks that we perceive in a transaction?[175] And, how do we know that legal risk is present? In this thesis, we will focus our discussion exclusively on the capital formation process.

It is no secret that the character and our understanding of Capital is swiftly changing since the beginning of this millennium. With the advent of the digitization of the capital formation process since the nineties and the complete pervasion of all areas of life, engineering, banking, management and learning with information technology and social media, in particular with the advent of companies like Facebook[176], Twitter[177], Skype[178],

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[166] Garner, Ferdinand & Lawson: *Introduction to Politics 2e, Joseph Schumpeter* (1883-1950), Oxford University Press (April 2012) [online], available at http://global.oup.com/uk/orc/politics/intro/garner2e/01student/keythinkers/schumpeter/ (Accessed at 18 July 2015)
[167] See Chapter 4.II.A.1. *The Role of the Central Banks*
[168] See Chapter 3.III. *Institutional and Alternative Actors of Capital Formation*
[169] See Chapter 4.III Allocation and Capital Formation
[170] See supra at note 127.
[171] See Chapter 4.II.A. *Three Actors of Monetary Capital Formation*
[172] see Chapter 4, III.A *Five Key Accounts of Monetary Capital Formation*
[173] See Chapter 3, II.A *Three Factors of Capital Formation*
[174] See Chapter 2.I. *Literature Review of Legal Risk*
[175] See Chapter 2.II. *Four Determinants of Legal Risk*
[176] Davis, S., Robinson, D., Kuchler, H. (13 April 2014) *Facebook targets Financial Services*, [online], available at http://www.ft.com/intl/cms/s/0/0e0ef050-c16a-11e3-97b2-00144feabdc0.html#axzz3mLosCM00 (Accessed at June 21, 2014)
[177] *Twitter Engagement in Financial Services* (October 2014), [online], available at http://thefinancialbrand.com/47314/twitter-engagement-in-financial-services/ (Accessed at September 21, 2015)

and the rise of a complete new industry for financial technology, short FinTech[179], and the rise of millennials[180] to maturity we may announce that we have officially arrived at the Age of **Capital 2.0**.

Especially in the last 7 years[181], since the financial crisis of 2008, the process of capital formation has undergone an almost complete transformation. What do we mean by that? The way capital is formed, not only through traditional forms of sovereign production of money, but also by way of the privatization of the money creation sector[182], starting with commercial banks, a development that is going on for the better part of the post-war period[183]but, of course, being highly accelerated with the advent of shadow banking[184] and with the significant increase of digitization of money[185], certainly finding its climax in the advent of the creation of the bitcoin[186], which probably is the purest form now of a digitized currency. Going forward to other forms of capital formation that in light of the digitization process could be probably considered almost more traditional, such as all forms of securitization[187], may it be in the form of derivatives, as we have seen them in the run up to the financial crisis of 2008[188], with all sorts of asset-backed securities[189], collateralized debt obligations[190] and other most inventive forms of repos[191] in the money markets, may it be in the form of classic securitization of "ideas" that we have seen in the public markets by initial public offerings for relatively immature young companies[192], where effectively ideas have been securitized and floated in the public markets and thereby

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178 Titcomb, J. *Barclays To Pioneer Home Banking with Skype like video*, The Telegraph, (November 2014), [online], available at http://www.telegraph.co.uk/finance/newsbysector/epic/barc/11261890/Barclays-to-pioneer-home-banking-with-Skype-like-video-system.html (Accessed at September 21, 2015)

179 Pozyn Ilya, Forbes *15 Fintech startups to watch in 2015* (December 14, 2014) http://www.forbes.com/sites/ilyapozin/2014/12/14/15-fintech-startups-to-watch-in-2015/ (Accessed at June 21, 2015)

180 *Rise of the Millenials, Generation built on crises*, [online], Bloomberg (July 2015) available at http://www.bloomberg.com/news/videos/b/2eba3425-43d8-4627-89ea-57732bb99c13 (Accessed at September 21, 2015)

181 See supra note 74.

182 See Chapter 3.III.B. *Alternative Actors of Capital Formation*

183 See Chapter 3.II.3. *Capital Formation by Money Creation*

184 See Chapter 3.III.B.2 *Shadow Banking*

185 See Chapter III.A.4. *Bitcoin*

186 Id.

187 See Chapter 3.III.3 *Issuers of Securitized Debt and Equity*

188 Id.

189 Id.

190 Id.

191 Id.

192 Friedland, J., *Richardson & Patel Represents First Emerging Growth Company Under the JOBS Act to Complete an IPO* (May 2012) [online], available at https://www.linkedin.com/grp/post/2208940-113826440 (Accessed at June 23, 2014)

created some sort of non-money currency that effectively acts as a very valuable exchange for companies, such as Facebook[193], Google now Alphabet[194], or Yahoo[195] or others that are the new virtual investment companies of our time, which ultimately leads us to the necessary discussion in our reflection on the capital formation process and its legal risks, as to how these legal risks can be evaluated, assessed, measured and ultimately mitigated in an economic and monetary order that is, or has been, constantly in change over the past 20 years[196].

Of particular interest in this discussion must be that we will often find us almost in a vacuum of jurisdiction, left without a legal framework for transnational transactions, be it on the global level, and be it on an intercontinental level. Over and over, time and again, we have seen that institutions, such as the United Nations[197], or the World Trade Organization,[198] or even the World Bank[199] or the International Monetary Fund[200], have very limited jurisdiction beyond the contractual rights that, have been agreed respectively between its counterparties, but, rarely ever any of these institutions have been able to wield something as akin to a transnational jurisdiction.

> This is why we often, as lawyers, as international or transnational lawyers in particular, find ourselves in situations where we stand to realize that **the worst form of international deregulation is no regulation**, is no legal framework, is no transnational jurisdiction that actually has the ability to set a legal framework and a process for the creation of laws and regulation and enforcement for contractual obligations that ultimately can lead to a resolution of conflicts and resolution of legal risks in a legally effective form that is actually enforceable, without any back-door political dealings.[201]

193 See supra at note 176.
194 Plummer, Q. *Google becomes Alphabet, The A to Z of what really happened*, TechTimes, (August 15, 2015), [online], available at http://www.techtimes.com/articles/76961/20150815/google-becomes-alphabet-the-a-to-z-of-what-really-happened-and-why.htm (Accessed at September 21, 2015)
195 Hof, R. *Investors cheer Yahoo's spin-off of Alibaba into a new company*, Forbes (January 2015), [online] Available at http://www.forbes.com/sites/roberthof/2015/01/27/investors-cheer-yahoos-spinoff-of-alibaba-investment-into-new-company/ (Accessed at September 21, 2015)
196 See Chapter 4.IV.A. *Crisis-Reaction-Acceleration-Sequence-History*
197 See Chapter 3.III. *Institutional and Alternative Actors of Capital Formation*
198 Id.
199 Id.
200 Id.
201 Stahl, Lukas M., *Business Briefing, The Transatlantic Trade and Investment Partnership (TTIP): Potential Impact and Dimensions of the World's Largest Trade Agreement*, 21st Austria (June 2014) New York, NY, [online], available at http://www.21st-austria.at/files/21austria/files/business_briefings/21st_austria_-_businessbriefing_june_2014.pdf (Accessed at 20 September 2015).

When international financing contracts are governed either at a rate of 45% of all public companies by the laws of New York[202] or in the alternative by the laws of England and Wales[203] - and only in rare domestic cases by other local jurisdictions - which have become somehow the substitute for international or transnational law, lawyers, do understand that this is not only about two counterparties that agree on the terms of the conditions of a contract and have a meeting of the minds about a particular agreement, but this is also about having a *forum*[204], a common venue and jurisdiction once one of the counterparties actually defaults on his terms of the deal and legal risk stands to be fully materialized that is in place to effectively resolve the disagreement, the effect of the default and resolve these risks in an enforceable manner.

However, this thesis has not only been written for legal scholars or economists but, also for those who want to understand our global economic system with a few practical tools that should help them locate their place and their interests within that economic system, evaluate the risks, and in particular, the legal risks that are associated with and also how they personally can mitigate their position within that chain of the Capital Formation Life Cycle[205] and what they can contribute as a citizen of this New Global Economic Order[206] to change that very order to become a more equitable working process.[207]

B. The Triple A Model for the Analysis of Global Capital Formation

Let me introduce three key principles with which the *pt. reader* will be able to better understand, assess, evaluate and ultimately improve the entire debate about capital formation and legal risks in this rapidly changing new global economic order that, for purposes of focus and scope, in this thesis will be in particular discussed before the backdrop of the current negotiations of a TTIP[208].

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[202] Eisenberg, T, Miller G., *The Market for Contracts, Cardozo Law Review* [online}, available at http://cardozolawreview.com/Joomla1.5/content/30-5/MILLER.30-5.pdf (Accessed at September 10, 2015)

[203] Caliari, A., *Where the Argentine Debt Case Stands Now, and Why it Still Matters* https://nacla.org/news/2015/04/06/where-argentine-debt-case-stands-now-and-why-it-still-matters (Accessed at September 10, 2015)

[204] See supra note 6.

[205] See Exhibit A. *Capital Formation Life Cycle*

[206] See supra note 49.

[207] See supra note 91.

[208] See Chapter 5: *Case Study: TTIP-Nasciturus for a New Global Economic Order*

Why are we going to discuss Global Capital Formation in particular before the backdrop of the TTIP? Well, first and foremost, because the size and scope of a discussion of all international venues, potential frameworks, such as the WTO or the United Nations or the many other regional agreements probably would be way beyond the scope of this thesis, but, more importantly because, TTIP and the creation of a transnational economic area that for the first time in recent history spans the European Union and the United States[209], is the attempt of creating an economic area much in the tradition of what Europe has experienced in the development of its own progression from the European Communities[210] and a European Free Trade Association[211] all the way to an economic[212] and eventually, even monetary union[213].

Certainly, with all its shortcomings, pitfalls and difficulties, it is the first time in recent history that there is a potentially successful attempt to create something like a single market between the European Union and the United States[214], based on peaceful principles of regulatory cooperation and democratic values and not on the basis of war or occupation or any other forms of political or economic imperialism, as we have experienced in other regions of the world before.[215]

Here are the three core principles that will allow us to evaluate and discuss and understand all the key issues, with respect to legal risk, capital formation and the development of this new transnational legal framework.[216] I call these three core principles the Triple A model[217] for the analysis of global capital formation. First: *Accounting*, second: *Allocation* and third: *Accountability*. All these three pillars, or principles, of global capital formation, accounting, allocation and accountability, help us guide through the process of assessing what are the legal risks in this process of global capital formation.

[209] See supra note 147.
[210] European Commission, *The history of the European Union*, [online], available at http://europa.eu/about-eu/eu-history/1960-1969/1967/index_en.htm (Accessed at 21 August 2014)
[211] European Free Trade Association and European Economic Area, [online], available at http://www.civitas.org.uk/eufacts/FSECON/EC13.php (Accessed at 21 August 2014)
[212] Frieden, J. *The Euro: Who wins, who loses?* Foreign Policy (Fall 1998), [online], http://scholar.harvard.edu/jfrieden/files/euro.pdf (Accessed 15 May 2012)
[213] Id.
[214] Barker, T. and Workman, G., (2013). *The Transatlantic Trade and Investment Partnership: Ambitious but Achievable A Stakeholder Survey and Three Scenarios.* [online] Bertelsmann Foundation. Available from: http://www.bfna.org/sites/default/files/TTIPReport_web.pdf (Accessed 15 August 2013).
[215] See supra note 32.
[216] See supra note 214.
[217] See supra note 32.

Accounting[218] will help us understand, what is the source, where does the money come from? How does the accounting work in the process of global capital formation?

Allocation[219] will follow the trail of capital. How does the allocation in this capital formation process work? What happens with the privatization of money and the securitization of money and how is it accounted for? And, how is it accounted for between Central Banks, Commercial Banks and, ultimately, the Citizen, be it consumer or business that lends from a Central Bank?

Accountability[220], most importantly, will inform us in what ways who will be accountable for what is happening so often lately, in the case of misallocation of capital?

C. FOUR DETERMINANTS OF LEGAL RISK

As we will hear in great detail that there has been no standard definition of legal risk that has been established in academic discourse as the point of reference to assess legal risk in general and in particular with respect to capital formation. According to Whalley, the last discussion of legal risk took place in 2005.[221]

We will find several definitions starting with one provided by the International Bar Association that primarily sees risk as caused by a defective transaction followed by Matthew Whalley's definition of legal risk[222] that identifies two parts of legal risk as primary risk and secondary risk where the primary risk is seen as a descriptive layer and a secondary definition that uses real examples demonstrating where the primary risks apply for instance in non-standard terms and conditions.[223]

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218 See supra note 33.
219 See supra note 34.
220 See supra note 35.
221 Whalley, M., *A 14-year history of legal risk; and timeline of definitions* (12.06.2014) [online], available at https://www.blplaw.com/expert-legal-insights/articles/legal-risk-definition-history/ (Accessed at September 3, 2014)
222 Id.
223 Whalley M, *Legal risk definitions that identify the right risks and get the business to own them*, [online], available at Legal risk definitions that identify the right risks and get the business to own them (Accessed at September 3, 2014)

Probably the most has been written so far on legal risk by Roger McCormick[224] who duly notes that the expression legal risk is not a term of art. When McCormick looks for regulatory definitions of legal risk he as in an opinion of the European Central Bank[225] or in the capital requirements directive[226], and he then lifts these definitions into a basic concept being a particular kind of risk that is commonly understood to relate to the risk of being sued or being the subject of a claim. Within the narrower scope of financial markets he also interprets it as the risk of technical defects in the manner in which a transaction is carried out resulting in loss. He then goes on to describe and enumerate a number of examples where legal risk has lately materialized. All these definitions however have had one problem in common that is that they are rather descriptive and rather enumerative but neither abstract nor mutually exclusive and therefore can hardly be the basis for a rigorous theory.

Tobias Mahler[227] from the University of Oslo who at this point probably has developed the most advanced theory on legal risk, then developed a definition of legal risk that addresses the issue of mutual exclusivity and defines legal risk in terms of deontic norms and qualification norms that meet that requirement. Deontic norms on the one hand being those that see a risk applied due to an obligation, a permission, or prohibition. Qualification norms on the other hand see the risk materialize because the norm was not valid or not based on competence, or as he states "his goal was to systematize and analyze existing definitions of legal risk prosing a context-independent definition and a classification of legal risk based on norm theory"[228].

Mahler comes to the following findings[229]. First, only legal uncertainty is legal risk, and legal risk is sometimes defined as the risk that is caused by or which depends on legal uncertainty. Then he discusses the relation between legal and factual uncertainty given

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[224] McCormick, R., (2011). *Legal Risk in the Financial Markets.* 2nd ed. United States: Oxford University Press.
[225] McCormick, R., (2007b). *Legal Risk in the Financial Markets.* [online] London School of Economics. Available from:
https://www.lse.ac.uk/collections/law/projects/lfm/LEGAL%20RISK%20%20%20seminar%20%20outline.pdf [Accessed 20 April 2012].
[226] Id.
[227] Mahler, Tobias, *Defining Legal Risk*, University of Oslo (2007), [online], available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1014364 (Accessed 20 April 2012)
[228] Id.
[229] Id.

that for risk management professionals legal risk often covers both legal and factual uncertainty.[230]

The distinctions are really made explicit though the examples indicating that uncertainty is not excluded from legal risk. Ultimately, Mahler ends up with a conclusion that is based on three questions. Can there be legal risk in the absence of any uncertainty? Can we speak of legal risk if the law is not sound but well defined and predictable? Does legal risk encompass only normative uncertainty or also factual uncertainty? Mahler concludes that the term legal risk should include both legal and factual uncertainties.[231]

Then Mahler moves on to a so-called norm theoretic typology whereby deontic norms prescribe what is obligatory, prohibited, or permitted for an actor or otherwise referred to as duty imposing norms or prescriptive norms as opposed to qualification norms that are used by the same concept and is referred to as a constitutive norm, a secondary norm.[232]

It may be confusing that the financial loss again materializes through a deontic norm making it for instance not obligatory for a defendant to pay back a certain amount of money. However the deontic norm is not the root of the uncertainty in such a case. The root of the uncertainty was the defendant's unexpected lack of competency.[233]

This distinction between deontic and qualification norms fulfills the requirement of exclusivity set out by Mahler who then moved on to combine his norm theoretic approach with the discussed distinction between legal and factual uncertainty which finally provides him with a matrix of legal risk with legal uncertainty and factual uncertainty on one side and deontic norms and qualification norms on the other side. Albeit the fact that Mahler's matrix leaves us finally with a mutually exclusive definition and qualification of the root causes of legal risk it still remains rather descriptive and not on the level of abstraction that is required for a definition that would become universally applicable to each and any transaction be it in or outside the realm of financial markets or capital formation.

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[230] See supra note 227.
[231] Id.
[232] Id.
[233] Id.

This is why I decided to add a third dimension to Mahler's legal risk matrix by qualifying the concept of legal uncertainty and factual uncertainty with what we call the theory of rights a concept that has been developed by Wesley Newcomb Hohfeld[234] and is predominantly categorized by an analytical table of juror relations.[235]

Hohfeld in particular demonstrates that there is no legal relation between a person and a thing as a legal relation always operates between individual human beings, and as legal relations between individuals are complex it is very helpful to break them down into their simplest form.[236] This form of abstraction from the particulars of everyday legal transaction is a genuine scientific approach to model building of the law,

Hence when Hohfeld breaks down his juror relations in pairs of duty and right, no right and liberty, liability and power, and disability and immunity on a simple matrix it becomes very obvious that the Rubicon of legal risk flows exactly right through the middle of these jural relations[237] whereby you will find legal risk on the one end compounded by legal uncertainty and factual uncertainty and legal certainty on the other side of the legal river that separates the shores of legal risk and legal certainty. It is also where you find that the pairs of duty and no right relate to the deontic evaluative norms of Mahler[238] and the juror relations of liability and disability relate to the descriptive qualification norms that also Mahler has defined.[239]

One key observation albeit in furtherance of Hohfeld's category theory has been made by Professor Tanega in his theory of default invariance[240] One of the key point to his theory is that full payment of a financial contract under an Arrow-Debreu-Sharpe model extinguishes or nearly extinguishes all legal risks.

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[234] Hohfeld, Wesley N., *Fundamental Legal Conceptions as Applied in Judicial Reasoning,* (1917) Yale Law School [online], available at http://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=5383&context=fss_papers (Accessed at June 20, 2014)

[234] See Chapter 2.II.A *Law*

[235] See Chapter 2.I.F. *Hohfeld's Category Theory applied to Legal Risk*

[236] See supra note 193.

[237] See Chapter 2.II. Figure *Four Determinants of Legal Risk*

[238] Id.

[239] Id.

[240] Tanega, J. (2015) "*Default Invariance, A Naïve Category Theory of Law and Finance*," The Philosophy, Politics and Economics of Finance in the 21st Century: From Hubris to Disgrace (Economics as Social Theory), edited by Patrick O'Sullivan, Nigel F.B. Allington, and Mark Esposito, pp. 175 – 240

When Professor Tanega learned - hopefully also in small part thanks to the contributions of the many discussions we had in the course of developing the core essence of this thesis - the only point in time there was no legal risk was actually at the point of payment.[241]

This is why Tanega found himself bound to correct even Nobel Prize winners Arrow, Debreu, and Sharp that had basically set out the contingent claim model which underlies everything we know and do in risk management, corporate governments, portfolio theory, and practically everything else we call modern finance theory. Here I would like to highlight two particular findings.

Whereas in classical structures, the point of non-payment would always be characterized on a time line as that point that is enumerated as T0 and the point where payment occurs as that point that is enumerated as T1[242]. Tanega found that legal certainty will only be seen at the point of payment whereas even if there is non-payment due to default this may continue as an infinite contingency as he states what follows naturally is what this term default invariance. The values of pay and not-pay must be 0 and 1 respectfully.

This result has extraordinarily large implications for law and finance theory. From this theory, a financial contract been paid exits from the infinitely contingent states of the world and thus become a legal certainty of discharged obligations, however if I am paid, it remains as part of the infinitely contingent states of the world and a contingent potential legal liability.[243]

Tanega concludes that as one implication of this new theory is that other types of credit ratings exist in the real world. The current credit ratings are obviously based on AAA which sees pay as the only relevant event at T1. From this premise, the hierarchy of ratings AAA, AA, and so on unfolds. But this sort of credit rating obviously does not capture the continuing ("stretched out") event of non-payment except to nominate it at the bottom of ratings.

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[241] See supra note 240.
[242] Id.
[243] Id.

He suggests that "[f]rom a "not-pay" event, an alternative credit rating agency would appropriate "XXX" to warn potential investors of the severity or intensity of default. (Think of warning labels on videos that are not appropriate to non-adults.) Some might argue that the XXX-rating is already incorporated in the AAA-rating system". [244] Thus, during the height of the credit crisis in 2005-2009 where over 20,000 ratings of Asset-Backed-Securities were down rated, the AAA ratings were interpreted by asset managers as having 100% default probability[245].

In his three approximations of pure pay, pure default and pay and not pay[246], Tanega shows that each phase consist of a state *pre-default* and the state *post-default* and each state can be either in financial innovation or in bailout[247]. If either state is in financial innovation and there is a delay of payment as a manifestation of technical default but that delay is cured, it would require the judgment by a court whereas in either state is in bailout, repayment due is taken over by a government entity[248].

In particular, the third approximation[249] could be used explicitly as a mapping of very large systems of financial markets, judicial and political interactions where financial innovation and government bailout and bail-in schemes are the predominate solutions to apparent continuous financial crises such as in Europe today with his key finding that uncertainty and default are for purposes of law and finance essentially equivalent in that it is in principle impossible to know when or how default may be cured except by way of the judicial system, and of not by way of the judicial system then by way of political bailout.[250]

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[244] See supra note 240.
[245] Tanega, Joseph (September 4, 2015), personal communication with the author, Vienna, Austria.
[246] Tanega, J. (2015) "*Default Invariance, A Naïve Category Theory of Law and Finance,"* The Philosophy, Politics and Economics of Finance in the 21st Century: From Hubris to Disgrace (Economics as Social Theory), edited by Patrick O'Sullivan, Nigel F.B. Allington, and Mark Esposito, p. 32 [online], available at http://poseidon01.ssrn.com/delivery.php?ID=260116123082075086066117066125064089014010017032055005018070006097030067101008095124103017054013044015041122095064028075100089011074041011058082009119067119015023029054062016110116126023070086001080115115001118100086082091076004007006003117002125127&EXT=pdf (Accessed at September 4, 2015)
[247] Id.
[248] Id.
[249] Id.
[250] Tanega, J. (2015) "*Default Invariance, A Naïve Category Theory of Law and Finance,"* The Philosophy, Politics and Economics of Finance in the 21st Century: From Hubris to Disgrace (Economics as Social Theory), edited by Patrick O'Sullivan, Nigel F.B. Allington, and Mark Esposito, p. 19 [online], available at http://poseidon01.ssrn.com/delivery.php?ID=260116123082075086066117066125064089014010017032055005018070006097030067101008095124103017054013044015041122095064028075100089011074041011058082009119067119015023029054062016110116126023070086001080115115001118100086082091076004007006003117002125127&EXT=pdf (Accessed at September 4, 2015)

D. Three Factors of Capital Formation

This thesis will analyze three factors of capital formation[251] of which are two so-called nonmonetary factors of capital formation[252] and one will be the monetary factor of capital formation[253], money in and of itself.

Aside from certain nonmonetary factors of capital formation, monetary factors will be by far the major focus of this work.[254] By dealing with nonmonetary factors of capital formation, we talk about in the classic sense of capital created by ***Man***, that is capital created by man and woman, also more recently characterized in management literature as *human capital*[255] and capital formed by ***Machines***, also known in accounting terms as PPE or *property, plant and equipment*[256] or in industrial terms very classic as industrial capital[257] or machines.

Therefore, once we analyze the legal risks that are inherent in the capital formation of human capital or industrial capital and once we will talk about the legal risks that are materialized in processes that either foster or impede the capital formation in these two nonmonetary areas, we have to analyze what policies and projects are currently pursued.

It is for these major reasons that primes our discussion motivates the analysis of the TTIP as major case study. We will discuss the effects and legal risks that are incurred or are reduced by the implementation of such a partnership in particular within the nine verticals of of industries so we can see how these industries are affected by the formation of

251 See supra note 56.
252 See supra notes 57 et 58.
253 See supra note 59.
254 Id.
255 Goodwin, Neva R., *Five Kinds of Capital, Useful Concepts for Sustainable Development*, p. 5, Global Development and Environment Institute, Working Paper 03-07 (September 2003) [online] available at http://www.ase.tufts.edu/gdae/publications/working_papers/03-07sustainabledevelopment.pdf (Accessed at August 5, 2015)
256 Federal Accounting Standards Advisory Board (FASB), *Statement of Federal Financial Accounting Standard No. 6 Accounting for Property, Plant and Equipment*, (June 1996) [online], available at http://www.fasab.gov/pdffiles/sffas-6.pdf (Accessed at August 5, 2015)
257 Marx, Karl, *Capital Volume One, Chapter Thirty-One: Genesis of the Industrial Capitalist* (1867) [online], available at https://www.marxists.org/archive/marx/works/1867-c1/ch31.htm (Accessed at August 5, 2015)

nonmonetary capital such as human capital by Man[258] or industrial capital by Machines[259] and what are the legal risks that come along side[260].

In order, however, to have the discussion of the legal risks within those two areas of nonmonetary capital formation, we need to define and understand the nature of the factors of Man and Machines in our capital formation process and discuss the progress was made in the historic understanding of those two non-monetary factors of capital formation[261].

On the other hand, we will see that we essentially deal with three actors of monetary capital formation[262] that control the process of creating what we colloquially today call ***Money.***[263]

E. Three Actors of Monetary Capital Formation

In this chapter I aim to explain which role the three central actors of money capital formation, the ***Central Bank***[264]**,** the ***Commercial Banks***[265] and the ***Citizens***[266]**,** be it in the form of the Corporate Citizens, i.e. the businesses, or as the Citizen Consumer, who are all what we as a *terminus technicus*[267]call *"users of the currency*".[268]

With respect to the role of the Central Banks the author considers it of particularly importance that the *pt.* reader dismisses the many myths that surround the issuance of currency and the relationship between a Central Bank and its main customer, the Commercial Banks[269]. Many of these fundamental misunderstandings, unfortunately, are today the root cause, why even prominent and highly educated decision makers in the most upper echelon not only come to wrong, but simply put, false conclusions, when it comes to the time to make decisions pertaining to monetary and fiscal policy.

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[258] See supra note 57.
[259] See supra note 58.
[260] See supra note 49.
[261] See Chapter 3.I.A. *Theoretical Foundations of Capital Formation*
[262] See Chapter 4.III.A. *Three Actors of Monetary Capital Formation*
[263] See supra note 59.
[264] See Chapter 4.III.A.1 *Central Banks*
[265] See Chapter 4.III.A.2 *Commercial Banks*
[266] See Chapter 4.III.A.3 *Citizens*
[267] Latin for *"technical term"*
[268] Kelton, Stephanie, *Monetary Operations and Government Finance*, p.20, (June 2015), University of Missouri-Kansas, http://www.levyinstitute.org/pubs/conf_june10/Kelton.pdf (Accessed at August 15, 2015)
[269] See Chapter 3.II.A.3 *Capital Formation By Money Creation*

In keeping with the theme, the author further explains the relationship with the respective Central Bank, which role Commercial Banks play in the creation of so-called *FIAT* money[270] that needs rather sooner than later be shown the *EXIT* given the many misallocations and dislocations that resulted from the fact that banks today create beyond eighty percent of all money in circulation by way of credit and electronically.[271]

Once we understand how the balance sheets of the Central Bank and the Commercial Banks are intrinsically linked[272], we can move on in the Capital Formation Life Cycle[273] to the final actor in the process of monetary capital formation which is the *user of the currency*[274] in the form of the citizen[275], that encompasses corporations and consumers but also extends to – and this, unfortunately, is often misunderstood in terms of monetary policy – the not any longer sovereign Member States of the European Union or the states within the United States of America.[276]

Here, we will show the role and in particular, the limitations, that are inherent to users of a currency as opposed to sovereign currency issuers and what the problems are that are associated when monetary and fiscal policy are not united in the same level and sphere of government.

We demonstrate along the Capital Formation Life Cycle the implications when legal risks materialize in case of default and what repercussions are to the banking sector if we do not soon deal with the fundamental design defects of our monetary and judicial order and of the monetary union[277], in the case of the Eurozone, in particular.

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[270] See supra note 269.
[271] Hanke, Steve H., *Hot Money, Cold Credit*, Globe Asia, Cato Institute, (June 2013) [online] available at http://www.cato.org/publications/commentary/hot-money-cold-credit (Accessed 9 September 2015)
[272] Id.
[273] See Exhibit A: *Capital Formation Life Cycle*
[274] See supra note 266.
[275] See Chapter 4.II.A.3. *Role of the Citizen*
[276] See supra note 266.
[277] European Commission, *The history of the European Union*, [online], available at http://europa.eu/about-eu/eu-history/1960-1969/1967/index_en.htm (Accessed at 21 August 2014)

F. FIVE KEY ACCOUNTS OF MONETARY CAPITAL ALLOCATION

Following the Capital Formation Life Cycle it is our stated aim to create a better understanding of how capital is formed and how in particular money, as one key factor of capital formation, is created. However, we will also develop a better insight into how the allocation of capital between these Five Key Accounts of Monetary Capital Formation[278], the ***Sovereign,[279] Financial,[280] Corporate,[281] Consumer[282]*** and ***International[283]*** accounts effectively works.

Once we understand where capital is actually allocated, we will also understand following the accounting process, whether capital tends to be invested or it tends to be consumed[284] and where it is actually allocated and how a different allocation process of the global capital formation process may also lead to different results.[285]

All of this, it helps us analyze how potential legal risks, change the course of allocation and potentially change the course, therefore, of how not only risks are distributed, but by distributing risks, how rewards are distributed in this process[286].

In line with the accounting and the allocation principle, we eventually, follow the money and show how the current account trade deficits that Europe had after the war[287], mostly by importing almost everything after the war into the destroyed Europe, were eventually recycled by way of the Marshall Plan[288] in Europe[289] and ultimately, also in Japan[290], by the United States into these two countries, and, also how these trade deficits once there

[278] See Chapter 4.III. *Five Key Accounts of Capital Formation*
[279] See Chapter 4.III.A.1 *Sovereign*
[280] See Chapter 4.III.A.2 *Financial*
[281] See Chapter 4.III.A.3 *Corporate*
[282] See Chapter 4.III.A.4 *Consumer*
[283] See Chapter 4.III.A.5 *International*
[284] Weitzmann, Martin L. *The Bose Model and National Income*, Harvard University [online], available at http://scholar.harvard.edu/files/weitzman/files/bosemodelnationalincome.pdf (Accessed at 20 June, 2015)
[285] Id.
[286] Lazonick, W. and Mazzucato, M. *The Risk-Reward Nexus*, p.8, A Discussion Paper, policy network paper, (November 2012), [online], available at http://www.policy-network.net/uploads/media/154/8167.pdf (Accessed at 20 June, 2015)
[287] Varoufakis, Y., *The Global Minotaur*, (2011) [online], available at http://yanisvaroufakis.eu/books/the-global-minotaur/table-of-contents/ (Accessed at 15 July 2015)
[288] U.S. Department of State, Office of the Historian, *The Marshall Plan*, (1948) [online], available at https://history.state.gov/milestones/1945-1952/marshall-plan (Accessed at 20 June, 2015)
[289] Id.
[290] Id.

were no surpluses anymore on the United States' side, but became trade deficits on the United States side[291] vis a vis for instance, Europe or China, were eventually recycled back again through the United States by way of Wall Street and by way of capital markets.[292]

G. Accountability and Capital in the US, European Union and Globally

Following the trail of capital and the trail of the accounts along the Capital Formation Life Cycle and analyzing the allocation of capital, helps us understand and assess exactly not only where are the legal risks in this process located, but also, how the consequences of these legal risks are mitigated and resolved, and how the actors in this process are rewarded or held accountable if it came to a significant misallocation of capital[293].

This leads us to the third pillar and third principal of the global capital formation process, which is accountability[294]. This is such an important pillar in this discussion, given what all of us have to see daily in the news, where we see the necessary restructuring of sovereign debt[295], where we see the increasing inequality in the allocation of resources, particularly through the more recent findings of ever greater growing rates of return of capital than the growth of the actual economies this becomes such a significant and current issue in our actual daily, political and economic debate.

Where we see what was once dubbed the *principle of creative destruction*[296], in particular, of the insolvencies of enterprise and business that was once established by Schumpeter as the prime engine of innovation in a dynamic and growing economy[297], has been now substituted by the *principle of reckless destruction*[298], as we can see in our daily news.

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291 See supra note 287.
292 Id.
293 See Chapter 4.III.B *The Legal Risks in the Allocation of Capital*
294 See Chapter 4.IV. *Accountability and Capital Formation in the US, EU and Globally*
295 See Chapter 4.IV.5. *Sordid Debt Restructuring*
296 Schumpeter, J. A, *Principle of Creative Destruction,* (1942) [online], available at http://www.econlib.org/library/Enc/CreativeDestruction.html (Accessed at 20 June, 2015)
297 Schumpeter, J. A., (2009). *Can Capitalism Survive? Creative Destruction and the Future of the Global Economy.* United States: Harper Perennial Modern Classics.
298 Texas Penal Code Section 28.04, *Reckless Damage or Destruction,* A person commits an offense if, without the effective consent of the owner, he recklessly damages or destroys property of the owner. [online], available at http://codes.lp.findlaw.com/txstatutes/PE/7/28/28.04

H. FROM *FIAT* TO *EXIT*

This is why we advocate in this thesis for a transition from the principle of creative destruction to a principle of equitable default[299] that follows the history and tradition of decades of experience in domestic insolvency courts[300]. Consequentially, the creation of an *EXIT* and the destruction of *FIAT*[301] money as a new principle of creative destruction does not only hold the debtor accountable for the alleged misuse of the resources that have been provided to him, but equally important, does also hold the creditor accountable for the misallocation of their resources. Often, we find these expansive credit misallocations motivated by simple impetus like irrational exuberance[302] or a complete irrational expectation of a rate of return for what must be understood also as exuberant risk. All too often though, we find it encouraged by *moral hazard*[303] or what would otherwise be just summed up in one simple word: *Greed.* Like Lucius A. Seneca said:

> Parum Enim Avidis Natura [304]

That very last piece, that very pillar of accountability, within the global capital formation process, at this point in time, is still severely missing, as demonstrated every day and evening on our nations' TV news channels[305] and we would like to see this thesis make a minor contribution in adding accountability back into the equation of global capital formation.

These three principles, these three pillars of our Triple A model of Accounting, Allocation and Accountability[306] that regardless of what your persuasion in economic theory or political ideology is, will help you analyze and hopefully understand how capital formation in this changing global economic order works, what legal risks are associated with it and

[299] See Chapter 6, I. *Creative Destruction and Equitable Default*
[300] See Chapter 6.III.A *Origins for the Proposal of a Transatlantic Trade and Investment Court*
[301] See Chapter 6.I.C. *From FIAT to EXIT – Terminal Resolution of Misallocations in a New Global Economic Order*
[302] Shiller, Robert J. *Irrational Exuberance*, Princeton University Press, (2015), [online], available at http://press.princeton.edu/titles/10421.html (Accessed at 21 September 2015)
[303] Bernstein, Peter L., The Moral Hazard Economy, Harvard Business Review, (July-August 2009), [online], available at https://hbr.org/2009/07/the-moral-hazard-economy (Accessed at 21 September 2015)
[304] Seneca, Lucius A., *For Greed all Nature Is Too Little*, (4BC-65AD) [online], available at http://blog.gaiam.com/quotes/authors/seneca/32846 (Accessed at 4 September 2015)
[305] Rakoff, Jed S., *The Financial Crisis, Why Have No High-Level Executives Been Prosecuted*?, The New York Review of Books (January 20140, [online], available at http://www.nybooks.com/articles/archives/2014/jan/09/financial-crisis-why-no-executive-prosecutions/ (Accessed at 20 August 2015)
[306] See Chapter 4.I. *The Triple A Model for the Analysis of Capital Formation*

how these legal risks and consequently, the impact of the realization of these risks can be mitigated and resolved in an equitable manner.

In essence, it is these three principles which will empower you to understand how in today's global economic order we actually account for capital, how we allocate capital and how we hold actors within the system eventually accountable for the misallocation of capital and for the realization of legal risks and their consequences.

We will provide in this process for a way of allocation of resources that is more equitable[307] and thereby less susceptible to the realization of its inherent legal risks and arguably also more economically efficient. Ultimately, it is upon each of us to advocate for a process of capital formation that includes a pillar of accountability holding those responsible for the misguided allocation of resources that continues to lead to more inequality, more human suffering and to provide for a mechanism of resolution[308] in the form of the proposed Transatlantic Trade and Investment Court[309] that allows us to transform - what has been perverted into a process of reckless destruction - to a resolution that will be seen as equitable default.[310]

[307] See Chapter 6.I.2. *The Concept of Equitable Default*
[308] Chapter 6.III.D. *A Plea For a Democratically Elected Transatlantic and Investment Court*
[309] Chapter 6.III.E. *Architecture of a Transatlantic Trade and Investment Court*
[310] See supra note 307.

CHAPTER 2: LEGAL RISK

I. LITERATURE REVIEW OF LEGAL RISK

A. THEORETICAL FOUNDATIONS OF LEGAL RISK

FIGURE 1: A BRIEF HISTORY OF LEGAL RISK DEFINITIONS[311]

Matthew Whalley[312] in his brief BLP-centric history of legal risk definitions finds that their legal risk timeline indicates that discussions about legal risk stopped in 2005 and points out that:

> The concept of "legal risk" first came to prominence in 2004, when the Basel Committee on Banking Supervision used the words "…including legal risk." in their description of operational risk. For banks, this meant that operational risk frameworks would need to flex, in order to accommodate the language and concepts that are embedded in the law and its interactions with their business. Over the last few years I have often said that not enough is written about legal risk to help lawyers, and in-house lawyers in particular, add depth and clarity to the concept.

[311] FIGURE 1: Whalley, Matthew, *A Brief History of Legal Risk Definitions*, Berwin Leighton Paisner, (June 12, 2014) [online], available at https://www.blplaw.com/expert-legal-insights/articles/legal-risk-definition-history/ (Accessed 20 September 2015)

[312] Whalley Matthew, Berwin Leighton Paisner, *Attorney Profile* [online], available at https://www.blplaw.com/lawyer-directory/profile?lawyer=matthew-whalley (Accessed at 20 September 2015)

The author concurs in principle and wants to allay any concerns by laying these Theoretical Foundations of Legal Risk. An interesting observation aside, the brief history of legal risk definitions stopped right at the start of the latest asset-price bubbles starting with the commencement of the housing bubble in 2005[313] that eventually culminated in the financial crisis of 2008.[314] Arguably, it is therefore long overdue, to analyze Legal Risk in-depth helping both academics and practitioners to define Legal Risk in a manner that is universally effective, mutually exclusive and practical in application. The emphasis must be added either to prevent Legal Risk[315] where possible or terminally resolve Legal Risk[316] whenever necessary.

Dictionary definitions of Risk give us an informal sense of the meaning of the term of art, for example:

> The possibility that something bad or unpleasant (such as an injury or a loss) will happen, someone or something that may cause something bad or unpleasant to happen, a person or thing that someone judges to be a good or bad choice for insurance, a loan.[317]

> It may include the possibility of loss or injury, that someone or something that creates or suggests a hazard, the chance of loss or the perils to the subject matter of an insurance contract; *also*: the degree of probability of such loss, a person or thing that is a specified hazard to an insurer, an insurance hazard from a specified cause or source "war *risk*", the chance that an investment (as a stock or commodity) will lose value[318].

The financial crisis of 2008 exposed risks that were not foreseen and in the subsequent quest to attribute blame to the financial institutions their managers, auditors, regulators, credit rating agencies, and politicians many asked the same questions: "Where were the lawyers?"[319] How do we go about identifying legal risks?

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[313] Stuhlpfarrer, Lukas M., *Tax Effective Structuring of Real Estate Investments*, (2005), State University of New York at Buffalo.
[314] Scherbina, A., *Asset Price Bubbles: A Selective Survey*, International Monetary Fund, (February 2013), [online], available at https://www.imf.org/external/pubs/ft/wp/2013/wp1345.pdf (Accessed at 20 August 2015)
[315] See Chapter 5, Case Study: *TTIP – Nasciturus for a New Global Economic Order*
[316] See Chapter 6.I.C *From FIAT to EXIT – Terminal Resolution of Misallocations in a New Global Economic Order*
[317] *Risk*, Definition by Merriam Webster Dictionary [online], available at http://www.merriam-webster.com/dictionary/risk (Accessed May 20, 2014)
[318] Id.
[319] Andersen K, Black, J. Prof., *Legal risks and risks for lawyers*, Herbert Smith Freehills and London School of Economics Regulatory Reform Forum (June 2013), [online], available at

A successful legal risk culture is one which provides a framework for legal risks to be identified, assessed, managed, and monitored consistently at all levels of an organization. The key starting point is having an agreed definition of legal risk in place and it being sufficiently understood and consistently applied across the organization.[320] Some may question whether a definition is required. However, without it the process of identifying risks would be difficult. So far, there is no standard definition of legal risk.[321]

B. International Bar Association on Legal Risk

The International Bar Association offers a definition as being[322]:

> [a] risk of loss that is primarily caused by first, a defective transaction; second, a claim including a defense to a claim or counter claim being made or some other event occurring that results in a liability for a party or other loss for example, as a result of the termination of the contract. Third, failing to take appropriate measures to protect assets for example, intellectual property owned by the party; fourth, a change in law.[323]

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http://www.lse.ac.uk/collections/law/projects/lfm/0356o%20LSE%20HSF%20discussion%20paper_d6.pdf (Accessed at 16 August 2015)

[320] Id.

[321] Id.

[322] The full definition of Legal Risk produced by the working party of the International Bar Association (IBA) reads as follows. Legal risk is the risk of loss to an institution which is primarily caused by a defective transaction or be a claim including a defense to a claim or a counter claim being made or some other event occurring which results in a liability for the institution or other loss, for example as a result of the termination of a contract or c) failing to take appropriate measures to protect assets, for example intellectual property owned by the institution or the change in law. The reference to a defective transaction in a) above includes:
1. Entering into a transaction which does not allocate rights and obligations and associated risk in the manner intended.
2. Entering into a transaction which is or may be determined to be void or unenforceable in whole or with respect to material part for whatever reason.
3. Entering into a transaction on the basis of representations or investigations which are shown to be misleading or false or which fail to disclose material facts or circumstances.
4. Misunderstanding the effect of one or more transactions for example believing that the right of set off exists when it does not, or that certain rights will be available on the insolvency of a party when they will not.
5. Entering into a contract which does not or may not have an effective or fair dispute resolution procedure or procedures for enforcement of judgments or arbitral decisions applicable to it.
6. Entering into a contract inadvertently.
7. Security arrangements that are or maybe defective for whatever reason. All references above the transaction shall include a trust, any kind of transfer or creation of interests in essence of any kind, any kind of insurance, any kind of debt or equity instrument, and any kind of negotiable instrument. All references to entering into transaction include taking an assignment of a contract or entering into a transaction in reliance upon a contract which is itself a defective transaction.

[323] IBA, International Bar Association: *Legal Risk Definition*, [online], available at http://www.lse.ac.uk/collections/law/projects/lfm/0356o%20LSE%20HSF%20discussion%20paper_d6.pdf (Accessed at August 16, 2015)

Other risks include **regulatory risks,** resulting in enforcement actions, professional liability risks for lawyers acting not in compliance with their professional obligations[324]. Identifying a risk which falls within the often descriptive definitions is usually inefficient and possibly impossible.

More important in identifying those risks which firms are, or should be, particularly concerned about are thresholds. For instance the amount of a claim is important and the cost of remedy as may be estimated from past cases. Some risks may be difficult to quantify for example, the risk and associated costs of any regulatory sanction for non-compliance[325].

The measuring of **reputational risks** where an allegation could threaten the good reputation of an organization is inherently difficulty. Legal risk management systems must also be capable of anticipating and identifying risks that have not materialized yet.[326]

Legal risks may derive from legal uncertainty or from a court interpretation of the law which is contrary to the accepted understanding. They also may be a result of the fact that whoever is in charge of compliance in an organization is not aware that individuals or divisions within the organization are not complying with legal or regulatory standards. .[327]

Legal risk management, needs to be anticipatory. Knowledge of the present law is not sufficient, neither does ignorance protect. Given the pace of legal and regulatory change, firms are increasingly looking for efficient, effective ways of scanning the legal and regulatory horizon.[328] A successful legal risk framework will define mutually exclusive and clear defined determinants of legal risk.

When anticipating changes of the law and regulations, organizations must be aware of all jurisdictions they operate and include such risks in any jurisdiction which may have an impact on the organization's operation or its reputation.[329]

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324 See supra note 323.
325 Id.
326 Id.
327 Id.
328 Id.
329 Id.

Once legal risks are identified the next stage is to assess those risks[330]. The key to successful legal risk managements is the assessing, monitoring, and reporting of legal risks. This requires appropriate training to ensure knowledge of the relevant law, but also sufficient acquaintance with the organization. In this regard, lawyers need to increasingly learn to articulate issues quantitatively[331].

There are three fundamental functions that legal can employ in legal risk management. First, as in-house counsel or compliance offer by advising and supporting the organization through the identification of legal risks, facilitating and understanding of the implications of risk, assessing risks, and planning actions to remedy breaches.[332] Legal counsel needs to have a good understanding of the business and its risks, the organizations needs to have a full comprehension of legal risk and both legal and organization need to be adequately skilled to manage legal risks.

Second, there is the control and oversight function[333]. That includes the formulation of policies and procedural controls, defining the risk limits, reporting risk, if necessary legal action is taken, keeping management informed, but also by reviewing and challenging the internal controls or conducting ad hoc audits.

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[330] It is also important that legal risks are assessed on a holistic basis even if they are being reported on the business unit basis. Assessors should take stock of trends and apply lessons learned across the firm. Legal risk committees could serve to consolidate issues across the board and to determine the scope of legal risks which need to be managed. Assessment of legal risks has to be accompanied by systems for their effective management. Responsibility should be assigned for assessing and managing aggregated issues across a firm. Legal risk policies for assessment must strike an appropriate balance between prescription and high-level principles. If there is too much prescription assessors risk focusing on ticking the boxes rather than standing back and looking at what is intending to be achieved. An overly prescriptive policy may also create blind spots or gaps for risks to fall into even if there are sophisticated risk management processes in place. Legal risks cut across many other forms of risks and need to be integrated into wider risk management systems. There is a tension between legal risk management and general risk management resulting from difficulties in reconciling the categorization of commercial risks tailored to particular businesses and their management process with the more sweeping scope of legal risk. Integrating the management of legal risks within the wider risk management framework may also create difficulties in preserving legal privilege since it could lead the circulation and escalation of information that would otherwise be privileged beyond the legal teams and legal risk management systems. Nevertheless there are significant benefits to the facilitation of closer integration of the legal function with the firm's governance risk and compliance management capabilities. In pure governance terms the origination and management of legal risk remains the primary responsibility of the business.

[331] See supra note 317.

[332] Id

[333] Walshe, J. Cowan, M, Hammond, S., Thomson Reuters, *Approved Persons, Practical Impact of the New UK Regime* (2013), [online], available at https://risk.thomsonreuters.com/sites/default/files/APPROVED_PERSONS_0.pdf (Accessed at 15 August 2015)

The third legal risk management function will include internal audit[334]. In a recent survey firms were asked to participate to give a picture of where these respective legal risk management functions currently sit with a separate reporting lens for legal teams sitting in different functions and where they believe the legal function should sit. Here are the results:

> 40.7 percent of respondents stated that they had a legal team sitting in more than one line of defense. The most common line of defense including those within more than one line of defense was the second line where 66.7 percent, that is two-thirds, of legal functions had a presence. That's the control and oversight function. 44.4 percent of legal functions, again including those within more than one line of defense, had a presence in the first line of defense and the minority, 14.8 percent, in the third with 22.2 percent of legal functions having a presence outside the three lines of defense.[335]

Where legal teams are not actively involved in the legal risk management function, there is the right information for the effective management of legal risks must be reported both horizontally and vertically within the organization.

> 25.9 percent of the respondents reported that if they had a free hand to design where they should sit it should be in a combination of the first and second lines of defense the second line being the most popular for those who wish it to be more than one line or just one line of defense[336].

These statistics are perhaps unsurprising where historically legal and compliance risk management were often closely aligned. Where legal functions are separated its creates a challenge for many firms as 88.8 percent of respondents whose legal teams have a presence in a combination of the three levels and who responded to the question do not have separate reporting lines.[337]

There are two recent examples where regulators have sought to hold in-house lawyers responsible for regulatory breaches. One of it was in the United States where the Securities Exchange Commission sought to make a former general counsel of an

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334 Protiviti, Inc. *Internal Auditing in Higher Education,* (November 2008) [online], available at http://www.protiviti.com/en-US/Documents/Resource-Guides/ia_higher_education.pdf (Accessed at 15 August 2015)

335 Andersen K, Black, J. Prof., *Legal risks and risks for lawyers*, Herbert Smith Freehills and London School of Economics Regulatory Reform Forum (June 2013), [online], available at http://www.lse.ac.uk/collections/law/projects/lfm/0356o%20LSE%20HSF%20discussion%20paper_d6.pdf (Accessed at 16 August 2015)

336 Id.

337 Id.

investment bank liable for failing to supervise a rogue broker for whom he had no line management responsibility[338].

> The administrative judge held that since the general counsel was aware of an issue with a broker and became involved in addressing red flags he effectively assumed supervisory responsibility for the broker; particularly given that his views were regarded as authoritative and his recommendations were generally followed by the business, although not in this instance. So the administrative judge at first instance took the view that the general counsel had in fact discharged his obligations as supervisor competent.[339]

The SEC's appeal was dismissed as the commissioners were divided on both issues.[340] The allegation that the mere office of in-house counsel could amount to an assumption of supervisor responsibility remains troubling.[341]

The definition of the International Bar Association does not make any specific reference to reputational risk. A legal risk event could give rise to reputational risk such as in the most recent multi-billion-dollar case of Volkswagen that is without precedent with respect to the fact that a multi-national enterprise of such high regard attempts to intentionally defraud the government of a host nation.[342] [Then Volkswagen CEO] Martin Winterkorn issued a statement that stopped short of admitting guilt, but said:

> He was deeply sorry that we have broken the trust of our customers and the public. We do not and will not tolerate violations of any kind of our internal rules or of the law," he added. The company also said it had stopped selling the vehicles at issue.[343]

The U.S. Environmental Protection Agency was tipped off by testing done by the California Air Resources Board. The federal and state regulators said Friday that the German company cheated on its emissions standard compliance by programming some diesel-fueled cars to turn on emission controls only when being tested. The software is installed in nearly 500,000 Volkswagen Group (VLKAY) cars on U.S. roads, including

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[338] See supra note 335.
[339] Id.
[340] Id.
[341] Id.
[342] Kresge, N., Weiss, R., Bloomberg, *Volkswagen drops 15% after admitting US Diesel emissions cheat* [online], (21 September 2015), available at http://www.bloomberg.com/news/articles/2015-09-21/volkswagen-drops-15-after-admitting-u-s-diesel-emissions-cheat (Accessed 21 September 2015)
[343] CNN, *Volkswagen CEO sorry for broken trust,* [online], available at http://money.cnn.com/2015/09/20/autos/volkswagen-ceo-apology/ (Accessed at 21 September 2015)

some of its luxury-brand Audi cars, the EPA said. Winterkorn said the company will "cooperate fully" with the EPA investigation and has ordered "an external investigation of this matter."[344]

This proves that the management of reputational risk these days is of great important for many organizations, particularly following well-publicized bank involvement and corporate scandals[345]. Different considerations, however, apply to regulators, politicians and others in the public eye who are likely to be only too conscious of reputational risk, independent of any financial or legal consequences.

The International Bar Association identified four categories of social phenomena that represent *sources of legal risk*. First the behavior of financial institutions[346], second the nature of the financial markets, third problems within the law and fourth the interaction of law and finance.[347]

The IBA's Joanna Benjamin[348] observes:

> The growth part of business is arguably the major source of legal risk in the financial sector. Many of the new markets were started by banks that were outside their home jurisdiction and some were located in parts of the world where the potential size of the market may not be matched by a particularly well developed legal infrastructure. The continuing expansion of the emergence of new market economies following the collapse of Soviet communism and the gradual opening up of China to foreign investment are just some of the better known new opportunities for financial market activity that have been experienced in recent years, but such new markets present a range of legal risks for the unwary.[349]

[344] See supra note 339.
[345] Id.
[346] The Bank for International Settlements, BIS, described the issues that concern regulators in the paper published in February 2005. Outsourcing has the potential to transfer risk management and compliance to serve parties who may not be regulated and who may operate offshore. In these situations how can financial service businesses remain confident that they remain in charge of their own business and in control of the business risks? Outsourcing is a phenomenon that is not confined to the financial markets. It usually brings cost savings and should at least in theory result in a better, more specialized service but the bank that subcontracts out the service typically a back office function by outsourcing is still liable to its customer if the service is not delivered properly and the customer suffers loss as a result. Indemnities from the subcontractor are likely to be of limited value. This is legal risk at its most basic and there is a spillover to reputational risk. The outsource supplier may not have the assets or insurance to cover necessary for such risks.
[347] McCormick, R., (2011). *Legal Risk in the Financial Markets.* 2nd ed. P. 132, United States: Oxford University Press.
[348] Id.
[349] The following ten scenarios may feature in some or all of the countries presenting such opportunities:
First, there may be no clear legal mechanism for obtaining security over a borrower's cash flows, most valuable asset. Second, it may be prohibitively expensive or to perfect the security interest over other assets such as land

The basic concept of legal risk was thought as legal risk being

> [a] particular kind of risk and commonly understood to relate to the risk of being sued or being the subject of a claim or proceedings due to some infringement of laws or regulations or the commission of a tort, such as negligence or some other act giving rise to civil liability referred to as Type 1 risks.[350]

However, in the context of the financial markets

> [t]he phrase [legal risk] is also frequently used to mean the risk of technical defects in the manner in which a transaction is carried out, resulting in loss, sometimes very serious financial loss, for those that put money at risk in the transaction. We shall call that kind of risk a Type 2 risk.[351]

In more extreme situations, as indicated above, legal risks[352] can have a "domino" effect in the market and that's because the financial failure of one major institution may trigger failures in other institutions that have funds at risk with it or because the market as a whole has misunderstood the legal position on a point which is of particular importance to the

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and buildings. Third, there may be no means of recording a security interest in the public registry and no certainty that it will prevail against a third party rival creditor or upon the borrower's liquidation. Fourth, it may be unlawful to have important documentation governed by anything other than local law, a problem that may be compounded by the fact that the judiciary is known or suspected to be corrupt and that international arbitration would not be respected by the local courts. Fifth, the concept of the trust and the difference between legal and beneficial ownership may not be recognized. Sixth, there may be a risk of penal withholding taxes or regulatory restrictions being applied to payments including payments of interest by the borrower to the bank or the borrower's access to the foreign currency needed to make such payments. Seventh, the bank security may be at risk if a new government opposes a project being funded by the bank. This risk may also be compounded if there are no clear laws entitling the bank or its customer to compensation in the event of nationalization or confiscation. Eight, a project being funded by the bank may require regular renewal of key permits and licenses and there may be no clear right of appeal against the refusal of renewal which may occur for a relatively arbitrary reason. Ninth, it may not be clear whether the banks transacting business in a country will result in it being liable to pay taxes there or require some form of regulatory consent and/or ongoing consent to regulatory requirements even though the bank has no branch or office there, and Tenth, it may not be clear whether certain of the products that the bank wishes to market fall foul of local laws on for example a) the payment of interest, b) gaming or c) the marketing of securities.

[350] McCormick, R., (2011). *Legal Risk in the Financial Markets.* 2nd ed. P. 10, United States: Oxford University Press.

[351] Id.

[352] From the opinion of the European Central Bank of 17 February 2005 on capital requirements directive [ECB/2005/4]: "[a] general definition of legal risk would facilitate proper risk assessment and risk management, as well as ensure a consistent approach between European union credit institutions. It would also be worthwhile examining the extent to which one should take into account the fact that the legal risks are inherently unpredictable and do not generally conform to a pattern. In addition, the management of legal risk would have to be consistent with the management of operational risk as a whole."

recoverability of funds sought to be safely or relatively safely invested. This is sometimes referred to as systemic risk[353].

International organizations such as the European Bank for Reconstruction Development[354], EBRD[355] and the Organization for Economic Corporation and Development, OECD initiated a number of important law reform initiatives[356] with the goal to enable countries who wish to contract investment for infrastructure improvement and facilitate transaction for trade financing to reform the laws relating to secured transactions in a form that they enable lending banks to take collateral.

McCormick concludes that

> [t]he fact that the initiatives are needed and are being taken at such high levels demonstrates that for the time being at least there are significant legal risks involved in the markets assuming globalization of legal concept that in reality is only just beginning and consequently not having adequate regard to the variety inherent in the many legal cultures that underpin the global financial market.[357]

[353] McCormick describes "systemic risk as the most serious kind of risk that, from time to time, threatens the financial markets. The fear of a collapse of a bank triggering other collapses elsewhere with financial panic spreading like a contagion around highly sensitive and suggestible markets, is a fear that regulators have lived through from the late 19th century, but there are a number of characteristics of the modern globalized financial markets that have given rise to increased cause for concern in this area." As the International Law Reform Organization, Uni Trois, observed in a recent paper, "legal risk may become systemic in a less destructive sense. Consider, for example, the scenario in which an entire market suddenly changes its behavior because the participants become aware of a major legal problem inherent in this specific kind of transaction unsuspected until then. In order to avoid this risk, the market participants avoid entering into this type of transaction as long as the legal problem remains unsolved. Such a mass reaction, if not properly restrained, could seriously damage the market." With respect to one of the financial centers of the world, the City of London he finds that "[a]ll jurisdictions, of course, present their own distinct legal risk issues, but English law is one of the favorite governing laws for financial market documentation and the "home law" for the City of London, is worthy of analysis in its own right in the context of legal risk management. Such analysis is far from a parochial exercise. Many of the issues considered in the English courts in the London market have parallels elsewhere. Indeed, it is a feature of the markets that phenomena, such as the imposition of sanctions or penalties for various forms of market abuse, frequently arise with new simultaneity on both sides of the Atlantic. Further, legal issues affecting the wholesale financial markets in London usually affect the markets in the EU as a whole and vice versa depending, to some extent, on the degree of harmonization achieved."

[354] The European Bank for Reconstruction and Development (EBRD) was established to help build a new, post-Cold War era in Central and Eastern Europe. In fact, a mere 18 months elapsed between the first mooting of the idea of a European bank, by President François Mitterrand of France, in October 1989 and its opening for business with headquarters in London in April 1991.Urgency and the ability to respond to momentous events whether it be the end of the Soviet Union, financial crises or the 'Arab Spring,' have been among the EBRD's hallmarks much like banking systems reform, and the creation of proper legal frameworks for property rights.

[355] The OECD provides a forum in which governments can work together to share experiences and seek solutions to common problems. We set international standards on a wide range of things, from agriculture and tax to the safety of chemicals.

[356] EBRD, *Legal Reform News Update*, [online], available at http://www.ebrd.com/what-we-do/sectors/legal-reform.html (Accessed at 15 August 2015)

[357] Id.

FIGURE 2: PRIMARY LEGAL RISK CATEGORIES AND DEFINITIONS[358]

Primary legal risk categories and definitions with examples of secondary definitions

Primary legal risk	Primary category definition	Examples of secondary definitions
Legislative risk	The risk that the business fails to implement legislative or regulatory requirements (this often includes regulatory risk).	• Failure to stay aware of existing legislation or regulation that could impact business operations
Contractual risk	The risks that your current – and future – contracts expose you to.	• Use of non-standard terms & conditions; • Technical fault: for example, lack of appropriate documentation, inadequate/unclear authorisation; • Failure to enforce or to comply with terms
Non-contractual rights risk	The risk that the business fails to assert its non-contractual rights. Often called 'intellectual property risk'.	• Management of: trademarks, patents, trade secrets, channel knowledge.
Non-contractual obligations risk	The risk that the business fails to keep to the spirit, as well as the letter, of the law.	• Infringement of third party intellectual property rights; • Failure to meet requisite standard of care due to customers: for example mis-selling; • Inappropriate use or management of social media
Dispute risk	The risk that the business makes operational or strategic errors when it manages disputes.	• Failure to adhere to dispute resolution timelines or other mismanagement of the dispute process; • Inappropriate strategy or resolution regime

According to Whalley, effective legal risk definitions need a two-part structure. Legal risk definitions are central to proactive legal-risk management as they set the boundaries for your discussions with the business. He comes to the conclusion that a two-part definition helps in-house legal teams that identify and manage legal risks.[359]

First, primary risk: This is the legal term that defines a broad area of risk, for instance, the contractual risk, and it will help you focus on the likely sources of legal-risk. The primary risk is sometimes called the prescriptive layer.[360]

Second, the secondary definition: This uses real examples to explain and demonstrate where the primary risks apply, for instance, non-standard terms and conditions. Legal risks are owned by the business, so the business should help to define and flesh out these easy to

358 See supra note 311.
359 Whalley, M., Berwin Leighton Paisner, *Legal Risk Benchmarking Survey*, [online], available http://www.blplaw.com/download/BLP_Legal_Risk_Benchmarking_Report.pdf (Accessed at 15 August 2015)
360 Id.

understand non-lawyer definitions. The secondary definition is sometimes called the normative layer.[361]

Altogether, Whalley finds five primary legal-risk categories with examples of secondary definition. The table above shows our five primary legal-risk categories and gives illustrative secondary definition examples of some real-life business risk. As discussed further in this Chapter 2.II. *Four Determinants of Legal Risk*, we agree with the first four categories as concurrent qualifying as legal risks.

However, with the fifth category of legal risk pursuant to Whalley, dispute risk[362], we disagree, due to the fact that the risk of dispute will always be a consequence of default rather than constituting a legal risk in and of itself. Even if we consider the secondary examples, that Whalley offers, that the failure to comply with dispute resolution timelines are either breaches of contractual obligation or where enacted by law, failures of compliance with the same. Certainly, the risk of making strategic mistakes[363] managing a dispute or operational decisions does not constitute a legal issue and therefore, definitely not a legal risk.

Unfortunately, in terms of the five Primary Legal Risk Categories' qualification as defining legal risk, they fall short of the level of general abstraction and mutual exclusivity necessary of its determinants in order to be uniformly applicable to any kind of jural relation[364]. However, Whalley's undertaking has definitely been great progress from the purely citatory and regulatory approach of his predecessors and comes with great value for the practitioner for their understanding of the issues of legal risk.

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[361] See supra note 358.
[362] Calihan, Robert B., Dent, John R. and Victor, Marc B., *The Role of Risk Analysis in Dispute and Litigation Management*, American Bar Association, (October 2004), [online], available at http://www.litigationrisk.com/Paper%20on%20Risk%20Analysis%20for%20ABA%20Forum%20on%20Franchising.pdf (Accessed at 16 August, 2015)
[363] Deloitte, *Exploring Strategic Risk*, 300 executives around the world say their view of strategic risk is changing, [online], available at http://www2.deloitte.com/content/dam/Deloitte/global/Documents/Governance-Risk-Compliance/dttl-grc-exploring-strategic-risk.pdf (Accessed 16 August 2015)
[364] Kocourek, A. *Various Definitions of Jural Relation* Columbia Law Review Vol. 20, No. 4 (Apr., 1920), pp. 394-412, Columbia Law Review Association, Inc. [online], available at http://www.jstor.org/stable/1111982 (Accessed at 21 September 2015)

E. MAHLER: LEGAL RISK AND DEONTIC VS. QUALIFICATION NORMS

However, Tobias Mahler[365] from the University of Oslo proposes a context independent definition and a classification of legal risk based on Norm Theory[366]. Given that the banking sector has been particularly interested in the definition of legal risk and has produced many incoherent definitions. Following Mahler there are many different definitions of legal risk, but most seem to fall into one of the following two groups. Mahler finds that

> [t]he first set of definitions links legal risk to uncertainty. Almost all definitions define legal risk by giving a number of examples, which include, in addition to legal uncertainty, uncertainty about factual elements. The definition of legal risk should distinguish legal risk from other types of risk. A starting point for this distinction is the relationship between legal norms and risk. In addition, it will improve our understanding of legal risk if we can categorize the different types or forms in which legal risk materialize.[367]

Mahler adopts an approach put forward by McCormick (2006)[368] who distinguishes two types of legal risk. However, McCormick fails to explain what exactly distinguishes and limits these two types of legal risks. Mahler's distinction is in line with Norm Theory, which provides a relevant reference framework from which to analyze the relationship between legal norms and risks.[369]

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365 Mahler, Tobias (2007). *Defining Legal Risk*. [online] SSRN. [online}, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1014364 [Accessed 20 April 2012].

366 Kelsen, Hans and Hartney, Michael, *General Theory of Norms*, (1991), [online], available at http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780198252177.001.0001/acprof-9780198252177 (Accessed at 10 June 2015). Hans Kelsen is considered by many to be one of the foremost legal thinkers of the twentieth century. One of his many accomplishments include the fact that he is considered to be the "Father of the Austrian Constitution". He made important contributions to many areas, but especially to legal theory and international law. Over a number of decades, he developed an important legal theory which found its first complete exposition in Reine Rechtslehre, 1934, and its fullest expression in the second edition of Reine Rechtslehre, 1960. During the last decade of his life he was working on what he called a general theory of norms. When he died in 1973, he left a lengthy manuscript, which was published in 1979 as Allgemeine Theorie der Normen. This book is the translation, General Theory of Norms. It is the last work of one of the most important legal theorists this century. In it, Kelsen develops his 'pure theory of law' into a 'general theory of norms'. In so doing, he provides a new basis for some of the positions he espoused earlier on, but also revises some of his earlier positions. The most important new topic is that of the applicability of logic to norms: Kelsen develops an original and extreme position some people have called 'normative irrationalism'. In the book, Kelsen also examines the views of over 200 philosophers and legal theorists on law, morality, and logic, ranging from Plato and Aristotle to contemporary thinkers.

367 See supra note 365.

368 See supra note 347.

369 See supra note 366.

Mahler, in his paper, defines legal risks on the basis of two questions:[370]

> How legal risk defined and what is meant when practitioners use the term legal risk and how should the term be understood and used? [371]

Mahler analyzes the definition of legal risk from a descriptive and prescriptive perspective. The descriptive approach analyzes like before him McCormick, Benjamin and Whalley how legal risk is understood by literature and practice.[372] The evidentiary basis for this part of his analysis encompasses definitions of legal risks in books, journals, reports by banks, lawyers, economists, risk management practitioners.[373] However, an answer to how organizations use the term legal risk in practice is more difficult to obtain, and has been considered in a subordinated manner in Mahler's papers.

The second perspective is taken from a much more innovative, prescriptive approach which constitutes a significant progress and development compared to earlier attempts defining legal risk which effectively deals with how legal risk should be meaningfully defined. The method of definition depends on the answer to the following question:[374]

> Is legal risk a concept we construct as we find suitable, or is it a phenomenon we can observe and describe based on evidence of legal risk in the outside world?[375]

The latter alternative can be chosen only if we can determine what should constitute evidence of legal risk. According to Mahler no such evidence seems to exist. There is evidence only of how relevant actors perceive and describe the situation. Mahler points out in his paper that the concept of risk has been studied in different disciplines based on varying definitions.[376]

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370 Mahler, Tobias (2007). *Defining Legal Risk*. [online] SSRN. [online}, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1014364 [Accessed 20 April 2012].
371 Id.
372 Id.
373 Id.
374 Id.
375 Id.
376 Id.

In principal, the concept of risk has the potential to be a transdisciplinary field, comparable to, for instance, *systems theory*. However, this potential has not yet been fully realized, partly due to the lack of a common definition.[377]

Mahler is particularly interested in the relationship between risk and uncertainty, because legal risk often is misunderstood as equal to legal uncertainty. Risk is often distinguished from "true uncertainty" by understanding risk as probabilistically measurable uncertainty. This distinction between risk and uncertainty was influential for Decision Theory[378] which commonly distinguishes decisions on the risk[379] from decisions on the uncertainty.[380]

Instead the question is: Whose risk is this? For instance the concept applies to the parties to bear the consequences of a loss that results from certain contingencies. The concept of risk in contract law is thus related to the question of risk allocation or bearing. Risk management takes a similar perspective in the context of risk transfer when identified risk is thought to be transferred to another entity.[381]

Following Mahler, the key difference between the traditional legal understanding of risk and the risk concept developed above is the time perspective.[382] The principal perspective of law is the judges' viewpoint after default has materialized. At this point in time the question of the event's likelihood makes no sense. Default has already occurred.

Therefore, Mahler approaches in his paper legal risks by relating to two concepts of risk and legal norm. It follows the idea of a Pure Theory of Law that was first propounded by the formidable Austrian jurist and philosopher Hans Kelsen (1881–1973).

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377 Mahler, Tobias (2007). *Defining Legal Risk*. [online] SSRN. [online}, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1014364 [Accessed 20 April 2012].

378 North, Warner. D. *A Tutorial Introduction to Decision Theory*, Duke University, [online], available at https://stat.duke.edu/~scs/Courses/STAT102/DecisionTheoryTutorial.pdf (Accessed at 25 June 2015)

379 The International Standards Organizations (ISO) however defines risk as follows: Risk is the combination of the probability of an event and its consequences. It is implicit in this definition that the possibility of negative consequences at least exists. In other words, the possibility of positive outcomes is no obstacle to the existence of risk. It is common to determine a value for each risk by combining the values of probability in a percentage for instance with, for instance the monetary value of the event's consequences. For example a low probability of the event and a low consequence indicates low risk. Notably this probabilistic concept of risk differs from the understanding of risk in law, in particular contract law. Lawyers do not typically assess probabilities when addressing risk.

380 See supra note 378.

381 See supra note 377.

382 Id.

Kelsen began his long career as a legal theorist at the beginning of the 20th century.[383] The jurisprudence Kelsen propounded "characterizes itself as a 'pure' theory of law because it aims at cognition focused on the law alone" and this purity serves as its "basic methodological principle"[384]. The concept of law is the topic of a wide range of literature and is well known in the legal discipline. As such we are particularly interested in the basic structure of law which consists of legal norms:[385]

> Every legal norm consists of an antecedent, A, and a consequence, B. Antecedent and consequence linked by a normative modality which states how antecedent and consequence are related. For example if A is the case then there may be a legal obligation to perform B.[386]

The contribution of the risk perspective to law consists of at least the following three elements: First, risks involve mostly negative consequences of events of default. In order to know whether a legal norm may incur negative consequences, we need to apply the norm, take stock of the potential effects and evaluate the result from the subjective perspective of the norm's addressee as either beneficial or detrimental. Second, risk may imply that future events put us into a position where we ought to deal with situations of uncertainty.[387]

However, in the legal context there is a necessary but not sufficient[388] basic distinction for the definition of legal risk between two conditions of uncertainty of an event regulated by a legal norm. For instance if an obligation depends on the interpretation of the law, we will find a case of *legal uncertainty*. If triggering the consequences of the norm firing depends on certain facts or conditions, we have a case of *factual uncertainty*.

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[383] The traditional legal philosophies at the time, were, Kelsen claimed, hopelessly contaminated with political ideology and moralizing on the one hand, or with attempts to reduce the law to natural or social sciences, on the other hand. He found both of these reductionist endeavors seriously flawed. Instead, Kelsen suggested a 'pure' theory of law which would avoid reductionism of any kind.

[384] Kelsen, Hans, *The Pure Theory of Law*, Stanford Encyclopedia of Philosophy, [online], available at http://plato.stanford.edu/entries/lawphil-theory/ (Accessed at 18 June, 2015)

[385] Id.

[386] Id.

[387] Id.

[388] Norman Swartz, *The Concepts of Necessary Conditions and Sufficient Conditions* (1997) Department of Philosophy, Simon Fraser University [online], available at http://www.sfu.ca/~swartz/conditions1.htm (Accessed at 18 June 2015)

Mahler concludes that the

> [d]istinction between legal and factual uncertainty is a key factor for understanding legal risk. Here legal uncertainty is used generally to denote that it is not fully known how the law regulates a given set of facts even if we have a fairly clear idea of the probability of a particular outcome in a case. Factual uncertainty is used here to denote that the future set of facts is unknown in the present. Factual uncertainty will be used independent of whether or not the likelihood of these facts is probabilistically measurable.[389]

There is no agreement with respect to whether the concept of legal risk is limited to legal uncertainty or if the existence of factual uncertainty suffices. A law's vagueness does not have to be the most important source of legal uncertainty according to Mahler. Whether the law is necessarily vague is subject to a separate discussion.

For the purpose here it suffices to say that the law's weakness in addition to other factors permits different legal decisions and that such decisions may lead to unforeseen negative consequences for a norm's addressee[390]. Therefore, legal uncertainty is indeed a very relevant source of legal risk.[391]

However, we need to ask whether legal uncertainty should be understood as the only source of legal risk or if we write a definition which includes factual uncertainty as more appropriate. It may seem that legal uncertainty is the purest legal risk because we can concentrate on legal methods to approach or calculate it.

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[389] See supra note 377.

[390] Stevenson, Drury D., *Kelsen's View of the Addressee of the Law: Primary and Secondary Norms*, South Texas College of Law (June 21, 2014) [online], available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2457480 (Accessed at 18 June 2015)

[391] The conventional wisdom, among both laypersons and academicians, is that laws are addressed to the citizenry, or at least to those citizens who could face liability proscribed by a given law. Hans Kelsen, in contrast, argued in several of his major works that the primary addressees of laws are the state actors who must implement, enforce, and apply the laws, and that the governed citizens are, at most, secondary addressees. This approach is logically consistent with Kelsen's overall views of the law and the state, and is phenomenological consistent with the formulations used in modern codes, which use indicative mood rather than imperative mood for the verbs. This approach to the law's addressee remains unpopular in the United States because it grates against American ideals of populism and democracy, and the cultural tendency to treat all political issues as moral issues. Yet Kelsen's approach provides a fertile analytic tool for understanding the persistence of technical terms and jargon within laws; for understanding certain interpretive rules pertaining to legislative delegations to executive agencies; for understanding the boundaries of executive and judicial power; and for the inherent problems with executive subdelegations of state functions to private corporations. This paper will review Kelsen's core discussions of the addressee issue and will explore its implications for these and other areas of legal research.

From the perspective of a norm addressee who analyzes his risks however it may be difficult or impossible to distinguish the factual from the legal uncertainty because the same risk may include elements of both types of uncertainty. Therefore, Mahler believes that the term legal risk should include both legal and factual uncertainties.[392]

What are the other limits of the concept of legal risk? First, a legal norm may lead to incur a loss for the norm addressee. In this case the legal norm is one of the sources of the risk and the legal risk has a legal norm as the source of the risk. The second setting is less obvious. A legal norm in particular, a right or legal position, may play a role in protecting a certain asset or interest. An example of a legally protected asset[393] would be an intellectual property right[394]. In this case the norm addressee is the rights holder. Sometimes the literature uses the term legal risk in relation to a possible event that will effect an asset to which a norm addressee has a legal right.[395]

Mahler summarizes that

> [r]isk is the combination of the probability of an event and its consequence. A risk therefore is a legal risk if its source involves a legal norm. The risk needs to be the manifestation of a legal norm's potential detriment.[396]

Both factual and legal uncertainty may influence legal risk according to Mahler. Mahler then addresses the second question in his paper as to whether we can identify meaningful types of legal risk, so typologies of legal risk. The literature has suggested a number of typologies of legal risk or sources of legal risk[397].

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392 See supra note 377.

393 World Trade Organization, *What are Intellectual Property Rights,* [online], available at https://www.wto.org/english/tratop_e/trips_e/intel1_e.htm (Accessed at June 20 2015)

394 Intellectual property rights are the rights given to persons over the creations of their minds. They usually give the creator an exclusive right over the use of his/her creation for a certain period of time.

395 Id.

396 Id.

397 According to Mahler "[t]he following typologies are proposed in the context of the financial market. A paper by the English Financial Law Panel proposes three types of legal risk[397]: First, organizational legal risk comprising risk related to the maintenance of a company's assets. Second, legal methodology risk relating to the possible utilization of inadequate methods to protect assets against claims or liabilities. Third, conduct of business legal risk which comprises obligations greater than foreseen and rights being more limited than expected. The first two groups, first and second, focus on deficiencies in assets legal protection and the third is based on a legal norm as a source of a risk. The types of legal risk described here seem to be nonexclusive. A risk related to the maintenance of a company's assets may be posed by insufficient protective methods. It may even be characterized as pertaining to the "conduct of business." The typology seems to point to different

Mahler criticizes McCormick's typology and suggests this typology of risk is simply systematizing examples and describing the difference between the two suggested types and suggests instead his "Norm Theoretic typology." [398] The author concurs with Mahler's critique and emphasizes Kelsen's notion that the legal system forms a "scheme of interpretation"[399] . The norm theory presented here seems to clarify and understand the micro perspective of this scheme of interpretation.

> First, Deontic Norms[400]. A Deontic Norm prescribes what is obligatory, prohibited or permitted for an actor.[401]

Deontic norms are sometimes referred to as "Duty Imposing Norms" or "Prescriptive Norms" but here we use the term "Deontic Norm" which forms the basis of Deontic Logic. Legal systems are for a set of possibilities to enforce Deontic Norms. Second, Qualification Norms. In addition to Deontic Norms, there are other norms which do not impose an obligation, prohibition or permission.[402]

> Second, Qualification Norms, because they qualify a set of facts to something which has a legal meaning.[403]

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aspects as criteria for differentiation referring to the first, the protection of assets, second, and the methods employed for protection, how the business is conducted. Mahler argues: "These criteria are so weakly defined that they cannot be understood as exhaustive.""[397]

[398] See supra note 377.

[399] See supra note 384.

[400] Jones, Andrew J. *Towards A Methodology*, Imperial College of Science, technology and Medicine, University of London (September 1991), available at http://link.springer.com/article/10.1007/BF00118478#page-1 (Accessed at 19 June 2015)

[401] There seems to be no clear consensus in the existing literature about the role of deontic logic in legal knowledge representation — in large part, we argue, because of an apparent misunderstanding of what deontic logic is, and a misplaced preoccupation with the surface formulation of legislative texts. Our aim in this paper is to indicate, first, which aspects of legal reasoning are addressed by deontic logic, and then to sketch out the beginnings of a methodology for its use in the analysis and representation of law.
The essential point for which we argue is that deontic logic — in some form or other —needs to be taken seriously whenever it is necessary to make explicit, and then reason about, the distinction between what ought to be the case and what is the case, or as we also say, between the ideal and the actual. We take the library regulations at Imperial College as the main illustration, and small examples from genuinely legal domains to introduce specific points. In conclusion, we touch on the role of deontic logic in the development of the theory of normative positions.
Deontic logic and the theory of normative positions are of relevance to legal knowledge representation, but also to the analysis and. representation of normative systems generally.

[402] Id.

[403] See supra note 377.

This is often expressed by saying that "X shall count as Y." Qualification norm is a term used by Mahler but the same concept is referred to as a Constitutive Norm.[404] The concept of a Qualification Norm may be understood more easily by referenced examples.

An example of a Deontic Norm as source of a risk would be the above-mentioned Type 1 legal risk described by McCormick[405]:

> The risk of being sued or being the subject of a claim or proceeding queued to some infringement of laws or regulations, or the commission of a tort, such as negligence or some other act giving rise to civil liability.[406]

The possibility of being sued is perceived as risk primarily because it may end with a judgment which obliges the stakeholder to perform a particular action or which prohibit him from performing an action he considers beneficial. The Deontic legal risk is thus related to an event influenced by Deontic Norm.

A Qualification Norm as the source of risk included in McCormick's example of a Type 2 risk:

> Technical defects in the manner in which a transaction is carried out resulting in loss, sometimes very serious financial loss for those that put money at risk in the transaction. The technical defects in this example are bound to be related to Qualification Norms, in particular those dealing with competence and validity. [407]

This distinction between Deontic and Qualification norms fulfils the requirements of exclusivity set out, provided that we can single out one norm as the single source of risk. As soon as there is uncertainty about two or more norms, the types are no longer exclusive.

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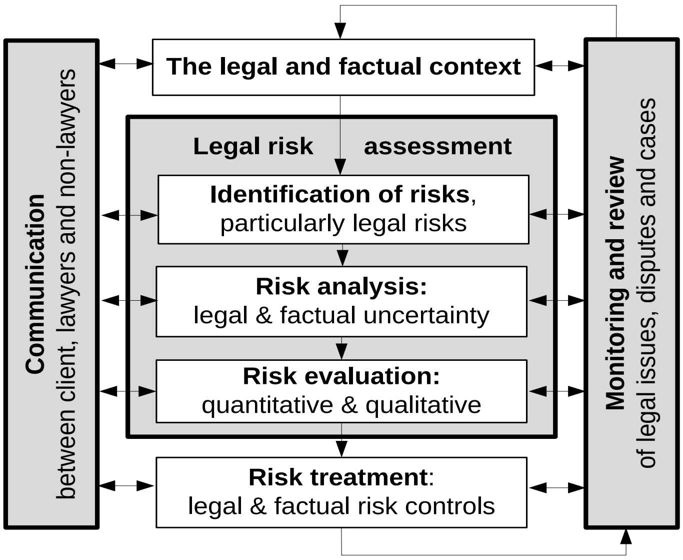
404 Sun, X and Van der Torre, L., *Combining Constitutive and Regulative Norms in Input/Output Logic*, University of Luxembourg, [online], available at http://icr.uni.lu/xin/papers/technical%20report.pdf (Accessed at 21 September 2015)
405 See supra note 347.
406 Id.
407 Id.

FIGURE 3: LEGAL RISK MANAGEMENT PROCESS[408]



Mahler also combines his Norm Theoretic approach with the above-mentioned distinction between legal and factual uncertainty resulting in a matrix of legal risks, of legal uncertainty and factual uncertainty on the one side and Deontic norms and Qualification norms on the other side.[409]

This results in a legal risk matrix with legal risk characteristics that are mutually exclusive. However, the inconsistent use of the term legal risk in literature and practice leaves Mahler with the impression that legal risk is little more than one of many perspectives on risk. Legal risk may often be at the same time also financial risk[410] or political risk[411] and it is therefore necessary to specifically define the differentiating criteria legal risk must fulfil.

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[408] Mahler, T. Norwegian Research Center for Computers and Law,Institute for Private Law. The faculty of Law. University of Oslo, [online], available at http://www.uio.no/studier/emner/jus/jus/JUS5650/v12/undervisningsmateriale/Legal_risk_management_enforcement_course12.pdf (Accessed at 21 September 2015)
[409] Examples could be:
1) For Deontic Norms and legal uncertainty: I may have to pay taxes, depending on interpretation of tax laws.
2) For Deontic Norm and factual uncertainty: I may have to pay damages depending on whether I cause an accident while driving and drinking.
3) For Qualification Norm and legal uncertainty. The contract may not be valid depending on uncertain validity rules.
4) For Qualification Norm and factual uncertainty: The contract may not be enforceable depending on whether the claim as submitted within the time limitation.
[410] Campbell R. Harvey, Claude B. Erb, *Political Risk, Economic Risk and Financial Risk*, Duke University, [online], available at http://people.duke.edu/~charvey/Country_risk/pol/pol.htm (Accessed at 18 August 2015)
[411] Id.

Mahler concludes that

> [m]any typologies suggested by practitioners are essentially context dependent, non-exhaustive and do not consist of mutually exclusive types of legal risk. Hence they may be very useful in a specific context but they do not form a solid basis for general theory of legal risk. Quite the opposite is the case for the Norm Theoretic approach outlined above. The distinction between Deontic and Qualification norms as sources of legal risk enable us to clearly distinguish two types of legal risk under the condition that we face a single relevant norm.[412]

FIGURE 4: LEGAL RISK MANAGEMENT [413]

With the development of his risk management process and the introduction of the distinction between deontic and qualification or constitutive norms, Mahler manages to complement two necessary but not sufficient conditions in the development of a universal Legal Risk definition in the form of the Four Determinants of Legal Risk by missing to add a third dimension to his matrix that specifically defines the jural relations and jural opposites under which Legal Risk applies. Unsurprisingly, as a consequence, we find in Figure 4, Legal Risk Management, much like Whalley with his dispute risk, that he conflates and confuses litigation risk and structural risk[414] with Legal Risk.

[412] See supra note 377.
[413] See supra note 408.
[414] Structural Risk Management (Asset/Liability Management) (ALM), Reference Manual (Spring 2005), [online], available at https://www.dico.com/design/SBFP_En/Structural%20Risk%20Management%20(Asset%20Liability%20Management).pdf (Accessed at 19 August 2015)

F. HOHFELD'S CATEGORY THEORY APPLIED TO LEGAL RISK

Having discussed the concept of Tobias Mahler defining legal risk by combining the concepts of legal uncertainty and factual uncertainty as the preeminent components of legal risks, by making them mutually exhaustive by inserting them into a matrix with the concept of a Deontic norm versus a Qualification norm; we would now like to add a third dimension by qualifying the concept of legal uncertainty and factual uncertainty, i.e. legal risk with the qualifications of a Deontic norm and a Qualification norm in a third dimension of what we call the theory of rights[415]; a concept that has been developed by Wesley Hohfeld[416] and is predominately characterized by an analytical table of juror relations.

FIGURE 5: NAÏVE HOHFELDIAN ANALYSIS [417]

[415] Hohfeld, W. (1913) *Some Fundamental Legal Conceptions As Applied In Judicial Reasoning*, 23 Yale L.J. 16, 28–59 (1913), available at: http://www.law.harvard.edu/faculty/cdonahue/courses/prop/mat/Hohfeld.pdf

[416] Wesley Newcomb Hohfeld was born in California in 1879 and he graduated from the University of California Berkley in 1901. He went on to Harvard Law School where he served as editor of the Harvard Law Review and graduated in 1904 with honors. From 1905 to 1913 Hohfeld taught at Stanford Law School. He then moved to Yale Law School where he taught until his death in 1918, only 14 years after he graduated. Hohfeld as Professor of Jurisprudence, Jurisprudence is the branch of philosophy which deals with principals of law and the legal systems through which the law is applied[416].

[417] Hohfeld's eight terms are arranged in two tables of 'correlatives' and 'opposites' that structure the internal relationships among the different fundamental legal rights. "Correlatives" signifies that these interests exist on opposing sides of a pair of persons involved in a legal relationship. If someone has a right, it exists with respect to someone else who has a duty. If someone has a privilege, it exists with respect to someone else who has no-right. If someone has a power, it exists with respect to someone else who has a liability. If someone has an immunity, it exists with respect to someone else who has a disability.

The beauty about the comprehensiveness of the Hohfeld generalizations is that the relations apply to the performance of any actions or the existence of any state of affairs, any number of other people, ranging from one person to the indefinite group of people who make up the world at large[418]. When we look at the Hohfeldian table we see basically four pairs of juror relations which are first right and duty, second liberty and no right, third power and liability, and fourth immunity and disability.[419]

> A privilege is the opposite of a duty; a no-right is the opposite of a right.
> A disability is the opposite of a power; an immunity is the opposite of a liability.

Let us focus on the first order juror relations of right and duty and liberty and no right[420]. With respect to right and duty one is normatively protected with the backing of the state of necessary against the interference or uncooperativeness of one or more other people. Anyone, whom the right obtains is under a duty to comply with its terms where the terms call for non-interference or for assistance.[421]

With respect to liberty and no right the holdover liberty is free of any duty to some other persons with regard to the act or omission of state of affairs covered by the same[422]. Everyone whom the liberty is held has no right that would limit the liberty holder's freedom in the area of conduct covered by the liberty, though everyone may well have a liberty to interfere with the exercise of that freedom. A liberty can be surrounded by a pyramid of rights which serve to protect one's ability to exercise the liberty. Liberties do not entail rights and rights do not entail liberties.[423]

With respect to the higher order juror relations, that is power and liabilities and immunities and disabilities, the holder of power can change or cancel other people's entitlements and his own entitlements. The bearer of a liability is exposed to amplifications or shifts or reductions in his or her entitlements. Shifts in one's entitlements are frequently not unpleasant.

[418] See supra note 415.
[419] Id.
[420] Id/
[421] Id.
[422] Id.
[423] Id.

The promisee can benefit greatly from the rights vested in him by a promissor. The explanation here is that the distinctive functions of the second order entitlements are defined in the purely non-evaluative and descriptive manner. Note the contrast with rights the identification of which inevitably rests on evaluative assumptions; take the example of duty to support one's parents and duty to inform on one's parents.[424]

The holder of an immunity is not exposed to exercise of a power within the domain covered by the immunity[425]. In that domain everyone against whom the immunity obtains is disabled from claiming the immunity holder's entitlement.[426] Most of the entitlements conferred by so-called bills of rights are immunities, so immunities must accompany other entitlements to prevent them from being meaninglessly hollow.[427]

The relationship between the power of liability axis and the immunity disability axis is precisely similar to the relationship between the liberty no right axis and the right duty axis.[428] Just as a liability is the absence of an immunity and a disability is the absence of a power, so a no right is the absence of a right and a duty is the absence of a liberty[429].

Hohfeld created a very precise analysis which distinguished between fundamental legal concepts and then identified the framework of relationships between them. His work offers a sophisticated method for deconstructing broad legal principles into their component elements[430]. By showing how legal relationships are connected to each other the resulting analysis illuminates policy implications and identifies the issues which arise in practical decision making.

Hohfeld noticed that even respected jurists conflate various meanings of the terms of rights[431], sometimes switching senses of the word several times in a single sentence. He wrote the imprecision of language indicated an imprecision of thought and thus also of the resulting legal conclusions[432].

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[424] See supra note 415.
[425] Id.
[426] Id.
[427] Id.
[428] Id.
[429] Id.
[430] Id.
[431] Id.
[432] Id.

The jural opposites are first right no-right, second privileged duty, third power disability, and fourth immunity and liability[433]. The jural correlatives are first right duty, second right privilege no right, third power liability, and fourth immunity disability.[434] The use of the words right and privilege correspond respectively to the concept of claim rights and liberty rights[435] so you always sometimes see it instead of right duty, privilege no right, you see right duty and liberty no right[436].

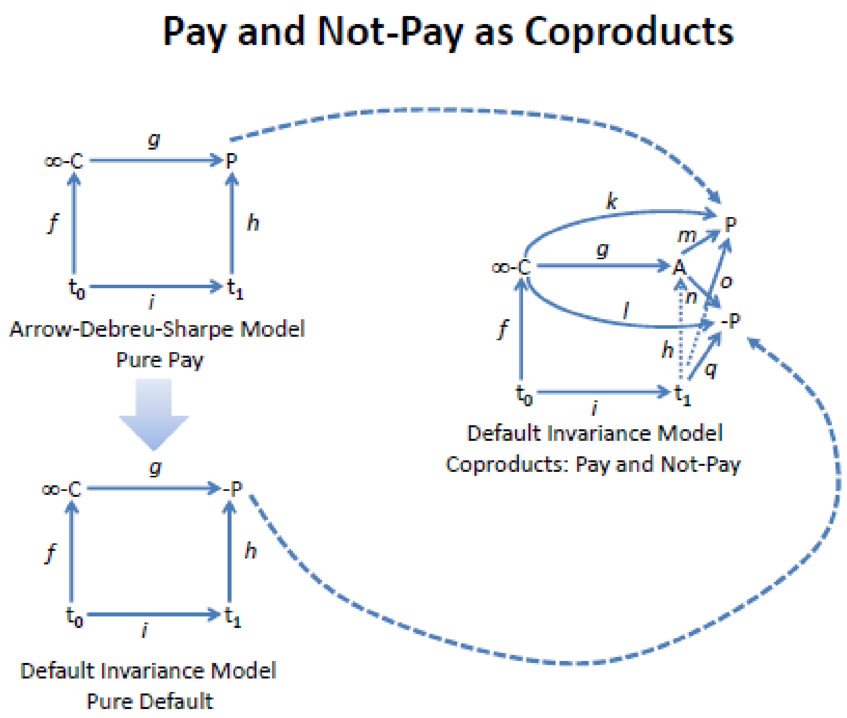
Hohfeld argued that right and duty are correlative concepts[437]. That means the one must always be matched by the other. If A has a right against B this is equivalent to B having a duty to honor A's right, if B has no duty that means that B has a privilege or a liberty[438]. That means B can do whatever he or she pleases because B has no duty to refrain from doing it and A has no right to prohibit from doing so. Each individual is located within a matrix of relationships with other individuals. [439]

In particular Hohfeld demonstrates that there is no such thing as a legal relation between a person and a thing, since a legal relation always operates between two individuals[440]. As the legal relations between any two people are complex it is helpful to break them down into their simplest form. Legal rights do not correspond to single Hohfeldian relations, but are compounds of them.[441]

433 See supra note 415.
434 Id.
435 Id.
436 Id.
437 Id.
438 Id.
439 Id.
440 Id.
441 Id.

G. Tanega's Default Invariance applied to Legal Risk

FIGURE 6: TANEGA'S DEFAULT INVARIANCE MODEL



Following Tanega "uncertainty and default are for purposes of law and finance essentially equivalent and that is in principle impossible to know when or how default may be cured except by way of the judicial system and if not by way of the judicial system then by way of political bail out".[442]

Default invariance according to Tanega is the idea that "default does not change at any scale of law and finance. Default is a conserved quantity in a universe where fundamental principles of law and finance operate"[443].

[442] Tanega, J. (2015) *Default Invariance, A Naïve Category Theory of Law and Finance* The Philosophy, Politics and Economics of Finance in the 21st Century: From Hubris to Disgrace (Economics as Social Theory), edited by Patrick O'Sullivan, Nigel F.B. Allington, and Mark Esposito, pp. 175 – 240, [online], available at https://books.google.at/books?id=WW8GCAAAQBAJ&pg=PA175&lpg=PA175&dq=Default+Invariance+a+Naive+Category+Theory+of+Law+and+Finance&source=bl&ots=slhHQ15Kuw&sig=_XLi9O8kdDx2Qf60dcy3geB7qME&hl=en&sa=X&ved=0CCcQ6AEwAWoVChMIuaOXxsPnxwIVi7wUCh13EAxg#v=onepage&q&f=false (Accessed at 4 September 2015)

[443] Id.

Tanega postulates and the author concurs that

> [I]t exists at the micro level as part of the fundamental structure of every financial transaction and that the micro level is a fixed critical point within the relatively stable faces of the law and finance cycle. A key point is that default is equivalent to maximizing uncertainty at the micro level and at the micro level is equivalent to the phased transition where unbearable fluctuations occur in all forms of risk transformation including maturity, liquidity and credit risk. As such, default invariance is the glue that links the micro structures of law and finance.[444]

Tanega's approximations are implied by his five findings[445]. While the entirety of the five findings can be encapsulated by three approximations that are basically summarized by pay, not pay, and pay and not pay, the basic concepts of his Naïve Category Theory of Law and Finance by the use of mappings with common concepts drawn from law and finance focusing especially on financial contracts, shadow banking[446] and credit crisis.

With respect to our discussion of legal risk and capital formation the second finding is the most relevant. Expressed in commuting triangles they are the equivalent to financial derivative contracts. It is also a fundamental structure of the law and finance universe and low risk derivatives and high derivatives in Tanega's theory share the same diagonal and morphism. No risk derivatives are lower right commuting triangles of the commuting square. Higher risk derivatives are higher left commuting triangles of the commuting square.[447]

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[444] See supra note 442.

[445] The first finding is expressed in naïve category theory by a so-called commuting square. "The relation between that commuting square in naïve category theory and law and financing would be a contingent financial contract. So a commuting square thereby is one of the fundamental structures of the law and finance universe since each and every financial contract, especially one defined as having only one condition left to perform has a commuting square structure. So contingent financial contracts are a fundamental unit of the law and finance universe."

The third finding is a shared co-domain as a terminal object and co-products. "In a shared co-domain the terminal object is paid and as the morphism is to a single commuting square so we have a shared co-domain with a terminal object of not pay than we have multiple commuting squares because we have chained complex of risk homology or we have shared co-domain of pay and not pay then we have a co-product from a ring structure which results in a cyclic matrix."[445] So we have three different types of shared co-domains that defines three different types of structures that approximate the law and finance universe.[445]

[446] For our purposes, it is important to note that in the pivotal article on Shadow Banking, Adrian, Tobias; Ashcraft, Adam; Boesky, Hayley; and Pozsar, Zoltan. "Shadow Banking." Staff Reports 458, Federal Reserve Bank of New York, July 2010, the authors set out a model where the shadow banking system is simply a interconnected series of on-balance sheet transactions.

[447] See supra note 403.

Tanega asserts with proof that all risk models are essentially of this risk homological chain complex.

> The second approximation "Not Pay" as the shared co-domain defines an initial object of risk modular structure which is a chain complex comprising adjacent commuting squares labeled in order from left to right. Market systems, judicial systems, political system and communication system.[448]

Tanega finds:

> The great cycle of default invariance is composed of four phases with each phase composed of two states separated by default. Regularly functors can be met between phases of the great cycle. The orderly liquidation authority of the Dood-Frank Act for instance is a regulatory functor from Phase 2 to Phase 3. A Transatlantic Trade Court that would be empowered with the right of insolvency proceedings over sovereign debt would have a similar function or equivalent function. Not only for U.S. securities but also for transnational securities that have been submitted to such an institution. The whistle blower incentives in production is a regulatory functor for Phase 3 to Phase 1.
>
> Unintended regulatory, circulatory subsystems are category 2 pathways. For instance the orderly liquidation authority though it's a functor through the whistle blowing incentive and protection in Phase 1 and Phase 2 tends to create a swift innovation to bailout out cyclic structures that emphasize quick return to market conditions. But an orderly liquidation or functor to the whistle blowing incentives and protection in Phase 3 and Phase 1 tends to create bailout innovation, bailout subsystems that tend to emphasize being stuck in government takeovers, expropriations and asset-bubble making.[449]

So what are the fundamental propositions of the five findings?

> First with respect to the commuting square. The commuting square is equivalent to a financial contract. The commuting square is isomorphic to the contingent financial contract. The contingent financial contract is the fundamental unit of the law and finance universe.
>
> Second, the commuting triangle. The commuting triangle is isomorphic to the epistemological and ontological routes to the annihilation of uncertainty. And morphisms is a diagonal that arbitrages low and high risk derivatives contracts.

[448] See supra note 442.
[449] Id.

Third, shared co-domains. Three approximations of financial reality are determined by a shared co-domain. P implies a single commuting square that as isomorphic to the first approximation of the law and finance universe. P square implies chain complex with markets, jural and political systems to settle uncertainty into certainty. That is isomorphic to the second approximation and is a risk homological chain complex. P and P squared meaning pay and not pay as a coproduct assumes distributivity which implies a ring structure and for our purposes implies a cyclic matrix called the great cycle of default in variance. The illustration of the first and the second approximation is a de jure and de facto credit rating agencies correspond to first and second approximations. So, will it pay or will it not pay?

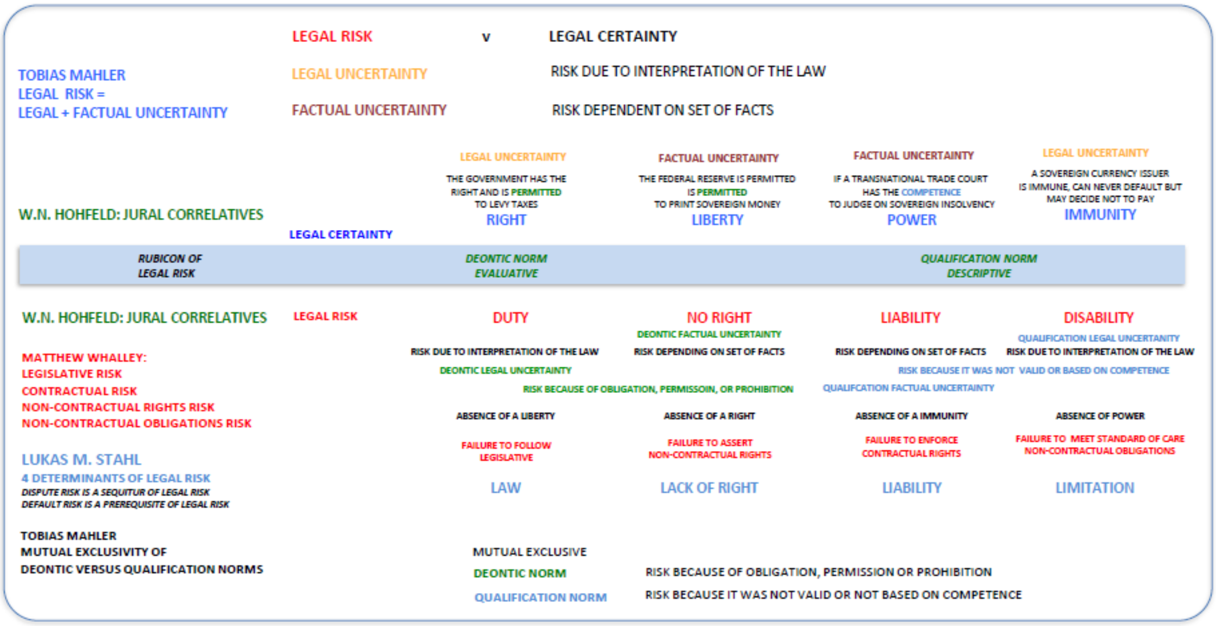
The fourth is the chain complex. The second approximation of law and finance, the risk cosmological chain complex of market, judicial and political systems is essentially a lineal composite structure. The risk homological chain complex is isomorphic to the shadow banking system, is isomorphic to the actuarial risk curve and to the risk symmetries framework and therefore to the modern finance theory and proximate theory of behavioral finance. The resolution of uncertainty to certainty is composite from infinite contingency to uncertainty annihilation.

And fifth, the functors as a third approximation of law and finance product universe to the great cycle of default invariance, i.e. essentially a great cycle of default invariance is essentially a cyclic group structure. So uncertainty in default are for purposes of law and finance essentially equivalent in that it is in principle impossible to know when and how default may be cured except by way of the judicial system and if not by way of the judicial system then by way of political bailout.

In other words it requires the absence of duty and liability and the presence of liberty and immunity and the transformation from default invariance to a situation where there is an absence of duty and liability in the presence of liberty and immunity. And only that will complete the resolution of uncertainty to certainty transforming from a state of infinite contingency to uncertainty annihilation of both legal uncertainty and factual uncertainty.

IV. FOUR DETERMINANTS OF LEGAL RISK IN CAPITAL FORMATION

FIGURE 7: FOUR DETERMINANTS OF LEGAL RISK ™



Now that we have developed a more comprehensive understanding of the different factors that constitute a definition of legal risk, we turn now to an integrative definition of legal risks taking into consideration the different legal risk characteristics that will allow us to analyze and assess each and any legal relationship or jural relation[450] be it with respect to the process of capital formation[451], be it to understand general economic relationships[452] or transactions.[453]

[450] See supra note 417.
[451] See Exhibit A: *Capital Formation Life Cycle*
[452] The United States and the European Union (EU) economic relationship is the largest in the world—and it is growing. The modern U.S.-European economic relationship has evolved since World War II, broadening as the 6-member European Community expanded into the present 28- member European Union. The ties have also become more complex and interdependent, covering a growing number and type of trade and financial activities. The United States and the EU have embarked on negotiations to establish a free trade agreement—the Transatlantic Trade and Investment Partnership (TTIP). In 2012 (latest data available), $1,500.5 billion flowed between the United States and the EU on the current account, the most comprehensive measure of U.S. trade flows. The EU as a unit is the largest *merchandise* trading partner of the United States. In 2012, the EU accounted for $265.1 billion of total U.S. exports (or 17.1%) and for $380.8 billion of total U.S. imports (or 16.7%) for a U.S. trade deficit of $115.7 billion. The EU is also the largest U.S. trade partner when trade in *services* is added to trade in merchandise, accounting for $193.8 billion (or 30.7% of the total in U.S. services exports) and $149.7 billion (or 35.4% of total U.S. services imports) in 2012. In addition, in 2012, a net $150.0 billion *flowed* from U.S. residents to EU countries into direct investments, while a net $105.9 billion *flowed* from EU residents to direct investments in the United States. Policy disputes arise between the United States and the EU, generating tensions which sometimes lead to bilateral trade disputes. Yet, in spite of these

Following our previous discussion of legal risk characteristics, the author comes to the conclusion that there are Four Determinants of Legal Risk. First, *Law*; second, *Lack of Right*; third, *Liability* and fourth, *Limitation.*

A. LAW

When Hohfeld described the dual correlatives of duty and right[454], we found that duty was not only characterized as a dual opposite to right but it was also seen as the absence of a liberty.[455] Let's take the example of having to pay taxes. Not only is there a duty to pay taxes but there might be also a legal uncertainty[456]. It might be depending on the interpretation of tax laws.

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disputes, the U.S.-EU economic relationship remains dynamic. It is a relationship that is likely to grow in importance assuming the trends toward globalization and the enlargement of the EU continue, forcing more trade and investment barriers to fall. Economists indicate that an expanded relationship would bring economic benefits to both sides in the form of wider choices of goods and services and greater investment opportunities. U.S. and EU policy makers are likely to face the task of how to manage the increasingly complex bilateral economic relationship in ways that maximize benefits and keep frictions to a minimum, including developing new frameworks. The debate will likely become especially acute as the United States and the EU pursue negotiations to form a free trade agreement—the Transatlantic Trade and Investment Partnership.

[453] Cooper, William H., Specialist in International Trade and Finance, EU-US Economic Ties: Framework, Scope and Magnitude, Congressional Research Service (February 2014), [online], available at https://www.fas.org/sgp/crs/row/RL30608.pdf (Accessed at18 August 2015)

[454] See supra at note 417.

[455] Id.

[456] D'Amato, Anthony, *Legal Uncertainty*, Faculty Working Papers No. 108, (2010), [online], available at http://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1107&context=facultyworkingpapers (Accessed at 20 June 2014) D'Amato argues that first, rules may become more uncertain "on the books." For example, a statute that seemed to mean one thing may be construed by a court to mean something different. Although the court will usually say that it is clarifying the statute, it does not always do so. It may create an exception, an exemption, a privilege; it might construe the rule narrowly to avoid constitutional problems, or broadly to give effect to an unnoticed legislative intent buried in the legislative history. The court's decision becomes a part of the meaning of the rule, so that the rule now becomes more complex-it is a statute plus a judicial decision. The more complex rule may invite further adjudication and more inventive subsequent constructions by courts.

The "law on the books" may also become increasingly uncertain due to the legislative process itself. Persons disadvantaged by existing rules may lobby to get new statutes passed that create exceptions, exemptions, or privileges, or to get "special legislation" of other kinds. These also render the law more complex and convoluted: witness the innumerable tax provisions and regulations, many enacted at the behest of special interest groups that clog up the Internal Revenue Code and sometimes render it internally inconsistent.

The second way rules may become more uncertain is in their application. Persons "disadvantaged" by existing rules may modify their activity so that it falls in the cracks between existing rules or comes more ambiguously within any given rule. Thus, although the rules "on the books" remain unchanged, if people change their conduct so that existing rules less clearly apply to what they do, we can say that overall the law has become less certain.

Inherent of this legal risk and this duty is a risk due to the interpretation of law that has been seen as a legal uncertainty[457]. Recall when Mahler[458] made the very important distinction between deontic norms and qualification norms?[459] That former being a risk due to an obligation permission or prohibition. We will see that this risk factor will characterize itself due to a deontic legal uncertainty. Do you have to follow the law? Yes, because you have a duty to do so but this duty will depend on an interpretation of the law. It might be also due to a failure to follow certain legislative requirements as Matthew Whalley[460] defined this particular risk factor. The law might not be developed precise enough as it leaves actual room for interpretation[461]. Thus if we have to summarize the root cause for a duty that is characterized by a deontic legal uncertainty and also may represent a failed legislative process, then this legal risk factor is probably best summarized in one word -- ***Law.***

The legal risk factor of *Law*, however, will be shown as mutually exclusive from the legal risk factor having a *Lack of Right.*

B. LACK OF RIGHT

What does a lack of right characterize? Recall Hohfeld's dual relatives of no right and liberty. They weren't only characterized as a dual correlative but also as an absence of a right. Whether a right is present or absent clearly turns on a set of facts. Therefore, this legal risk factor is probably best described as a factual uncertainty, a legal risk that is depending on the set of facts.[462]

[457] Feldman, Yuval, *Behind the Veil of Legal Uncertainty*, Law and Contemporary Problems, Vol. 74:133, Duke University, (2011), [online], available at http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1630&context=lcp (Accessed at 20 June 2014). Feldman argues that in legal scholarship, it is almost self-evident that "certainty" is an advantage for regulation. "Uncertainty," on the other hand, is usually viewed as an inevitable by-product of vague legal standards that may be justified by the prohibitive cost of creating bright-line rules or by the inability of the legislature to account ex ante for the complexity of a particular situation.
[458] See supra note 43.
[459] See supra note 401.
[460] See supra note 312.
[461] See supra note 457.
[462] Tillers, P., *Konstanz 2003 International Summer School Lectures on Probability and Uncertainty in Law* (2003), [online], available at http://tillers.net/uncertainlaw/uncertain.html (Accessed at September 22 2014)
as

But, it is also a risk that depends on whether there has been a certain obligation permission or prohibition, so this legal risk factor in the terms of Mahler would likely be characterized as a deontic factual uncertainty[463] which makes it mutually exclusive from the legal risk factor of *Law* that represents a deontic legal uncertainty. Whalley would discuss this legal risk factor of a *Lack of Right* as a failure to assert a non-contractual right and therefore a non-contractual right risk.[464]

When we discussed the example of so-called intangibles or intellectual property[465], for instance, patents or trademarks, then we can easily see where the failure to assert a non-contractual right, for instance in the form a trademark, could lead to a situation where someone does not have the right to use a certain brand or logo or trademark. We determine such a situation where there is an absence of a right, a *Lack of a Right.*

In this case this deontic factual uncertainty is a risk due to a prohibition, the fact that there is no right to use a certain intellectual property and depending on a set of facts whether or not a certain party does actually own or control a patent or trademark or another intangible. Therefore, we find that this legal risk factor is not only mutually exclusive from the other three legal risk factors of *Law*, Liability and Limitation. It is characterized by a ***Lack of Right.***

C. LIABILITY

The third legal risk factor that we discuss is liability. Hohfeld posits the dual jural correlatives of liability and power. A liability was also characterized by Hohfeld as an absence of an immunity[466].

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[463] Botterell, Andrew and Essert, Christopher. "*Normativity, Fairness, and the Problem of Factual Uncertainty*." *Osgoode Hall Law Journal* 47.4 (2009) [online], available at http://digitalcommons.osgoode.yorku.ca/ohlj/vol47/iss4/2 (Accessed at September 21 2014). The authors argue the problem of factual uncertainty in negligence law and the law's insistence that fair terms of interaction be maintained between individuals--a requirement that typically manifests itself in the need for the plaintiff to prove factual or "but-for" causation--sometimes allows for the imposition of liability in the absence of such proof. In particular, they argue that the but-for requirement can be abandoned in certain situations where multiple defendants have imposed the same unreasonable risk on a plaintiff, where the plaintiff suffers the very sort of harm that rendered the risk unreasonable, and where the plaintiff cannot prove which of the defendants was the but-for cause of her loss.

[464] See supra note 358.

[465] See supra note 393.

[466] See supra note 417.

Whalley has probably best characterized this legal risk factor as a "failure to enforce a contractual right"[467]. Therefore, it is a contractual risk and a failure to enforce that contractual risk may lead to a liability. This could be, for instance, as in Whalley's secondary definitions[468] by the use of non-standard terms and conditions or by a technical default.[469]

However, this legal risk factor of liability would be qualified by Mahler as a qualification factual uncertainty. Given that it is a risk depending on the set of facts, we ought to ask ourselves whether we have we failed to enforce our contractual rights, have we used non-standard terms and conditions or was there a technical default? But, it is also a risk that is dependent on whether there was a non-valid norm or was there any legislative or normative action that was not based on a certain competence. Hence, we come to the conclusion that here indeed we find a qualification factual uncertainty that Hohfeld had summarized as ***Liability***[470] and we concur.

D. LIMITATION

Last but not least we find that the final and fourth mutually exclusive legal risk factor is a *Limitation.* Hohfeld had talked about the dual correlatives of disability and immunity.[471] A disability was also referred as an absence of a power. It was the absence of the legal certainty of a power.[472]

Whalley would have characterized this legal risk factor as a non-contractual obligation risk[473] that is a failure to meet standards of care of non-contractual obligations.[474] One example may be the collectability of sovereign debt. There may be an absence of a power to collect sovereign debt in certain jurisdictions, because sovereigns may be immune[475];

[467] See supra note 358.
[468] Id.
[469] Id.
[470] See supra note 417.
[471] See supra note 43.
[472] Id.
[473] See supra note 358.
[474] Id.
[475] Stewart, David P., *The Foreign Sovereign Immunities Act: A Guide for Judges*, Federal Judicial Center (2013), available at http://www.fjc.gov/public/pdf.nsf/lookup/fsiaguide2013.pdf/$file/fsiaguide2013.pdf (Accessed at 15 August 2014) Stewart argues that under the U.S. Foreign Sovereign Immunities Act (FSIA), foreign states and governments, including their political subdivisions, agencies, and

they have immunity and so there is an absence of power. The contract may not be enforceable and there are non-contractual obligations that are not met. Inherently they create certain limitations.[476]

Mahler would have characterized this legal risk factor as a qualification legal uncertainty because it depends on the interpretation of the law; it's the sovereign immune or is he not, does it depend on an interpretation of the law. Depending on uncertain validity rules, sovereign debt for instance, may not be collectible[477], be it due to the Foreign Sovereign Immunities Act or that the Statute of Limitations has run. There may be a lack of competence, for instance a lack of standing.[478] Alternatively, the norms or contractual obligations may not be valid. Any of these fact patterns have in common, that there would be an infringement on a certain non-contractual obligation would cause a qualification legal uncertainty.[479] This legal risk factor, therefore, is mutually exclusive from the risk factors of *Law*, *Lack of Right* and *Liability* and therefore best described as a ***Limitation***.

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instrumentalities, are immune from suit *unless* one of the statute's specific exceptions applies. Thus, jurisdiction exists only when one of the exceptions to foreign sovereign immunity applies. If the claim does not fall within one of the enumerated exceptions, the defendant is entitled to immunity and the courts lack *both* subject-matter and personal jurisdiction. All FSIA cases therefore require courts to address three related questions at the outset: 1. Is the defendant a "foreign state or government" within the meaning of the statute? 2. Has valid service been made as provided by the statute? 3. Does a statutory exception to immunity apply? If the answer to the first question is yes, the statute applies. Even when the answer to the second question is yes, the case nonetheless must be dismissed if no exception applies—"even in situations where the wrongfulness of the foreign sovereign's conduct is clear and indisputable." Where an exception does apply, so that the defendant lacks immunity and jurisdiction exists, the statute continues to govern the proceedings against qualified defendants.

476 Chaplin, Michael E. *Reviving Contract Claims Barred by the Statute of Limitations: An Examination of the Legal and Ethical Foundation for Revival*, 75 Notre Dame L. Rev. 1571 (2000) available at: http://scholarship.law.nd.edu/ndlr/vol75/iss4/7 (Accessed at 7 September 2015) Chaplin argues that the Statutes of limitations have played a significant role in American jurisprudence from the earliest enactment of colonial laws. Because of their settled place in legal history, there is little doubt that statutes of limitations are accepted as a matter of fact. Statutes of limitations are so widely accepted, the principle of repose so revered, and the truth-seeking function of Article III courts so important that, in an uninterrupted line of cases dating back to 1830, the Supreme Court has held that if federal statutes that confer federal rights on civil litigants are silent on the limitations question, courts should borrow from and apply analogous state or federal statutes of limitations.

477 Porter, R., Contract Claims Against the Federal Government: Sovereign Immunity and Contractual Remedies, Harvard Law School, Briefing Paper No. 22 (5-2-2006), [online], available at http://www.law.harvard.edu/faculty/hjackson/ContractClaims_22.pdf (Accessed at 24 June 2014)

478 Berniat, Ewa, *The Locus Standi of Private Applicants under article 230(4) EC and the principle of Judicial Protection in the European Community*, (December 2003), [online] available at *www.jeanmonnetprogram.org/archive/papers/03/031201.rtf* (Accessed at 20 June 2014), Berniat analyses recent reactions of both Community courts to the growing criticism of the standing rules. Finally it is discussed whether Convention on the Future of Europe and the draft Constitution for Europe could provide a remedy to the lacuna in the system of judicial protection of individuals in the European Union.

479 See supra note 375.

Other purported legal risk factors that have been offered in the literature such as *dispute risk*,[480] the *risk of loss*[481] or the *risk of default*[482] are often conflated and used synonymously. Dispute or loss may be the consequences of default but default is the materialization of legal risk that exists in an infinite contingency until it is settled as stated before by either performance or judgment.[483] Therefore, neither of them constitute a legal risk in it of itself. In fact, the very allegation of a legal risk must inherently constitute the risk of a dispute given the only way to settle a legal risk is either by performance, i.e. payment or performance of a certain act or, in the alternative, by enforcement of a valid judgment that has taken effect or by a bailout or bail-in that in turn would qualify again as performance or payment. [484] Thus the prerequisite for such a judgment will always be a dispute over a legal or factual uncertainty as materialized in one of the Four Determinants of Legal Risk. Therefore, dispute risk must always be the consequence of a legal risk rather than constitute a *Legal Risk Per Se*[485]

The significant difference between dispute risk as a consequence of a legal risk and default risk, is that the possibility of default is actually a prerequisite for a legal risk. So long there is no possibility of default, i.e. the likely non-performance or non-payment, there is no legal risk, since default is the ultimate materialization of legal risk. Given that pursuant to the theory of default invariance, ground zero for legal risk, that is the destruction of legal risk, exists only at the point of payment and performance whereas the legal risk, so long there is no performance or no payment, that is default, may remain in an infinite contingency until resolved by either judgment, bail-in, bailout and thus ultimately performance or payment.[486]

[480] See supra note 358.
[481] See supra note 351.
[482] See supra note 350.
[483] Tanega, J. (2015) "*Default Invariance, A Naïve Category Theory of Law and Finance*," The Philosophy, Politics and Economics of Finance in the 21st Century: From Hubris to Disgrace (Economics as Social Theory), edited by Patrick O'Sullivan, Nigel F.B. Allington, and Mark Esposito, pp. 175 – 240
[484] Id.
[485] See supra Figure 7.
[486] See supra note 483.

CHAPTER 3: CAPITAL FORMATION

I. LITERATURE REVIEW OF CAPITAL FORMATION

A. THEORETICAL FOUNDATIONS OF CAPITAL FORMATION

The term *capital* made its first appearance in Medieval Latin[487] as an adjective *capitalis* (from *caput*, head) modifying the word *pars*, to designate the principal sum of a money loan. The principal part of a loan was contrasted with the "usury"--later called interest--the payment made to the lender in addition to the return of the sum lent. This usage, unknown to classical Latin, had become common by the thirteenth century and possibly had begun as early as 1100 A.D., in the first chartered towns of Europe.[488]

The meaning *"main, principal, chief, dominant, most important"* is from the early 15th century in English. *Capital letter* for an upper case one is attested from the late 14th century. The modern informal sense of *"excellent, first-rate"*, perhaps from earlier use of the word in reference to ships, "*first-rate, powerful enough to be in the line of battle*," attested from 1650, fallen into disuse after 1918.[489] When we search for definitions of the process of classic monetary capital formation[490], we traditionally find that it involves three steps[491]:

> First, an increase in the volume of real savings.
> Second, immobilization of savings through financial and credit institutions and
> Third, an investment of savings.

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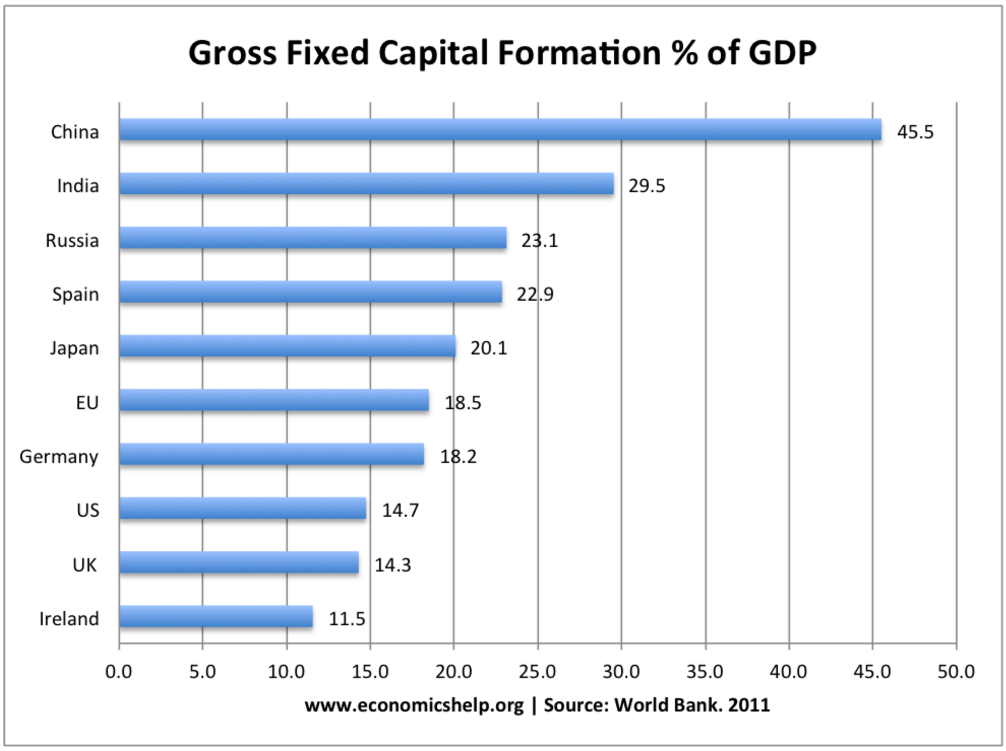
[487] Early 13 century, *"of or pertaining to the head,"* from Old French *capital*, from Latin *capitalis* "*of the head*," hence "*capital, chief, first*," from *caput* (genitive *capitis*) "head".
[488] Fetter, Frank A., *Reformulation of the Concepts of Capital and Income in Economics and Accounting,* (1937), in "Capital, Interest, & Rent," 1977
[489] Etymology Dictionary, [online], available at http://www.etymonline.com/index.php?term=capital (Accessed at 20 July 2014)
[490] Aguilar, Luis A. *Facilitating Real Capital Formation* (April 2014) [online] available at https://www.sec.gov/news/speech/2011/spch040411laa.htm (Accessed at July 25, 2014) Aguilar argues that as an SEC Commissioner focused on the real economy and on our recovery from the financial crisis, I am gratified that the SEC's mandate includes the consideration of capital formation. When Congress included the consideration of capital formation in the SEC's mandate it did not define the term. It is generally understood that capital formation is a macroeconomic benchmark that measures changes in the amount of productive capital in the economy as a whole. In essence, capital formation is about all the ways of creating productive capital in our economy, including but not limited to improving infrastructure, building plants, and hiring workers. But, in the discussions about capital formation, it seems to have become synonymous with the ability to raise funds. Whatever makes it easier and cheaper for issuers to raise money seems to constitute capital formation. However, the singular act of raising capital does not necessarily result in capital formation.
[491] Ruggles, Nancy and Richard, *Household and Enterprise Saving and Capital Formation in the United States: A Market Transaction View,* Review of Income and Wealth, Series 38, Nuimber2, Yale University (June 1992), [online], available at http://www.iariw.org/kendrickprizepdfs/Ruggles-1992.pdf (Accessed at 20 July 2014).

Thus the problem of capital formation becomes twofold, one, how to save more, and two, how to utilize the current savings of the community for capital formation.[492] However, the term Fixed Capital Formation refers to the process of a firm increasing its stock of fixed capital.[493]

> Fixed capital are assets used in the productive process that a firm holds for over a year. Fixed capital formation does not include current raw materials used in the productive process). Fixed capital can also be referred to as Property, Plant, and Equipment and is often abbreviated with the accounting term, PP&E. For example, if a firm builds a new factory or invests in new machines, this will be an accumulation of fixed capital. Gross fixed capital formation (formerly gross domestic fixed investment) includes land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. Net acquisitions of valuables are also considered capital formation.[494]

FIGURE 8: GROSS FIXED CAPITAL FORMATION % OF GDP



[492] Lewis, Craig M. *The Future of Capital Formation*, Harvard Law School Forum, (May 2014), [online], available at http://corpgov.law.harvard.edu/2014/05/02/the-future-of-capital-formation/ (Accessed at 25 July 2014)

[493] OECD, Capital formation by activity, ISIC rev3 [online], available at https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE8 (Accessed at 23 September, 2015)

[494] World Bank national accounts data, and OECD National Accounts data files, [online], available at http://data.worldbank.org/indicator/NE.GDI.FTOT.CD (Accessed at 12 July 2015)

However, the process of modern day non-monetary capital formation today also includes human capital formation[495]. Human capital formation also relates to human resource development. Human resource is an active means of production, the optimum allocation of resources of a country depends on the availability of human resources.

The term human capital formation refers to:

> [t]he process of acquiring and increasing the number of persons who have the skills, education and experience which are critical for the economic and the political development of a country. Human capital formation is thus associated with investment in man and his development as a creative and productive resource. [496]

The related concept of human resources has many different meanings; both manpower and human resources refer to and mean people. Human resources can be equated with labor in the sense of a fact of production or simply production[497]. Human resource may also be fueled as a kind of natural resource or a people resource just as we have mineral and forest resources[498]. In the process of economic growth, it used to be more important to talk about the accumulation of tangible capital. In today's knowledge society[499]; however, it is increasingly recognized that the formation and growth of the so-called tangible capital stock is significantly dependent on the development of human capital formation that is considered the process of acquisition of knowledge, skills and the capacities[500] of all people in a country. Even economists like Adam Smith[501] had early on stressed the importance of human capital in production and included in a country stock a fixed capital of all the acquired and useful abilities of all the inhabitants.

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[495] Mejia, Daniel and St. Pierre Marc, *Unequal Opportunities and Human Capital Formation*, Harvard University (August 2004), [online], available at http://www.hks.harvard.edu/pepg/PDF/events/Munich/PEPG-04-14Mejia.pdf (Accessed at 20 July 2014)

[496] Becker, Gary S. *Investment in Human Capital: A Theoretical Analysis*, The Journal of Political Economy, Volume 70, Issue 5, Part 2: *Investment in Human Beings* (Oct. 1962), 9-49 [online], available at http://marbles.sonoma.edu/users/c/cuellar/econ421/humancapital.pdf (Accessed at 20 July 2014)

[497] Singh Y.K and Rawat H.S., *Human Resource Management* APH Publishing Corporation, p. 61 (2006)

[498] Id.

[499] UNESCO World Report, *Towards Knowledge Societies*, [online] (2005), available at http://unesdoc.unesco.org/images/0014/001418/141843e.pdf (Accessed at 22 July 2014)

[500] See supra note 461. Generally there are five ways of developing human resources: 1) on-the-job training including in particular apprenticeships, 2) organized by companies, 3) formerly organized education at elementary, secondary and high school levels, university education, 4) adult education that is not organized by companies but by adult education service providers and, last but not least, 5) by the migration of individuals and families to adjust to changing job opportunities.

[501] Smith, Adam (1776, 1904) *Inquiry into the Nature and Causes of the Wealth of Nations*, available at: http://www.econlib.org/library/Smith/smWN.html. (Accessed at 20 July 2014)

B. CLASSICAL AND NEO-CLASSICAL ECONOMICS

Classical[502] and neoclassical[503] economics regard capital as one of the factors of production alongside other factors as land and labor. Other inputs to production are called intangibles in classical economics. This includes organization, entrepreneurship, knowledge, good will or management. Effective production is characterized by the fact that it's not used up immediately in the process of production and it can be produced or increased other than land and nonrenewable resources.[504]

Marxian economics distinguished between different forms of capital, constant capital, which refers to capital goods, variable capital, which refers to the labor inputs, whereas the cost is variable based on the amount of wages and salaries that are paid and fictitious capital which refers to intangible or abstractions of physical capital such as stocks, bonds and securities or a tradable paper claims to wealth.[505]

Classical economics are represented in the late 18th and early 19th century by economists such as Adam Smith[506], David Ricardo[507] and John Stewart Mill[508]. Adam Smith is

[502] O'Brien, D.P., *The Classical Economists Revisited*, Princeton University (2004). O'Brien argues that "there can be little doubt that the heyday of Classical economics was during the years 1800-1850. Delineation of the period during which Classical economics developed as a body of thought, came to be the ruling approach to economics, ultimately experienced a measure of stagnation and decay, and was finally supplanted by the young and vigorous development of neo-Classical economics in the "Marginal Revolution," is however a good deal less easy. At one end it is usual to date the era of Classical economics as beginning in 1776, with the publication of Adam Smith's mighty *Wealth of Nations.* Such an approach has a strong prima facie appeal, but closer examination raises doubts about it. On the one hand Classical economics owed a great deal to David Hume in certain critical areas, especially that of monetary theory. The relevant part of Hume's *Essays* was published in 1752; and it is therefore doubtful if too much weight can be placed on the year 1776. Indeed the influence of Hume upon Smith cannot be ignored; they were close friends, and Hume was appointed by Smith to be his literary executor.[1] In addition the work of Adam Smith himself did not suddenly spring from nothing in 1776. He lectured in Edinburgh from 1748, moved to the University of Glasgow and was a professor there from 1751 to 1763. Of course he covered other subjects in addition to economics; but there is a set of notes on his lectures taken in 1762-63, and their editor, Edwin Cannan pointed out many passages in them which are parallel to passages in the *Wealth of Nations.* Indeed it is apparent that quite a lot of the book was substantially in existence before Smith resigned his chair".

[503] Robinson, Joan and Eatwell, John, *An Introduction to Modern Economics*, McGraw-Hill Book Company (UK), 1973. Neoclassical Economics is the name given to an economic theory that was developed at the end of the 19th and the beginning of the 20th Century in Europe. The main contributors to this theory were Léon Walras (1834-1910), Alfred Marshall (1842-1924) and Vilfredo Pareto (1848-1923). Neoclassical economists dealt with was the distribution of power between industrialists and workers. The end of the 19th Century saw a marked increase in the strength of workers' organizations in Europe. In 1871 England passed a law that legalized unions.

[504] Id.

[505] See supra note 30.

[506] Adam Smith defined human capital as follows, "Firstly of the acquired and useful abilities for all the inhabitance of members of the society, the acquisition of such talents by the maintenance of the acquiring during his educational study or apprentice always cost a real expense, which is a capital fixed and realized as it were in

probably most renowned for his work of *Wealth of Nations* in 1776[509] and probably defines the beginning of classical economics.[510] His key message was that the wealth of nations is not based on gold but on trade. Whenever two parties freely agree to exchange things of value, total wealth increases.[511]

However, Adam Smith is probably most known for his expression of the so-called, *"invisible hand"* which signifies that according to his view markets generally move towards the natural equilibrium when free from interference and where buyers are able to choose from competing suppliers and companies that are not effective are allowed to fail. Smith therefore was a significant proponent stressing the importance of competition and free markets.[512]

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his person. Those talents, as they make a part of his fortune so do they likewise stand off to society to which he belongs. The improved dexterity of a workman may be considered in the same light as a machine or instrument of trade which facilitates an abridged laborer and which it costs a certain expense, repays that expense with a profit."

507 Ricardo's first published work was *The High Price of Bullion, a Proof of the Depreciation of Bank Notes* (1810), an outgrowth of letters Ricardo had published in the *Morning Chronicle* the year before. His book refueled the controversy then surrounding the Bank of England: freed from the necessity of cash payment both the Bank of England and the rural banks had increased their note issues and the volume of their lending. The directors of the Bank of England maintained that the subsequent increase in prices and the depreciation of the pound had no relation to the increase in bank credit. Ricardo and others, however, asserted that there indeed was a link between the volume of bank notes and the level of prices. Furthermore, they argued that the price levels in turn affected foreign exchange rates and the inflow or outflow of gold. It followed, then, that the bank, as custodian of the central gold reserve of the country, had to shape its lending policy according to general economic conditions and exercise control over the volume of money and credit. The controversy was therefore critical to the development of theories concerning central banking. A committee appointed by the House of Commons, known as the Bullion Committee, confirmed Ricardo's views and recommended the repeal of the Bank Restriction Act.

508 John Stuart Mill (1806-1873), British philosopher, economist, moral and political theorist, and administrator, was the most influential English-speaking philosopher of the nineteenth century. His views are of continuing significance, and are generally recognized to be among the deepest and certainly the most effective defenses of empiricism and of a liberal political view of society and culture. The overall aim of his philosophy is to develop a positive view of the universe and the place of humans in it, one which contributes to the progress of human knowledge, individual freedom and human well-being. His views are not entirely original, having their roots in the British empiricism of John Locke, George Berkeley and David Hume, and in the utilitarianism of Jeremy Bentham. But he gave them a new depth, and his formulations were sufficiently articulate to gain for them a continuing influence among a broad public.

509 Smith, Adam. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Edwin Cannan, ed. London: Methuen & Co., Ltd. 1904. Library of Economics and Liberty [Online] available from http://www.econlib.org/library/Smith/smWN.html (Accessed 23 September 2015)

510 See supra note 502.

511 See supra note 509.

512 Id.

In classic economic theory, factors influencing capital formation are savings by individuals or households and by not spending all of their incomes on consumer goods[513]. In other words, the meaning of capital formation is that society does not apply the whole of its current productive activity to the needs and the size of immediate consumption but direct a part of it to the tools and making of capital goods. Tools and instruments, machine and transport facilities, plants and equipment, all the various forms of real capital that can so greatly increase the efficacy of productive effort.[514]

Classical economics are distinct from libertarian economics insofar as that they do see a role for the state to play and acknowledge that there are ways where the market is not the only way to serve the public good and where a level playing field is required. For instance in the field of education.[515]

When viewed in legal terms, the owner of labor power is usually the owner of his own human capital; however, how this can be traded, how someone can be employed, get access to employment, can actually exchange his personal labor power is all subject to a sophisticated range of international, federal, national and often local rules.[516]

The creation of labor power, human capital, and man-formed capital is not something that is freely attainable by the mere will of the person who attempts or aspires to achieve or own it or create it but it is subject to a numerous set of laws, potential liabilities, potential act of rights and a number of limitations. Therefore, we are going to analyze regulations and legislations in the context of the envisaged Transatlantic Trade and Investment Partnership and how TTIP[517] would affect the potential legal risks with respect to the factors of nonmonetary capital formation.[518]

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[513] See supra note 502.
[514] Id.
[515] Id.
[516] Dowling, Jr., Donald C., The Practice of International Labor & Employment Law: Escort Your Labor/Employment Clients into the Global Millennium, The Labor Lawyer, Vol. 17, No. 1 (Summer 2001), pp.1-23, [online], available at http://www.jstor.org/stable/40862752 (Accessed at July 28, 2014)
[517] Stahl, Lukas M., *Business Briefing, The Transatlantic Trade and Investment Partnership (TTIP): Potential Impact and Dimensions of the World's Largest Trade Agreement*, 21st Austria (June 2014) New York, NY, [online], available at http://www.21st-austria.at/files/21austria/files/business_briefings/21st_austria_-_businessbriefing_june_2014.pdf (Accessed at 20 September 2015).
[518] See Chapter 5: *Case Study: TTIP – Nasciturus for a New Global Economic Order*

C. The Austrians: Eugen v. Boehm-Bawerk, Ludwig v. Mises & Friedrich v. Hayek

Eugen Boehm Ritter von Bawerk[519] was an Austrian economist who made important contributions to the development of the Austrian School of Economics. He was the Austrian minister of finance intermittently from 1895 to 1904 and also wrote a serious of extensive critiques of Marxism[520]. After working at the Ministry of Finance, he published the first two out of three volumes of his work Capital and Interest.[521]

As Finance Minister, he fought continuously for strict maintenance of the legally fixed gold standards and the balanced budget. He wrote extensive critiques of Karl Marx[522] economics in the 80s and 90s of the 19th century and taught many students including Joseph Schumpeter[523] and Ludwig von Mises[524], Boehm von Bawerk particularly became a critique of Karl Marx with respect to his downplaying the influence of supply and demand in determining permanent price and with respect to a perceived self-contradiction of Marx's law of value with respect to the rate of profit and the prices of production[525].

His most important contribution probably to develop Menger's[526] ideas of marginal utility in his principals of economics and to develop the idea of subjective value as related to marginalism that things only have value and so far as such people want such goods. To illustrate the principle, Boehm von Bawerk, used always a practical example of a farmer who was left with five sacks of corn after harvest to provide for his needs until the next harvest, while he used the first for his own purposes, the second to supplement the bare living, the third he would use for bread, but the fourth and the fifth he would use for making brandy and feeding the parrots, so the question always became how much utility

[519] Eugen von Böhm-Bawerk's work became so well known that before World War I, his Marxist contemporaries regarded the Austrians as their typical bourgeois, intellectual enemies. His theories of interest and capital were catalysts in the development of economics, but today his original work receives little attention.
[520] Von Boehm-Bawerk, Eugen, *The Positive Theory of Capital.* London: Macmillan. (1891) Translated by William Smart. Available online at: **http://www.econlib.org/library/BohmBawerk/bbPTC.html**
[521] Von Boehm-Bawerk, Eugen, *Capital and Interest.* London: Macmillan. (1890) Translated by William Smart. Reprint, 1959. Available online at: **http://www.econlib.org/library/BohmBawerk/bbCI.html**
[522] Id.
[523] Schumpeter, J. A, *Principle of Creative Destruction*, (1942) [online], available at http://www.econlib.org/library/Enc/CreativeDestruction.html
[524] Von Mises, L., (1953). *The Theory of Money and Credit.* New Haven: Yale University Press.
[525] See supra note 521.
[526] Menger, C., *Principles of Economics.* Translated by J. Dingwall and B. F. Hoselitz, with an introduction by Friedrich A. Hayek. New York: New York University Press, 1981.

will one lose if a sack of corn gets lost, what would be the marginal utility in this case of keeping the parrots.[527]

Ludwig von Mises[528] attended the University of Vienna where he graduated in February 1906 with a juris doctorate and started a career as civil servant in Austria's financial administration, leaving after a few months to take a trainee position in the Vienna law firm[529]. During that time, Mises began lecturing on economics and in early 1909 he joined the Vienna Chamber of Commerce in Industry where he became chief economist for the Austrian Chamber and later an economic advisor of the Austrian Chancellor. In 1940, Mises and his wife fled the German advance in Europe from Geneva Switzerland, where he became a professor at the Graduate Institute of International Studies in 1934 and immigrated to New York City. Mises ultimately retired from teaching at the age of 87 and died at the age of 92 in New York. [530]

Mises sees economic calculation as the most fundamental problem in economics.[531] The economic problem to Mises is that of action. Man acts to dispel feelings of uneasiness but can only succeed in acting if he comprehends causal connection between the ends that he wants to satisfy and the available means. The reasoning mind evaluates and grades different options, this is economic calculation.[532] Economic calculation is common to all people. Mises stresses the importance of entrepreneurship because only entrepreneurs actually do monetary calculation. This fact puts entrepreneurs at the center of all progress and failure. Entrepreneurs who estimate cost more correctly then their rivals earn high profits while also serving consumers. Such men rise to the top positions in industry. Entrepreneurs who err seriously in their calculation experience financial losses and cease to direct production. Mises described this market test of entrepreneurial skills as the only process of trial and error that really matters.[533]

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527 See supra note 524.

528 Von Mises, Ludwig, The sections entitled "*Finance and Banking*" in two articles, "Austrian Empire" and "Republic of Austria," (1921) in the 12th edition of the *Encyclopedia Britannica. Available online at:* ***http://www.econlib.org/library/Mises/msEnc.html*** (Accessed at 23 July 2014)

529 The Concise Encyclopedia of Economics, Ludwig von Mises (1881-1973), [online], available)http://www.econlib.org/library/Enc/bios/Mises.html (Accessed at July 24, 2014)

530 Id.

531 Von Mises, Ludwig, *Economic Calculation in the Socialist Commonwealth."* Reprinted in *Collectivist Economic Planning: Critical Studies on the Possibilities of Socialism.* Edited by Friedrich Hayek. London: Routledge and Sons, 1935.

532 Id.

533 Id.

Friedrich von Hayek[534] was an Austrian and British economist and philosopher best known for his defense of classical liberalism. Hayek, who was also a second cousin to the philosopher Ludwig Wittgenstein[535], earned doctorates in law in political science at the University of Vienna. He also started philosophy, psychology and economics. Initially sympathetic to Wieser's democratic socialism[536] Hayek's economic thinking shifted away from socialism to classical liberalism after reading from Mises's book *Socialism*.[537]
Economists who started with Hayek at the LSE in the 30s and 40s include Ronald Coase[538] from the University of Chicago, John Kenneth Galbraith[539], Abba Lerner[540] or David Rockefeller.[541]

Unwilling to return to Austria after the *Anschluss,* Hayek remained in Britain and became a British subject in 1938. He held this status for the remainder of his life, although he did not live in Great Britain after 1950, he lived in the United States from 1950 to 1960 and then mostly in Germany but also briefly in Austria.[542]

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[534] Von Hayek, Friedrich, *The Road to Serfdom.* Chicago: University of Chicago Press.
[535] Considered by some to be the greatest philosopher of the 20th century, Ludwig Wittgenstein played a central, if controversial, role in 20th-century analytic philosophy. He continues to influence current philosophical thought in topics as diverse as logic and language, perception and intention, ethics and religion, aesthetics and culture. Originally, there were two commonly recognized stages of Wittgenstein's thought—the early and the later—both of which were taken to be pivotal in their respective periods. In more recent scholarship, this division has been questioned: some interpreters have claimed a unity between all stages of his thought, while others talk of a more nuanced division, adding stages such as the middle Wittgenstein and the third Wittgenstein. Still, it is commonly acknowledged that the early Wittgenstein is epitomized in his *Tractatus Logico-Philosophicus*. By showing the application of modern logic to metaphysics, via language, he provided new insights into the relations between world, thought and language and thereby into the nature of philosophy.
[536] Friedrich von Wieser was born in Vienna in 1851 of aristocratic parents. At the age of seventeen he entered the University of Vienna to study law. After graduating in 1872, Wieser was briefly employed in government service, although his strong intellectual interests attracted him to academics once more, this time to a study of economics. With a travel grant and along with his boyhood friend (and later brother-in-law), Eugen von Bohm-Bawerk, Wieser studied economics at the universities of Heidelberg (under Karl Knies), Jena, and Leipzig. Already much impressed with Menger's Principles, Wieser, while in Germany, wrote a seminar paper on value that formed the foundation for his later ideas. In 1884, he was appointed a professor of economics at the German University in Prague. In 1903, Wieser inherited Menger's position at the University of Vienna. He became Minister of Commerce in 1917, but (owing to the collapse of the Austro-Hungarian Empire) later returned to teaching.
[537] Von Mises, Ludwig, *Socialism: An Economic and Sociological Analysis.* 3d English ed. Indianapolis: Liberty Fund, 1981. Available online at: **http://www.econlib.org/library/Mises/msS.html**
[538] Galer, S. and Manier, J., *Ronald H. Coase, Founding Scholar in Law and Economics (*1910-2013), [online], available at http://www.law.uchicago.edu/news/coaseinmemoriam (Accessed at July 25 2014)
[539] Galbraith, J. K., (1997). *The Great Crash – 1929.* New York: Mariner Books / Houghton Mifflin Company.
[540] Lerner, Abba, "The Economics and Politics of Consumer Sovereignty." *American Economic Review* 62 (May): 258–266.
[541] David Rockefeller Sr. is the eldest and richest member of the legendary oil family, which changed America in the Gilded Age and minted America's first billionaire in Standard Oil founder John D. Rockefeller. David is the magnate's only living grandchild and also the world's oldest billionaire, turning 100 in June of 2015.
[542] Samuel Brittan, 'Hayek, Friedrich August (1899–1992)', Oxford Dictionary of National Biography, Oxford University Press, 2004

Hayek is probably most known for his book The *Road to Serfdom*[543], in which he warns of the danger of tyranny that in his opinion inevitably results from government control of economic decision makings through central planning. He argues that abandonment of individualism and classical liberalism inevitably leads to a loss of freedom, the creation of an oppressive society, the tyranny of a dictator and the serfdom of the individual[544].

Albeit the *Road to Serfdom* makes a strong case against centrally planned economies by some of the Austrian economists, it was perceived as only lukewarm in its support of a free market system and less a fair capitalism. With Hayek even going so far as to say that government has a role to play in the economy through work hours, regulations, social welfare and institutions for the flow of proper information.[545]

D. KARL MARX

Smith argued that the productive power of labor is dependent on the division of labor[546]. In Marxian economics, this concept was reflected in Marx differentiation between *labor* and *labor power*, whereby labor power was referred to as the person's ability to work his or her muscle power or brain power and in certain ways this could be compared to the concept of human capital.[547]

Marx, of course, derogated this reification and this obvious attempt to convince a worker that he was really a capitalist although his capital would have been only his own abilities. His evidence were that often is quoted from the capital Volume 2, the following paragraph in Chapter 20, Section 10:

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543 See supra note 534.
544 Id.
545 Hayek on Social Security, Washington Post, (July 2010) [online], available at http://voices.washingtonpost.com/ezra-klein/2010/07/hayek_on_social_insurance.html (Accessed at 25 July 2014)
546 See supra note 509.
547 Marx, Karl. *Capital*, volume III, ch. 29 pp. 465–6 of the International Publishers edition

> Apologetic economists say the worker's labor power, then, represents his capital in commodity form, which yields him a continuous revenue. Labor power is indeed his property [ever self-renewing, reproductive], not his capital. It is the only commodity which he can and must sell continually in order to live in which excess capital [variable] only in the hands of the buyer, a capitalist. The fact that a man is continually compelled to sell his labor power, i.e. himself, to another man proves according to those economists that he is a capitalist because he constantly has "commodities" [himself] for sale. In that sense a slave is also a capitalist although he is sold by another once and for all as a commodity. For it is in the nature of this commodity, a laboring slave, that inspired does not only make it work anew every day but also provides it with the means of subsistence that enable it to work ever anew.[548]

Marx differentiation was strong also in particular to drive a distinction between him and David Ricardo[549], who in his opinion did not accomplish to explain how surplus value could be produced from an exchange between capital and labor. In his view labor power that is human capital in modern views becomes a commodity; it is exchanged on the market for a wage or a salary.[550]

Marxian economics traditionally defined capital as follows.

> Capital consists of raw materials, instruments of labor and means of subsistence of all kinds, which are employed and producing new raw material, new instruments and new means of subsistence. All these components of capital are created by labor, products of labor, accumulated labor. Accumulated labor that serves as a means to new production is capital. [551]

With respect to human capital, he says:

> In the process of production human beings work not only upon nature but also upon one another. They produce only by working together in a specified manner and reciprocally exchanging their activities. In order to produce they enter into definite connections of relations to one another and only within these social connections and relations does their influence upon nature operate, i.e. does protection take place.[552]

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548 Marx, Karl, *Capital Volume 2, Chapter 20, Section 10.* (1867) [online], available at https://www.marxists.org/archive/marx/works/1847/wage-labour/ch05.htm (Accessed at 24 July 2014)
549 See supra note 507.
550 See supra note 548.
551 Id.
552 Id.

He further states,

> Capital also is a social relation of production. [….] Capital consists not only of means of subsistence, instruments of labor and raw materials not only as material products, it consists just as much of exchange values. All products of which it consists are commodities. Capital, consequently, is not only a sum of material products, it is a sum of commodities of exchange values of social magnitudes. Capital remains the same whether we put cotton in the place of wool, rice in the place of wheat, steam ships in the place of railroads, provided only that the cotton, the rice, the steam ship, the body of capital have the same exchange value, the same price as the wool, the wheat, the railroads in which it was previously embodied. The bodily form of capital matrons forms itself continually while capital does not suffer the least alteration but though every capital is the sum of commodities, i.e. of exchange values, it does not follow that every sum of commodities of exchange values is capital.[553]

In conclusion, the use of the term capital formation and investment can be somewhat confusing partly because the concept of capital itself can be understood in different ways:

First, capital formation is often seen as a mix of total investment, i.e. the fraction of capital that is earmarked for investment and not held as savings or used for consumption. In national accounts, the concept of gross capital formation is used as the additions of nonfinancial produced assets to the capital stock minus the disposals of these assets.[554]

Second, capital formation is often referred to as synonymous with the notion of capital accumulation regarding to the investment of money or a financial asset for the purpose of making more money or assert gross capital formation that is often referred to as gross fixed capital formation, measuring the value of acquisition of new or existing fixed assets by the business sector, governments and households less disposals of fixed assets.[555] It is called a gross fixed capital formation since the measure does not make any adjustments to deduct the consumption of fixed capital, for instance through the depreciation of fixed assets. A significant exclusion from gross fixed capital formation is land sales and purchases".[556]

In a much broader sense, capital formation today refers to any method to increasing the amount of capital owned or under one's control or any method in utilizing or mobilizing capital resources for investment purposes. In this way, capital could be formed in the

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[553] See supra note 548.
[554] See supra note 491.
[555] See supra note 492.
[556] See supra note 493.

sense of being brought together for investment purposes in many different ways. This broad meaning is not related to the statistical measurement concept nor to the classical understanding.[557]

In that *capital* is distinct from land or nonrenewable resources and can be increased by human labor as will be demonstrated in the next chapter when we discuss the Three Factors of Capital Formation[558], physical capital is often also referred to as the capital stock[559], which should not be confused with the capital stock of a corporation[560] that may be used for non-monetary but money-like capital formation in the financing process of an enterprise. In principal, capital consists of any product that can improve a person's power to perform economically useful work.

Capital is also an input into the production function. In particular in Marx's political economy, capital exists only within the process of economic exchange.[561] It is wealth that grows out of the process of circulation itself and for Marx it formed the basis of the economic system of capitalism. In more contemporary schools of economics, this form of capital is referred to as financial capital and is distinguished from capital goods.[562]

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557 See supra note 490.

558 See infra Chapter 3.II. Three Factors of Capital Formation

559 Nehru, Vikram, and Ashok Dhareshwar. 1993. "A New Database on Physical Capital Stock: Sources, Methodology and Results." *Revista de Analisis Economica*, 8(1), pp. 37-59, June 1993

560 7 U.S. Code § 1504 - Capital stock of Corporation

561 Karl Marx, "A Contribution to the Critique of Political economy" Karl Marx: Critique of Political Economy Review by Frederick Engels, First Published**:** *Das Volk*, Nos. 14 & 16, August 6 & 20, 1859; [online], available at https://www.marxists.org/archive/marx/works/1859/critique-pol-economy/appx2.htm (Accessed at July 25, 2014)

562 Goodwin, Neva R., *Five Kinds of Capital, Useful Concepts for Sustainable Development*, p. 5, Global Development and Environment Institute, Working Paper 03-07 (September 2003) [online] available at http://www.ase.tufts.edu/gdae/publications/working_papers/03-07sustainabledevelopment.pdf (Accessed at August 5, 2015) Goodwin argues "that Financial capital is essentially money and can be regarded as a capital stock if it will be invested in some activity that produces something – at the very least if it will produce, for its owner, more money. In that case we would refer to it as financial capital. It is in the nature of most production processes that you have to pay for inputs before you can profit from outputs. Before it can make its first sale, a start- up business needs to buy or rent a building and equipment, hire staff, and lay in inventories of materials and supplies. Students need to pay for textbooks well in advance of receiving any increase in salary that their education might eventually gain for them. Local governments often take on a big project like building a major bridge before collecting the tolls that will pay for it. Financial capital is what allows all these productive activities to get going, in a money economy, in advance of the returns that will flow from them. In actual fact, a great deal of financial capital, especially as it is used in international transactions, does nothing more than accommodate changes in ownership, for example in ownership of future shares of the agricultural output of some region, or of the currency of a nation that is expected to rise in value, or in ownership shares (also, confusingly, called "stocks") of a corporation. Of all the kinds of capital, the adjective, "productive," is most often questionable when applied to financial capital."

II. EXPONENTIAL EXPANSION OF CAPITAL FORMATION

A. THREE FACTORS OF CAPITAL FORMATION

Dealing with nonmonetary factors of capital formation, we talk about in the classic sense of capital created by ***Man,*** that is capital created by man and woman, also more recently characterized in management literature as *human capital*[563] and capital formed by ***Machines***, also known in accounting terms as PPE or *property, plant and equipment*[564] or in industrial terms very classic as production capital or machines.

Hence when we talk about the legal risks that are inherent in the capital formation of human capital or industrial capital and when we'll talk about the legal risks that are materialized in processes that either foster or impede the capital formation in these two nonmonetary areas, we have to analyze what projects and policies are currently pursued.

1. CAPITAL FORMATION BY MAN

Friedrich Engels in his *The Principles of Communism, 1847*,[565] saw labor power of a commodity.

> Labor is a commodity like any other and its prize is therefore determined by exactly the same laws that applied to other commodities. In the regime of pick industry or free competition as we shall see, the two come to the same thing. The prize of a commodity is on the average always equal to its cost of production, hence the price of labor is also equal to the cost of production of labor but the cost of production of labor consists of precisely the quantity of means of subsistence necessary to enable the worker to continue working and to prevent the working class from dying out. The worker will therefore get no more for his labor than is necessary for this purpose. The price of labor or the wage will in other words be the lowest, the minimum required for the maintenance of life.[566]

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[563] See supra note 60.

[564] See supra note 494.

[565] Friedrich Engels, *The Principles of Communism, 1847* Selected Works, Volume One, p. 81-97, Progress Publishers, Moscow, 1969, [online], available at https://www.marxists.org/archive/marx/works/1847/11/prin-com.htm (Accessed 25 July 2014)

[566] Id. In 1820, Friedrich Engels was born in Germany into a wealthy family. Managing a branch of his father's business in Manchester, England, from 1842-1845, Engels became appalled at the poverty of the workers. He wrote his first socialist work, *Conditions of the Working Class in England.* After their meeting in 1844, Engels and Karl Marx became lifelong colleagues. After Marx' death in 1883, Engels edited and translated his writings. According to freethought encyclopaedist Joseph McCabe, Engels' acquaintance, Belfort Bax, called him "the devout Atheist" (*A Biographical Dictionary of Modern Rationalists*). *D. 1895.*

Modern day economists define human capital formation as:

> [a]n aggregate outcome of the investments in education, health, transport and communication sector, technical knowhow and on-the-job training and migration. These factors are explained as follows. Education increases the productive capacity and productivity of a nation's workforce by developing its skills. It also increases the ability of modern techniques and increases the income earning capacity but also reduces the skewed distribution of income thereby reducing income in equality. Investment education has always long-lasting returns. It not only improves the present economic condition but always enhances future prospects of a country.[567]

Therefore looking at the potential legal risks in the context of nonmonetary capital formation in particular with respect to the formation of man-made or human capital, we may review an array of transactions that may incur certain legal risks and in particular with respect to the realization of TTIP where we will review these issues specifically[568].

For instance, legal risk may attach with respect to minimum and maximum wage rates for work, maximum and minimum working hours and the retirement age, minimum requirements for working conditions, workplace health and safety issues, requirements for labor contracts, trade union, organization and wage bargaining; civil rights and the entitlements of workers.

Other effects may be incurred by way of direct and indirect tax rates, levies and tariffs for wage earners and employers, social insurance policies, pension charges, unemployment benefits and other social benefits, the subsidizing of workers or their employers, eligibility to various benefits or supplements to salaries, certain means of fiscal policy and monetary policy by, for instance, instituting price control for certain specific consumer goods and services, regulation that effects the consumption of goods and services by workers, the policing of workers on the job and off work and the prosecuting of criminal activity with respect to workers' lives. All those potential areas where legal risks may be incurred are potentially detrimental for the capital formation by Man, also now known as human capital or human resources.

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[567] Becker, Gary S. *Investment in Human Capital: A Theoretical Analysis*, The Journal of Political Economy, Volume 70, Issue 5, Part 2: Investment in Human Beings (Oct. 1962), 9-49 [online], available at http://marbles.sonoma.edu/users/c/cuellar/econ421/humancapital.pdf (Accessed at 20 July 2014)
[568] See Chapter 5: *TTIP – Nasciturus for a New Global Economic Order*

Other areas where certain legal risks may attach in the space of human capital formation are the requirements of military service from young workers at fixed pay rates, policies that impact or prevent labor mobility and job mobility, policies that prevent the inflow of immigrant workers or the immigration of workers and the stipulation of legal requirements with relation to the accommodation of health, sex life, family striation, pregnancy of workers. The wealth of a country can be significantly improved with a healthy workforce[569]. It doesn't only increase efficiency and productivity of a nation's workforce; it also reduces healthcare costs and the costs for the provisioning of medical facilities, rehabilitation and disability.[570]

Another area of human capital formation concerns already at the very young age of adolescence the vocational training of an economy's youth. Having been in charge of the Vocational Training Initiative of the Federal Government of Austria on behalf of Austria's Federal Chancellor and Prime Minister[571],at the end of the last millennium, the author had the privilege already at a very young age to see firsthand the significant importance and impact in particular apprenticeships have for the timely integration of youth into the production process.

Apprenticeships refer to the act of acquiring skills, knowledge and competence on the job in a corporation or at the very least within a model company that provides a simulated environment as if the training would be indeed on the job. Preferably, training on the job and apprenticeship does not only expose the trainees to a real life work environment, it also helps transitioning those used into long-term employment and in particular in those critical years of youth and young adulthood it provides young people an entrance into society that welcomes it as a full productive participant rather than someone necessarily feeling excluded. Therefore, expenditures on such training do not only improve the quality of human capital and enhance its productivity and efficiency, it is also a crucial element in maintaining, advancing and developing our democracies.

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569 Lee, J, Kim, H. *An examination of the impact of health on wealth depletion in elderly individuals*.(2003) [online], available at http://www.ncbi.nlm.nih.gov/pubmed/12646601 (Accessed at 27 July 2014)
570 Id.
571 Federal Chancellery of Austria, Office of the Prime Minister, [online], available at https://www.bka.gv.at/site/3327/Default.aspx (Accessed at September 23, 2015)

The existence of appropriate legal frameworks such as for instance the *Austrian Jugendausbildungssicherungsgesetz* [Youth Training Guarantee Act][572] guaranteeing the participation of youth in vocational training and education that has been passed by the Austrian Parliament during my tenure and since been renewed are an absolutely necessary condition to avoid the materialization of a number of legal risks that will be discussed further below.

Another area that is of more current importance due to the increasing number of military conflicts than ever since World War II, is migration. Migration refers to the movement of people from either under developed to developed countries or from less developed to developed countries but more recently it also refers to the movement of people from war-torn and terrorist ridden countries to countries that at the very least maintain some basic level of peace and civilization[573].

Scholars have looked at the role of human capital in the process of economic development and stressed the fact that many developing economies have experienced fast increases in growth and have also experienced considerable increases in human capital. Macro economists and development economists have been interested in the relationship between human capital and growth and have proposed models with human capital externalities. The work on the production function for human capital has a long tradition in economics going back to the seminal work of University of Chicago Professor Gary Becker[574].

More recently Hackman and his collaborators have greatly advanced the study of human capital formation and proposed a very useful framework. We consider human capital as a multidimensional object that starts evolving very early in life, possibly before birth. I will be calling these different dimensions factors. One factor could be cognition. Another

[572] Republic of Austria, Jugendausbildungssicherungsgesetz (JASG) (1998), [online], available at https://www.jusline.at/Jugendausbildungs-Sicherungsgesetz_(JASG).html (Accessed at September 23, 2015)
[573] SEWELL CHAN and PALKO KARASZSEPT, *Thousands of Migrants Flood Into Austria*, New York Times (19 September 2015), [online], available at http://www.nytimes.com/2015/09/20/world/europe/thousands-flood-into-austria-as-refugees-are-bounced-around-europe.html (Accessed at 20 September 2015)
[574] Becker, Gary S. *Investment in Human Capital: A Theoretical Analysis,* The Journal of Political Economy, Volume 70, Issue 5, Part 2: Investment in Human Beings (Oct. 1962), 9-49 [online], available at http://marbles.sonoma.edu/users/c/cuellar/econ421/humancapital.pdf (Accessed at 20 July 2014)

factor could be health and nutritional status, yet another factor could be social emotional skills Atanassio calls the process of formation of human capital its production function.[575]

This may be very likely an incomplete list of production functions, transactions and legal relations as they pertain to the capital formation of man-made capital or otherwise known as human capital but they are of determining character for our daily lives and may have inherent a number of legal risks that we ought to analyze in their impact and how we can mitigate them developing more insights and a better comprehension in their inner workings.

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2. Capital Formation by Machines

In old economics textbooks one may have found only two kinds of capital, financial, i.e. monetary, and physical and the discussion of physical capital would all have been about things made by human beings: road, communication lines and other kinds of infrastructure, as well, factories and machines. [576]

Capital also represents major physical assets individuals and companies use when producing goods or services. These assets include production facilities, equipment, vehicles and other similar items. Individuals may create their own capital production resources, purchase them from another individual or business or lease them for a specific amount of time from individuals or other businesses. Therefore this category of capital is often referred to also as *production capital.* We refer to it as capital formation by Machines as opposed to capital formation by Man, i.e. capital assets, intellectual or physical in nature, created by human beings. [577]

[575] Atanassio, Orazio P., *Insights from Structural Models of Human Capital Formation: measurement error and predictive validity*, (2015), [online], available at http://www.worldbank.org/content/dam/Worldbank/Event/SIEF/20150204-ECD-and-nutrition-measurement/07-Insights-from-Structural-Models-of-Human-Capital-Orazio-Attanasio-University-College-London.pdf (Accessed at August 25, 2015)
[576] Goodwin, Neva R., *Five Kinds of Capital, Useful Concepts for Sustainable Development*, p. 5, Global Development and Environment Institute, Working Paper 03-07 (September 2003) [online] available at http://www.ase.tufts.edu/gdae/publications/working_papers/03-07sustainabledevelopment.pdf (Accessed at August 5, 2015)
[577] Id.

In Marxian economics this distinction between capital formation by Man, i.e. by way of *labor power* and by capital formation by Machines was described in his *Fragment on Machines*[578] with remarkable foresight:

> As long as the means of labor remains a means of labor in the proper sense of the term, such as it is directly historically adopted by capital and included in its realization process, it undergoes a merely formal modification by appearing now as a means of labor not only in regard to its material side but also at the same time as a particular mold of the presence of capital determined by its total process as fixed capital, but once adopted into the production process of capital, the means of labor passes through different stages whose culmination is the machine or rather an automatic system of machinery. The automatic one is merely its most complete, most adequate form and alone transforms machinery into a system. In no way does the machine appear as the individual worker's means of labor, it's distinguishing characteristic is not in the least as with the means of labor to transmit the worker's activity to the object. This activity rather is posited in such a way that it merely transmits the machine's work, the machine's action onto the raw materials, supervises it and guards against interruption, not as with the instrument which the worker animates and makes into his organ with his skill and strength and whose handling therefore depends on his skills rather it is the machine which possesses skill and strengths in place of the worker." [579]

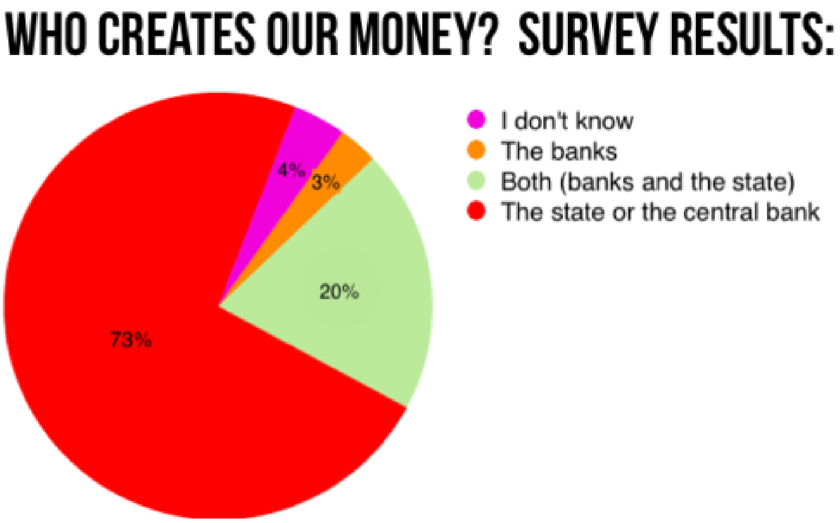
Why does he author believe this distinction to be of absolute importance in the context of capital formation and legal risk? Recall that Hohfeld demonstrated that there is no such thing as a legal relation between a person and a machine, since a legal relation always operates between two individuals. Legal rights do not correspond to single Hohfeldian relations, but are commutations of them.[580]

Legal Risks in the context of capital formation by Machines will therefore play a subordinated role in our analysis, in particular in the context of our assessment within the framework of the Transatlantic Trade and Investment Partnership. However, to the extent tis legal framework determines the right of importation, the right of use, the required standards of material and production, certain obligations under which machines in the widest sense may be admitted, certified and operated in a jurisdiction it will concern our analysis of legal risks.

[578] Marx, Karl, *Fragment on Machines*, (February 1858) [online], available at http://thenewobjectivity.com/pdf/marx.pdf (Accessed at 25 August 2015)
[579] Id.
[580] See supra note 234.

Any time before a new decision by the European Central Bank or the Federal Reserve, we hear pronouncements of the Central Banks starting to turn on the printing press, or we here there is a minimum security reserve in the debate, or the banks are parking their money instead of loaning it out to businesses. It is all of this sort of news which confuses and diffuses the real picture that we are facing, especially when so many people still hang on to so many myths.

FIGURE 9: SURVEY – POSITIVE MONEY SWITZERLAND (SEPT. 15, 2015)



The survey results from a master's thesis from the Institute of Finance and Banking at Zurich University confirm that Swiss people have no idea about how Swiss Francs are created. The results are astonishing:

> Only 13 percent know that private commercial banks provide the majority of the money in circulation. However, 78 percent of the Swiss population would like money to be produced and distributed solely by a public organization working for the common good, such as the National Bank. Only 4 percent preferred the system we actually have today – that money is mostly created by private, for-profit companies such as commercial banks. Only 13 percent of the population are aware that, in the current system, private banks produce the majority of the money through the extension of loans. 73 percent mistakenly believe money is created by the state or by the Swiss National Bank. [581]

[581] Positive Money Initiative, [online], available at http://positivemoney.org/2015/09/survey-confirms-people-have-no-idea-about-how-money-is-created/ (Accessed at 23 September 2015)

However, at the end of the day, this apparent lack of general knowledge about one of the most fundamental matters of our daily life, is not all too surprising, when we consider that the subject of money creation is barely thought in economics classes in our schools and universities. More importantly, considering the many misconceptions and false beliefs we find and hear most people, from professors to politicians, from journalists to janitors, everyday people and experts[582], hang on to, whenever the case of money creation is discussed in public, teaching the subject as it stands without full understanding of the facts on the ground, may actually further compound the problem. Hence, let us dispose of the most commonly held beliefs in the following:

First misconception: Money *per se*.

Money is subject to a hierarchy. Money does not equal money at any point. We have Central Bank money and we have bank-created money, and they represent two very different forms of money. Book money or, as many call it, *FIAT* money from the Latin word, *fiat*,[583] let it become, money, is actually the sort of money that we find on an on our individual or corporate bank accounts. This is the sort of money that indeed is entered into this world by way of book entry and loan creation. From a balance sheet perspective, this *FIAT* or non-money as it is called in the Bank of England's chart[584] actually represents a liability.

To the contrary, Central Bank money is created by lending money or credit from the Central Bank to the Commercial Banks, and therefore it represents from a balance-sheet perspective, a liability of the Central Bank. That money exists in the form of cash money, and that includes both coins and bills, in the same way as the *FIAT* money of the Commercial Banks at the Central Bank.

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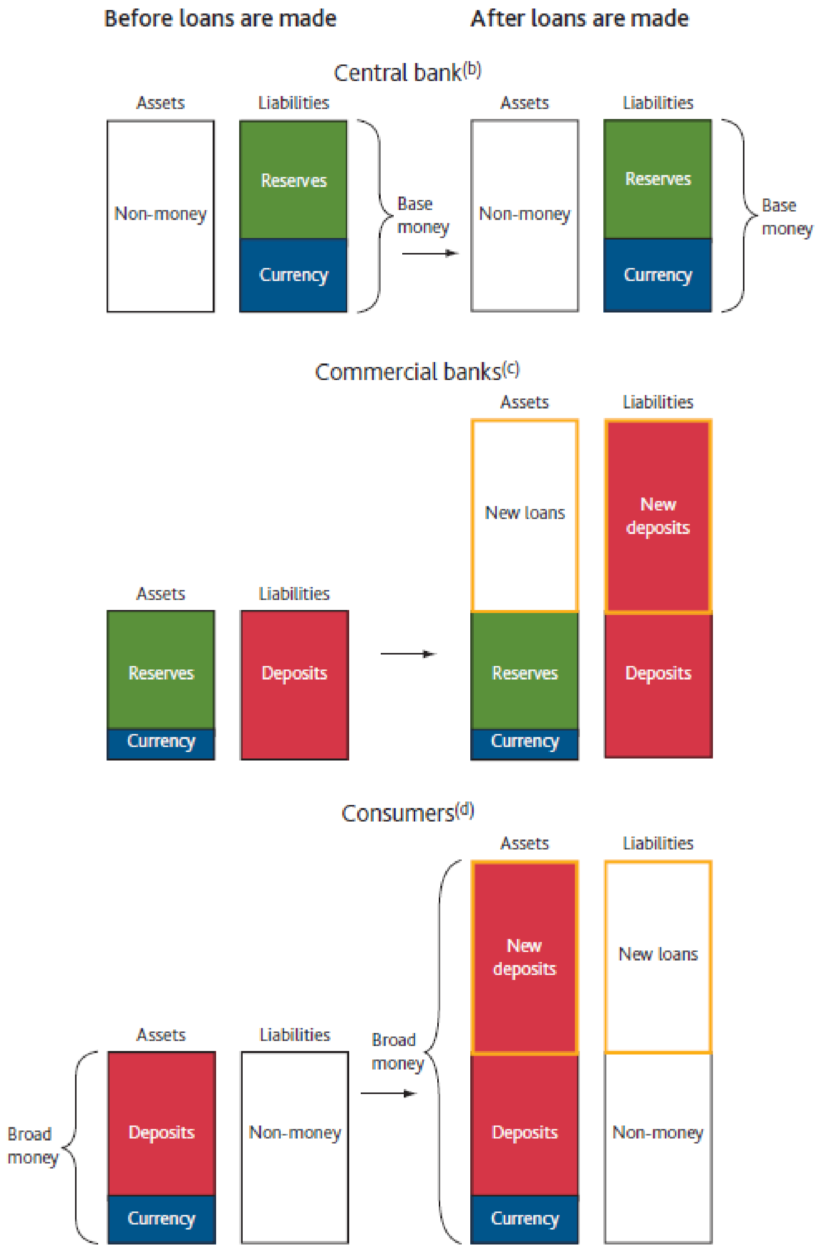
[582] See supra note 581.
[583] *fiat:* noun, Latin: let it be done, 3rd singular present subjunctive of fierī to become
1. an authoritative decree, sanction, or order: a royal fiat.
Synonyms: authorization, directive, ruling, mandate, diktat, ukase.
2. a fixed form of words containing the word fiat, by which a person in authority gives sanction, or authorization.
3. an arbitrary decree or pronouncement, especially by a person or group of persons having absolute authority to enforce it: The king ruled by fiat.
[584] See infra Figure 10.

FIGURE 10: MONEY CREATION BY THE AGGREGATE BANKING SECTOR[585]



(a) Balance sheets are highly stylised for ease of exposition: the quantities of each type of money shown do not correspond to the quantities actually held on each sector's balance sheet.
(b) Central bank balance sheet only shows base money liabilities and the corresponding assets. In practice the central bank holds other non-money liabilities. Its non-monetary assets are mostly made up of government debt. Although that government debt is actually held by the Bank of England Asset Purchase Facility, so does not appear directly on the balance sheet.
(c) Commercial banks' balance sheets only show money assets and liabilities before any loans are made.
(d) Consumers represent the private sector of households and companies. Balance sheet only shows broad money assets and corresponding liabilities — real assets such as the house being transacted are not shown. Consumers' non-money liabilities include existing secured and unsecured loans.

585 McLeay, M., Radia, A and Thomas, R., *Money creation in the modern economy*, Bank of England, Quarterly Bulletin (2014 Q1), [online], available at http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q1prereleasemoneycreation.pdf (Accessed at 23 August 2014)

Second misconception: The Minimum Reserve:

Reserves are Central Bank money that the commercial banks actually lend and take as a credit from the Central Bank. Therefore, it is actually a loan by the Commercial Banks from the Central Bank[586]. Depending on the jurisdiction they operate in and the current regulatory environment, the Commercial Banks have to hold 1 or 2 percent of its liabilities at the Central Bank[587]. The legal framework for instance the minimum reserve system in the Eurozone is set out in Regulation (EC) No. 2818/98 of the European Central Bank of 1 December 1998 on the application of minimum reserves (ECB/1998/15) [588]. However, this money does not have its origin at the deposits of its clients.

Or as the Bank of England puts it:

> [R]eserves are, in normal times, supplied on demand by the Bank of England to commercial banks in exchange for other assets on their balance sheets. In no way does the aggregate quantity of reserves directly constrain the amount of bank lending or deposit creation.[589]

Third misconception: The Reserve Account

Banks cannot loan their reserves to businesses or to the economy. Each bank must hold its reserves up to the minimum amount at its reserve account at its national Central Bank. This is where the reserve actually earns interest at the current lead interest rate. Any excessive reserves will not earn an interest rate, so a bank can actually move these excessive reserves to its facility at the Central Bank where the Central Bank usually pays a lower interest rate.[590] On the other hand, as we will see later, when Central Banks discuss

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586 See supra note 585.

587 Gray, Simon, Central Bank Balances and Reserve Requirements, IMF Working Paper, WP/11/36 (2011), [online], available at http://www.imf.org/external/pubs/ft/wp/2011/wp1136.pdf (Accessed at 25 March 2015)

588 European Central Bank, *How to calculate the minimum reserve requirements*, [online], available at https://www.ecb.europa.eu/mopo/implement/mr/html/calc.en.html (Accessed at July 23, 2015) In order to determine an institution's reserve requirement, the reserve base is multiplied by the reserve ratio. The ECB applies a uniform positive reserve ratio to most of the balance sheet items included in the reserve base. This reserve ratio was set at 2% at the start of Stage Three of European Economic and Monetary Union (EMU) and is lowered to 1% from 18 January 2012. As noted above, the reserve requirement for each individual institution is calculated by applying the reserve ratio to the reserve base. Institutions have to deduct a uniform lump-sum allowance of 100,000 € from their reserve requirement. This allowance is designed to reduce the administrative costs arising from managing very small reserve requirements.

589 See supra note 587.

590 See supra note 587.

negative interests rates[591] on their facilities, they are usually not very effective with this instrument as a steering tool, because Commercial Banks just tend to remove their deposits into their own accounts where they do not earn any interest but do not cost them negative interest at the Central Bank[592].

Besides governments, Commercial Banks are the only institutions to have accounts at a Central Bank[593]. Aside from the cash in the safety deposit boxes of the Commercial Banks, the reserves only circulate within the inter-banking market without ever leaving the accounts of the Commercial Banks for instance within the Euro system[594].

Fourth Misconception: Reducing Reserves.

Reducing reserves means banks are paying Central Bank money that they actually lend from the ECB back to the ECB. So, aside from actually paying out cash money to their own clients, this is the only possibility by which the total volume of reserves that are kept within the banking system can be reduced. When there is the question why there should even be a minimum reserve, usually there are two responses to that: *"The minimum reserve makes the financial system more secure or it limits the ability to create FIAT money by commercial banks."* [595] Both of these responses are wrong and false and we will discuss in a minute why.

Fifth Misconception: The Security Buffer.

The minimum reserve is not a security buffer. It's the equity capital of the banks that makes the financial system more secure. Whether there is, on the active side of the balance sheet of a bank, 10 million Euros in T-bills, or 10 million Euros in deposits at the ECB makes no difference to the security of the financial system. What makes a difference is that there are 10 million Euros more on the active side of the balance sheet. That makes a

591 World Bank, *Negative Interest Rates in Europe: A Glance at their Causes and Implications*, Global Economic Prospects (June 2015), [online], available at http://www.worldbank.org/content/dam/Worldbank/GEP/GEP2015b/Global-Economic-Prospects-June-2015-Negative-interest-rates.pdf (Accessed at August 23, 2015)
592 Id.
593 See supra note 587.
594 See supra note 588.
595 See supra note 587.

difference, at least to a degree, insofar any write offs from credits gone bad do not exceed beyond the equity capital of the bank.[596] This very fact is one of the biggest destabilizers in our current *FIAT* money system. The reality that in times of economic downturn, or following any severe misallocation, be it due to fraud, incompetence or structural systemic deficits as in the case of certain countries, or often a combination thereof, rational reorganizations of both sovereign or consumer debt are impeded by the mere fact that they would take down in a cascading domino-effect, intrinsically linked commercial banks, that does not only make them individually but the entire system “too big to fail”, is one of the most fundamental design defects of our monetary order today. How we believe this issue should be resolved, we discuss in the next chapter.[597]

Sixth Misconception: The Creation of Money

The creation of money by commercial banks is not limited by any requirements for minimum reserve[598]. Imagine a scenario of the money supply whereby the disposition over a loan by the commercial banks with a minimum requirement of 1% multiplies 1 US$ of Central Bank money to about the 100 Euros in *FIAT* money. This is just plain wrong and false. As discussed previously, the money creation process actually works completely the opposite way. A bank actually gives a credit of 78 Euros and then covers the minimum reserve by actually lending that money, i.e. 22 Euros for its reserves from the Central Bank[599]. This has never been denied by the European Central Bank[600]. After all, it is the European Central Bank itself that requires from the bank to hold these reserves[601].

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596 Kapan, T. and Minoiu, C., *Balance Sheet Strength and Bank Lending During the Global Financial Crisis*, IMF Working Paper, WP/13/102 (May 2013) [online], available at https://www.imf.org/external/pubs/ft/wp/2013/wp13102.pdf (Accessed at 25 July 2014)
597 See Chapter 4.V. *Resolutions of Legal Risks in Capital Formation*
598 See supra note 546.
599 See Exhibit A: *Capital Formation Life Cycle*
600 In order to meet their reserve requirements, credit institutions have to hold balances on their current accounts with the National Central Banks. This means that compliance with minimum reserve requirements is determined on the basis of the average daily balances on the counterparties' reserve accounts over one reserve maintenance period. The Eurosystem aims to ensure that the minimum reserve system neither puts a burden on the banking system in the euro area nor hinders the efficient allocation of resources. For this reason, credit institutions' holdings of required reserves are remunerated. The remuneration corresponds to the marginal rate (weighted according to the number of calendar days) of the main refinancing operations during the reserve maintenance period.
601 See supra note 588.

Seventh Misconception: The Interest in the Money Market

The actual purpose of the minimum reserve is a different one. The minimum reserve requirement guarantees the control of the ECB over the short-term interest rate on the money market.[602] So, aside from the requirements for cash money by banking clients, and the actual payment processing between banks, the minimum reserve requirement is a third artificially implemented factor that creates a structural liquidity deficit. It is this liquidity deficit that ascertains that the demand by the banks for Central Bank money is continuously and constantly positive. So, under these conditions, the European Central Bank can determine, as a monopoly for Central Bank money, the price of that Central Bank money, which is the interest rate at which banks lend each other Central Bank money. Therefore, the minimum reserve is a means to control the short-term interest rate for money market funds, and to keep that control at the Central Bank.

Eighth Misconception: The Lead Interest Rate

If the banking system continuously keeps excessive reserves, the deposit interest rate becomes *de facto* the lead interest rate. The control by the ECB over the interest rate at which banks lend each other Central Bank money, is only indirect[603]. Before the crisis, this indirect control was exercised by way of the main refinancing interest rate, at which the banks could actually refinance at the ECB its demand for Central Bank money, but in times of massive, long-term, excessive reserves, most banks could actually cover their demand or their requirements in Central Bank money without any problem at the inter-banking markets, so that the main refinancing interest rate actually lost its importance[604]. Important now, however, is that the deposit rate the ECB is actually paying to the banks through its excessive reserves, because Bank A will leave its excessive reserves only as long at Bank B, or lend it to Bank B only as long as Bank B pays an interest rate that is over and over above the deposit interest rate of the ECB.[605]

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[602] The key functions of the minimum reserve system are to stabilize money market interest rates and to enlarge the structural liquidity shortage of the banking system (Source: The Monetary Policy of the ECB. European Central Bank, Frankfurt 2004).

[603] Heider, F., Hoerova, M and Holthausen, C. *Liquidity Hoarding and Interbank Market Spreads, The Role of Counterparty Risk*, European Central Bank, Working Paper Series, No 1126 (December 2009), [online], available at https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1126.pdf (Accessed at 19 July 2015)

[604] Id.

[605] Id.

Ninth Misconception: The Negative Deposit Interest Rate

The reduction of the deposit interest rate to a negative level would be only a symbolic act. Banks would transfer their excessive reserves out of their deposit facility into their reserve accounts.[606] Their excessive reserves would not receive any interest but the negative interest rate could be simply circumvented by leaving the money on their own reserve accounts which is still better than a having to pay a penalizing negative interest rate. Therefore, a negative interest rate on the deposit rate at the ECB or as currently discussed at the Federal Reserve[607], would, at best, have a very minimal amelioration of the interbanking market and might in the case of the Eurozone cause marginally lower interest rates for instance for banks in the south in Europe[608]. It might also cause a small devaluation of the US$ which may be the hope by the Federal Reserve to keep the U.S. economy more competitive in light of its recent appreciation.[609] However, it will not free any reserves that can be actually then translated to credit facilities for the so-called real economy, i.e. industry and businesses[610].

Where are we standing with respect to the aftermath of the financial crisis in time? In this currently, difficult, double crisis of the world credit market and the Eurozone, banks are still sitting on balance sheets with enormously high debt mountains. Other than in the United States, in Europe, no government has actually dared to close or nationalize banks with only few mishandled exceptions[611]. Therefore, whatever the latest decisions of the European Central Bank, it is becoming very obvious to the author that the main goal is not to avoid deflation, but to have a long-term healing and restructuring of the banks, which is something that requires a significant amount of time. The fight against the dangers of deflation require higher salaries and higher wages and more demand, and in this request, the European Central Bank or the Federal Reserve are actually without any relevance.

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[606] Bloomberg, *Negative Interest Rates May Spark Existential Crisis for Cash*, (April 2015), [online], available at http://www.bloomberg.com/news/articles/2015-04-23/negative-interest-rates-may-spark-existential-crisis-for-cash (Accessed at 25 July 2015)
[607] Rosenberg, A., *Could negative rates be next on the Fed's policy menu? CNBC*, (20 Sep 2015 | 5:02 PM ET), [online], available at http://www.cnbc.com/2015/09/20/ (Accessed at 23 September 2015)
[608] See supra note 603.
[609] Id.
[610] See supra note 587.
[611] Market Watch, Austria nationalizes Hypo Group Alpe Adria, (December 2009), [online], available at http://www.marketwatch.com/story/austria-nationalizes-hypo-group-alpe-adria-2009-12-14 (Accessed at 20 July 2014)

III. INSTITUTIONAL AND ALTERNATIVE ACTORS OF CAPITAL FORMATION

A. Institutional Actors of Capital Formation (FED, ECB, IMF, WB and WTO)

The Federal Reserve System, often referred to as the Federal Reserve or simply "the Fed," is the central bank of the United States. It was created by the Congress to provide the nation with a safer, more flexible, and more stable monetary and financial system. The Federal Reserve was created on December 23, 1913, when President Woodrow Wilson signed the Federal Reserve Act into law[612].

The European Central Bank (ECB) is the central bank for Europe's single currency, the euro. The ECB's main task is to maintain the Euro's purchasing power and price stability in the Eurozone. The Eurozone comprises the 19 European Union countries that have introduced the Euro since 1999.[613] The tasks of the European System of Central Banks (ESCB) and the Eurosystem are laid down in the Treaty on the Functioning of the European Union[614]. They are specified in the Statute of the European System of Central Banks and of the European Central Bank. The Statute is a protocol attached to the

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[612] The Federal Reserve Act, (December 1913) [online], available at http://www.federalreserve.gov/aboutthefed/officialtitle.htm (Accessed at 23 September 2015). The Federal Reserve's responsibilities fall into four general areas. 1. Conducting the nation's monetary policy by influencing money and credit conditions in the economy in pursuit of full employment and stable prices. 2. Supervising and regulating banks and other important financial institutions to ensure the safety and soundness of the nation's banking and financial system and to protect the credit rights of consumers. 3. Maintaining the stability of the financial system and containing systemic risk that may arise in financial markets. 4. Providing certain financial services to the U.S. government, U.S. financial institutions, and foreign official institutions, and playing a major role in operating and overseeing the nation's payments systems.

[613] About the European Central Bank, [online], available at https://www.ecb.europa.eu/ecb/html/index.en.html (Accessed at 23 September 2015)

[614] The Treaty on the Functioning of the European Union generally refers to the ESCB rather than to the Eurosystem, since it was drawn up on the premise that all EU Member States would eventually adopt the euro. The Eurosystem is made up of the ECB and the national central banks (NCBs) of the EU Member States whose currency is the euro, whereas the ESCB comprises the ECB and the NCBs of all EU Member States (Article 282(1) of the Treaty). As long as there are EU Member States whose currency is not the euro, it will be necessary to make a distinction between the Eurosystem and the ESCB. Article 127(1) of the Treaty defines the primary objective of the Eurosystem: "The primary objective of the European System of Central Banks […] shall be to maintain price stability". It continues as follows: "Without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the Treaty on European Union." The European Union has multiple objectives (Article 3 of the Treaty on European Union), which include the sustainable development of Europe based on balanced economic growth and price stability, and a highly competitive social market economy, aiming at full employment and social progress. Consequently, price stability is not only the primary objective of the ECB's monetary policy, but also an objective of the European Union as a whole. Thus, the Treaty on the Functioning of the European Union and the Treaty on European Union establish a clear hierarchy of objectives for the Eurosystem, making it clear that price stability is the most important contribution that monetary policy can make to achieve a favorable economic environment and a high level of employment.

Treaty.[615] The ECB has the exclusive right to authorize the issuance of banknotes within the Eurozone.[616]

The International Monetary Fund (IMF) is an organization of 188 countries, working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world. The IMF, also known as the Fund, was conceived at a UN conference in Bretton Woods, New Hampshire, United States, in July 1944.[617] The 44 countries at that conference sought to build a framework for economic cooperation to avoid a repetition of the competitive devaluations that had contributed to the Great Depression of the 1930s[618]. The IMF's primary purpose is to ensure the stability of the international monetary system—the system of exchange rates and international payments that enables countries (and their citizens) to transact with each other. The Fund's mandate was updated in 2012 to include all macroeconomic and financial sector issues that bear on global stability.[619]

Today, France, Germany, China, and Russia are actively promoting the replacement of the U.S. dollar with an International Monetary Fund basket of currencies[620] — known as the Special Drawing Rights (SDRs)[621] — as the global reserve currency. The United States is resisting.[622]

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[615] European Central Bank, *Tasks of the Eurosystem*, [online], available at https://www.ecb.europa.eu/ecb/tasks/html/index.en.html (Accessed at 15 July 2015)

[616] Treaty on the European Union and Treaty on the Functioning of the European Union, [online], available at https://www.ecb.europa.eu/ecb/legal/1341/1342/html/index.en.html (Accessed at 15 July 2015)

[617] International Monetary Fund, *About the IMF*, [online], available at https://www.imf.org/external/about.htm (Accessed at 15 July 2015)

[618] Id.

[619] Id.

[620] International Monetary Fund, Special Drawing Rights, Factsheet (April 2015), [online], available at http://www.imf.org/external/np/exr/facts/sdr.htm (Accessed at 6 August 2015)

[621] The SDR was created by the IMF in 1969 to support the Bretton Woods fixed exchange rate system. A country participating in this system needed official reserves—government or central bank holdings of gold and widely accepted foreign currencies—that could be used to purchase the domestic currency in foreign exchange markets, as required to maintain its exchange rate. But the international supply of two key reserve assets—gold and the U.S. dollar—proved inadequate for supporting the expansion of world trade and financial development that was taking place. Therefore, the international community decided to create a new international reserve asset under the auspices of the IMF.

[622] Michael Pettis, *An Exorbitant Burden*, Foreign Policy (September 2011), [online], available at http://t.co/6mkBbrIBs1 (Accessed at 15 July 2015).

The World Bank Group consists of five organizations[623]: The World Trade Organization (WTO) deals with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably and freely as possible.[624] Trade relations often involve conflicting interests. Agreements, including those painstakingly negotiated in the WTO system, often need interpreting. The most harmonious way to settle these differences is through some neutral procedure based on an agreed legal foundation. That is the purpose behind the dispute settlement process written into the WTO agreements. The best international agreement is not worth very much if its obligations cannot be enforced when one of the signatories fails to comply with such obligations. An effective mechanism to settle disputes thus increases the practical value of the commitments the signatories undertake in an international agreement. The fact that the Members of the (WTO) established the current dispute settlement system during the Uruguay Round of Multilateral Trade Negotiations underscores the high importance they attach to compliance by all Members with their obligations under the WTO Agreement.[625]

[623] The International Bank for Reconstruction and Development (IBRD) lends to governments of middle-income and creditworthy low-income countries. The International Development Association (IDA) provides interest-free loans — called credits — and grants to governments of the poorest countries. Together, IBRD and IDA make up the World Bank. The International Finance Corporation (IFC) is the largest global development institution focused exclusively on the private sector. We help developing countries achieve sustainable growth by financing investment, mobilizing capital in international financial markets, and providing advisory services to businesses and governments. The Multilateral Investment Guarantee Agency (MIGA) was created in 1988 to promote foreign direct investment into developing countries to support economic growth, reduce poverty, and improve people's lives. MIGA fulfills this mandate by offering political risk insurance (guarantees) to investors and lenders. The International Centre for Settlement of Investment Disputes (ICSID) provides international facilities for conciliation and arbitration of investment disputes.

[624] World Trade Organization, [online], available at https://www.wto.org/ (Accessed at 6 August 2015). The WTO was born out of negotiations, and everything the WTO does is the result of negotiations. The bulk of the WTO's current work comes from the 1986–94 negotiations called the Uruguay Round and earlier negotiations under the General Agreement on Tariffs and Trade (GATT). The WTO is currently the host to new negotiations, under the 'Doha Development Agenda' launched in 2001. Where countries have faced trade barriers and wanted them lowered, the negotiations have helped to open markets for trade. But the WTO is not just about opening markets, and in some circumstances its rules support maintaining trade barriers — for example, to protect consumers or prevent the spread of disease. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations. These documents provide the legal ground rules for international commerce. They are essentially contracts, binding governments to keep their trade policies within agreed limits. Although negotiated and signed by governments, the goal is to help producers of goods and services, exporters, and importers conduct their business, while allowing governments to meet social and environmental objectives. The system's overriding purpose is to help trade flow as freely as possible — so long as there are no undesirable side effects — because this is important for economic development and well-being. That partly means removing obstacles. It also means ensuring that individuals, companies and governments know what the trade rules are around the world, and giving them the confidence that there will be no sudden changes of policy. In other words, the rules have to be 'transparent' and predictable.

[625] There are two main ways to settle a dispute once a complaint has been filed in the WTO: (i) the parties find a mutually agreed solution, particularly during the phase of bilateral consultations; and (ii) through adjudication. There are three main stages to the WTO dispute settlement process: (i) consultations between the parties; (ii) adjudication by panels and (iii) the implementation of the ruling, which includes the possibility of countermeasures in the event of failure by the losing party to implement the ruling.

B. Alternative Actors of Capital Formation

1. Money Market Funds

Zoltan Poszar[626] explains the institutional preference for managing cash pools outside the traditional banking systems largely by the poor track record of bank management which became evident in the post-crisis environment[627].

> The origin of the U.S. money market fund industry in early 1970s was inspired by restrictive banking regulation prohibiting banks from paying market rates on savings accounts. Despite the restrictions on rates being lifted over 30 years ago economic sources still often rationale money market funds through the prism of their competitive position with commercial banks.[628]

The theory predicted that "full deregulation of financial institutions will in all likelihood in turn lead to the end of the money market mutual fund experiment in ad hoc deregulation. The current size of the U.S. money market fund industry has proved this theory wrong.

Baklanova's analysis[629] of the U.S. money market fund gross offers an additional critique of the regulatory arbitrage-based hypothesis. Restrictive banking regulations limiting the interest paid on savings accounts was fully phased out by 1986 eliminating money market fund yield advantage introduced by regulatory arbitrage yet the U.S. money market funds asset under-management continued to grow over years reaching the all-time high in January 2009[630].

Following Baklanova[631] money market funds could be classified on the basis of their portfolio investments. The portfolios of these funds typically comprise short-term securities issued by a wide range of issuers from state and local governments to government and super-national agencies to financial institutions and non-financial

[626] Poszar, Zoltan, Adrian, Tobias, Ashcraft, Adam and Boesky, Hayley, *Shadow Banking*, Federal Reserve Bank of New York, Staff Reports, Number 458 (July 2010), [online], available at http://www.newyorkfed.org/research/staff_reports/sr458.html (Accessed at 20 July 2015)
[627] Baklanova, Viktoria, *Money market funds in the US and the EU: a legal and comparative analysis* (2012), PhD Thesis, University of Westminster, page 55 [online], available at westminsterresearch.wmin.ac.uk/10935/1/Viktoria_BAKLANOVA.pdf (Accessed at 6 August 2014)
[628] Id. at page 52.
[629] Id. at page 53.
[630] According to Baklanova these funds have retained the relatively stable asset level through a prolonged period of ultra-low interest rates in 2007 through the present. Baklanova concludes that a post-crisis analysis of money market funds' cash flows illustrates that investors are willing to pay a high price for the safety of their money.
[631] See supra note 588 at page 71

corporations. Money market funds can also invest in short-term securities in the range of privately negotiated transactions.

The key requirements for securities to be eligible for money market funds are credit, quality and maturity. Normally eligible securities must be of high credit quality and short maturities although specific objective standards concerning credit quality and maturity do vary depending on the jurisdiction[632].

Money market funds hold a significant share of the commercial paper market that provide short-term funding for corporate boards and a large portion of state and local government debt markets.[633] The US Treasury and government housing agencies also substantially rely on money market fund investments.[634]

Money market funds are commonly seen as providing a number of benefits for instance as suppliers of credit and liquidity to the financial system as a provider of a diversification of funding and cost saving to capital markets in particular for debt issues in terms of non-financial corporations providing access to capital markets and funding flexibility.[635]

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[632] See supra note 627.
[633] Kacperczyk, Marcin and Schnabl, Philipp, *When Safe Proved Risky: Commercial Paper during the Financial Crisis of 2007-2009,* Journal of Economic Perspectives, Volume 24, Number 1 (2010), page 35, [online], available at http://pages.stern.nyu.edu/~sternfin/mkacperc/public_html/commercial.pdf (Accessed at 20 August 2014).
[634] Id.
[635] Nazareth, Annette L, *SEC Adopts Money Market Reforms,* (August 2014), [online], available at http://corpgov.law.harvard.edu/2014/08/16/sec-adopts-money-market-fund-reforms/ (Accessed at 6 August 2015). On July 23, 2014, the Securities and Exchange Commission (the "SEC") adopted significant amendments (the "amendments") to rules under the Investment Company Act of 1940 (the "Investment Company Act") and related requirements that govern money market funds ("MMFs"). The SEC's adoption of the amendments is the latest action taken by U.S. regulators as part of the ongoing debate about systemic risks posed by MMFs and the extent to which previous reform efforts have addressed these concerns. The reforms stem primarily from the 2008 financial crisis and come on the heels of several years of vigorous debate between regulators and industry participants, as well as among regulators themselves, regarding the optimal way to regulate the roughly $3.0 trillion MMF industry. The perception of MMFs as a potential source of systemic risk requiring heightened regulation became prevalent following the announcement in September 2008 that the Reserve Primary Fund would "break the buck" and the subsequent run on MMFs. Given the broad economic importance of MMFs in the short-term financing markets and their wide use as vehicles for savings, the U.S. government temporarily intervened to halt the run. Amendments to MMF regulations were adopted by the SEC in 2010 to reduce the interest rate, credit and liquidity risks of MMF portfolios and to prevent the occurrence of similar runs in the future. Reforms advocated in 2012 by former SEC Chairman Mary Shapiro, such as capital buffers and redemption holdbacks, were strongly opposed by industry participants and by three SEC Commissioners and were never brought to a Commission vote. The Financial Stability Oversight Council separately issued proposed recommendations for further MMF reform in November 2012, which suggested the adoption of one or a combination of three alternative frameworks for additional MMF regulation. Last June, the SEC issued its proposed amendments by unanimous approval of the Commissioners and such proposed amendments were adopted with modifications by a 3-2 vote on July 23, 2014.

2. SHADOW BANKING

When we talk about the most prolific alternative actors of capital formation we have seen after the credit crisis many comments on financial innovations that were generally referred to as "shadow banking system".[636] In these comments money market funds are described as one of the major funding sources for shadow banks that show a high level of influence on credit availability for both financial institutions and the real economy[637]. The point being taken that the credit crisis has exposed a high level of interconnectedness of modern capital markets through financial innovations[638]. Zoltan Poszar defines:

> [S]hadow banks as "financial intermediaries that conduct maturity credit and liquidity transformation without access to central bank liquidity or public sector credit guarantees" and conducted a comprehensive inventory of financial innovations deemed to fit the definition of shadow banks.[639]

This is what Laura E. Kodres of the International Monetary Fund has to say about shadow banking.[640] Many financial institutions that act like banks are not supervised like banks. There is the old saying if it looks like a duck, quacks like a duck and acts like a duck then it is a duck or so the saying goes. But what about an institution that looks like a bank and acts like a bank often it is not a bank? It is a shadow bank.[641]

Kodres says shadow banking in fact symbolizes one of the many failings of the financial system leading up to the global crisis[642]. The term shadow bank was first coined by economist Paul McCulley in a 2007 speech at the annual financial symposium hosted by the Kansas City Federal Reserve Bank in Jackson Hole, Wyoming[643].

Shadow banks first caught the attention of many experts because of their growing role in turning home mortgages into securities. The securitization chain started with the

[636] See supra note 627.
[637] Id.
[638] See supra note 626.
[639] Id.
[640] Kodres, Laura E., *Shadow Banking – Measures for Monitoring and Mitigating?* International Monetary Fund (November 2013), [online], available at http://ourfinancialsecurity.org/blogs/wp-content/ourfinancialsecurity.org/uploads/2013/11/LAURA-KODRES-SHADOW-BANKING-PPT.pdf (Accessed at 24 August 2014)
[641] Kodres, Laura E. *What is Shadow Banking?*, International Monetary Fund, (June 2013), [online], available at http://www.imf.org/external/pubs/ft/fandd/2013/06/basics.htm (Accessed at 24 August 2014)
[642] Id.
[643] Id.

origination of a mortgage that then was bought and sold by one or more financial entities until it ended up part of a package of mortgage loans used to back a security that was sold to investors.[644] In theory, the value of the security was related to the value of the mortgage loans in the package or so you hope and the interest on a mortgage package-backed security was paid from the interest and principal homeowners paid on their mortgage loans.[645] Almost every step from creation of the mortgage to sale of the security took place outside the direct view of regulators.[646] At the very end of the securitization process the original title that connected the securitized right to the mortgage was often never properly transferred and perfected. Arguably, the paper was worthless.[647]

Problems arose during the recent global financial crisis however when investors became skittish about what those longer-term assets were really worth and many decided to withdraw their funds at once. To repay these investors shadow banks had to sell assets. These fire sales generally reduced the value of those assets forcing other shadow banking entities and some banks with similar assets to reduce the value of those assets on their books to reflect the lower market price creating further uncertainty about their health.[648]

But real banks were caught in the shadows too. Some shadow banks were controlled by commercial banks and for reputational reasons were salvaged by the stronger bank parent. In other cases the connections were at arm's length but because shadow banks had to withdraw from other markets including those in which banks sold commercial paper and other short-term debt these sources of funding to banks were also impaired. And because there was so little transparency it often was unclear who owned or who would owe later what to whom.[649] Estimating the size of the shadow bank system is particularly difficult because many of its entities do not report to government regulators. It still appears to be the largest in the United States but non-bank creditor intermediation is present in other countries as well and growing.[650]

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[644] See supra note 640.
[645] Id.
[646] Id.
[647] Levitin, Adama J., *The Paper Chase: Securitization, Foreclosure, and the Uncertainty of Mortgage Title*, Duke Law Journal, Vol 63:637, (2013), [online], available at http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=3406&context=dlj (Accessed at 20 June 2014)
[648] Id.
[649] Id.
[650] Id.

3. Issuers of Securitized Equity and Debt

In the most tradition form for savings to result in capital formation, they must be invested. In an asset securitization or structured finance transaction, the primary structural goal is to isolate the assets or collateral which will generate the cash flow to investors. Outside credit risks or exposure should be removed to the greatest extent possible[651].

Project loans can be securitized in at least two ways. The first way is for the holder of such loan, or the holders of various loans, to sell the loan or loans to a Special Purpose Entity (SPE) which will obtain the funds to make such purchase by issuing debt or equity securities to long-term institutional investors.[652] The second way is for long-term investors to make a new loan in order to refinance the origination loan made to finance one project or, if applicable, the origination loans made to finance several related projects. Such refinancing, especially if it involves more than one project, may utilize an SPE, owned by the project entities, to be the new borrower and issuer of the debt securities.[653]

An SPE may be a corporation, limited liability company, limited partnership or trust. Consequently, the SPE should not be able to incur additional debt or obligations that might enable a creditor to bring action against the SPE which might interfere with payment to the investors.[654]

The SPE also should be structured to reduce the possibility that a bankruptcy court, in a proceeding involving the parent or other affiliate, would order "substantive consolidation" of the assets of the SPE with those of its parent or affiliate. The transfer to the SPE should further be structured to be a true sale in order that the assets will not be deemed a part of the transferor's estate in the event of the transferor's bankruptcy or insolvency.[655]

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[651] Weitzu Chen, Chi-Chun Liu, Stephen G. Ryan, *Characteristics of Securitizations that Determine Issuers' Retention of the Risks of the Securitized Assets,* [online], available at *www8.gsb.columbia.edu/rtfiles/.../RYAN.doc*

[652] Id.

[653] Id.

[654] Bank for International Settlements, Basel Committee on Banking Supervision, *Report on Special Purpose Entities*, page 73, (September 2009), [online], available at http://www.bis.org/publ/joint23.pdf (Accessed at June 20 2014)

[655] Id.

FIGURE 11: THE COMPLEX WORLD OF DODD-FRANK[656]

Size or Type of Fund Test	Regulatory Regime
Fund advisers that advise PE Funds with more than $150 Million in AUM	Register with the SEC as Investment Adviser
Fund advisers that advise PE Funds with between $100-150 Million in AUM	Regulated by the SEC as "Exempt Reporting Adviser"; i.e., no registration, no examinations, but some paperwork and reporting
Fund advisers that advise PE Funds with less than $90-100 Million in AUM	Register with the state securities regulator, depending on state law
Fund advisers that "solely" advise VC funds	Regulated by the SEC as "Exempt Reporting Adviser"; i.e., no registration, no examinations, but some paperwork and reporting
Advisers that "solely" advise SBIC Funds	SBICs are already Regulated by the SBA. Therefore, Congress exempted these funds from SEC Registration but, depending on state law, may have to register with the state regulator.
Advisers that advise SBIC Funds and VC Funds	SBICs and VC Funds Lose their Exemption and Must Register if AUM is greater than $150 Million. This Results in Double Regulation by SEC and SBA for SBIC Funds.
Advisers that advise SBIC Funds and PE Funds	The SEC Counts the SBIC AUM in the SEC Registration threshold, triggering automatic registration if above $150 Million in AUM. This Results in Double Regulation by the SEC and SBA for SBIC Funds.

Under the 2010 Dodd-Frank Act[657], the regulatory landscape for the securitization of equity and debt has dramatically changed. Today, the changes require most private equity funds to register with the SEC or their state securities regulator. In most cases, the investment adviser rules are not designed for private equity firms. Small Business Investors can rarely afford the significant costs that are attached to the required with the SEC registration in the United States[658].

Dodd-Frank created an "Assets under Management" test[659] to determine how most advisers of Private Equity Funds are regulated. Other types of fund advisers are specifically

[656] Small Business Investor Alliance, *Capital Formation Agenda*, (2015, [online], available 2015_SBIA_Promoting_Capital_pdf. (Accessed at 20 September 2015)
[657] Six federal agencies approved a final rule requiring sponsors of securitization transactions to retain risk in those transactions. The final rule implements the risk retention requirements in the Dodd-Frank Wall Street Reform and Consumer Protection Act. According to the regulators, the final rule largely retains the risk retention framework contained in the proposal issued by the agencies in August 2013 and generally requires sponsors of asset-backed securities, or ABS, to retain not less than five percent of the credit risk of the assets collateralizing the ABS issuance. The rule also sets forth prohibitions on transferring or hedging the credit risk that the sponsor is required to retain. As required by the Dodd-Frank Act, the final rule defines a "qualified residential mortgage," or QRM, and exempts securitizations of QRMs from the risk retention requirement. The final rule aligns the QRM definition with that of a qualified mortgage as defined by the Consumer Financial Protection Bureau. The final rule also requires the agencies to review the definition of QRM no later than four years after the effective date of the rule with respect to the securitization of residential mortgages and every five years thereafter, and allows each agency to request a review of the definition at any time. The final rule also does not require any retention for securitizations of commercial loans, commercial mortgages, or automobile loans if they meet specific standards for high quality underwriting.
[658] See supra note 656.
[659] Id.

exempted from registration such as Venture Capital Funds and Small Business Investment Companies, but only if they advise solely these funds[660].

In the European Union, the situation is similar. The AIFMD Directive[661] has instituted a regime that allows Private Equity funds to "passport" their fund throughout all member states in the EU[662], so long the fund is registered within one Member State with the pertinent Financial Conduct Authority, as would be the case in the United Kingdom.[663]An Alternative Investment Fund, AIF, is a 'collective investment and includes hedge funds, private equity funds, retail investment funds, investment companies and real estate funds, among others. The AIFMD establishes an EU-wide harmonized framework for monitoring and supervising risks posed by AIFMs and the AIFs they manage, and for strengthening the internal market in alternative funds. The Directive also includes new requirements for firms acting as a depositary for an AIF.[664]

Dodd-Frank, AIFMD and the JOBS-Act[665] are all reactive regulatory attempts to mitigate the risks that were predominantly caused by asset-price bubbles due to monetary misallocation. Rather than dealing with the root cause, that is rarely missing regulation, a regulatory activism continues complicating capital formation as a closed-shop for "big boys' clubs" which are inaccessible for young, innovative entrepreneurs.

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660 See supra note 656.

661 The *Directive on Alternative Investment Fund Managers* was published in the Official Journal of the European Union on 1 July 2011. Its aim is to create a comprehensive and effective regulatory and supervisory framework for alternative investment fund managers within the EU. The Directive, as is generally the case with EU Directives, is not directly applicable itself and requires each EU Member State to enact domestic legislation to implement the Directive. It is therefore important when analysing the law in any given EU Member State to consider how the relevant Member State has implemented the Directive and whether the relevant Member State has any guidance regarding how the law should be interpreted in that jurisdiction. The vast majority of EU Member States have now implemented the Directive in their domestic legislation.

662 DIRECTIVE 2011/61/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010 [online], available at http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32011L0061 (Accessed at 20 August 2015) Managers of alternative investment funds (AIFMs) are responsible for the management of a significant amount of invested assets in the Union. The recent financial difficulties have underlined how the activities of AIFMs may also serve to spread risks through the financial system. Uncoordinated national responses make the efficient management of those risks difficult. This Directive therefore aims at establishing common requirements governing the authorisation and supervision of AIFMs in order to provide a coherent approach to the related risks and their impact on investors and markets in the Union. In order to provide comprehensive and common arrangements for supervision, it is necessary to establish a framework capable of addressing those risks taking into account the diverse range of investment strategies and techniques employed by AIFMs. This Directive does not regulate AIFs. AIFs should therefore be able to continue to be regulated and supervised at national level.

663 Id.

664 Id.

665 See Chapter IV. A.2. *JOBS Act of 2012*

4. BITCOIN

Releasing the first version of Bitcoin in January 2009, the fabled founder of Bitcoin Satoshi Nakamoto[666], opened a new era of capital formation, the **Age of Capital 2.0.** Nakamoto's identity remains hidden[667] even after he created his own currency coin, a computer program that is breathtaking in both its technological complexity as well as in its fundamental simplicity.

Bitcoin was intended from its start to be the first decentralized global currency that operates based on its libertarian philosophy independently of any government authority or monetary policy. Unsurprisingly, regulators are confronted with difficult legal questions that produce contradictory responses. Is Bitcoin a currency or an asset? Should it be regulated as a security? Does the U.S. even have jurisdiction over Bitcoin and how should those currency exchanges be regulated?[668]

The early beginnings of Bitcoin have probably their roots with a group of scientists in California that wanted to ascertain their access to cryptographic tools and protocols that have proven effective in cyphering digital messages and information. In the late nineties computer scientist Nick Szabo[669] began developing the idea of "Bitgold" which today is often considered as direct predecessor to Bitcoin[670]. Szabo's suggested that the value of a digital coin generated by a highly sophisticated cryptographic equation might be equal or traced in its value to the allocated computer power that was needed to generate that equation in the first place. However, this did not solve the so-called "double-spending problem" given that a computer code could always be copied. In a classic (digital) currency this is avoided by handing a supervisory function to central authorities like a central bank. Their idea was more in line with the creation of a digital gold standard.[671]

666 Nakamoto, Satoshi, Bitcoin: *A Peer-to-Peer Electronic Cash System*, [online], available at https://bitcoin.org/bitcoin.pdf (Accessed at 23 August 2015).
667 O'Leary, Martin: *The Mysterious Disappearance of Satoshi Nakamoto, Founder & Creator of Bitcoin*, [online], available at http://www.huffingtonpost.com/martin-oaleary/the-mysterious-disappeara_2_b_7217206.html (Accessed at August 25, 2015)
668 Futures Magazine, *CFTC claims jurisdiction over Bitcoin*, [online], available at http://www.futuresmag.com/2015/09/18/cftc-claims-jurisdiction-over-bitcoin (Accessed at September 23, 2015)
669 Knibbs, Kate, *Nick Szabo Is Probably Satoshi Nakamoto*, [online], available at http://gizmodo.com/nick-szabo-is-probably-satoshi-nakamoto-1704755126 (Accessed at August 6, 2015)
670 Id.
671 See supra note 666.

This issue was not effectively resolved until about 2009 when the anonymous founder of Bitcoin known only as Satoshi Nakamoto based on Szabo's ideas introduced the world to Bitcoin. Bitcoin was launched on January 3, 2009[672] and started producing Bitcoins providing the program on their computers. Nakamoto disappeared.

What differentiates Bitcoin from Szabo's earlier efforts like Bitgold? Similar to Szabo's Bitgold concept the first miner or pool or miners to solve the assigned puzzle is rewarded by the Bitcoin program in the form of newly generated Bitcoins as well as a cut of recently verified Bitcoin. Everyone else who lost the race receives no Bitcoin and a new round begins. Where at its most basic the Bitcoin software had created a mathematical puzzle that is difficult to solve it needs to be tried again by either individual users or by a pool of users, the so-called miners. The validation of a successful mining effort is conducted through majority verification by the rest of the miners in an act of associativity mining in the system.[673]

Nakamoto disposes of Szabo's problem of double spending, using the mining process not only to introduce new Bitcoins into circulation but also to verify every single Bitcoin transaction that has ever occurred. Therefore Bitcoin operates independently of any controlling central authority because no one outside supervisor or authorities needed to monitor, track and ensure the valid expenditure of Bitcoins[674]. Only once the validity has been verified a block is added to the block chain, its successful miners are rewarded with Bitcoins and everyone else who had been working on their own blocks gets nothing. A new round begins as fresh blocks are issued releasing a set number of new Bitcoins at a predetermined rate. Therefore Bitcoin incorporates a finite money supply that will eventually be kept once 21 million coins have entered circulation.[675]

Bitcoin offered protection from the traditionally inflationary policies of state-backed currencies. Nakamoto said: "The central bank must be trusted not to debase the currency but the history of feared currencies is full of breaches of that trust."[676] Just like Milton

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[672] *History of Bitcoin*, [online], available at http://historyofbitcoin.org/ (Accessed at 4 July, 2015)
[673] See supra note 666.
[674] Id.
[675] Id.
[676] Satoshi Nakamoto, *Bitcoin Open Source Implementation of P2P Currency, P2P Found* [February 11, 2009 at 10:27 p.m., http//p2pfoundation.ning.com/form/topics/bitcoin-open-source (Accessed at 4 August, 2015)

Freedman[677] said who once advocated the abolishing the Federal Reserve that "inflation would be better checked by an automated system that increased the money supply at a predetermined rate." Just like Bitcoin.

In March 2014 the IRS declared that virtual currencies such as the Bitcoin were not "currency but assets."[678] A strong statement bar legal basis given that the tax code does not actually define the term currency. However, under the IRS ruling, Bitcoin investors are now treated like people who invest in equity with all the advantages of long-term capital gains.[679] Investors who lost money for Bitcoin can subtract capital losses from capital gains including subtracting up to $3,000.00 of capital losses from ordinary income per year. Those who made it their profession to mine Bitcoins are now paying now personal income tax on any new Bitcoin on the Bitcoin's value at the day of mining[680]. Bitcoin mining business operations are subject to payroll taxes and worker's compensation rules on their miners. The ruling took effect immediately covering both past as well as future transactions and tax liability creating logistical nightmares to current operations.

Globally, financial regulators have remained divided as to how to treat Bitcoin based on laws and regulations on their books. Whether Bitcoin now must be considered an asset or still can be seen as money depends by far on whom you ask, even within the same jurisdiction. UCC Section 9-332[681] ensures that money can be transferred free of preexisting security interests so as to allow it to function as a viable means of exchange. Therefore, Bitcoin advocates allege that the IRS is wrong to treat Bitcoins as assets and that Bitcoins should be treated like any other form of money under the UCC. However, this is unlikely under commercial law as the UCC's existing definition of "money" under

677 Friedmann, Milton, *Interview*, Library of Economics and Liberty, (September 2006), [online], available at http://www.econlib.org/library/Columns/y2006/Friedmantranscript.html (Accessed at 4 July 2015)
678 IRS Virtual Currency Guidance : *Virtual Currency Is Treated as Property for U.S. Federal Tax Purposes; General Rules for Property Transactions Apply*, [online], available at http://www.irs.gov/uac/Newsroom/IRS-Virtual-Currency-Guidance (Accessed at 4 July 2015) 1
679 Id.
680 Id.
681 § 9-332. TRANSFER OF MONEY; TRANSFER OF FUNDS FROM DEPOSIT ACCOUNT, [online], available at https://www.law.cornell.edu/ucc/9/9-332 (Accessed at 4 July 2015) (a) [Transferee of money.] A transferee of money takes the money free of a security interest unless the transferee acts in collusion with the debtor in violating the rights of the secured party. (b) [Transferee of funds from deposit account.] A transferee of funds from a deposit account takes the funds free of a security interest in the deposit account unless the transferee acts in collusion with the debtor in violating the rights of the secured party.

Section 1-201[B]24[682] specifically states that it must be a "medium of exchange currently authorized or adopted by a domestic or foreign government."[683] Short of convincing the U.S. or a foreign jurisdiction to officially authorize or adopt Bitcoin as a recognized medium of exchange, this will not likely be the case.

In all of this only one thing appears to be certain. For the first time a [digital] currency does not require a third party authority to effectuate its validity but derives its validity from the acceptance of its users pursuant to a predetermined process that only became available by the advancement of technology and the widespread distribution of digital media.

Whilst usually the key argument purported for the acceptance of regular currency as money is that it is anchored by the fact that it is accepted for the payment of taxes,[684] i.e. by the government, the enormous progress made by Bitcoin it is anchored by the acceptance of its users. We, the people, the users of the currency, determine its acceptance in a common process.

Like Minsky said:

> Everyone can issue money, the trick is to get it accepted. [685]

Nakamoto might just have pulled it off. Whether Nakamoto’s digital gold standard will suffer the same fate as Bretton-Woods or the Euro these days remains to be seen once Bitcoin hits its ceiling. Certainly, a genius like Nakamoto will swiftly learn that the base of a currency is its economic product and neither metal nor the limitation of code. None appear on the balance sheet that actually expresses the value of money. After all, it is all about the accounting identity.

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682 (24) "**Money**" means a medium of exchange currently authorized or adopted by a domestic or foreign government. The term includes a monetary unit of account established by an intergovernmental organization or by agreement between two or more countries.

683 Id.

684 Kelton, Stephanie, *Monetary Operations and Government Finance*, p.20, (June 2015), University of Missouri-Kansas, http://www.levyinstitute.org/pubs/conf_june10/Kelton.pdf (Accessed at August 15, 2015)

685 Id.

CHAPTER 4: CAPITAL FORMATION AND LEGAL RISK

I. THE TRIPLE A MODEL FOR THE ANALYSIS OF CAPITAL FORMATION

The Triple A Model of *Accounting, Allocation and Accountability* for the analysis of Capital Formation follows directly the intrinsically linked balance sheets of the Capital Formation Life Cycle.[686] Whilst the system of *Accounting* of capital formation deals with the monetary capital formation process, the process of *Allocation* follows on the one hand the transfer of monetary capital resources from the balance sheets of the Sovereign Accounts of the Central Banks via the Accounts of the Financial Institutions and Commercial Banks to the Domestic or International Accounts of Corporate or Consumer Citizen and on the other hand the translation of the exchange value of non-monetary capital formation by human resources or industrial production into monetary terms via the accounts of the Financial Institutions to the Domestic or International accounts of Corporate or Consumer Citizen.

Ultimately, a judicial authority that is commensurate in its jurisdiction in geographic as well as legal scope needs to be in place in order to ascertain *Accountability* serving justice and effecting terminal resolution for misallocations that ended in default[687].

A. Accounting

The most important prerequisite to understand the centuries old principle of accounting is to comprehend the principles of Double-entry bookkeeping, DEB, that were probably developed in business practices as early as the 13th Century when it was first published in 1494 as a system by the Italian mathematician Luca Pacioli[688]. His insights open the door to see the intrinsically links between all the accounts in the Capital Formation Life Cycle[689].

686 See Exhibit A: *Capital Formation Life Cycle*
687 See Chapter 6.III. *A Plea for a Transatlantic Trade and Investment Court*
688 Lauwers, L. *Five Hundred Years of Bookkeeping, A Portrait of Luca Pacioli, Tidschrift voor Economie en Management*, Vol. XXXIX,3,1994 [online], available at https://lirias.kuleuven.be/bitstream/123456789/119065/1/tem1994-3_289-304p.pdf%2520kuleuven.be (Accessed at 15 July 2015)
689 See supra note 686.

1. Principles of Double-Entry-Bookkeeping

Double-entry bookkeeping has thus been used for well over five centuries in commercial accounting systems. If the mathematical formulation of any field should be well understood, one would think it might be accounting.[690]

Remarkably, however, the mathematical formulation of double-entry accounting that is algebraic operations on ordered pairs of numbers is largely unknown is mathematics, as well as in accounting. Double-entry bookkeeping implicitly uses a very specific and precise mathematical construction that is not part of undergraduate abstract algebra. That construction was developed in the 19th Century by William Rowan Hamilton[691] as a result of using ordered pairs to deal with the complex numbers. The multiplicative version of this construction is the group of fractions which uses ordered pairs of whole numbers to enlarge the system of positive whole numbers to the system of positive fractions containing multiplicative inverses.

The ordered pairs construction that is relevant to double-entry bookkeeping is the additive case usually called the group of differences. It is used to construct the number system with additive different versions by using operations and ordered pairs of non-negative, or, to be more précised, unsigned numbers. The key to grasp the connection with double-entry bookkeeping is to make the identification.

What is the double in double-entry bookkeeping?

> A business transaction does not affect just one item alone. There are at least two items to be considered in each transaction. The dual aspect of each transaction forms the basis underlying what is called double-entry accounting.[692]

The mathematical fact that every event that is recorded in the accounts affects at least two items is a characteristic of the transaction itself. The double-entry method is a method of

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690 Pense, Christine M., *Risk response systems,* PhD Thesis, Lehigh University (2008)
691 See supra note 688.
692 See supra note 690.

encoding an equation using ordered pairs of unsigned numbers, for instance T-accounts, to record transactions and make changes in the equation.[693]

The characteristic doubleness of the double-entry method is the double-sidedness of the T-accounts and the mathematical properties that follow. For instance, equal debits and credits in a transaction equal debit and credits in the trial balance of the whole set of accounts or ledger. The alternative to the double-entry method is to record a transaction by making an entry by adding assigned positive or negative number to each affected single-sided account. The exact same two or more accounts in the equation would still always be affected by this alternative method of recording a transaction since that is a property of the transaction itself not a property of the recording method.[694]

In conclusion, it may be said that there is a precise mathematical system underlying the system of double-entry bookkeeping used in business for over five centuries. The underlying mathematical construction was only explicitly developed in mathematics itself in the 19th Century.[695] The precise mathematical treatment of double-entry bookkeeping helps to clear up some misconceptions in the accounting literature by showing that what is specifically double in double-entry bookkeeping is the two-sidedness of the T-accounts which gives the system its debits and credits, not the fact that every transaction affects two or more accounts.

It also resolves the question of whether or not a common unit of account, for instance money, is necessary to use the double-entry method since the mathematics extends easily to a vector version of double-entry bookkeeping thereby representing the different types of goods and services involved in business transactions where no common measure of value is assumed[696].

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693 See supra note 690.

694 Ellerman, David, *On double-entry bookkeeping, the mathematical treatment*, University of California, Riverside, Pages 1 to 20, (December 2013) [online], available at http://www.ellerman.org/wp-content/uploads/2014/11/DEB-MathTreatment-reprint.pdf (Accessed at 20 July 2015)

694 https://www.auburn.edu/~johnspm/gloss/allocation

695 Id.

696 Id.

B. ALLOCATION

The division of things into shares or portions. In economics, the term refers primarily to the "allocation of resources,"[697] the process by which economic resources get allotted (apportioned, assigned) to their particular uses for directly or indirectly satisfying human wants. The five basic questions that are asked in the study of the allocation problem are:[698]

> 1. What goods and services should be produced? This requires a valuation or ranking of goods and services from most valued to least valued.[699]
>
> 2. How many units of each good (or service) should be produced? Since not everything can be produced, some goods must be sacrificed for other goods.[700]
>
> 3. How should those goods (and services) be produced? There are often different ways to produce a good. The amount of the good to be produced may influence the ways in which a good is produced[701]
>
> 4. When should the goods (and services) be produced? The time that a good (or service) is available may affect its value. Producers of skis must have their new equipment ready for the ski season. Economists, accountants and others use the concept of present value to adjust the value of goods (or money) that will be acquired at some point in the future. Generally, goods to be obtained or consumed at some future date are perceived to have a lower value than those available currently.[702]
>
> 5. How should those goods (and services) be distributed among the members of society? Societies must devise rules or principles that govern how goods are shared or distributed among its members. The ways that goods are distributed may alter incentives that influence the behavior of individuals. The distribution of goods among the members of society may also influence the ways in which different goods are valued.[703]

Following the Capital Formation Life Cycle it is during this process of *Allocation* from Sovereign accounts to the key accounts of the Financial Institutions and Commercial Banks and forward to Domestic and International Corporate and Consumer Citizens where the biggest misallocations have happened over the past 30 years[704] that translated to further

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697 https://www.auburn.edu/~johnspm/gloss/allocation
698 Larry Reynolds. *"Economics as a Study of the Allocation of Scarce Resources*." *Basic Microeconomics*. Boundless, 21 Jul. 2015, [online] available at https://www.boundless.com/users/233414/textbooks/basic-microeconomics/nature-of-economics-1/economics-as-a-study-of-provisioning-18/economics-as-a-study-of-the-allocation-of-scarce-resources-50-14707/ (Accessed at 17 September 2015)
699 Id.
700 Id.
701 Id.
702 Id.
703 Id.
704 See Chapter 4.IV.A. *CRASH*

misallocations in the translation of the exchange value of non-monetary capital formation and of course also other limited natural resources such as land or oil, that altogether ultimately reared their ugly head in the form of asset-price bubbles[705].

What makes the difference between an allocation that effectively creates value added[706] and may be considered an investment yielding returns over a long period of time and an allocation that provides for consumption and the maintenance of necessities or the difference between a long-term income-stream and an misallocation where the corresponding product, good, service, property, plant or equipment ultimately does not keep its promise being of equivalent exchange value but of inferior worth as expressed in its declining market price, can simply be followed by observing the balance sheets of the Capital Formation Life Cycle[707].

For instance, as in the case demonstrated in Exhibit A, a machine was not working properly, and its purchaser is all by a sudden in a position that he cannot repay the loan he took out to purchase the production facility.

In our case, he needs to declare default due to an insolvency[708]. Extrapolate this case to a cross-border transaction where the financing took place in the European Union, the purchase of the machine and the construction of the production facility took place in the United States and you end up with the level of complexity we are dealing with in our transatlantic legal practice every day. And this is a case of simple default due to mere failure with no fault or fraud involved.

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705 See supra note 29.
706 Bezemer, Dirk J., *Schumpeter May Be Right Again: the Functional Differentiation of Credit*, Economics of Credit and Debt, [online], available at http://www.economicsofcreditanddebt.org/media/research/The_Functional_Differentiation_of_Credit.pdf (Accessed at July 17, 2014)
707 See Exhibit A: *Capital Formation Life Cycle*
708 See supra note 240.

C. ACCOUNTABILITY

The term *Accountability* stems from the Latin *accomptare* (to account), a prefixed form of *computare* (to calculate), which in turn derived from *putare* (to reckon). While the word itself does not appear in English until its use in 13th century Norman England the concept of account-giving has ancient roots in record keeping activities related to governance and money-lending systems that first developed in Ancient Egypt, Israel, Babylon, Greece, and later, Rome.[709]

Looking at who did and in particular did not take responsibility for such misallocations, how they were determined, dealt with and ultimately disposed of, is the last stage of this Triple A Model, by analyzing the *Accountability* of those in charge and responsible.

Unsurprisingly, we all assume, that responsibility requires a correspondent institution that has the judicial authority to determine default[710], fault[711], and failure[712] with the power to bring those responsible to justice in case of fault providing restitution, and offer terminal resolution correcting misallocations by availing itself of the other equitable remedies of rescission or reformation of contract in the mere case of failure.

Unfortunately, we also find, that such commensurate judicial authority only exists on the local level for domestic cases[713]. However, given the highly international, transatlantic and often even global nature of these cases of misallocation and sometimes misappropriation or even outright fraud[714], do not find an institution of correspondent and concurrent geographic and judicial scope and authority with the requisite powers to remedy ultimately providing *Accountability*[715].

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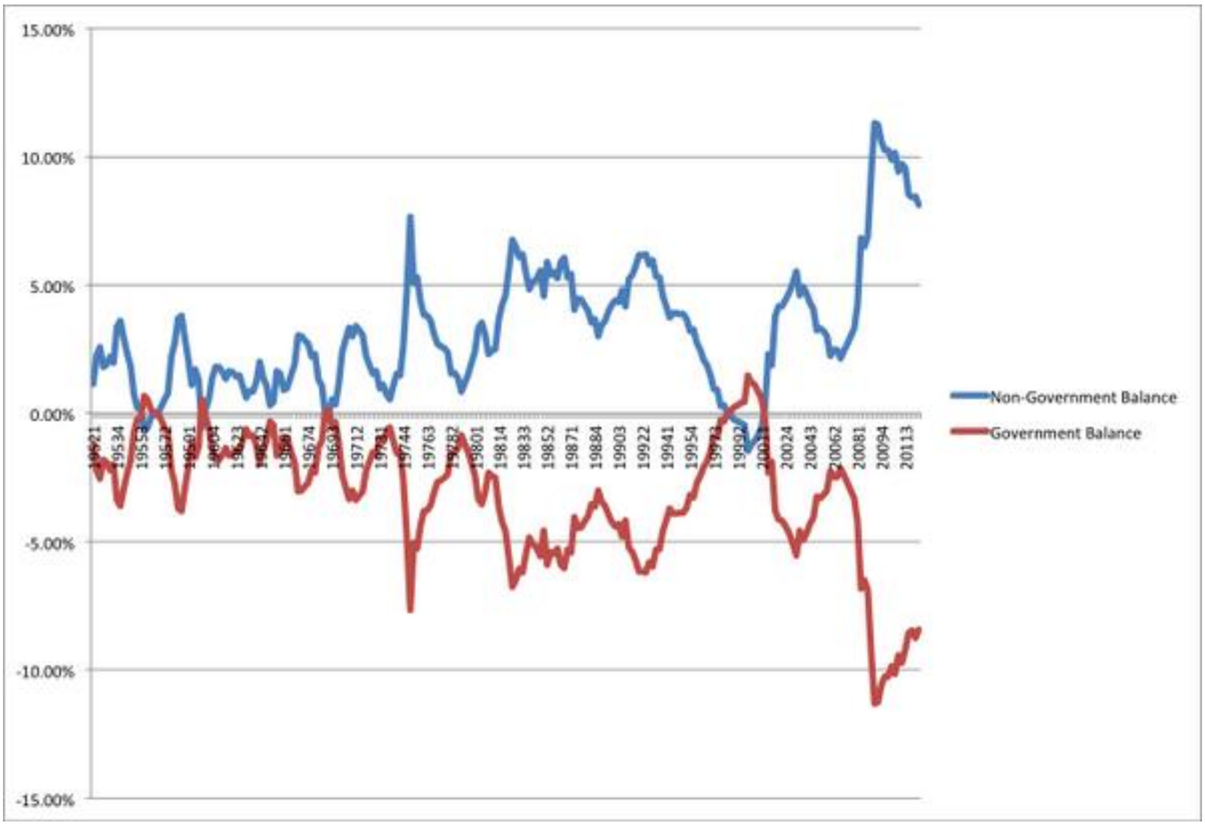
709 Dubnick, Melvin, *Accountability as Cultural Keyword*, VU University, (May 2012), [online], available at http://mjdubnick.dubnick.net/papers/2012/Dubnick%20VU%202012.pdf (Accessed at July 21, 2014)
710 See supra note 240.
711 Posner, Eric A., *Fault in Contract Law*, University of Chicago Law School (2009), [online], available at http://www.ericposner.com/fault_in_contract_law.pdf (Accessed at 20 July 2014)
712 Canova, Timothy A., *Financial Market Failure as a Crisis in the Rule of Law*: From Market Fundamentalism to a New Keynesian Regulatory Model, (October 2009), Harvard Law & Policy Review, Vol. 3 2009, [online], available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1489492 (Accessed at 20 July 2014)
713 Mead, Joseph W., *Stare Decisis in the Inferior Courts of the United States*, Nevada Law Journal, Vol.12:787, [online], available at http://scholars.law.unlv.edu/cgi/viewcontent.cgi?article=1521&context=nlj (Accessed at July 20, 2014)
714 See supra note 342.
715 See supra note 709.

II. ACCOUNTING AND CAPITAL FORMATION

A. THREE ACTORS OF CAPITAL FORMATION

FIGURE 12: NON-GOVERNMENT BALANCE VS. GOVERNMENT BALANCE[716]



1. ROLE OF CENTRAL BANKS

The Role of the Central Banks[717] is nowadays primarily being an agency for monetary policy. Usually, it also has important financial stability factions and those become more prominent during times of financial turmoil[718]. The structure of those roles, the

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[716] Kelton, Stephanie, Chief Economist, U.S. Senate Budget Committee, (November 2013), [online], available at http://stephaniekelton.com/ (Accessed at July 24, 2014)

[717] Archer, David, Bank for International Settlements, *Roles and objectives of modern central banks*, [online], available at http://www.bis.org/publ/othp04_2.pdf (Accessed at July 25, 2014)

[718] Wray, Randall L, *The Credit Money and State Money approaches*, Center for Full Employment and Price Stability, [online], available at http://www.cfeps.org/pubs/wp/wp32.html (Accessed at July 25, 2014). Wray argues that "with respect to the effective role that the dominant state actor in monetary capital formation, the Federal Reserve plays, Schumpeter made a useful distinction between the period "monetary theory of credit," and the "credit theory of money." The first sees private "credit money" is only a temporary substitute for "real money." Final settlement must take place in real money, which is the ultimate unit of accounts or failure at means of payment. Exchanges might take place based on credit, but credit expansion is strictly constrained by

responsibilities given and the range of other factions allocated vary between countries. The main issues are as follows: What degree of independent authority does the central bank have to decide policy make policy decisions and implement those decisions? This question also relates to the degree of influence over exchange rate policy and the setting of objectives for both monetary and exchange policies.

When a modern government spends, it issues a check drawn on the treasury. As we can see in Figure 11[719], its liabilities increase by the amount of the expenditure, and its assets increase in the case of a purchase of a good produce by the private sector, or some other liabilities are reduced in the case of a social transfer. The recipient of the check will almost certainly present it to a bank for currency or deposit. In the former case, the bank's reserves are first increased and then are reduced by the same amount. In the latter case, the reserves are credited in the amount of the deposit. The reserves credited are the bank's assets and as the Central Bank's liability are nothing less than a claim on government-issued money.[720] In other words, Treasury spending by check really is the equivalent of

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the quantity of real money. Ultimately, only the quantity of real money matters so far as economic activity is concerned. The credit theory of money, by contrast, emphasizes that credit normally expands to allow economic activity to grow. This new credit creates new claims on high-powered money, even as it leads to new production. However, because there is a clearing system that cancels claims and debits without use of high-powered money or HPM, credit is not merely a temporary substitute for HPM. Schumpeter does not deny the role played by HPM as an ultimate means of settlement. He simply denies that it is required for most final settlements. Note that if the Central Bank paid interest on excess reserves, the Treasury would never need to sell bonds, because the overnight interest rate could never fall below the rate paid by the Central Bank on excess reserve. Note also that in spite of the widespread belief that government deficits push up interest rates, they actually reduce the overnight rate to zero unless the Treasury and Central Bank coordinate efforts to drain the resulting excess reserves. On the other hand, budget surpluses drain reserves causing a shortage that drives up the overnight rate, unless the Central Bank and the Treasury buy and/or retire government debt. Needless to say, orthodoxy has got the interest effects of government budgets exactly backwards. To put it as simply as possible, the state chooses the unit of account in which the various money things will be denominated. In all modern economies, it does this when it chooses the unit in which taxes will be denominated and names what is accepted in tax payments. Imposition of the tax liability is what makes these money things desirable in the first place, and those things will then become the money thing at the top of the money pyramid used for ultimate clearing. Of course, most transactions that do not involve the government take place on the basis of credits and debits, that is, privately issued money things. This can be thought of as leveraging activity".

[719] See supra note 716.

[720] See supra note 718. Wray argues further that "these additions to subtractions from reserves are carefully monitored and regulated by coordination between the commercial bank and the Treasury. Things would be much simpler and more transparent if tax receipts and Treasury spending were perfectly synchronized. In that case, the Treasury's spending would increase reserves, and the simultaneous tax payments would reduce them. If the government ran a balanced budget, there would be no net impact on reserve, so there would be no need for complex coordination between the commercial banks and Treasury using tax and loan accounts. However, when spending exceeds tax revenues, a budget deficit, there is a net injection of reserves. It is possible that the extra reserves created happened to coincide with growing bank demand for services, for reserves, in which case the Treasury and the commercial bank need to do nothing more. More probably, the net injection of reserves leads to excess reserves offered in the overnight market. Excess reserves cause the overnight rate to fall below the commercial bank's target, inducing it to drain reserves either through market sale or by reducing its discounts. When the Treasury runs a sustained deficit, the commercial bank must continuously intervene,

printing money. In that, it increases the supply of bank reserves. Unless bank required reserves increase by an equivalent amount, the banking system finds itself with excess reserves after the Treasury has spent[721].

The important thing to notice is that the Treasury, the ECB or the Bank of England can spend before and without regard to previous receipt of taxes or prior bond sales[722]. In the United States, taxes are received throughout the year, although not uniformly, as tax payments are concentrated around April 15. These are mostly paid into special tax accounts held at private, commercial banks. It is true that the treasury transfers funds to its account at the Central Bank or at the commercial bank when it wishes to spend, but this is really a reserve maintenance operation designed to minimize effects on reserves.[723]

When the Treasury spends, bank reserves increase by approximately the same amount, less only cash withdrawals. The simultaneous transfer from tax accounts to the Central Bank neutralizes reserve effects. Tax payments lead to a reserve drain, as the Treasury submits checks and received to the Central Bank for clearing, at which point, the Central Bank debits bank reserves.[724]

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eventually running out of bonds to sell. While it may sound strange, we conclude that the Treasury bond sales are not a borrowing operation at all, but a reserve draining operation that substitutes one kind of government liability for another. Indeed, the Treasury cannot really sell bonds unless banks already have excess reserves, or unless the Central Bank then is ready to provide reserves, the banks will need to buy the bonds. If the Treasury typically tried to first borrow by selling bonds before it spent, it would be draining reserves it will create only once it spends. As it drained required reserves, it could cause the Fed funds rate to rise above the Central Bank's target inducing an open-market purchase and injection of reserves. Another way of putting it is that the government spends by issuing IOUs, and the private sector uses those IOUs to pay taxes and buy government bonds. Obviously, if government spending were the only source of these IOUs, the private sector could not pay taxes or buy bonds before the government provided them. In the real world, government spending on goods and services is the main, but not the only source of the IOUs needed by the private sector to pay taxes and buy government bonds. In addition, the Central Bank provides reserves for discounts or open market operations or gold and foreign currency purchases, and these IOUs are perfect substitutes for Treasury IOUs."

[721] See supra note 718.

[722] McLeay, M., Radia, A and Thomas, R., *Money creation in the modern economy*, Bank of England, Quarterly Bulletin (2014 Q1), [online], available at http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q1prereleasemoneycreation.pdf (Accessed at 23 August 2014)

[723] Wray, Randall L, *Monetary Policy, An Institutionalist Approach*,, Center for Full Employment and Price Stability, [online], available at http://www.cfeps.org/pubs/wp/wp21.html (Accessed at July 25, 2014)

[724] Id.

Stephanie Kelton, Chief Economist at U.S. Senate Budget Committee, summarizes these operations in her simple, and thus so fundamental, piece "What happens when the government tightens its belt", as follows[725]:

> The laws of accounting allow us to demonstrate that similarly powerful concepts apply to the science of economics. Beginning with the simple identity for GDP in a closed economy, we have:[726]
>
> Y = C + I + G, where:
> Y = GDP = National Income
> C = Aggregate Consumption Expenditure
> I = Aggregate Investment Expenditure
> G = Aggregate Government Expenditure
>
> It simply recognizes that the total amount of money spent buying newly produced goods and services will yield an equivalent income to the sellers of these products. Thus, it demonstrates that expenditures are a source of income.[727] Because the economy's financial flows are a closed system – every payment must come from somewhere and end up somewhere – one sector's surplus is always the other sector's deficit. As the government "tightens" its belt, it "lightens" its load on […], shifting the relative burden onto you. [728]

The author concurs with Kelton when she points out that this is not rocket science, but

> [I]it appears to befuddle scores of educated people, including President Obama, who said, *"small businesses and families are tightening their belts. Their government should, too."* This kind of rhetoric may temporarily boost his approval ratings, but the policy itself will undermine the efforts of the very families and small businesses that are trying to improve their financial positions.[729]

However, to understand the fundamental role and function of the Central Bank is to see that the economy's financial flows are a closed system and one sector's deficit is another's surplus, the same way it is impossible for every country in the world, to have a trade surplus—at least one country must have a trade deficit for the others to have surpluses.[730]

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[725] Kelton Stephanie, now Chief Economist, U.S. Senate Budget Committee, *What happens when the government tightens its belt* (May 2011), [online], available at http://neweconomicperspectives.org/2011/05/what-happens-when-government-tightens-2.html (Accessed at August 6, 2015)
[726] Id.
[727] Id
[728] Id.
[729] Id.
[730] Fulwiller, Scott, *The Sector Financial Balances Model of Aggregate Demand—Revised*, (July 2009), [online], available at http://neweconomicperspectives.org/2009/07/sector-financial-balances-model-of_26.html (Accessed at July 25, 2014)

2. Role of Commercial Banks

The Role of Commercial Banks[731] is to be a type of bank that provides services such as accepting deposits, making business loans, and offering basic investment products. The term "Commercial Bank" can also refer to a bank or a division of a bank that mostly deals with deposits and loans from corporations or large businesses, as opposed to individual members of the public (retail banking), in the United States it also served as a distinction from an investment bank pursuant to bank regulation. After the Great Depression, through the Glass–Steagall Act[732], the U.S. Congress required that commercial banks only engage in banking activities, whereas investment banks were limited to capital market activities. This separation was mostly repealed in 1999 by the Gramm–Leach–Bliley Act[733] but was restored by the Volcker Rule, implemented in January 2014 as part of the Dodd-Frank Act of 2010[734].

Commercial banks have historically been playing a special role in financial markets for two reasons. One is that they perform a critical role in facilitating payments. The other is that they have long played an important, although obviously less exclusive, role in channeling credit to households and businesses. Commercial banks, as well as other intermediaries, provide services in screening and monitoring borrowers. And by developing expertise, as well as diversifying across many borrowers, banks reduce the costs of supplying credit.[735] Therefore, in their role as lenders, banks are often not merely banks and once that rather they are providing significant financial services associated with extending credit to their customers. And to the extent that the investors want to hold bank liabilities, banks can fund borrowers directly.[736]

[731] Samolyk, Katherine, *The Future of Banking in America, The Evolving Role of Commercial Banks in U.S. Credit Markets*, FDIC Banking Review, (2004), [online], availale at http://neweconomicperspectives.org/2009/07/sector-financial-balances-model-of_26.html (Accessed at 25 July 2014)

[732] Journal of Business & Economic Research, *The Repeal of the Glass-Steagall Act And The Current Financial Crisis*, (January 2011), [online], available at http://www.unarts.org/H-II/ref/949-3747-1-PB-1.pdf (Accessed at 26 July 2014)

[733] Federal Trade Commission, *Gramm-Leach-Bliley-Act,* (Pub.L. 106–102, 113 Stat. 1338, enacted November 12, 1999) [online], available at https://www.ftc.gov/tips-advice/business-center/privacy-and-security/gramm-leach-bliley-act

[734] H.R.4173 - *Dodd-Frank Wall Street Reform and Consumer Protection Act*, (July 2010), [online], available at https://www.congress.gov/bill/111th-congress/house-bill/4173 (Accessed at July 25, 2014)

[735] See supra note 731.

[736] Id.

In the early 90's, as the U.S. banking industry emerged from its most significant rise since the great depression, policymakers were asking whether the importance of banks in financing economic activity had become permanently diminished[737]. Ten years later, the share of domestic debt funded on commercial bank balance sheets stand at just over 20 percent, down from 30 percent 3 decades ago. Commercial bank loans now account for only 60 percent of short-term borrowing by non-financial businesses compared with 75 percent in the mid-70's.[738] If now non-profitability and other measures of performance indicate that banking has rebounded from the crisis, the role of banks in U.S. credit markets remain under scrutiny.

The FDIC concludes that, although commercial banking's own balance sheet activity has declined as a piece of the greater market pie[739], the industry's off-balance sheet activities are a growing source of income[740]. Hence, the ultimate finding is that banking is evolving, but does not appear to be declining. Even according to some fairly traditional measures, the commercial banking industry remains remarkably important in funding credit flows in the United States, especially credit flows to non-financial businesses.

The core problem is that the Central Bank does not really have any effective breaks for the expansion of the enormous credit volume of the commercial banks. It, in all actuality, does not have the ability to effectively limit the expansion of the credit volume by way of its interest policy.[741] It is a rarity that within our monetary system banks can actual create an almost unlimited amount of credit and thereby fiat money, book money, out of nowhere. The required equity capital, even after the new rules of Banking Regulation, Bank of Supervisor, Basel 3, is still only 4.5 percent as the so-called core capital[742], the hardcore capital, and that is very low, especially when banks, buy treasury bills or state bonds they do not need actually for those credits to the governments any coverage by equity. So, the effective coverage requirement by equity is zero.[743]

[737] See supra note 732.
[738] Id.
[739] Id.
[740] Id.
[741] See supra note 585.
[742] Bank for International Settlements, Basel Committee on Banking Supervision, *Report on Special Purpose Entities*, page 73, (September 2009), [online], available at http://www.bis.org/publ/joint23.pdf (Accessed at June 20 2014)
[743] Bank for International Settlements, Basel III: Capital (June 2011), [online], available at http://www.bis.org/bcbs/basel3.htm (Accessed at 6 August 2015).

3. Role of Citizens/Consumer/Corporate

The role of the citizen, be it the corporate citizen or the consumer is largely explained by one word. She is a *user*.[744] This is a role they also share with local governments. And in this context, local governments include purportedly sovereign Member States of the European Union and the states of the United States of America. They are not sovereign when it concerns their currency. They are solely *users* of the Euro or the US dollar. This is, of course, very different for the situation in the United Kingdom or Switzerland.[745]

However, citizens, users of the currency, play also a significant role not only by using money as a means of exchange but also by making sure it remains in circulation and, yes, ultimately gets destroyed again.[746] When someone repays the loan, the opposite process happens and money is actually destroyed. It effectively disappears from the economy entirely. This is vitally important because it means that if we the public start reducing our debt by collectively borrowing less and repaying more, then the amount of money in the economy will actually start to shrink. If we all collectively reduced our debt by 1 billion, then the money supply of the economy would actually fall by a billion.[747] There would be a billion Euros less money changing hands in the economy. If we significantly reduce the debt, then the shrinkage in the money supply could actually cause the economy to slow down or grind to a halt. Since this is so counter-intuitive to what we hear day in, day out by economists and, in particular, politicians, it truly is important to understand. Again, it is an accounting identity[748].

Although we all think it's a good idea to get out of debt, and most of us – as currency users - are trying to get out of debt, as long as we keep the current system, it will be impossible to reduce our collective debt without slowing down and potentially destroying the economy.[749]

[744] Kelton, Stephanie, *Monetary Operations and Government Finance*, p.20, (June 2015), University of Missouri-Kansas, http://www.levyinstitute.org/pubs/conf_june10/Kelton.pdf (Accessed at August 15, 2015)
[745] Id.
[746] Id.
[747] See supra note 730.
[748] See supra note 729.
[749] Id.

B. LEGAL RISKS IN THE ACCOUNTING OF CAPITAL FORMATION

Going back to the four factors of Legal Risk, the *Law, Lack of Right*, *Liability* and *Limitation*, here are the legal risks, the author found in the accounting of capital formation:

We all know that it's illegal to create your own money and that the police will come and arrest you if you do, but there's a real twist in this story, which is that cash, the physical money, is only 3 percent of all the money that exists[750]. So, what about the other 97 percent? They are just numbers in computer systems, so, when you check your bank balance, there is no cash there in the bank, it's just a number in a computer. Banks are entitled to extend credit[751] by the mere fact of their banking license but then the question is, who creates these deposits and what is the risk of creating your own currency such as the infamous Bitcoin?

The Legal Risk posed by the creation of your own currency such as Bitcoin could be qualified under Whalley as the risk of a business failing to implement regulatory requirements. The production of Bitcoin constitutes a risk due to the intepretation of the law. However, it the production of your own currency also presents a risk given the obligations that for instance in the United States originate in the Uniform Commercial Code and in the Internal Revenue Code that requires taxes to be paid in legal currency.

Following Mahler the production of bitcoin or any other currency could be also qualified as a Deontic Legal Uncertainty. Given the obligatory nature of the norm, pursuant to Hohfeld, it therefore could also be characterized as a Duty. In conclusion, following our FDLR-Model, the production of Bitcoin constitutes the Legal Risk of *Law*.

[750] See supra note 585.
[751] Id.

A debt contract with your bank is an agreement in which you agree to repay funds to a lender. For example, in a mortgage transaction, you agree to make monthly payments to the bank. In a short-term debt contract, you must repay the loan within 12 months. The maturity of a long-term debt contract exceeds a year.

As discussed earlier, the bank holding a debt contract on its books is holding a demand against its customer for repayment and therefore an asset on its books. The customer of the bank, however, is holding a liability[752].If you want less debt, we also have to have less money in the economy, and that is a catch 22. The government has a choice between encouraging people to borrow more or getting them to pay down their debts, but if they pay down their debts, it might shrink the economy.[753]

The legal risk in the form of a debt liability finds its ultimate realization in the state of default on a debt contract. Whether or not the debtor will be in a position to repay will depend on a factual uncertainty if the contract will ultimately be enforceable. The classic example for qualification factual uncertainty is the use of non-standard terms and conditions or a technical default.[754]

Our current system of practically unlimited monetary expansion and skewed allocation that is based on *FIAT* money and interest driving up prices in certain sectors of the economy as we experienced in this century first in the dot-com bubble of 2000[755], then in the real-estate bubble of 2005-2007[756], then ultimately in the financial crisis of 2008 and now finally in the asset-price bubble of 2015[757], in almost pure biblical intervals of 7 years at the time, could very well characterized as a system based on a *contract capitale* of capital formation based on the use of non-standard terms and conditions.

[752] See supra note 585.
[753] See supra note 744.
[754] See supra note 223.
[755] See Chapter 4.IV.A. *CRASH*
[756] Id.
[757] See supra note 29.

Whilst the unwitting user, i.e. the debtor perceives the process of bank lending as one where deposits of savers are changing hands with the credit lines of the debtors with the sole difference that the middleman, the bank, is charging interest for its service of administering the good deed, both the economic and legal reality of the transaction is a completely different one. And all by a sudden the floor quite literally falls out of the bottom of the barrel of the economy.[758]

As a result both Commercial Banks and citizens will possibly end up declaring default. First, the citizen by having to declare her failure to repay, then – as we can skillfully observe at so many occasions since the financial crisis of 2008 in the United States and more recently also in Europe – once it reaches critical mass and bank equity does not any longer suffice, also the banks.[759]

The Legal Risk posed by credit agreement with a commercial bank could be qualified under Whalley as the risk of failing to comply with certain terms of a contract. Of course, there may have been a use of non-standard terms and conditions which we most likely would characterize them as so unusual and skewed that they are a case for the Consumer Finance Protection Bureau or however such institution is called in your jurisdiction.

We would see them as the kind of "tricky contract" that tries to woe consumers into closing an agreement whilst the, mostly criminally minded, perpetrators already know that they will likely take great monetary advantage of the unwitting consumer. Thus it poses a risk depending on a set of facts.

Therefore, following Mahler, it could be also characterized as a Qualification Factual Uncertainty. Hohfeld described a liability also as the absence of an immunity. Hence, short of a constitutional law that declares bank debt invalid it can be concluded that following our FDLR-Model lending from a commercial bank constitutes the Legal Risk of *Liability*.[760]

[758] See supra note 743.
[759] Id.
[760] Who would have guessed?

We have all heard over the past seven years the ongoing sleuth of news over the so called *sovereign debt crisis*[761] and its failed attempts of resolution. They concern us at home in the United States, in the UK, but also significantly in mainland Europe with the continuous onslaught of the Euro-crisis, in particular, in Greece, but also with respect to the instable financial position in the other so-called *PIIGS countries*[762]*;* that is derogatory, short speak for Portugal, Italy and Ireland, Greece and Spain.

In the context of the discussions over haircuts, reorganizations, and the requirement to transfer assets to so-called trust funds for the purpose of privatizing Greek airports by selling them state-owned German Fraport, sometimes the concept of "sovereign immunity" gets still timidly invoked.

Here, we will have to come to the conclusion that the concept of the *normative force of the fact* developed by the great Austrian legal scholar Georg Jellinek[763] has long established a situation where the absence of power by legitimate democratic leaders in the form of parliamentary institutions and the government has become so apparent that any denial has long become obsolete.

The Legal Risk posed by the sovereign debt crisis could be qualified under Hohfeld as the absence of a power or as Whalley had put it the failure to meet the standard of care of non-contractual obligations. It is a legal uncertainty that is dependent on the interpretation of the law, a risk that manifests itself due to the fact that it is based on norms that are either not valid or not based in competence, what Mahler would call a Qualification Legal uncertainty. Here it could be seen as a situation where depending on uncertain validity rules for instance sovereign debt may not be collectible and the legal risk of a *Limitation* may materialize. In conclusion, following our FDLR-Model the FDCA rules constitute the Legal Risk of *Limitation.*

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761 Reinhart, Carmen M. and Rogoff, Kenneth S., *Financial and Sovereign Debt Crises: Some Lessons Learned and Those Forgotten,* IMF Working Paper, WP/13/266, International Monetary Fund, (2013), [online], available at https://www.imf.org/external/pubs/ft/wp/2013/wp13266.pdf (Accessed at 8 August 2015)

762 Brazys, Sam and Hardiman, Niamh, *The 'PIIGS' acronym had a clear negative impact on the response of financial markets to the 'PIIGS' countries during the crisis*, London School of Economics and Political Science, [online], available at http://blogs.lse.ac.uk/europpblog/2014/12/12/the-piigs-acronym-had-a-clear-negative-impact-on-the-market-treatment-of-the-piigs-countries-during-the-crisis/ (Accessed at 26 August 2015)

763 Enzyklopaedie der Rechtsphilosophie, Georg Jellinek, {online], available at http://www.enzyklopaedie-rechtsphilosophie.net/autorenliste/19-beitraege/102-jellinek-georg (Accessed at 8 August 2015)

III. ALLOCATION AND CAPITAL FORMATION

A. Five Key Accounts of Monetary Capital Formation

Capital formation involves the growing of capital assets by efficient utilization of the available monetary, production and human resources of a local economy. The stock of capital goods can be built up and increased through two main sources, domestic resources and external resources. Domestic sources play an important part in promoting development activities in the country.[764]

These sources are *inter alia* voluntary savings through households and businesses. Those voluntary savings depend upon various factors such as the income per capita, the distribution of wealth, the availability of banking facilities. The involuntary savings in developing countries are usually met by two traditional methods that are taxation and compulsory schemes for lending to the government[765].

The third way of domestic resources is government borrowing.[766] The government can issue a long and short-term balance of various denominations and mobilize savings from the general public as well from financial institutions and deficit financing. Deficit financing is regarded as an important aspect of capital formation and is used for increasing effective demand and ensuring continued high levels of economic activity.

As external resources we see foreign economic assistance, developing nations needing foreign capital and technical assistance.

Note: the data below does not include financial assets, only "tangible" assets in US territory. The total value of marketable financial assets in the USA was estimated in 2007 at about US$46 trillion.[767] This total obviously does not include assets, deposits and reserves that are not traded. The data series on national wealth provided in the budget annex were discontinued by the administration of President Barack Obama.

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[764] See supra note 490.
[765] See supra note 493.
[766] Id.
[767] Lipsky, John: *The Global Economy and Financial Markets: Where Next?* International Monetary Fund (July 2007), [online], available at https://www.imf.org/external/np/speeches/2007/073107a.htm (Accessed at 8 August 2015)

In the 2005 *Analytical Perspectives* document, an annex to the US Budget[768] an annual estimate is provided of the value of total tangible capital assets of the USA.

FIGURE 13: ESTIMATE OF VALUE OF TOTAL TANGIBLE ASSETS (USA 2015)

Publicly owned physical assets:

```
Structures and equipment . . . . . .  $5.6
Federally owned or financed  . . .    $2.2
Federally owned  . . . . . . . . . . .$1.0
Grants to state and local govt . .  . $1.0
Funded by state and local govt . . .  $3.3
Other federal assets . . . . . . . .  $1.4
```

Subtotal (1). . . . . $6.9 trillion

Privately owned physical assets:

```
Reproducible assets . . . . . . . . . $28.7
Residential structures. . . . . . . . $12.4
Nonresidential plant & equipment  . $11.8
Inventories . . . . . . . . . . . . . $1.5
Consumer durables . . . . . . . . . . $3.1
Land  . . . . . . . . . . . . . . . . $10.2
```

Subtotal (2). . . . . $38.9 trillion

Education capital:

```
federally financed . . . . . . . . . $1.4
financed from other sources  . . . . $44.0
```

Subtotal (3) . . . . $45.4 trillion

Research and development capital:

```
federally financed R&D  . . . . . . . $1.1
R&D financed from other sources   . . $1.7
```

Subtotal (4). . . . .$2.9 trillion

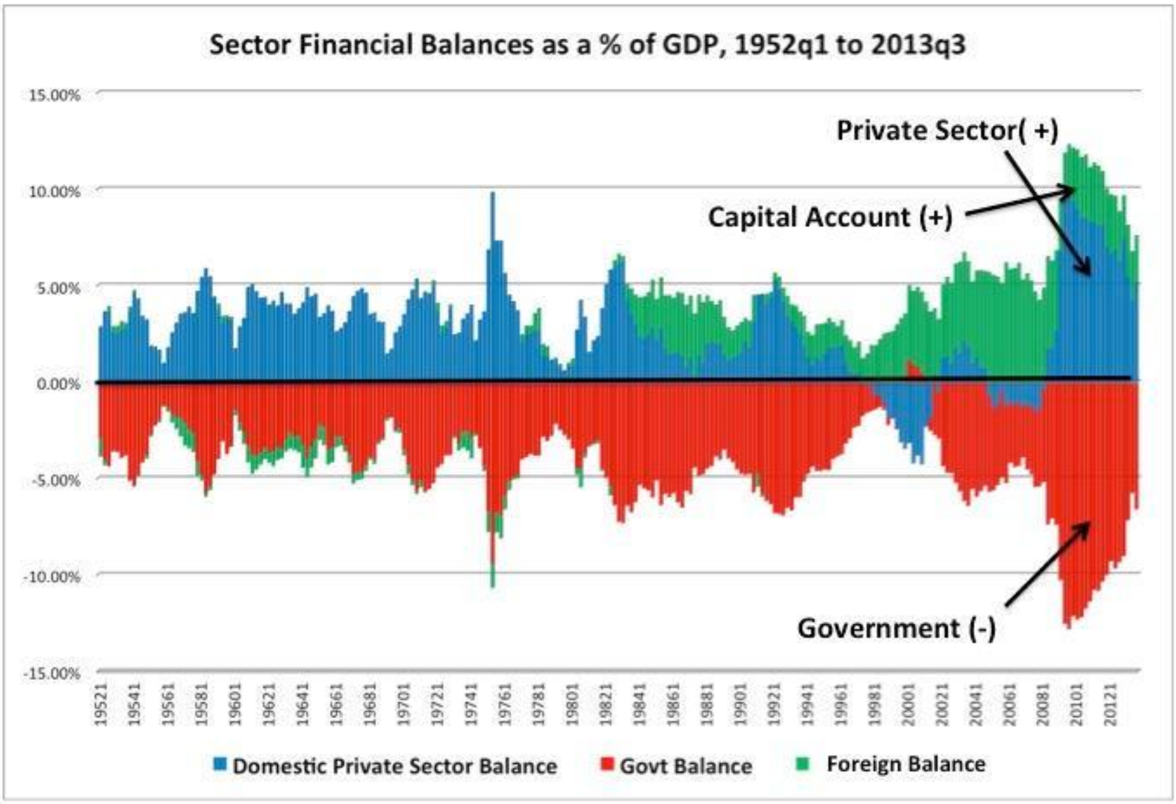
TOTAL ASSETS . . . . $94.1 trillion

Net claims of foreigners on US . . . . $4.2 trillion

Net wealth . . . .$**89.9 trillion**

[768] US Budget 2005, Table 12-4: National Wealth, p. 201

FIGURE 14: SECTOR FINANCIAL BALANCES AS % OF GDP[769]



This form of DEB[770], double entry book-keeping, is also the underlying foundation to understand the Five Key Accounts of Monetary Capital Formation, the Sovereign, the Commercial Banks, the Corporate or Consumer citizen (which includes local governments) and International trade (which includes jurisdictions outside the sovereign currency area).

Looking at Figure 14 we have to note the accounting identities with respect to government deficits, any U.S. government deficit exactly equals exactly the total net increase in the holdings of U.S. dollar financial assets of the rest of us, businesses and households, residents and nonresidents, what is called the non-government sector. In other words, government deficits equal increased monetary savings for the rest of us to the penny. Simply put, government deficits add to our savings to the penny. From the symmetry of Luca Pacioli we can reach down to the atomic level of financing of everyday lives into

[769] Kelton, Stephanie, Chief Economist, U.S. Senate Budget Committee, (November 2013), [online], available at http://stephaniekelton.com/ (Accessed at July 24, 2014)
[770] *See* Chapter 4.I.A.1, *Principles of Double-Entry Bookkeeping*

everyday transactions.[771] Let's demonstrate how deficits do add to savings in the Federal Reserve System of the United States. First, start with the government selling $100 billion in treasury securities. Presumably, the buyer that buys the securities believes that he's better off buying them than not buying them. They get sold at auction to the highest bidder who is willing to accept the lowest yield. Second, when the buyers of these securities pay for them, checking accounts of the Fed are reduced by $100 billion to make the payment.[772]

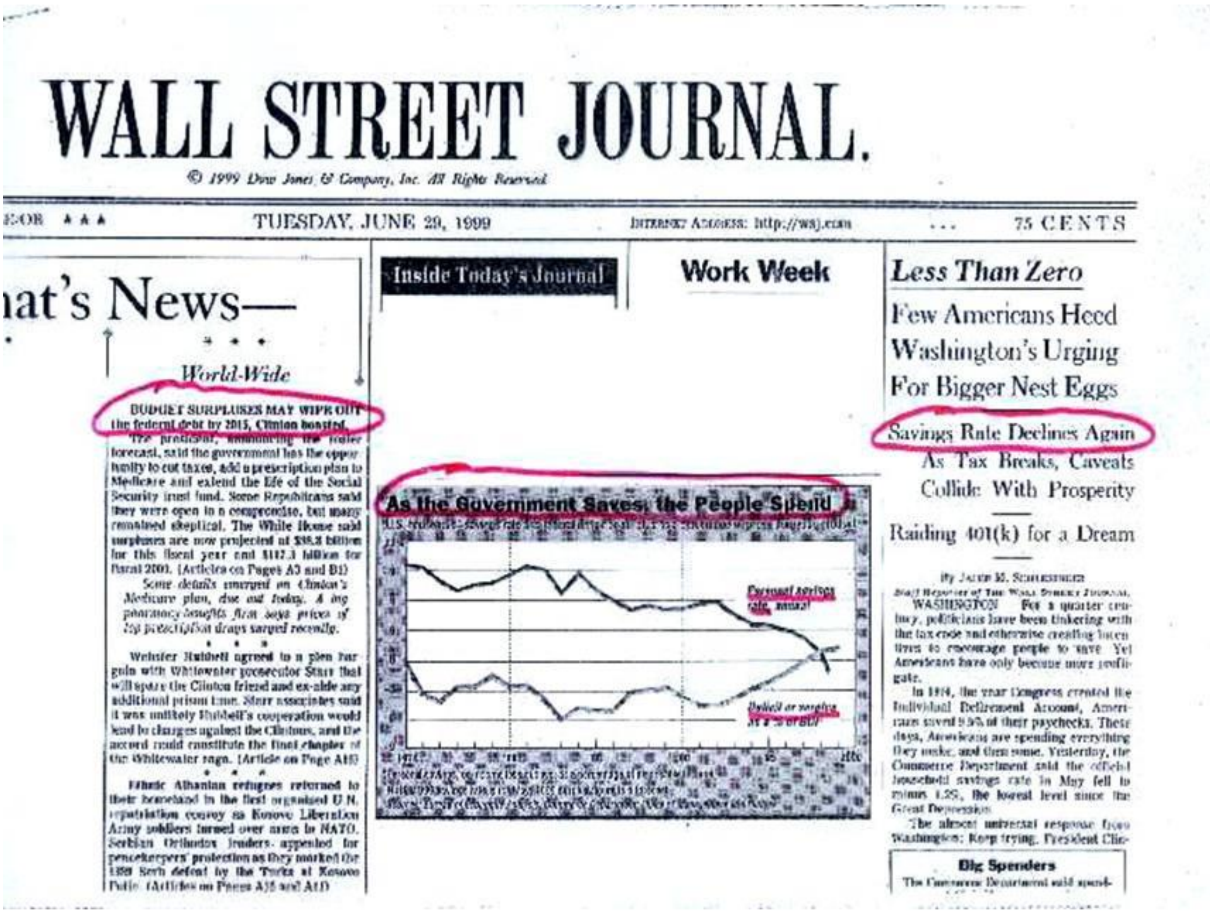
In other words, money in checking accounts at the Federal Reserve is exchanged for the new treasury securities which are the equivalent to saving accounts at the Federal Reserve. At this point, non-government savings is unchanged. The buyers now have the new treasury securities as savings rather than the money that was in the checking accounts before they bought the treasury securities. Now the treasury spends $100 billion after the sale of the $100 billion of new treasury securities on the usual things government spends its money on. Fourth, this treasury spending adds back $100 billion to someone's checking account. Fifth, the non-government sector now has its $100 billion of checking accounts back and it has the $100 billion of new treasury securities.[773]

The deficit spending of $100 billion directly added $100 billion of savings in the form of new treasury securities to non-government savings, non-government means everyone but the government.[774]

The savings of the buyer of the $100 billion of new treasury securities shifted from money in his checking account to his holdings of the treasury securities that is savings accounts, and when the treasury spends $100 billion after selling the treasury securities, the savings of recipients of that $100 billion of spending saw their checking accounts increase by that amount, so to the original buoyant, deficit spending doesn't just shift financial assets outside of the government.[775] Instead, deficit spending directly adds exactly that amount of savings of financial assets to the non-government sector and likewise, a federal budget surplus directly subtracts exactly that much from our savings.

[771] See supra note 744.
[772] Id.
[773] Id.
[774] Id.
[775] Id.

FIGURE 15: WALL STREET JOURNAL JUNE 29, 1999



WALL STREET JOURNAL.

TUESDAY, JUNE 29, 1999 · INTERNET ADDRESS: http://wsj.com · 75 CENTS

Inside Today's Journal

Work Week

...at's News—

World-Wide

BUDGET SURPLUSES MAY WIPE OUT the federal debt by 2015, Clinton boasted.

The president, announcing the rosier forecast, said the government has the opportunity to cut taxes, add a prescription plan to Medicare and extend the life of the Social Security trust fund. Some Republicans said they were open to a compromise, but many remained skeptical. The White House said surpluses are now projected at $99.5 billion for this fiscal year and $117.3 billion for fiscal 2000. (Articles on Pages A3 and B1)

Some details emerged on Clinton's Medicare plan, due out today. A drug prescription drugs surged recently.

Webster Hubbell agreed to a plea bargain with Whitewater prosecutor Starr that will spare the Clinton friend and ex-aide any additional prison time. Starr associates said it was unlikely Hubbell's cooperation would lead to charges against the Clintons, and the accord could constitute the final chapter of the Whitewater saga. (Article on Page A10)

Ethnic Albanian refugees returned to their homeland in the first organized U.N. repatriation convoy as Kosovo Liberation Army soldiers turned over arms to NATO. Serbian Orthodox leaders appealed for peacekeepers' protection as they marked the 1389 Serb defeat by the Turks at Kosovo Polje. (Articles on Pages A15 and A18)

As the Government Saves, the People Spend

Less Than Zero

Few Americans Heed Washington's Urging For Bigger Nest Eggs

Savings Rate Declines Again As Tax Breaks, Caveats Collide With Prosperity

Raiding 401(k) for a Dream

WASHINGTON — For a quarter century, politicians have been tinkering with the tax code and otherwise creating incentives to encourage people to save. Yet Americans have only become more profligate.

In 1974, the year Congress created the Individual Retirement Account, Americans saved 9.5% of their paychecks. These days, Americans are spending everything they make, and then some. Yesterday, the Commerce Department said the official household savings rate in May fell to minus 1.2%, the lowest level since the Great Depression.

The almost universal response from Washington: Keep trying. President Clin-

Big Spenders

The Commerce Department said spend-

On June 29, 1999, the front page of the Wall Street Journal had two headlines, see the picture of the Wall Street Journal involved. Down to the left was a headline praising President Clinton and the record government budget surplus and explaining how well fiscal policy was working. On the right margin was a headline stating that Americans weren't saving enough and we would have to work harder to save more.

Then a few pages later, there was a graph with one line showing the surplus going up and another line showing savings going down. They were nearly identical but going in opposite directions and clearly showing the gains in the government surplus roughly equal to the losses in private savings. Why?

Because there cannot be a budget surplus with private savings increasing, including non-resident savings if you asked all the financial assets. There is no such thing, yet not a single mainstream economist or government official had it right that day.

Clearly the mainstream did not yet realize that deficits add to savings. Again, the only source of net U.S. dollar monetary savings, that is financial assets for the non-government sectors, combine both residents and nonresidents is U.S. government deficit spending.[776]

In Europe, two decades before one politician had it right but then Austrian Chancellor and Prime Minister Bruno Kreisky was castigated in 1979 for stating:

> And if someone asks me: how do you hold it with the debt? I will tell him what I always say time and again that a few billion [Austrian Schillings] will afford me fewer sleepless nights than some hundred thousand unemployed [workers] [777]

Kreisky at the time was Prime Minister of a nation that was still (semi-)sovereign in currency matters, albeit the *Austrian Schilling* was already pegged to the *German D-Mark* thereby creating what could be called the nucleus of a "virtual currency union" with its most important trade partner, the Federal Republic of Germany, and then also known as "West-Germany". Hence one could allege that already then most important monetary policy decisions were made at the German Bundesbank. Given the homogenous and intrinsically linked nature of the Austrian and German economies it did not create the same misallocations as they necessarily had to occur when such different economies as those of the core of the European Union membership such as Austria, Germany, France, Belgium, the Netherlands, Luxembourg and its periphery such as Portugal, Italy, Greece, Spain formally joined the Eurozone on 1 January 1999[778] when the Euro was first introduced as an accounting currency and on 1 January 2002[779] ultimately as coins and banknotes.

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[776] See supra at 744.
[777] Austrian Federal Chancellor Bruno Kreisky *on State Debt Financing of employment intensive industries,* [online], available at: https://www.youtube.com/watch?v=0LXf8DakAf8 (Accessed at 23 September 2015)
[778] European Commission, *History of the Euro,* [online], available at http://ec.europa.eu/economy_finance/euro/index_en.htm (Accessed at 10 August 2014)
[779] Id.

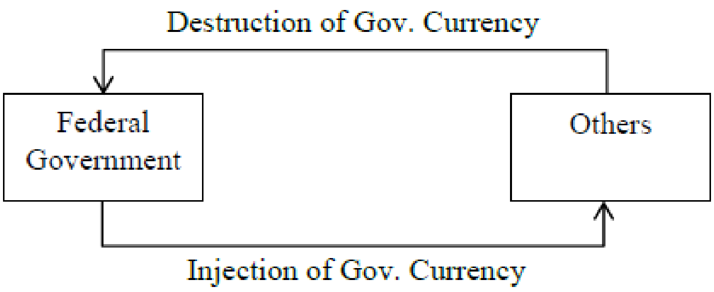
But watch how the very people who want us to save more, at the same time want to balance the budget by taking away our savings either through spending cuts or tax increases.[780] They are part of the problem not part of the solution. This becomes very obvious since once you understand that spending cuts or tax increases are actually the only instruments available to end up in a government surplus. And what do spending cuts and tax increases accomplish? They drain our savings accounts. *Ceterum censeo:* You cannot deny an accounting identity.

By now we also understand the jural relations here that take place between those two accounts. Given that there is an accounting identity, there always has to be a debit and a credit, so therefore we know that federal deficits are not the awful thing that the mainstream believes them to be. Deficits do matter. Excess spending can cause inflation, but sovereign currency issuers, sovereign governments such as the United States of America, China, Russia, the United Kingdom or Japan are not going to go broke.

Of course, his is different when we talk about *currency users* like member states of the Eurozone or, of course, states within the United States of America. Monetary policy is not in their hands. Where fiscal policy is under their control, but monetary policy is not, we are confronted with the centrifugal forces that the European Union now faces due to the subsequent misallocations that occur when decisions of money supply and the majority of taxation are not unified in one hand, be it on the level of the nation state as in the United Kingdom, be it on the federal level as in the case of the United States. It is this finding that leads current critics of the Eurozone often speak of a "birth defect of the European Union"[781]with its joint monetary regime.[782] Therefore, note to always differentiate between *sovereign currency issuers* and *currency users* such as (member) states or provinces.

[780] See supra note 729.
[781] Bayer, Kurt, *Ways forward from the Eurozone Crisis*, Blog (June 2010) [online], available at https://kurtbayer.wordpress.com/2010/06/11/ways-forward-from-the-eurozone-crisis/ (Accessed at 20 August 2015)
[782] It was clear from the start that the Eurozone did not correspond to the ideal of an "optimal currency union", because it combined too many countries with very different inflation and economic policy differences. The (compromise) idea of the founding fathers was that by supplementing the common monetary policy with the strictures of the stability and growth pact (SGP) on the fiscal policy side, countries would eventually be guided towards becoming more like an optimal currency union ("coronation theory"). So we had a joint monetary regime, run by the ECB, setting equal conditions for all Eurozone members, combined with a rules-based fiscal policy coordination tool, the SGP, which was supposed to force individual members into "responsible" and sustainable fiscal policy. Two things were wrong with this thinking: a) from the macroeconomic policy point of view, there was no joint Eurozone fiscal stance aligned with the ECB's monetary policy stance, only individual countries' obligation to conform to the SGP, and b) the third element of an economic policy triangle was

FIGURE 16: SOVEREIGN MONETARY CAPITAL FORMATION[783]



> One of the main contributions of money modern theory has been to explain why monetarily sovereign governments have a very flexible policy space that is unencumbered by hard financial constraints.[784] Through a detailed analysis of the institutions and practices surrounding the fiscal and monetary operations of the Treasury and Central Bank of many nations, modern money theory has provided institutional and theoretical insights about the inner workings of economics with monetarily sovereign and non-sovereign governments.[785]

The author found that the role of the sovereign in the process of capital formation is best explained and understood by Tymoigne and Wray's explanations of Modern Money Theory[786], MMT, providing policy insights with respect to financial stability, price stability and full employment.

completely neglected, i.e. the growth component. GDP growth was – as the then mainstream predicated – to arise spontaneously, if only the monetary/fiscal policy mix was right (but even that lacked a mechanism, since ECB and some member states refused to agree to a regular policy dialogue between the fiscal and monetary authorities). The French demand for an "economic government" as policy partner to ECB was denied.

[783] Tymoigne, Eric and Wray, Randall L., *Modern Money Theory 101: A Reply to Critics*, page 5, Levy Economics Institute of Bard College, Working Paper No. 778 (November 2013), [online], available at http://www.levyinstitute.org/pubs/wp_778.pdf (Accessed at 4 July 2014); Figure reproduced.

[784] Id. at Abstract

[785] Id. at Abstract

[786] Id.

For the purpose of discussing sovereign monetary capital formation, let us first assume a very simple economy.

> We have a federal government that injects currency by spending and imposes a tax that must be paid with this currency. The federal government also provides advances of government currency to the other sectors that must be serviced by repaying government currency. This government is assumed to be free of any self-imposed constraints on its financial operations. The monetarily sovereign government is the monopoly supplier of its currency and can issue currency of any denomination. As such, the government has an unlimited capacity to pay for the things it wishes to purchases and to fulfill promised future payments and has an unlimited ability to provide funds to the other sectors. Thus, insolvency and bankruptcy of this government is not possible. It can always pay.[787]

Having said that, going back to our definitions of legal risk, payment is the ultimate form of legal certainty. It is the T0 point in our Hohfeldian categorically relationship, and it is also the one very point where there will be no default.[788]

Tymoigne and Wray point out that an important legal and logical conclusion is that

> [t]he injection of government currency into the other sectors must occur before the destruction of the government currency through tax enforcement and repayment of advances[789]. In an economic system in which a sovereign government operates through its own monetary system, spending or lending must occur before taxing. In addition, taxes are not a funding source in that logic. They are a part of the destruction of government currency, i.e. to return currency to the issuing government.[790]

A fiscal deficit therefore represents a net injection of currency that usually needs to be drained.[791] Taxing, borrowing and monetary integration are not mutually exclusive methods of funding government at different stages of the circuit.

Tymoigne and Wray concede that inflation is a real constraint, not a financial constraint, so inflation does not prevent the government from funding itself.[792] They agree that the capacity of the government to fund itself is independent of the state of the economy.

[787] See supra note 783.
[788] See supra note 240.
[789] See supra note 783.
[790] Id.
[791] Id.
[792] Id.

However, at full employment as one factor, increasing government spending will be inflationary. Before full employment[793], government can cause bottlenecks and inflation of the prices of key inputs.[794]

Furthermore, surprisingly, when money supply grows greater than growth of output, it would undermine the value of money. Here we have two schools. One is of the view that inflation will result if the relationship between government spending and taxing were wrong, so, as long as enough taxation reduces the money supply orderly, inflation would not incur[795].

The other view is that the ratio of money supply and GDP were wrong. If the ratio of money supply and GDP is right, the level of taxation must be right too, as these both are factors that do not live independently because the amount of taxation still is depending on the level of GDP. Ultimately, the price stability or, in other words, the value of money, is based and rooted in the productivity of the base, and it is the GDP.

Whether the amount of taxation is right as a crucial factor in this equation depends significantly whether money supply and GDP are in equilibrium. However, the author concurs with the conclusion that taxation is the instrument in any instance to bring money supply in equilibrium with the underlying base of GDP, and therefore, taxation is the critical tool to prevent inflation.

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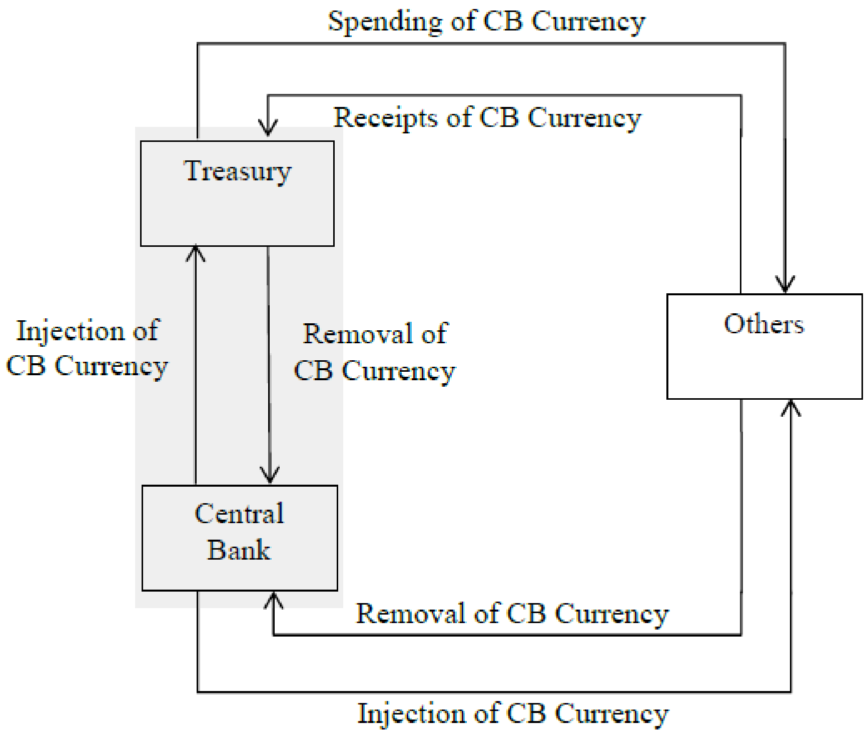
[793] Leubsdorf, Ben, *The Fed Doesn't Think the U.S. Economy Is at Full Employment*, Wall Street Journal (March 2015), available at http://blogs.wsj.com/economics/2015/03/18/the-fed-doesnt-think-the-u-s-economy-is-at-full-employment-after-all/ (Accessed at 20 August 2015) Full employment in the U.S. isn't here quite yet, according to the latest Federal Reserve economic projections. Back in December, Fed policy makers pegged the economy's normal longer-run unemployment rate somewhere between 5.2% and 5.5%. But in updated projections released on Wednesday, they lowered their estimate of the longer-run jobless rate to a range between 5% and 5.2%. It's a significant threshold because it represents what some economists call the nonaccelerating inflation rate of unemployment, or Nairu. The Fed could try to push the unemployment rate lower, but in theory that would stoke inflation. The central bank's so-called dual mandate is to pursue stable prices and maximum employment. In February, the U.S. unemployment rate fell to 5.5%. That was the top of the Fed's target range for full employment — at least, at the time . But under the new projections, full employment is still a while down the road. Still, officials expect to get there soon. The projections released Wednesday see the U.S. unemployment rate hitting 5% to 5.2% in the fourth quarter of 2015, and falling a bit lower in 2016 and 2017.
"Clearly, we haven't seen the wage and price pressure that at least some people might have expected as we start getting to 5.6% and below," Mr. Rosengren said. "People particularly at the high end of the Nairu estimates are going to be in a position where they have to think through why they're not seeing more wage and price pressure

[794] See supra at note 744.

[795] Id.

FIGURE 17: CENTRAL BANK MONETARY CAPITAL FORMATION [796]



While MMT is criticized for consolidating Treasury and Central Bank operations for the purposes of a balance sheet exposition because the Fed is supposedly "independent", this is actually done by many others. For example, Paul McCauley argues:

> We pretend that the Feds balance sheet and Uncle Sam's balance sheet are in entirely separate orbits because of the whole notion of the politically independence of the Central Bank in making monetary policy. But when you think about it, not from the standpoint of making monetary policy, but of providing balance sheet support to buffer a reverse Minsky journey, there is no difference between Uncle Sam's balance sheet and the Fed's balance sheet. Economically speaking, they're one and the same.[797]

[796] Tymoigne, Eric and Wray, Randall L., *Modern Money Theory 101: A Reply to Critics*, page 23, Levy Economics Institute of Bard College, Working Paper No. 778 (November 2013), [online], available at http://www.levyinstitute.org/pubs/wp_778.pdf (Accessed at 4 July 2014); Figure reproduced.
[797] McCauley, Paul, 17th Annual Hyman. P. Minsky Conference on the State of the U.S. and World Economies, Credit, Markets and the Real Economy: Is the Financial System Working? (April 2008), [online], available at http://www.levyinstitute.org/pubs/pro_Apr_08.pdf (Accessed at 27 August 2014)

Even though it is correct that under current institutional arrangements, Treasury must receive funds to its account at the Central Bank before it spends, and that this is accomplished through taxes and bond auctions, this is not the point when using the consolidation logic. The logic of the argument is about the government sector that combines the Central Bank and the Treasury into one entity that issues currency.[798]

This logic ignores current self-imposed institutional and political constraints on the Treasury and the Central Bank for three reasons:[799]

> First, the balance sheet outcome is the same regardless of the institutional framework.
> Second, the impact of Treasury spending, taxing and bond offering on interest rates and aggregate income is the same with or without consolidation.
> Third, ultimately the Central Bank and the Treasury work together to ensure that the Treasury can always meet its obligation and that the Central Bank can smooth interest rates[800].

The Central Bank is involved in fiscal policy, and the Treasury is involved in monetary policy.[801] In the Eurozone this works differently. When it comes to understand the deficiencies in the construction of the Euro, the accounting approach uses balance sheets to analyze the key accounts of monetary capital formation, the sovereign and non-sovereign local governments, corporate and consumer citizens and international trade accounts.[802] For the moment, the international trade will be left aside. As we discussed *supra* a balance sheet is an accounting document that records what an economic unit owns in assets and owes in liabilities and net worth. Therefore, the fundamental principle of the following equality must hold all the time:

> Financial assets plus real assets equals financial abilities plus net worth. Or, net worth minus real assets equals financial assets minus financial liabilities[803].

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[798] Tymoigne, Eric, *Modern Money Theory, and Interrelations between Treasury and the Central Bank: The Case of the United States*, Lewis and Clark College, Modern Money Network, [online], available at http://www.modernmoneynetwork.org/uploads/1/2/5/3/12534585/tymoigne_debt_and_sovereignty.pdf (Accessed at 29 July 2015); Figure reproduced
[799] See supra note 796.
[800] Id.
[801] Id.
[802] Id.
[803] Wray, Randall L., *The Basics of Macro Accounting*, New Economic Perspectives (June 2012), [online], available at http://neweconomicperspectives.org/2011/06/mmp-blog-2-basics-of-macro-accounting.html (Accessed at 27 July 2014) Wray argues that "it is a fundamental principle of accounting that for every financial asset there is an equal and offsetting financial liability. The checking deposit is a household's financial asset, offset by the bank's liability (or IOU). A government or corporate bond is a household asset, but

It is particularly important for the understanding of the Eurozone that state and local governments that are non-sovereign in the currency sense strive to have budget surpluses. In that case of the United States, almost all states have constitutional prohibitions of deficits. Outside deep recession, state and local governments are obliged to run surpluses, and the foreign sector effectively runs significant surpluses against the United States.[804]

And, the Treasury is the only federal government entity involved in injecting Central Bank currency through purchases of goods and services. That is, the spending of Central Bank currency. This operation involves the exchange of financial assets for real assets. That is fiscal policy. In conclusion, Treasury spending always involves monetary creation as private bank accounts are credited, while taxation involves monetary destruction as bank accounts are debited. The question becomes how the Treasury acquired the deposits it has in its account at the Central Bank. In the current institutional framework, the apparent answer is through taxation and bond offerings.[805]

Therefore, it does not make sense to argue that a government program cannot be implemented because the government ran out of money. A government that is sovereign in currency matters, like the United States or the UK can always afford to buy anything for sale denominated in its own currency, so discussing the pros and cons of a government program should not be framed around financial constraints. Instead, the focus should be considerations of equity, full employment, financial stability and price stability. The key issue is whether this will create an increase in net savings and therefore, a capital formation and whether this is accomplished by an investment that has a long-term positive effect.

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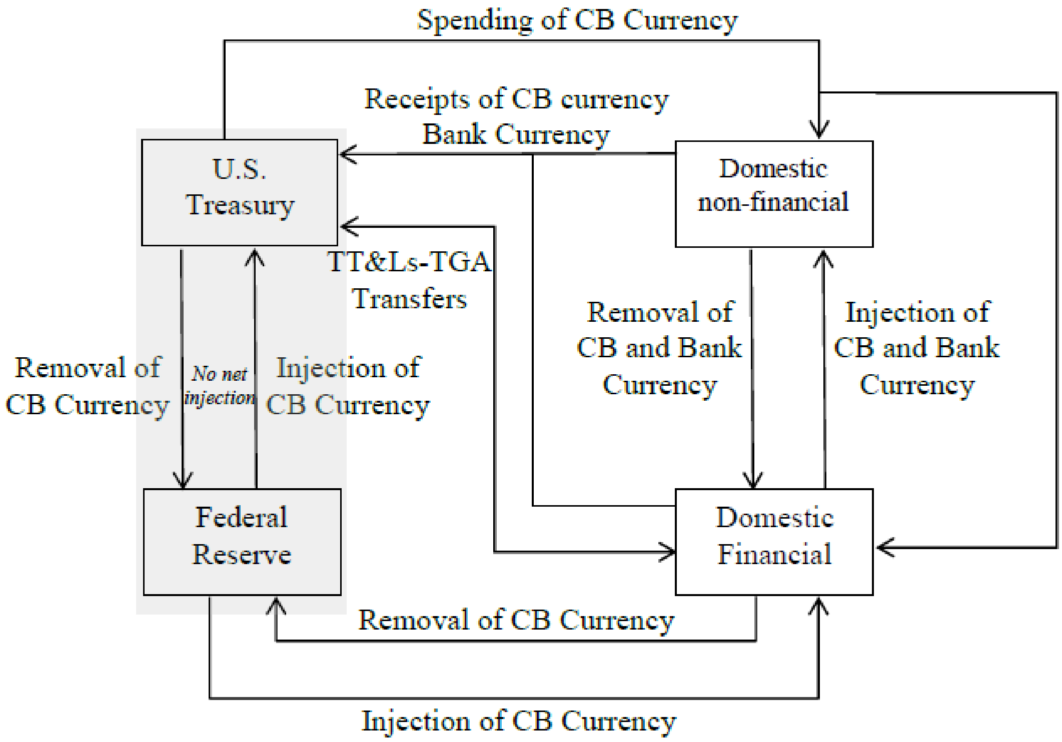
represents a liability of the issuer (either the government or the corporation). The household has some liabilities, too, including student loans, a home mortgage, or a car loan. These are held as assets by the creditor, which could be a bank or any of a number of types of financial institutions including pension funds, hedge funds, or insurance companies. A household's net financial wealth is equal to the sum of all its financial assets (equal to its financial wealth) less the sum of its financial liabilities (all of the money-denominated IOUs it issued). If that is positive, it has positive net financial wealth."

[804] Id. Wray argues that "as a consequence, a domestic private sector surplus results in large deficits of the federal government to balance against state and local surpluses. Recall the accounting identities. There is no reason to expect that this would be inflationary, regardless of the level of unemployment. A very important distinction that needs to be made is that providing advances by the Central Bank does not lead to a net savings of government currency as financial assets of the domestic private sector since this increases by the size of the increase in financial liabilities. Stated another way, advances have to be repaid so the gain in the government currency is only temporary. Therefore, only a government deficits induced by fiscal policy lead to net savings. Monetary policy can change the composition of net saving by substituting currency for other assets, but it cannot change the size of net savings"

[805] See supra at 764.

FIGURE 18: FINANCIAL SECTOR MONETARY CAPITAL FORMATION[806]



Much has been said already about the monetary capital formation in the financial sector and the role of Commercial Banks.[807] The riskiest form of the financial sector, shadow banking, has retreated but non-bank credit remains important. Credit intermediation chains became very long involving multiple layers of securitizations. High levels of leverage and pack distribution of risk. This was reflected in growing debt issued by financial institutions to fund their activities. Financial sector debt grew from $20 Trillion in 2000 to $37 Trillion in 2007 or from 56 percent of global GDP to 71 percent.[808]

[806] Tymoigne, Eric and Wray, Randall L., *Modern Money Theory 101: A Reply to Critics*, page 29, Levy Economics Institute of Bard College, Working Paper No. 778 (November 2013), [online], available at http://www.levyinstitute.org/pubs/wp_778.pdf (Accessed at 4 July 2014); Figure reproduced.
[807] See supra note 585.
[808] McKinsey Global Institute, *Debt and (Not Much) Deleveraging*, Executive Summary, (February 2015), [online], available at http://www.mckinsey.com/insights/economic_studies/debt_and_not_much_deleveraging (Accessed at July 28, 2015)

Much of this debt was in the so called shadow banking system[809] whose vulnerability was starkly exposed by the financial crisis. It is a welcome sign then that financial sector debt relative to GDP decline in the United States and a few other crisis countries and the stabilized in other advanced economies. At the same time banks have raised capital and reduced leverage.[810]

Moreover the riskiest element of shadow banking are in decline. For example the assets of off balance sheets special purpose vehicles formed to securitize mortgages and other loans have fallen by $3 Trillion in the United States. Repurchase agreement so-called repos, collateral debt obligations CDOs and credit defaults swaps, CDS have declined by 19 percent, 43 percent and 67 percent respectively since 2007.[811]

3. Corporate

However, if we consider the broader context of non-bank credit including corporate bonds simple securitizations and lending by various non-banking institutions, we see that non-bank credit is still an important source of financing for the private and here in particular, the corporate sector[812].

Since 2007 corporate bonds and lending by non-bank institutions including insurers, pension funds, leasing programs and government programs has accounted for nearly all net new credit for companies while corporate bank lending has shrunk. The volume of corporate bonds outstanding globally has grown by $4 Trillion since 2007 compared with $1 $2 Trillion from 2000 to 2007.[813] Most of these forms of non-bank credit have fewer the risks of the shadow banking seen before the crisis in terms of leverage, maturity, mismatch and opacity. Some specific types of non-bank credit are growing very rapidly such as credit funds operated by hedge funds and other alternative asset managers.[814]

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[809] Kodres, Laura E., *Shadow Banking – Measures for Monitoring and Mitigating*? International Monetary Fund (November 2013), [online], available at http://ourfinancialsecurity.org/blogs/wp-content/ourfinancialsecurity.org/uploads/2013/11/LAURA-KODRES-SHADOW-BANKING-PPT.pdf (Accessed at 24 August 2014)
[810] See supra note 807.
[811] See supra note 809.
[812] Id.
[813] See supra note 808.
[814] Id.

Assets and credit funds for a sample of eight alternative asset managers[815] have more than doubled since 2009 and now exceed $400 Billion[816]. Another small but rapidly growing source of non-bank debt is peer to peer lending. These online lending platforms have originated only above $30 Billion[817] in loans so far but private equity funds, other asset managers and even banks have begun investing in peer to peer platforms suggesting that these lenders could build greater scale[818].

Currently the risk associated with these new credit intermediaries appear low although they should be monitored closely as that could change. With bank lending likely to remain constrained in the future due to new regulations, non-bank credit could fill a growing need. If appropriate restrictions on leverage and use with complex financial instruments are in place loans from non-bank intermediaries, corporate bonds and simple form of securitization can play an important role in funding growth.

4. CONSUMER

Consumer households continues to grow rapidly and deleveraging is rare. Unsustainable levels of consumer household debt in the United States and a handful of other advanced economies were at the core of the 2008 financial crisis. Between 2000 and 2007 the ratio of household debt relative to income rose by one-third of more in the United States, the United Kingdom, Spain, Ireland and Portugal.[819]

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815 See supra note 808.
816 Id.
817 Id.
818 Gordon Mills, Karen and McCarthy, Brayden, *The State of Small Business Lending: Credit Access during the Recovery and How Technology May Change the Game*, Working Paper 15-004, Harvard Business School, (July 2014), [online], available at http://www.hbs.edu/faculty/Publication%20Files/15-004_09b1bf8b-eb2a-4e63-9c4e-0374f770856f.pdf
819 See supra note 808. This was accompanied by and contributed to rising housing prices. When housing prices started declining and the financial crisis occurred, the struggle to keep up with this debt led to a sharp contraction in consumption and the deep recession. Since then households in those countries have begun deleveraging with the most progress in Ireland and in the United States. In many other countries however household debt has continued to rise rapidly. In the Netherlands, Denmark and Norway household debt now exceeds 200 percent of income; far above U.S. or U.K. household debt at the peak. In other advanced economies such as Canada, South Korea and Australia household debt also continues to grow. Household debt has risen rapidly in some developing countries too, quadrupling in China for instance, but remains at much lower levels relative to income than in advanced economies. Why is household leveraging so rare? Mortgages are the main form of household debt in all advanced economies and rising housing prices contribute to more borrowing and when buyers can obtain larger mortgages they drive up house prices even more. We find a strong correlation between increases in real estate prices and household debt both across countries and between U.S. states.

However, there are significant differences between the borrowing problem faced by governments and the borrowing problem faced by private individual consumer households. The most significant distinction between economics of sovereign defaults may differ from the economics of an individual or corporate bankruptcy[820].

First, the most important difference is that it is easier for households and firms to post appropriate collateral in order to improve borrowing conditions. If a private individual consumer defaults, the judiciary in the course of an ordinary insolvency procedure, that can take the form of a reorganization or a complete liquidation, forces him to hand over the assets originally provided as collateral.[821] On the other hand, the sovereign cannot commit to hand over its assets if it defaults, and in general, there is no authority that can force it to do so. Even if there was a significant amount of government assets abroad, specific provisions such as in the United States, the Foreign Sovereign Immunities Act, FSIA,[822] that would prevent those assets, with a few possible exceptions, from being confiscated. Therefore, sovereign debt is typically unsecured.

Second, the costs of bankruptcy are different from those of sovereign default. While for households and firms, an important part of the costs of debt repudiation is determined by bankruptcy law, there is no international legal framework that imposes costs on a defaulting sovereign. This is why all those negotiations about sovereign debt restructuring, are subject to the tides of political back-door dealings rather than being presented in public, transparent insolvency proceedings that are judicial in nature and legally binding in their effect. Ultimately, this void in our transnational judicial system is the reason why the author is pleading in this thesis for the institution of a Transnational Trade and Investment Court which has the judicial authority to terminally resolve such misallocations including but not limited to sovereign debt. [823]

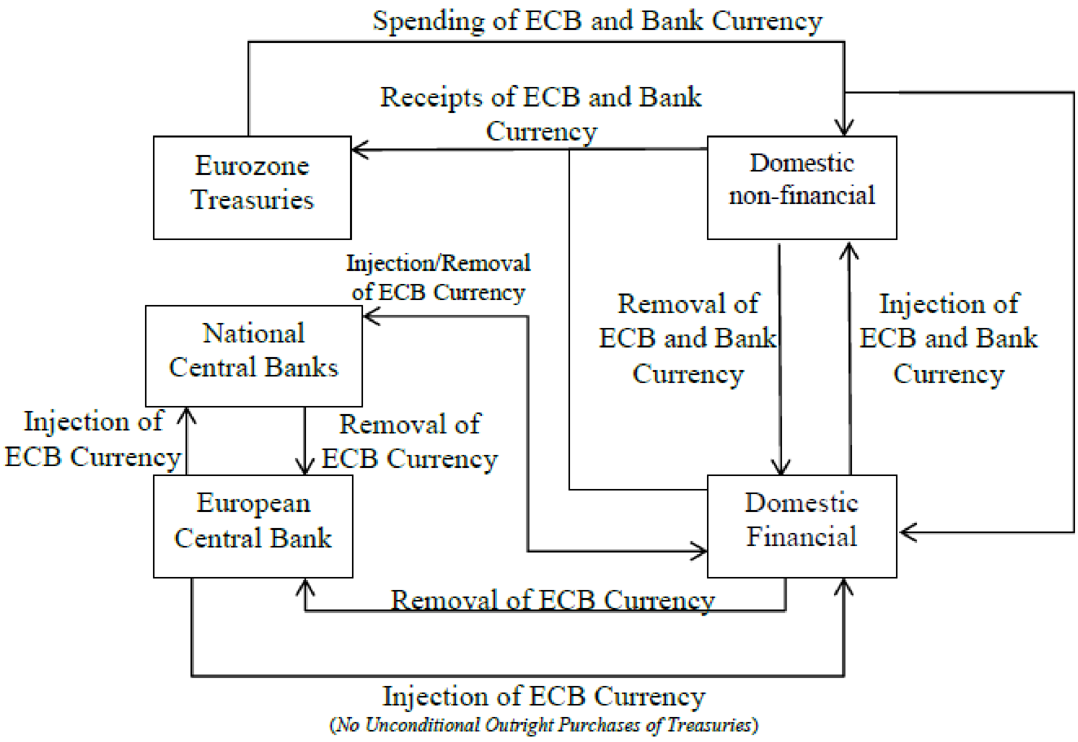
[820] Hatchondo, Juan Carlos, Martinez, Leonardo, Sapriza, Horacio, *The Economics of Sovereign Default*, Economic Quarterly, Volume 93, (2007), pp.163-187, [online], available at https://www.richmondfed.org/~/media/richmondfedorg/publications/research/economic_quarterly/2007/spring/pdf/martinez.pdf (Accessed at 19 July 2014)

[821] Liu, Yan and Rosenberg, Christoph B., *Dealing with Private Debt Distress in the Wake of the Financial Crisis, A Review of the Economics and Legal Toolbox*, IMF Working Paper, WP/13/44, International Monetary Fund (2013), [online], available at https://www.imf.org/external/pubs/ft/wp/2013/wp1344.pdf (Accessed at 29 August 2014)

[822] Stewart, David P., *The Foreign Sovereign Immunities Act: A Guide for Judges*, Federal Judicial Center (2013), available at http://www.fjc.gov/public/pdf.nsf/lookup/fsiaguide2013.pdf/$file/fsiaguide2013.pdf (Accessed at 15 August 2014)

[823] See Chapter 6.III *A Plea for a Transnational Trade and Investment Court*

FIGURE 19: EUROZONE MONETARY CAPITAL FORMATION[824]

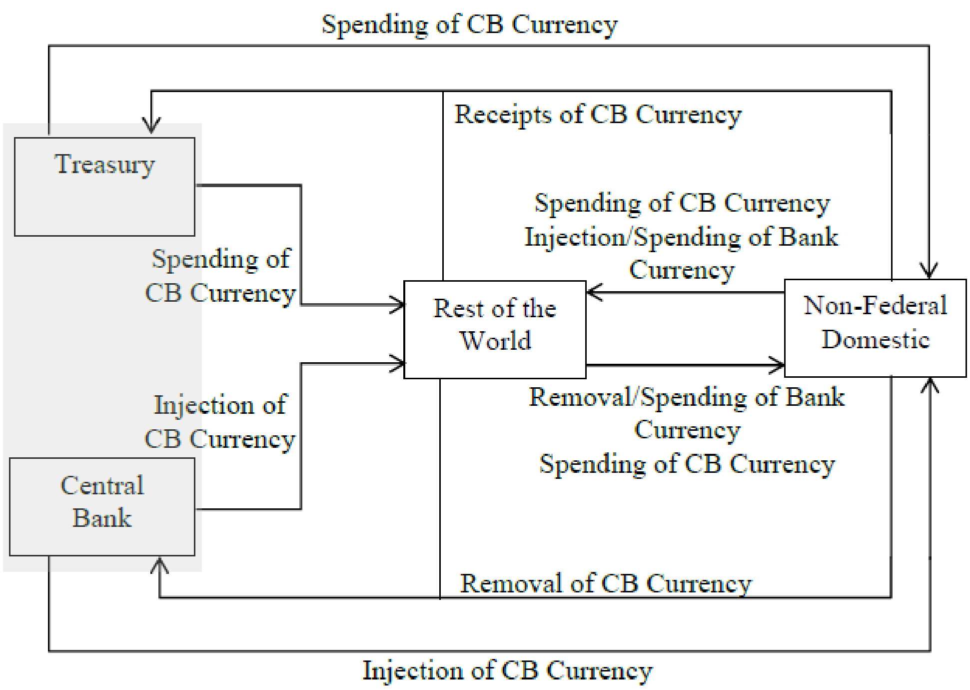


Most of the above mentioned conclusions also apply to the Eurozone, but there are specific institutional aspects that make the Eurozone treasuries non-monetarily sovereign.

> First, there is no direct coordination of Eurozone treasuries with the Central Bank for monetary and fiscal policy purposes since this is actually prohibited, Second, Eurozone treasuries are not allowed to issue any monetary instrument, whereas the U.S. Treasury issues coins to the Federal Reserve. Third, the ECB does not perform unconditional outright purchases and sales of Eurozone treasuries, at least before the securities market program and outright market transactions programs, the ECB did not perform any outright transactions on treasuries. Because if Eurozone treasuries are in trouble, they have no means to bypass existing self-imposed constraints, short of leaving the Eurozone. Finally, the ECB does not provide a refinancing source to the Eurozone treasuries.[825]

[824] Tymoigne, Eric and Wray, Randall L., *Modern Money Theory 101: A Reply to Critics*, page 32, Levy Economics Institute of Bard College, Working Paper No. 778 (November 2013), [online], available at http://www.levyinstitute.org/pubs/wp_778.pdf (Accessed at 4 July 2014); Figure reproduced.
[825] Id.

FIGURE 20: INTERNATIONAL MONETARY CAPITAL FORMATION[826]



> This may seem counterintuitive but it automatically follows from the way the global balance of payments works. If foreign governments intervene in their currencies and accumulate U.S. dollars, they push down the value of their currency and will run current account surpluses exactly equal to their net purchases. Purchasing X amount of dollars is a policy, in other words, aimed at generating trade surpluses and higher domestic employment. The reverse is true as well, because its trade partners are accumulating dollars, the United States must round the corresponding current account deficit which means the total demand must exceed total production. In this case, it is a tautology that Americans are consuming beyond their means. This is the sector balance equation, savings minus investment spending equals government spending minus tax plus net exports minus net imports, so private savings minus private investment spending equals government spending minus tax plus net exports minus net imports.[827]

Following the end of the second world war when the United States of America was the only creditor nation, it was the only nation whose economy had actually benefitted from the second world war and whose factories were operating in full throttle and capable of producing a great deal more products than the American economy could itself consume

[826] Tymoigne, Eric and Wray, Randall L., *Modern Money Theory 101: A Reply to Critics*, page 39, Levy Economics Institute of Bard College, Working Paper No. 778 (November 2013), [online], available at http://www.levyinstitute.org/pubs/wp_778.pdf (Accessed at 4 July 2014); Figure reproduced.
[827] Harrison, Edwards, *On Balance of Payments*, Foreign Policy, (7 October 2011)

especially after the war ended and all those tanks and airplanes and bullets and armament generally would have to be converted into washing machines and cars, washing machines and cars that would be so plentiful that the American economy could not absorb them .

Therefore, the Bretton Woods[828] era can be seen as an extremely complicated and yet simply paradigm of surplus recycling. American surpluses which were created as a result of the United States trade surplus vis-à-vis Europe and Asia, would then be recycling about 70 percent[829] of profits made from sales of American cars, American airplanes, trucks, equipment and so on and so forth in Asia and Europe would be recycled back to Asia and Europe in the form of either foreign direct investment or direct grants like the Marshall Plan.[830]

Now the problem with this model was that it was predicated upon the existence of American surpluses so when Nixon in August 1971 declared the end of this phase[831], that was not an act of willful destruction, it was simply an acknowledgement of a fact that there were no more surpluses to recycle, that America had slipped into a deficit situation. Now what would the Germans have done if they had entered a deficit situation as opposed to a surplus one. They would have tightened their belts and they would have tried to do whatever it takes to reduce those deficits. The Americans did the opposite.

The United States was expanding its trade deficit.[832] In other words, it was taking into the United States the net exports of Germany, of Japan and later of China and at the same time the profits of the Japanese, the Germans and later the Chinese were making, the surpluses, the financialized surpluses were being sent to New York, to Wall Street voluntarily, because German, Japanese and Chinese investors saw and it was true, that their financial

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828 International Monetary Fund, *The End of the Bretton Woods System (1972-81)*, [online], available at https://www.imf.org/external/about/histend.htm (Accessed at 29 August 2014)

829 Varoufakis, Yannis, *The Global Minotaur*, (2011), Economic Controversies, [online], available at https://varoufakis.files.wordpress.com/2011/12/screen-shot-2013-02-15-at-12-02-46-pm.png (Accessed at 23 September 2015)

830 OECD, The Marshall Plan Speech at Harvard University, 5 June 1947, [online], available at http://www.oecd.org/general/themarshallplanspeechatharvarduniversity5june1947.htm (Accessed at 23 September 2015)

831 See supra note 828.

832 U.S. Census, *U.S. Trade in Goods of Services – Balance of Payments Basis 1960-2014*, (June 2015), [online], available at https://www.census.gov/foreign-trade/statistics/historical/gands.pdf (Accessed at August 29, 2015)

capital would find high rewards in the United States of America in Wall Street. It was between $3 and $5 billion dollars every working day for 20 years in constant prices.[833]

The tragedy of 2008 was that the collapse of the financial markets mortally wounded the recycling mechanism, a way in which the goods produced by the Japanese, by the Germans and by the Chinese were being taken into the United States generating profits for those companies which was then being recycled and sent back to Wall Street in the form of investments. This recycling was what kept global capitalism in root health with all its inner qualities and imbalances and incongruities. In 2008 that mechanism died.[834]

When we formed the Eurozone in 1999 we tried to pretend that everyone in the Eurozone would behave like Germany but by definition this is a fallacy, we cannot do that. Because by definition we cannot all be net exporters because if Germany's exports are greater than the rest of the world's imports then this means the opposite the rest of the world. Yes, it is an accounting identity.

So what kept those shifting plates from cracking up the Eurozone in 2008? It was the fact that the United States of America was creating so much demand for the world's net exporters including China and Germany[835] that the Eurozone could be maintained and the Wall Street banks aided and abetted by the Eurozone banks were creating so much private capital money that borrowing costs were extremely low,

That created lots of bubbles in Iceland[836], in the real estate sector[837], in Greece[838], the public sector, the U.S. stock market and a few more misallocations. It does not mean that we cannot salvage the Euro, it means that unless we redesign its architecture, it will be history.

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833 See supra note 829.
834 Id.
835 See supra note 832.
836 Icelandic Chamber of Commerce, *Iceland's Financial Crisis,* [online], available at http://www.vi.is/files/1350175258Icelandic+Financial+Crisis.pdf (Accessed at 24 September 2015)
837 Stuhlpfarrer, Lukas M., *Tax Effective Structuring of Real Estate Investments*, (2005), State University of New York at Buffalo.
838 Alderman, Liz Kanter, James, Yardley, Jim, Ewing, Jack, Kitsantonis, Niki, Daley, Suzanne, Russell, Karl Higgins, Andrew and Eavis, Peter, *Greece's Debt Crisis Explained*, The New York Times, (September 21, 2015), [online], available at http://www.nytimes.com/interactive/2015/business/international/greece-debt-crisis-euro.html?_r=0 (Accessed at 25 September 2015)

B. Legal Risks in the Allocation of Capital

Case study: The Financing Relation between the United States of America and the People's Republic of China

Does Legal Risk apply in the case of the United States borrowing from the People's Republic of China or as often said: Is China financing the United States?

The Legal Risk that is often alleged in the public debate is that the United States could fail to comply with the terms of repayments due to its insolvency. The Legal Risk posed by the financing contracts between the United States and China, i.e. the US. Treasury Bills, could be qualified under Whalley as the risk of failure to enforce or to comply with the terms of the contract, such as the terms of re-payment. Given that the U.S. Treasury Bills constitute in essence a contractual agreement, rather than a legal norm, it poses the risk that its validity is depending on a set of facts or a lack of competence, following Mahler it could also be characterized as Qualification Factual Uncertainty. However, given that such U.S. Treasury Bills may still be enforceable, the Legal Risk could possibly be qualified pursuant to Hohfeld as Liability, the jural correlative to Power, and an absence of immunity that would shield the United States from its obligation to pay its debt.

Pursuant to the Four Determinants of Legal Risk we would argue and assess whether the People's Republic of China indeed would face the Legal Risk of *Liability*.

They key question in this analysis is: How do we pay off China? First, we need to establish that U.S. Treasury debt securities are nothing more than accounts and that the government makes on its own books.

> All domestic currencies come from the domestic economy, either from the federal government of from the non-federal government. For example, bank deposits. It makes no sense to argue that foreigners supply U.S. dollars to the U.S. government. As foreigners cannot create U.S. dollar currency, they must obtain it from the U.S.[839]

[839] Tymoigne, Eric and Wray, Randall L., *Modern Money Theory 101: A Reply to Critics*, Levy Economics Institute of Bard College, Working Paper No. 778 (November 2013), [online], available at http://www.levyinstitute.org/pubs/wp_778.pdf (Accessed at 4 July 2014)

How did we get to where we are today with China? Let's suppose that FEMA wanted to buy a billion dollars' worth of trailers from China, and China wanted to sell a billion dollars' worth of trailers to FEMA at that price. First understand that both parties are happy. There is no imbalance. China would rather have the billion U.S. dollars than the trailers, or they wouldn't have sold them, and FEMA would rather have the trailers than the money, or they wouldn't have bought them. The transactions are all voluntary in U.S. dollars, but back to a point. How does China get paid?

China has a reserve account at the Federal Reserve Bank, or Fed[840], akin to what we know in everyday life as a checking account. It is the Federal Reserve Bank, so they call it a reserve account instead of a checking account.[841] To pay China, the Fed ads a billion U.S. dollars to China's checking account at the Fed. It does this by changing the numbers in China's checking account up by $1 billion. China then has some choices. It can do nothing and keep the billion in the checking account at the Fed, or it can buy U.S. Treasury securities. A U.S. Treasury security could be seen as a savings account at the Fed. The buyer gives the Fed money and gets it back later with interest. That is the same what a savings account does. You give a bank money, and you get it back later with interest.[842]

In our example China buys a 1-year Treasury security. All that happens is that the Fed subtracts a billion from China's checking account at the Fed and adds a billion to China's savings account at the Fed, and all that happens a year later when China's 1-year Treasury bill comes due is the Fed removes this money from China's savings account at the Fed, including interest, and adds it to China's checking account at the Fed.

Now, China is holding some $1.2 trillion of U.S. Treasury securities[843]. So, what do we do when they mature and it is time to pay China back?[844]

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[840] Kelton, Stephanie, *Monetary Operations and Government Finance*, p.20, (June 2015), University of Missouri-Kansas, http://www.levyinstitute.org/pubs/conf_june10/Kelton.pdf (Accessed at August 15, 2015)
[841] Id.
[842] Id.
[843] USGovInfo, How much US Debt Does China Own, (September, 2015) [online] http://usgovinfo.about.com/od/moneymatters/ss/How-Much-US-Debt-Does-China-Own.htm (Accessed at 25 September 2015)
[844] Id.

We remove those dollars from the savings account at the Fed, and add them to their checking account at the Fed. This is what happens when all U.S. Government debt comes due, which happens regularly. China knows we don't need them for financing our deficits.

How does that work on the balance sheets of our Capital Formation Life Cycle? [845]

When a Treasury bill note or bond is purchased by a bank, for example, the government makes two entries on its balance sheet. First, it debits, subtracts, from the buyer's reserve account, checking account, at the Fed. Then it increases, it credits, the buyer's security account, savings account, at the Fed. As before, the government simply changes numbers on its own balance sheet. One number gets changed down, and another gets changed up, and when the credit day arrives and the Treasury securities which China holds come due and need to be repaid, the Fed again simply changes two numbers on its own balance sheet. The Fed debits, subtracts, from China's securities account at the Fed, and then it credits, adds, to China's reserve checking account at the Fed. That's all. Debt paid. China now has its money back. It has a very large U.S. dollar balance in its checking account at the Fed.

Paying off the entire U.S. national debt is nothing but a matter of subtracting the value of the maturing securities from one account at the Fed, and adding that value to another account at the Fed. These transfers are non-events for the real economy and not the source of dire stress presumed by mainstream economists, politicians, business people, and the media. Debt paid. All creditors have their money back.[846]

What happens if China refuses to buy our debt at current low interest rates paid to them?

Do interest rates have to go up to sweeten the purchase of Treasury securities? No! China can leave its US dollars in their checking account. It's of no consequence to a government that understands its own monetary system. The funds are not used for spending as previously described. There are no negative consequences of funds being in a checking account at the Federal Reserve, rather than a savings account at the Fed.[847]

[845] See Exhibit A: *Capital Formation Life Cycle*
[846] Id.
[847] Id.

Therefore, a monetarily sovereign government, at that crisis, has a choice to default, not an ability to make a promised payment. And that crisis for economic reasons can occur if government promises to deliver a foreign currency or if a government has to defend a currency peg. For a sovereign nation that does not promise to peg its currency to a foreign currency, there is no process that can lead to involuntarily default. Although, as the U.S. Congress is proving, default by choice remains a possibility[848]. Albeit, there is a growing number of legal scholars such as Jacob Charles of Duke University that perceive the U.S. Debt Limit as unconstitutional[849]

Following this assessment, we would conclude that the Legal Risk of *Liability* does not apply in this case given that there is no factual uncertainty at all about the United States' sovereign ability, power and competence to finance itself in its own currency. Even if Congress decided not to pay in a case of voluntary default, from a legal scholar's point of view such stance would not change the qualification of this case in terms of its character as a Legal Risk but only as another instance of *Erratic*, *Irresponsible Behavior*[850], and a category not foreseen within the FDLR-model, reserved for scholars of Political Science.

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848 Austin, Andrew A., *The Debt Limit: History and Recent Increases*, Congressional Research Service, (August 2015), [online], available at http://www.senate.gov/CRSReports/crs-publish.cfm?pid='0E%2C*P%5C%3F%3D%23%20%20%20%0A (Accessed at 23 September, 2015)

849 Charles, Jacob D., *The Debt Limit and the Constitution: How the Fourteenth Amendment Forbids Fiscal Obstructionism*, 62 *Duke Law Journal* 1227-1266 (2013) Available at: http://scholarship.law.duke.edu/dlj/vol62/iss6/3 (Accessed at July 4, 2015) Charles argues that "[t]he statutory debt limit restricts the funds that can be borrowed to meet the government's financial obligations. On the other hand, the Fourteenth Amendment's Public Debt Clause mandates that all the government's financial obligations be met. This Note argues that the Public Debt Clause is violated when government actions create substantial doubt about the validity of the public debt, a standard that encompasses government actions that fall short of defaulting on or directly repudiating the public debt. The Note proposes a test to determine when substantial doubt is created. This substantial doubt test analyzes the political and economic environment at the time of the government's actions and the subjective apprehension exhibited by debt holders. Applying this test, this Note concludes that Congress's actions during the 1995–96 and 2011 debt-limit debates violated the Public Debt Clause, though Congress's conduct during the debate over the debt limit in 2002 did not. And under a departmentalist understanding of executive power, a conclusion of this nature would be the basis for the president to ignore the debt limit when congressional actions create unconstitutional doubt about the validity of the public debt."

850 Fortier, E., *The Insanity Defense: An Evolving Standard Lacking Uniformity*, Quinnipiac University, [online], available at http://www.quinnipiac.edu/prebuilt/pdf/Institutes/WAC/2014WritingContestWinners/WAC_Contest_2014_SocSciences_HonMention_FortierElicia.pdf (Accessed at 15 July, 2015)

IV. ACCOUNTABILITY AND CAPITAL FORMATION IN THE US, EU AND GLOBALLY

A. CRASH (CRISIS-REACTION-ACCELERATION-SEQUENCE-HISTORY)

Since the beginning of the millennium starting with the dot-com crash[851] at the turn of the millennium, followed seven years later by the financial crisis of 2008[852] and the dislocations in the global economy we are facing another seven years later today in 2015[853] with several sordid debt restructurings under way and hundred thousands of refugees on the way caused by war and increasing inequality, we are faced today with an ever recurring Crisis-Reaction-Acceleration-Sequence-History, in short: CRASH.[854]

If we go back the past 30 years, we will find an impressive list of financial crises that we have weathered starting with Black Monday (1987)[855], the Savings and loan crisis of the 1980s and 1990s in the U.S[856], the Early 1990s Recession[857], the 1991 India economic crisis[858], the Finnish banking crisis (1990s)[859], accompanied by the Swedish banking crisis (1990s)[860], followed by the 1994 economic crisis in Mexico[861], the 1997 Asian financial

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[851] Heskett, James, *When will the next Dot.com Bubble Burst?* Harvard Business School (March 2014), [online], available at http://hbswk.hbs.edu/item/7415.html (Accessed at 29 July 2014)

[852] Houlihan, Patricia, *Economists seek lessons from crisis*, University of Chicago, [online], available at http://www.uchicago.edu/features/20101115_rajan/ (Accessed at 13 September 2015)

[853] See supra note 852. There Raghuram Rajan argues that "widening income inequality in the United States is one of three root causes behind the crash, Rajan writes in *Fault Lines*. With middle-class earnings stagnating, politicians who wanted to lessen the pain helped make borrowing and buying homes easier— particularly for low-income households—so people could afford to keep shopping. In addition, the fears engendered by the thin U.S. unemployment safety net ensure that job creation becomes priority one in downturns. But when private firms have other constraints holding them back, government and Federal Reserve stimulus can be excessive, as was the case from 2001 to 2004, Rajan contends. Emerging markets like China readily supplied the goods, exacerbating already high trade imbalances, the second cause Rajan cites. The third is that the U.S. financial sector, with its skewed incentives, is the critical but unstable link between an over-stimulated America and an under-consuming world."

[854] International Financing Review, *40 years in review*, [online] available at http://edition.pagesuite-professional.co.uk/Launch.aspx?EID=b2eb69c3-7774-4d35-a0ff-c70b03f7288f (Accessed 17 September 2015)

[855] Carlson, Mark, *A Brief History of the 1987 Stock Market Crash with a Discussion of the Federal Reserve Response*, Federal Reserve (2007-13),[online], available at http://www.federalreserve.gov/pubs/feds/2007/200713/200713pap.pdf (Accessed at 16 July 2014)

[856] Federal Deposit Insurance Corporation, *The Savings and Loan Crisis and its Relationship to Banking*, [online], available at https://www.fdic.gov/bank/historical/history/167_188.pdf (Accessed at 30 July 2014)

[857] Walsh, Carl E., What Caused the 1990-1991 Recession, Federal Reserve Bank of San Francisco (1993), [online], available at http://www.frbsf.org/economic-research/files/93-2_34-48.pdf (Accessed at 30 July 2014)

[858] See supra note 854.

[859] Nyberg, Peter, *The Finnish Banking Crisis and Its Handling*, Bank of Finland Discussion Papers, Bank of Finland Discussion Papers (1993), [online], available at http://www.suomenpankki.fi/pdf/SP_DP_1993_08.pdf (Accessed at 30 July 2014)

[860] Englund, *The Swedish Banking Crisis: Roots and Consequences*, Oxford Review of Economic Policy, Vol 15, No.3, [online], available at http://www.contrahour.com/contrahour/files/TheSwedishBankingCrisisRootsandConsequences.pdf (Accessed at 30 July 1994)

crisis[862], the 1998 Russian financial crisis[863] and the Argentine economic crisis (1999–2002)[864]. Barely arrived in the new millennium, we started right away with the Early 2000s recession[865], most notably characterized by the Dot-com bubble[866], followed by the 2000s energy crisis[867], the Subprime mortgage crisis,[868] the United States housing bubble[869] and United States housing market correction[870] and lately the 2008–2012 Icelandic financial crisis[871], the 2008–2010 Irish banking crisis,[872] the Russian financial crisis of 2008–2009[873], and the European sovereign debt crisis[874], in particular the Greek government-debt crisis[875], the 2014 Russian financial crisis[876] and most recently the 2015 Chinese stock market crash[877].

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861 See supra note 854.

862 Corsetti, Giancarlo, Pesenti Paolo and Roubini Nouriel, *What caused the Asian currency and financial crisis?* Federal Reserve New York (1999), [online], availaibe at http://www.fednewyork.org/research/economists/pesenti/whatjapwor.pdf (Accessed at 30 July 2014)

863 Chiodo, A and Owyang, M., *A Case Study of a Currency Crisis: The Russian Default of 1998*, Federal Reserve of St. Louis, [online] available at https://research.stlouisfed.org/publications/review/02/11/ChiodoOwyang.pdf (Accessed at 30 July 20140

864 Geithner, T. *Lessons from the Crisis in Argentina,* International Monetary Fund, (October 2003), [online], available at https://www.imf.org/external/np/pdr/lessons/100803.pdf (Accessed at 30 July 2014)

865 Kliesen, Kevin L. The 2001 Recession: How was it different and what developments may have caused it? [online], available at https://research.stlouisfed.org/publications/review/03/09/Kliesen.pdf (Accessed at 30 July 2014)

866 See supra note 851.

867 European Parliament, *The 2000 Oil Crisis and its Consequences in the EU Energy Sector*, (12/2001), [online], available at http://www.sustainable-design.ie/arch/2000OilCrisisEnergy.pdf (Accessed at 30 July 20140

868 Bianco, Katalina, M., *The Subprime Lending Crisis: Causes and Effects of the Mortgage Meltdown*, CCH Federal Banking Law (2008), [online], available at http://business.cch.com/images/banner/subprime.pdf (Accessed at 30 July 2014)

869 Id.

870 Id.

871 International Financing Review, *40 years in review*, [online] available at http://edition.pagesuite-professional.co.uk/Launch.aspx?EID=b2eb69c3-7774-4d35-a0ff-c70b03f7288f (Accessed 17 September 2015)

872 Ireland's Economic Crisis, The Good, the Bad and the Ugly, University College Dublin (June 2013), [online], available at http://www.karlwhelan.com/Papers/Whelan-IrelandPaper-June2013.pdf (Accessed at 30 July 2014)

873 Conrad, J. *Russia in the financial crisis and beyond, Deutsche Bank Research*, (2009), [online], available at https://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD0000000000251634/Russia+in+the+financial+crisis+and+beyond.pdf (Accessed at 30 July 2014)

874 Lane, Philip R. *The European Sovereign Debt Crisis*, Journal of Economic Perspectives, Volume 26, Number 3 (2012), [online], available at http://www.researchgate.net/profile/Robert_Valletta/publication/254383539_A_Search_and_Matching_Approach_to_Labor_Markets_Did_the_Natural_Rate_of_Unemployment_Rise/links/00b7d5388ea833ac82000000.pdf#page=51 (Accessed at 30 July 2014)

875 See supra note 799.

876 Eberhardt, A. and Menkiszak, M., *The Economic and Financial Crisis in Russia, Backgroud, Symptoms and Prospects for the Future. Centre for Eastern Studies* (2015), [online[, available at http://www.osw.waw.pl/sites/default/files/raport_crisis_in_russia_net.pdf (Accessed at 23 September 2015)

877 Petraeus, David, *Don't freak out over China Dumping U.S. Debt*, CNN Money (24 September 2015), [online], available at http://money.cnn.com/2015/09/24/news/economy/china-selling-us-debt-petraeus/ (Accessed at 25 September 2015)

Together with the more recent regulatory reactions they have caused in the form of so-called landmark legislation such as the Sarbanes-Oxley Act of 2002[878], the Dodd-Frank Act of 2010[879], the JOBS Act of 2012[880] or the introduction of the Basel Accords, Basel II in 2004 and III in 2010, the European Financial Stability Facility of 2010[881], the European Stability Mechanism of 2012[882] and the European Banking Union of 2013[883], we find in the following often seemingly helpless bureaucratic responses.

However we pair the regulatory response to the preceding crisis, be it Sarbanes-Oxley following Enron[884], WorldCom[885] and the dot-com bubble, be it Dodd-Frank in answer to the U.S. housing bubble and the loose use of Collateralized Debt Obligations, be it Basel II and III in the hopes of preventing yet another banking crisis following the post-2008 banking collapses followed by a bad bank boom that is ending in severe and sordid sovereign debt restructurings until to date, in all cases the timid and sometimes even overshooting regulatory responses failed its one and only goal. To avoid repeat performance.

But who honestly can be surprised, that if you would do more of the same that has failed the last time, you would fail again this time all the way to the CRASH? Apparently, the CRASH has always been needed, in order to have finally more to gain than left to lose, when we ultimately address the two pressing issues, the two fundamental design defects of our Global Economic Order, namely the monetary order and the judicial order. Therefore, we will be discussing the regulatory responses that were, followed by the fundamental systemic changes that should be.

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878 Sarbanes Oxley Act of 2002, Public Law 107-204 (July 30, 2002), [online}, available at https://www.sec.gov/about/laws/soa2002.pdf (Accessed at 30 July 2014)

879 H.R.4173 - Dodd-Frank Wall Street Reform and Consumer Protection Act (2009), [online], available at https://www.congress.gov/bill/111th-congress/house-bill/4173 (Accessed at 30 July 2014)

880 Jumpstart Our Business Startups Act, (2012), [online], available at http://www.gpo.gov/fdsys/pkg/BILLS-112hr3606enr/pdf/BILLS-112hr3606enr.pdf (Accessed at 30 July 2014)

881 EFSF, *About the European Financial Stability Facility*, (2010), [online], available at http://www.efsf.europa.eu/about/index.htm (Accessed at 30 July 20140

882 ESM, *About the European Stability Mechanism* (2012), [online], available at http://www.esm.europa.eu/ (Accessed at 30 July 2014)

883 Veron, Nicholas, *Europe's radical banking union*, Bruegel (May 2015), [online], available at http://bruegel.org/2015/05/europes-radical-banking-union/ (Accessed at 23 September 2015)

884 Pavel, T and Encontro, M. The Enron Scandal, Chalmers University of Technology (2012), [online], available at http://www.math.chalmers.se/~rootzen/finrisk/GR7_TobiasPavel_MyleneEncontro_ENRON.pdf (Accessed at 30 July 2014)

885 Ashraf, J., The Accounting Fraud at Worldcom, The Causes, the Characteristics, the consequences and the lessons learned, University of Central Florida (2011), [online], available at http://etd.fcla.edu/CF/CFH0003811/Ashraf_Javiriyah_201105_BSBA (Accessed at 30 July 2014)

1. DODD-FRANK ACT OF 2010

The Dodd Frank Wall Street Reform and Consumer Protection Act of 2010.[886] The Act aims to promote the financial stability of the United States by improving accountability and transparency in the financial system to end *"too big to fail[887]"*, to protect the American taxpayer by ending bailouts, to protect consumers from abusive financial services practices and for other purposes.

Title II, the Orderly Liquidation provision of the Dodd-Frank Act, provides a process to quickly and efficiently liquidate a large, complex financial company that is close to failing.[888] Title II provides an alternative to bankruptcy, in which the Federal Deposit Insurance Corporation (FDIC) is appointed as a receiver to carry out the liquidation and wind-up of the company. The FDIC is given certain powers as receiver, and a three to five year time frame in which to finish the liquidation process.[889] Title II is aimed at protecting the financial stability of the American economy, forcing shareholders and creditors to bear the losses of the failed financial company, removing management that was responsible for the financial condition of the company, and ensuring that payout to claimants is at least as much as the claimants would have received under a bankruptcy liquidation.[890]

In 2008, large financial institutions that had always been considered "too big to fail" were in dire financial straits. The government attempted to preserve some of these institutions

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[886] See supra note 879.

[887] Lux, Marshall and Greene, Robert: *The State and Fate of Community Banking* (2015), [online], available at http://www.hks.harvard.edu/centers/mrcbg/publications/awp/awp37 (Accessed at 25 September 2015), Lux and Greene argue that the "[…] assessment of Federal Deposit Insurance Corporation data finds that community banks service a disproportionately large amount of key segments of the U.S. commercial bank lending market – specifically, agricultural, residential mortgage, and small business loans. However, community banks' share of U.S. banking assets and lending markets has fallen from over 40 percent in 1994 to around 20 percent today. Interestingly, we find that community banks emerged from the financial crisis with a market share 6 percent lower, but since the second quarter of 2010 – around the time of the passage of the Dodd-Frank Act – their share of U.S. commercial banking assets has declined at a rate almost double that between the second quarters of 2006 and 2010. Particularly troubling is community banks' declining market share in several key lending markets, their decline in small business lending volume, and the disproportionate losses being realized by particularly small community banks. We review studies on the impact of regulation, consumer trends and other factors on community banks, and examine the consequences of consolidation on U.S. lending markets. We conclude with a discussion of policies that could promote a more competitive and robust banking sector."

[888] Pellerin, Sabrina R. and Walter, John R., *Orderly Liquidation Authority as an Alternative to Bankruptcy*, Economic Quarterly, Volume 98, Richmond Federal Reserve (2012), [online], available at https://www.richmondfed.org/~/media/richmondfedorg/publications/research/economic_quarterly/2012/q1/pdf/walter.pdf (Accessed at 1 August 2014)

[889] Id.

[890] Id.

with over $1.7 trillion in bailouts to companies such as Bear Stearns[891], Fannie Mae/Freddie Mac[892], AIG, the Troubled Asset Relief Program[893], Citigroup[894], and Bank of America.[895]Despite the bailouts, over 250 banks failed in the period from 2008 to 2010, and Lehman Brothers, the fourth-largest investment bank in the United States, filed for bankruptcy, the largest Chapter 11 bankruptcy in U.S. history.[896] In light of the failure of these "too big to fail" institutions, Congress saw the need for a government authority to provide for efficient liquidation of large, complex financial institutions, and to eliminate the potential of future government bailouts.[897]

One final provision of importance is the ban of use of taxpayer funds to preserve a company that has been put into receivership under Title II[898]. In essence, this provision prevents any future government bailouts for struggling financial institutions, no matter how big, or how impactful their failure might be. This provision makes it even more critical that

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891 Ryback, William, *Case Study on Bear Stearns*, World Bank, Toronto Centre, [online], available at http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/02BearStearnsCaseStudy.pdf (Accessed at 17 August 2015)

892 Frame, W., Fuster, A, Tracy, J and Vickery, J. *The Rescue of Fannie Mae and Freddie Mac*, Federal Reserve Bank of New York, Staff Reports, (March 2015), [online], available at http://www.newyorkfed.org/research/staff_reports/sr719.pdf (Accessed at 17 August 2015)

893 Yip, J. *The Bank Bailout in Perspective*, Harvard Political Review, (2011), [online], available at http://harvardpolitics.com/arusa/the-bank-bailout-in-perspective/ (Accessed at 17 August 2015), Yip argues that "[c]onvinced that a more comprehensive plan was needed to reassure markets, Bernanke and Secretary of the Treasury Henry Paulson conceived of TARP, an unprecedented $700 billion authorization to allow the Treasury to purchase toxic assets from banks. Congress recoiled at the price amidst growing public outrage, rejecting the first iteration of the bill. But as the markets convulsed, Congress passed a marginally amended version of the bill. Given the delay, Secretary Paulson decided that purchasing toxic assets was no longer practical and instead elected to spend the first $350 billion by directly injecting capital into banks. The nine largest banks, representing 75 percent of all American banking assets, were given $25 billion each in exchange for stock. This initial round of funding bolstered the banks' capital reserves, but without any preconditions attached, failed to increase lending. As President Bush's term drew to a close, some $17 billion in TARP funds were loaned to General Motors (GM) and Chrysler to avoid bankruptcy. Together, in January 2009, President Bush and President-elect Obama requested that Congress release the remaining $350 billion in TARP as further capital infusions seemed likely. By the end of the month, TARP had disbursed $301 billion in total.
Shortly after, the new Secretary of the Treasury Tim Geithner ordered the TARP banks to undergo stress tests to gauge their financial resilience. Expecting poor results, he further laid out a new rescue plan that would have created a private- public bank to purchase and hold up to $500 billion in toxic assets. This plan, however, was soon abandoned after banks refused to sell their assets at large losses in spite of generous government financing."

894 Gandel, Stephen, *Government banks $15 billion on Citigroup bailout*, Fortune Magazine (September 10, 2013), [online], available at http://fortune.com/2013/09/10/government-banks-15-billion-on-citigroup-bailout/ (Accessed at 17 August 2015)

895 USA Today, Bank of America getting extra $20B in bailout funds (January 2009), [online], available at http://abcnews.go.com/Business/story?id=6661052 (Accessed at 18 August 2015)

896 Wiggins, Rosalind Z., Piontek, Thomas and Metrick, Andrew, The Lehman Brothers Bankruptcy: A Overview, Yale School of Management (October 2014), [online], available at http://som.yale.edu/sites/default/files/files/001-2014-3A-V1-LehmanBrothers-A-REVA.pdf (Accessed at 20 August 2015)

897 Id.

898 See supra note 879, at 12 U.S.C. § 5394 (Dodd-Frank Act § 214).

a liquidation under Title II work quickly and effectively; without the safety net of federal bailout money, a failing financial institution will have no choice but to liquidate.

Under Title II, large companies will need to consider this alternate resolution process, and produce plans for a quick and orderly wind-up in the case of financial distress or failure.[899] The FDIC will promulgate additional rules to establish standards for the resolution plans and credit exposure reports that companies must provide. Additionally, the claims process under an orderly liquidation by the FDIC is modeled like the bankruptcy code claims process, but does have some differences that impact how Title II liquidation will operate. Large financial companies will need to keep in mind both the claims process codified in Title II and any FDIC rule promulgations that clarify that process.

The so-called Orderly Liquidation Authority[900], OLA, is sofar by far the most innovative piece of legislation as a reaction to the continuous history of sequences of crisis, reaction, acceleration of the time between crises, in short CRASH, as it attempts to terminally resolve the misallocation at its root, at the balance sheet of the financial institution, rather than liquidate the problem by adding liquidity into the gaping holes of the balance sheets. Unsurprisingly, the resulting misallocation have led to increasing inequality, less stability in financial markets as we can see in Chinese financial markets these days and as we continue to see in Greece that yet has to resolve its sovereign debt in a restructuring that will be sustainable.

As the balance sheets of the financial institutions have been flooded indiscriminatorily by quantitative easing, the rising tide has equally risen the asset-prices of financial products that are unequally distributed in the hands of the population. Interest grows faster than the economy as has been pointed out. Increasing Inequality must be result.

Dodd-Frank's Orderly Liquidation Authority, at this point is the only piece of legislation, which does not protract the moral hazard of those who have failed but attempts terminal resolution of misallocations rather than inconsequential bail-outs.

899 See supra note 888.
900 Id.

2. JOBS ACT OF 2012

On the Jobs Act, Jump Start Our Businesses Act[901]. The 2012 Jobs Act was a bipartisan achievement of consequence. Republican and democratic members put aside parts and differences, overcame substantial difficulties and legislated in the public interest by enacting substantial positive reforms to the securities loss.

Existing regulations, imposed primarily by Regulation S-K and Regulation S-X effectively impede young innovative companies' access to the public market and make investors less willing to invest.[902] Regulation D is the classic regulatory framework for private placements and works well. It has become the most important means of raising capital in the United States, particularly for the young dynamic companies that contribute the most economic growth and job creation. In the Jobs Act, Congress came finally to the conclusion that the restrictions in Regulation D should be reduced to some degree[903].

Small firms' access to capital should be substantially improved by crowdfunding, provided that the regulatory framework does not impose further costs on either issuers or funding portals. It should also improve smaller investors' access to investments in startup companies that ordinarily only accredited investors have or had access to.

Crowd funding's biggest advantage is to improve small firms to access small investments from the broader public. Start-up companies using crowd funding will almost invariably be the smallest of small businesses. More established firms looking to raise more than $1 million will use Regulation D or now Regulation A+.[904]

The proposed expansion of Regulation A will allow a large amount of capital to be raised up to $50 million[905]. With access to retail investors, Regulation A issued securities could provide an attractive alternative to private offerings that are primarily limited to

[901] Jumpstart Our Business Startups Act, (2012), [online], available at http://www.gpo.gov/fdsys/pkg/BILLS-112hr3606enr/pdf/BILLS-112hr3606enr.pdf (Accessed at 30 July 2014)
[902] Id.
[903] Id.
[904] Securities and Exchange Commission, Amendments for Small and Additional Issues Exemptions under the Securities Act, (June 19, 2015), [online], available at http://www.sec.gov/rules/final/2015/33-9741.pdf (Accessed at 23 September 2015)
[905] Id.

sophisticated or accredited investors. Regulation A issued securities could also provide an alternative to a traditional initial public offering where such issues weighing the tradeoff between the benefits of reduce disclosure requirements and potential costs from a loss of secondary market liquidity that may result from an issuer's inability to have its securities quoted on platforms available only for exchange act registered securities. [906]

Greg M. Lewis, chief economist and director of the Division of Economic and Risk Analysis, in a speech in Cambridge, Massachusetts, on April 15, 2014 at the MIT Sloan School of Managements Center for Finance stated,

> [T]he notion of encouraging capital formation has been particularly salient over the past year or so since the passage of the Jump Start Our Business Startups Act in 2012. The stated goal of that legislation is "to increase American job creation and economic growth by improving access to the public capital markets for emerging growth companies.[907]

On the other hand, this limitation may be offset by the ability to raise capital without limit and without registration and ongoing reporting requirements. These are only a few significant considerations to think about regarding the effects these new capital raising methods will have on capital formation, and certainly when the commission weighs whether to adopt the role of manufacturers, including the importance of protecting investors, must be taken into account.

Most recently, on June 19, 2015, the Securities and Exchange Commission recently adopted rule amendments to Regulation A under the Securities Act of 1933, known as Regulation A+ took effect. [908]

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[906] See supra note 904.

[907] Lewis, Greg, *The Future of Capital Formation*, MIT Sloan School of Management's Center for Finance and Policy's Distinguished Speaker Series (April 2014), [online], available at http://www.sec.gov/News/Speech/Detail/Speech/1370541497283 (Accessed at 23 September 2015) He argues that "The JOBS Act seeks to reduce search costs by allowing a new financial intermediary (a "funding portal") or a registered broker to connect small businesses and entrepreneurs to retail investors, subject to certain limitations. Moreover, under the crowdfunding rules proposed by the Commission, these issuances would not be subject to certain SEC reporting costs that, can be more burdensome for smaller companies. . Moreover, capital raised through crowdfunding intermediaries could provide an alternative to small business bank lending, which is often unavailable to small business borrowers because of collateral requirements, and by some accounts has fallen since 2008, with less than one-third of small businesses having reported a bank loan"

[908] See supra note 908.

3. EFSF/ESM AND EURO-GROUP

The European Financial Stability Facility (EFSF) was created as a temporary crisis resolution mechanism by the Eurozone Member States in June 2010[909]. The EFSF has provided financial assistance to Ireland, Portugal and Greece. The assistance was financed by the EFSF through the issuance of bonds and other debt instruments on capital markets[910].

The European Stability Mechanism (ESM)[911] started its operations as a permanent rescue mechanism on 8 October 2012. The ESM is currently the only institution providing financial assistance to Eurozone Member States. It has done so to Spain and Cyprus. The EFSF will phase out. The final EFSF assistance program (for Greece) expired on 30 June 2015.

The European Stability Mechanism (ESM) is crucial component of the comprehensive EU strategy for financial stability within the Eurozone. Like the European Financial Stability Facility (EFSF), the ESM supports Eurozone Member States experiencing financing difficulties. The two institutions operated concurrently from October 2012 (when the ESM was inaugurated) until June 2013[912]. As of 1 July 2013 the EFSF cannot enter into any new agreements for financial assistance but will continue the management of any outstanding debt. As soon as all loans outstanding under EFSF assistance programs have been repaid, all funding instruments issued by the EFSF and any reimbursement amounts due to Guarantors have been repaid in full, the EFSF will cease to exist.[913]

To fulfill its purpose, the ESM raises funds by issuing money market instruments as well as medium and long-term debt with maturities of up to 30 years[914]. ESM issuance is

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909 Olivares-Caminal, Rodrigo, *The EU Architecture to avert a Sovereign Debt Crisis*, OECD Journal Financial Market Trends, Volume 2011 – Issue 2 (2011), [online], available at http://www.oecd.org/finance/financial-markets/49191980.pdf (Accessed at 15 August 2014)

910 Id

911 The Economist, The European Stability Mechanism, *Gearing up for business* (October 2013), [online], available at http://www.economist.com/news/finance-and-economics/21587821-europes-new-rescue-fund-will-have-plenty-keep-it-busy-gearing-up-business (Accessed at 15 August 2014)

912 Id.

913 ESM, *About the Europe Stability Mechanism*, [online], available at http://www.esm.europa.eu/ (Accessed at 23 September 2015)

914 Id.

backed by a paid-in capital of €80 billion[915], in accordance with the contribution key annexed to the ESM Treaty. The ESM cooperates very closely with the International Monetary Fund (IMF). Eurozone Member State requesting financial assistance from the ESM are expected to address, wherever possible, a similar request to the IMF.[916]

The Eurogroup[917] is an informal body where the ministers of the Eurozone Member States discuss matters relating to their shared responsibilities related to the Euro. Its main task is to ensure close coordination of economic policies among the euro area member states. It also aims to promote conditions for stronger economic growth. It is also responsible for preparing the Euro Summit meetings and for their follow-up.[918] The Eurogroup usually meets once a month, on the eve of the Economic and Financial Affairs Council meeting. According to former Greek Finance Minister Yoannis Varoufakis[919], no minutes are kept at the meetings of the Eurogroup due to the informal nature of this "*non-institution*" which reminds the author of the many "*non-papers*"[920] he had to learn of when he came to work in Brussels for the first time in 1992.

The Eurogroup Working Group[921] is a preparatory body composed of representatives of the Eurozone member states of the Economic and Financial Committee, the European Commission and the European Central Bank. The Eurogroup Working Group members elect a President for a period of two years, which may be extended. Since January 2012, the post of President of the Eurogroup Working Group has been held by Austrian Thomas Wieser[922], who is also President of the Economic and Financial Committee.

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915 See supra note 913.

916 European Parliament, *Briefing Macro-Financial Assistance to EU Member States, State of Play* (September 2015), [online], available at http://www.europarl.europa.eu/RegData/etudes/note/join/2014/497721/IPOL-ECON_NT(2014)497721_EN.pdf (Accessed at 25 September 2015)

917 European Council, The Eurogroup, [online], available at http://www.consilium.europa.eu/en/council-eu/eurogroup/ (Accessed at 25 September 2015)

918 Id.

919 Parker, Ian, The Greek Warrior, *The Greek Warrior,* The New Yorker (August 2015), [online], available at http://www.newyorker.com/magazine/2015/08/03/the-greek-warrior (Accessed at 30 August 2015)

920 European Commission, *Non-paper, Guidelines for Project Managers: Making vulnerable investments climate resilient,* [online], available at http://ec.europa.eu/clima/policies/adaptation/what/docs/non_paper_guidelines_project_managers_en.pdf (Accessed at August 20, 2015)

921 European Council, The Eurogroup Working Group, [online], available at http://www.consilium.europa.eu/en/council-eu/eurogroup/eurogroup-working-group/ (Accessed at 25 September) 2015

922 Id.

4. BANKING UNION AND FISCAL UNION

As yet another reaction to the financial crisis of 2008, the European Commission started initiatives to include stronger prudential requirements for banks, to improve depositor protection and following to some extent the positive U.S. example set by the Orderly Liquidation Authority by developing rules for the management of failing banks with a single rulebook for all financial actors in the 28 Member States of the European Union.[923]

With the progression of the financial crisis into the Eurozone debt crisis, it became apparent that Member States of the Eurozone were even more interdependent and a deeper integration of the banking system was needed. Therefore, the European Commission developed a roadmap for the creation of the Banking Union[924], the EU institutions agreed to establish a Single Supervisory Mechanism and a Single Resolution Mechanism for banks. Banking Union applies to countries in the Eurozone[925].

The Fiscal Union is the attempt to formulate an integrated fiscal policy for all the Member States of the Eurozone. Decisions about the collection and expenditure of taxes of the participating Member States of the Eurozone, within such Fiscal Union shall be taken by common institutions of the participating governments[926].

Today most member states of the EU only participate in the economic and monetary union (EMU), based on the Euro. However, most decisions about taxes and spending remain at the national level. Therefore, the European Union has a monetary union, it does not yet have a fiscal union.[927] Control over fiscal policy is considered central to national sovereignty, and in the world today there is no substantial fiscal union between independent nations. However the EU has certain limited fiscal powers. It has a role in deciding the level of VAT (value-added-taxes) and tariffs on external trade.[928]

923 European Commission, Memo, *Banking Union: restoring financial stability in the* Eurozone (April 2014), [online], available at http://ec.europa.eu/finance/general-policy/docs/banking-union/banking-union-memo_en.pdf (Accessed at 25 August 2015)
924 Id.
925 Id.
926 Allard, Celine, Brooks, Petya Koeva, Bluedorn, John C., *Toward a Fiscal Union for the Euro Area*, IMF Staff Discussion Note, International Monetary Fund (September 2013), [online], available at https://www.imf.org/external/pubs/ft/sdn/2013/sdn1309.pdf (Accessed at 20 July 2014)
927 Id.
928 Id.

Laruffa describes the European economic governance as

> [A]n economic constitution made by rules, policies and institutional practices aimed to establish a fiscal-monetary policy mix, competition rules, financial markets regulations, the single market and international trade policies. When the euro was created, monetary policy was established as a centralized policy, while fiscal policy remained in the hands of national authorities under some institutional arrangements for sound budgetary policy and an ex-ante control by the European Commission.[929]

The Stability and Growth Pact (SGP)[930] among members of the Eurozone coordinates the fiscal policies of member states reporting their economic plans to the European Commission and budgetary objectives., the Council of Economic and Finance Ministers decides by qualified majority whether to accept the Commission's recommendation to the member state.

On 2 March 2012, all members of the European Union, except the Czech Republic and the United Kingdom, signed the European Fiscal Compact[931], which was ratified on the 1st of April 2014.[932] The treaty is designed to implement stricter caps on government spending and borrowing, including automatic sanctions for countries breaking the rules.

The results of the treaty on the Eurozone economy, are yet to be known[933]. With the crisis of the Eurozone deepening, more and more attention has been put by scholars on completing the fiscal side of the monetary union[934].

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[929] Laruffa Matteo, *The European Economic Governance: Problems and Proposals for Institutional Innovations*, Winning Paper for the Annual Meeting Progressive Economy, Brussels, 6 March 2014., [online] available at http://www.progressiveeconomy.eu/sites/default/files/papers/Matteo%20Laruffa%20The%20European%20economic%20governance.pdf (Accessed 17 September, 2015)

[930] See supra note 923.

[931] Burret, Heiko T., Implementation of the Fiscal Compact in the Euro Area Member States, German Council of Economic Experts (November 2013), [online], available at http://www.sachverstaendigenrat-wirtschaft.de/fileadmin/dateiablage/download/publikationen/arbeitspapier_08_2013_engl.pdf (Accessed at 29 July 2015)

[932] Id.

[933] Feldstein, Martin, Europe's Empty Fiscal Compact (February 2012), [online], available at http://www.nber.org/feldstein/projectsyndicatefeb2012.html (Accessed at 20 July 2014). Feldstein argues that "[t]he driving force of Europe's economic policy is the "European project" of political integration. That goal is reflected in the European Union's current focus on creating a "fiscal compact," which would constitutionalize member states' commitment to supposedly inviolable deficit ceilings. The plans for a fiscal compact have evolved rapidly shifting from a politically unpopular "transfer union" to a dangerous plan for fiscal austerity and, finally, to a modified version of the defunct Stability and Growth Pact of 1997. German Chancellor Angela Merkel initially proposed the "transfer union," in which Germany and other strong Eurozone economies would transfer funds year after year to Greece and other needy countries, in exchange for the authority to regulate and supervise the recipient countries' budgets and tax collections. The German public rejected the idea of permanent transfers from German taxpayers to Greece, while Greek officials and the Greek public rejected the idea of German control over their country's fiscal policy."

5. Sordid Debt Restructuring

The 2003 to 2009 period can be seen as a representative period for financial crises.[935] As Barry Eichengreen in 1999[936] observed the number of years separating default episodes in the more recent period is much lower. Once that is restructured, countries are quick to releverage. Serial banking crisis in Europe and in the United States use to be the norm prior to World War II. With the development of a financial sector in the larger emerging markets in the late 1880s, these economies also started to experience those patterns of frequent banking crisis during the 19th and early 20th centuries. The United Kingdom, the United States and France lead the pack with 12, 13 and 15 banking crisis each.[937]

The period after World War II started off comparably calm for both the advanced economies and the large emerging markets. However, all except Portugal experienced at least one post-war crisis prior to the current episode.[938] One observation that sounds obvious but needs to be made is that the run up in debts accelerates as the crisis nears. Therefore, it holds true that

> [H]aving debts is a prerequisite to default. This is not a tautology. The pattern that emerges is not indicative of a gradual accumulation of debt in advance of a banking crisis or a sovereign default. Specifically, when we discuss rising debts ahead of the crisis, we are referring to surges in capital inflows or more generally in any kind of debt.[939]

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934 Gros, Daniel and Alcidi, Cinzia, *The case of the disappearing Fiscal Compact*, CEPS Commentary (November 2014), [online], available at http://www.ceps.eu/system/files/Fiscal%20Compact.pdf (Accessed at 24 August 2015)

935 Reinhart, Carmen M. and Rogoff, Kenneth S., *From Financial Crash to Debt Crisis*, American Economic Review 101 (August 2011), [online], available at http://scholar.harvard.edu/files/rogoff/files/from_financial_crash.pdf (Accessed July 15, 2013) They argue that '[t]here are long periods were a high percentage of all countries are in a state of default or restructuring. Indeed, there are five pronounced peaks or default cycles. The first is during the Napoleonic War. The second runs from the 1820s through the 1840s[935]. Many times nearly half the countries in the world were in default including all of Latin America. The third episode begins in the early 1870s and lasts for two decades[935]. The fourth episode begins in the great depression of the 1930s and extends through the early 1950s when nearly half of all countries stood in default[935]. The most recent default cycling encompasses the emerging market debt crisis of the 1980s and 1990s."

936 Reinhart, Carmen and Rogoff, Kenneth S. *This Time is Different: A Panoramic View of Eight Centuries of Financial Crises*, Annals of Economics and Finance, Harvard University (2014), [online], available at http://aeconf.com/Articles/Nov2014/aef150201.pdf (Accessed at 20 August 2015)

937 Id.

938 Id.

939 Id.

Reinhart and Rogoff also made the observation that banking crises often, preceded or concurred with sovereign debt crisis. Whilst there have been a number of sovereign restructuring episodes in lower income developing economies in the past, the experience regarding advanced economies is much more limited. The difference between advanced economies from lower income and developing economies are significant insofar as they have a larger share of the public debt held domestically and deeper financial systems.[940]

Reinhart and Rogoff provide three important factors to determine the macroeconomic cost and benefits of such a restructuring.

> First, the share of sovereign bonds held by households' resident countries compared to the share held by foreign residents. Second, the response of international financial investors to the sovereign restructuring insert the private sector at the moment of the restructuring. [Third], the private sector's net foreign asset position at the time of the sovereign restructuring is relevant as well. In the model, there are two regions, home and foreign, each of a different size.[941]

However, the structural difference in the case of a monetary union such as the Eurozone are significant insofar as we need to take into account two very specific features. First, monetary policy is conducted at the level of the European Union, in particular at the European Central Bank without democratic control. Given that disconnect reactions in monetary policy are often dissociated or clouded by other interests from the changing macroeconomic conditions in the affected country after the restructuring. Second, fiscal policy is managed at the level of the Member State. The results are as follows:

> First, after the haircut, GDP shows a decrease which is rather persistent and associated with a reduction in consumption and investment by domestic residents.[942] The recovery is slow as it takes more than 3 years for the GDP to return to its baseline level.[943] Second, the GDP loss is relatively large if the share of public debt held domestically is large. The private foreign debt is large and the spread increases.[944]

Overall, Reinhart and Rogoff do find that the sovereign restructuring induces a rather persistent reduction in microeconomic activity.[945] So does the unsustainable absence of it.

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[940] See supra note 935.
[941] See supra note 940.
[942] Id.
[943] Id.
[944] Id.
[945] Id.

6. Increasing Inequality

The problem is that the fruits of our growth have not been widely shared. If you look at the middle median income today it is lower than in the United States than it was 25 years ago. Median income of a full-time male worker is lower than it was 40 years ago.[946] If we talk about the CEO pay, it has gone from being 30 times the average of the people who are working for them to over 500 times; without absolute no justification other than their free-wheeling nature. You cannot say these CEOs suddenly got more productive. That their productivity increased ten, let alone five hundred, times faster than the rest of society[947].

The rise of inequality appears often to be a response to the failure to solve domestic, social and inequality problems and that is partly because inequality has grown in certain countries to such a high level that they could not any longer continue to ignore it.[948] They put in place policies that actually were directed at reducing inequality and it worked When there's a political will you can actually make significant progress in a relatively short time. What happened from 1820 to say, 1980, was that large parts of the world fell way behind.[949] India and China have close to 50 percent of the population and used to have close to 50 percent of the global GDP. And it went down to 8 percent.[950]

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946 U.S. Census, *Historical Income Tables: People*, [online], available at https://www.census.gov/hhes/www/income/data/historical/people/ (Accessed at 29 August 2015)

947 Davis, Alyssa, Mishel, Lawrence: *CEO Pay Continues to Rise as Typical Workers Are Paid Less*, Economic Policy Institute, (June 2014) [online], available at http://www.epi.org/publication/ceo-pay-continues-to-rise/ (Accessed at July 20, 2015). Davis and Mishel argue that "the growth of CEO and executive compensation overall was a major factor driving the doubling of the income shares of the top 1.0 percent and top 0.1 percent of U.S. households from 1979 to 2007 (Bivens and Mishel 2013). Income growth since 2007 has also been very unbalanced as profits have reached record highs and, correspondingly, the stock market has boomed while the wages of most workers (and their families' incomes) have declined over the recovery (Mishel et al. 2012; Mishel 2013). It is useful to track CEO compensation to assess how well this group is doing in the recovery, especially since this is an early indication of how well other top earners and high-income households are faring through 2013. This paper presents CEO compensation trends through 2013 and finds: Trends in CEO compensation last year: Average CEO Compensation was $15.2 million in 2013, using a comprehensive measure of CEO pay that covers CEOs of the top 350 U.S. firms and includes the value of stock options exercised in a given year, up 2.8 percent since 2012 and 21.7 percent since 2010 Longer-term trends in CEO compensation: From 1978 to 2013, CEO compensation, inflation-adjusted, increased 937 percent, a rise more than double stock market growth and substantially greater than the painfully slow 10.2 percent growth in a typical worker's compensation over the same period. The CEO-to-worker compensation ratio was 20-to-1 in 1965 and 29.9-to-1 in 1978, grew to 122.6-to-1 in 1995, peaked at 383.4-to-1 in 2000, and was 295.9-to-1 in 2013, far higher than it was in the 1960s, 1970s, 1980s, or 1990s. If Facebook, which we exclude from our data due to its outlier high compensation numbers, were included in the sample, average CEO pay was $24.8 million in 2013, and the CEO-to-worker compensation ratio was 510.7-to-1."

948 Infogr.am, *Share of world GDP throughout history*, interactive chart demonstrating the pro rata share from 1AD to 2008 AD, [online], available at https://infogr.am/Share-of-world-GDP-throughout-history (Accessed at 25 September 2015)

949 Id.

950 Id.

Now, the income of those countries is going up, 500 million people moved out poverty in China.[951] There have been an enormous number of people who really benefited, and have seen their incomes grown in the last 50 years just not in America[952].

With respect to the rise in inequality, we need to stress two points. The first point is about the return of this patrimonial or wealth-based society in Europe and Japan, and the aggregate value of wealth related to income seemed to be returning to very high levels in these global countries, and the basic intuition is that in Europe and Japan we see very low population growth, much lower than in the U.S., and a slow growth society.

The second point is about the future of wealth concentration. As pointed out earlier, Piketty's one important message in his recent book Capital in the 21st Century[953] is that potentially very large inequalities of wealth derive from the gap between R and G, where R is the rate of return to wealth, and G is the growth rate.

In other words, what Piketty has found out is that the rate of return on monetary capital formation outpaces the growth rate of non-monetary capital formation. If you follow the Capital Formation Life Cycle you can come to the same conclusion. Given the fact that there is no appropriate instrument for the destruction of money, such as a Transatlantic Trade and Investment Court with the judicial authority to restructure sovereign debt, other than taxation and the raise of taxation is politically inacceptable these days, the constant flow of additional bail-out money to fill the gaps misallocations created in the balance sheets of Commercial Banks necessarily need to lead to higher returns on monetary capital. Whilst the balance sheets of Commercial Banks reluctantly get cleaned up only over years with so-called bad banks and sovereign debt gets not restructured at all, new money gets piled on top of old liabilities whereas without reduction in the balance sheets of the financial sector, those bail-out funds get used to invest into financial assets rather than in the so-called real economy. All that often exacerbated by new core capital rules such as Basel II and III that make it significantly harder to lend to real businesses so long the banks could not clean house.

[951] See supra note 948.
[952] Id.
[953] See supra note 3.

The consequence: The monetary sector plays with itself driving up valuations. The real economy drives rather hard and dry based on what it can sell in an environment of austerity and stagnant wages. *Ceteris paribus,* the result must be R > G.[954]

The most important point is that inequality is not just a result of economic forces, but the result of policies and politics. It also is the result of our capital formation structure. But, of course, the policies of themselves are infected by the level and nature of inequality, and how extremes of economic inequality that we have inevitably get translated into political inequality, and particularly when you have the rules of the game, of the political process themselves being set in a political processes which themselves are, in which the wealthy have undue influence.[955]

Piketty and Krugman[956] point out that it is not just the average return on capital, but it is the distribution of the returns, and the persistence of those differences, especially across generations. The most important variable is tax and return to capital, and bequest is that determines the relationship between the after tax return and the rate of growth, and some of the research shows that increasing the tax rate at the very top, does not have an adverse effect on economic growth. There are many instruments at our disposal to create a more equal society, and many of these instruments would, at the same time, create a more efficient, and better performing economy.

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954 See supra note 3.

955 Id.

956 Krugman, Paul, *Piketty and Pareto,* The New York Times, (April 2014), [online], available at http://krugman.blogs.nytimes.com/2014/04/25/piketty-and-pareto/?_r=0 (Accessed at August 29, 2014), Krugman argues that “Piketty doesn’t just assert that fortunes will concentrate, he shows that they have in fact concentrated in the past. That’s the whole point of his extended analysis of Belle Epoque France, with its dominance by inherited wealth. And for every Bill Gates, there are many families that do all they can to perpetuate dynastic wealth. Remember, the 10 wealthiest Americans include 4 Waltons and two Kochs. Second, Piketty predicts a high concentration of wealth, but not concentration without limit. He alludes to his modeling here rather than presenting it explicitly, but maybe he should have said more. Here’s how I think of it. Imagine that once a family acquires a certain level of wealth, it tends to engage in dynastic accumulation, consuming only a fraction of its asset returns while saving the rest and passing it on. However, there is in each generation some probability that the family fortune will be squandered by a wastrel. In this case there will be an equilibrium distribution of family fortunes, comprising families that have accumulated wealth for three generations, a smaller number who have accumulated for four generations (smaller because some fortunes get squandered), a still smaller number who have accumulated for five generations, and so on. How much wealthier will five-generation dynasties be than four-generation? It depends on the rate of return r — and their share of wealth also depends on the growth rate g. Furthermore, six-generation dynasties will be to five-gens as five gens are to four, etc. The distribution of wealth will follow a Pareto distribution (which is true of actual wealth distributions at the top), with the exponent depending on r minus g. So no dynasty lasts forever; there will be a slow “circulation of elites.” But some dynasties will last a long time — and if the after-tax rate of return is high, those dynasties will control a large share of wealth.”

7. BASEL II/III

The Basel Committee on Banking Supervision[957] was created as a consequence of the financial market dislocation after Nixon terminated the Bretton Woods system. Originally thought as an institution for regular cooperation between its member countries on banking supervisory matters it was designed to enhance financial stability by exchanging supervisory knowhow and the quality and level of banking supervision worldwide.[958]

The Committee operates by setting minimum standards for the regulation and supervision of banks. Besides the continuous exchange over banking supervisory issues, approaches and techniques, the goal was to promote a common understanding and to improve cross-border cooperation; and by exchanging information on developments in the banking sector and financial markets to help identify current or emerging risks for the global financial system.

Due to the fact that there is no appropriate legal framework or transnational jurisdiction established, it is important to point out that the Committee's decisions have no legal force. Other than EU directives they do not get translated into national laws of the member states and they also unlike EU regulations do not have direct effect. The Basel Accords do not substitute or fill the void for a transnational *forum* for financial, commercial and trade regulation. Depending on the substantive agreement, the Transatlantic Trade and Investment Partnership, TTIP, could have the potential to provide the formal framework to make cross-border regulatory cooperation legally effective. Without passing judgment of the quality of the Basel accords, today the Committee only formulates supervisory standards and guidelines and recommends sound practices in the expectation that individual national authorities will implement them.[959]

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[957] Basel Committee on Banking Supervision, *A brief history of the Basel Committee*, Bank for International Settlements (October 2014), [online], available at http://www.bis.org/bcbs/history.pdf (Accessed at May 20, 2015)

[958] Id.

[959] Basel II: In June 1999, the Committee issued a proposal for a new capital adequacy framework that led to the release of the Revised Capital Framework in June 2004. Generally known as "Basel II", the revised framework comprised three pillars, namely: 1) Minimum capital requirements, which sought to develop and expand the standardized rules set out in the 1988 Accord; 2) Supervisory review of an institution's capital adequacy and internal assessment process; and 3) Effective use of disclosure as a lever to strengthen market discipline and encourage sound banking practices. The new framework was designed to improve the way regulatory capital requirements reflect underlying risks and to better address the financial innovation that had occurred in recent years.

Basel III: The New Capital Framework[960]

The need for a revision and reinforcement of the Basel II architecture was obvious even before the collapse of Lehman Brothers in September 2008[961]. Triggered by too much leverage and inadequate equity capital of the commercial banking sector, the financial crisis went in full force. Yet again in a too little, too late CRASH-reaction[962] to these risk factors, the Basel Committee eventually issued *Principles for sound liquidity risk management[963] and supervision* in the same month that Lehman Brothers failed. The proposed standards were issued by the Committee in mid-December 2010.[964]

Basel III: International framework for liquidity risk measurement, standards and monitoring and Basel III: A global regulatory framework for more resilient banks and banking systems. The enhanced Basel framework revised and strengthened the three pillars established by Basel II.[965] Ultimately, the minimum capital requirements, the higher minimums for common equity and Tier 1 capital are effective since the beginning of 2015[966].

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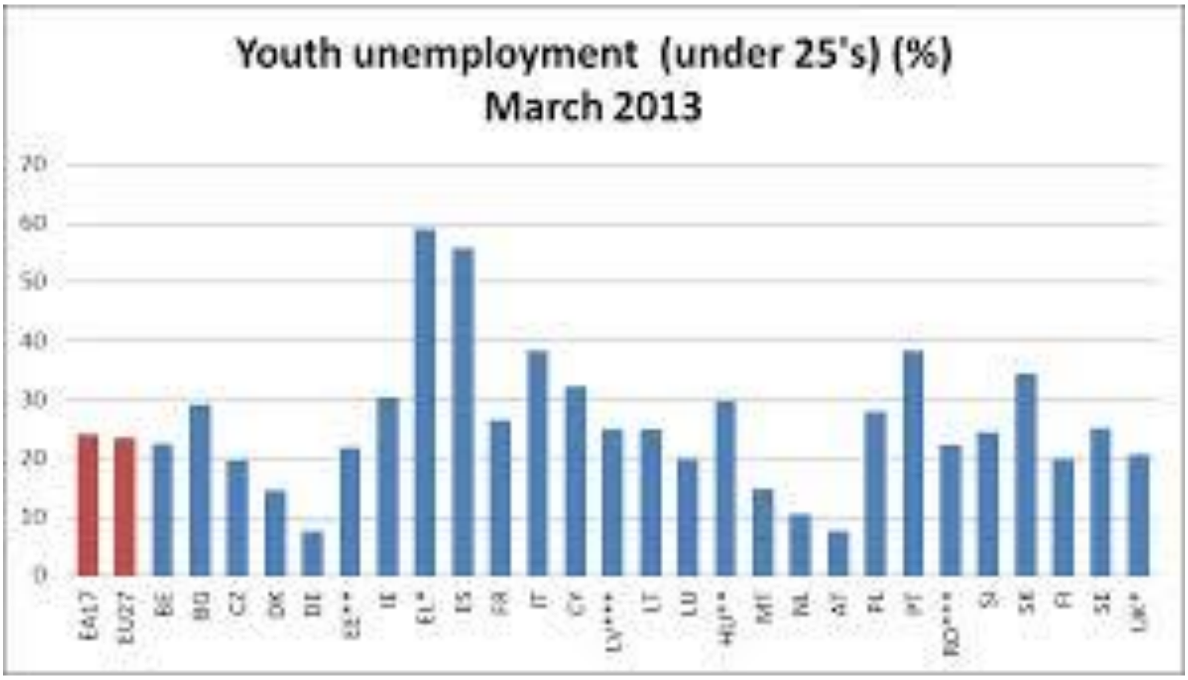
[960] See supra note 957.
[961] See supra note 896.
[962] See supra note 854.
[963] See supra note 957.
[964] Id.
[965] It also extended the framework with several innovations, namely: An additional layer of common equity - the capital conservation buffer - that, when breached, restricts payouts of earnings to help protect the minimum common equity requirement; A countercyclical capital buffer, which places restrictions on participation by banks in system-wide credit booms with the aim of reducing their losses in credit busts; A leverage ratio - a minimum amount of loss-absorbing capital relative to all of a bank's assets and off-balance sheet exposures regardless of risk weighting (defined as the "capital measure" (the numerator) divided by the "exposure measure" (the denominator) expressed as a percentage); Liquidity requirements - a minimum liquidity ratio, the liquidity coverage ratio (LCR), intended to provide enough cash to cover funding needs over a 30-day period of stress; and a longer-term ratio, the net stable funding ratio (NSFR), intended to address maturity mismatches over the entire balance sheet; and Additional proposals for systemically important banks, including requirements for supplementary capital, augmented contingent capital and strengthened arrangements for cross-border supervision and resolution.
[966] The schedule is as follows: The minimum common equity and Tier 1 requirements increased from 2% and 4% to 3.5% and 4.5%, respectively, at the beginning of 2013. The minimum common equity and Tier 1 requirements rose to 4% and 5.5%, respectively, at the beginning of 2014. The final requirements for common equity and Tier 1 capital will be 4.5% and 6%, respectively, beginning in 2015. The 2.5% capital conservation buffer, which will comprise common equity and is in addition to the 4.5% minimum requirement, will be phased in progressively starting on 1 January 2016, and will become fully effective by 1 January 2019. The liquidity coverage ratio (LCR) is phased in from 1 January 2015 and will require banks to hold a buffer of high-quality liquid assets sufficient to deal with the cash outflows encountered in an acute short-term stress scenario as specified by supervisors. The minimum LCR requirement will begin at 60% in 2015, rising in equal annual steps of 10 percentage points to reach 100% on 1 January 2019. The other minimum liquidity standard introduced by Basel III is the net stable funding ratio. This requirement, which takes effect as a minimum standard by 1 January 2018, will promote longer term funding mismatches and provide incentives for banks to use stable funding sources.

FIGURE 21: EUROPEAN YOUTH UNEMPLOYMENT OF UNDER 25 YEAR OLD[967]



The main problem with **inequality** today in Europe is really unemployment, youth unemployment, in particular. The level of youth unemployment in South Europe, but also in France, is extremely large. When you have 25-30 percent of the young generation who start their life with no professional experience, this will have long lasting multi-generational effects.

Albeit the author is personally pleased about the fact that Austria in the past 15 years since he has been in charge of youth employment as Coordinator of the Vocational Training Initiative of the Austrian Government has managed since the passage of the Austrian Youth Training Guarantee Act[968] to maintain its top spot position alongside Germany as the Member States with the lowest youth unemployment a quick look at Figure 21 suffices to see that Austria and Germany are rather the exception than the rule in today's European Union.

[967] European Commission, *EU measures to tackle youth unemployment* (May 2013), [online], available at http://europa.eu/rapid/press-release_MEMO-13-464_en.htm (Accessed at June 29, 2014); Figure reproduced.
[968] Republic of Austria, *Jugendausbildungssicherungsgesetz (JASG)* (1998), [online], available at https://www.jusline.at/Jugendausbildungs-Sicherungsgesetz_(JASG).html (Accessed at September 23, 2015)

However, a single currency with 19 different public debts, 19 different interest rates in which financial markets can speculate, 19 different tax system and in competition with one another, is a systems that does not work and will not work and the prerequisite for a sustainable resolution of these issues will be the adoption of a Constitution for the European Union.

Like Mario Draghi, the President of the European Central Bank said:

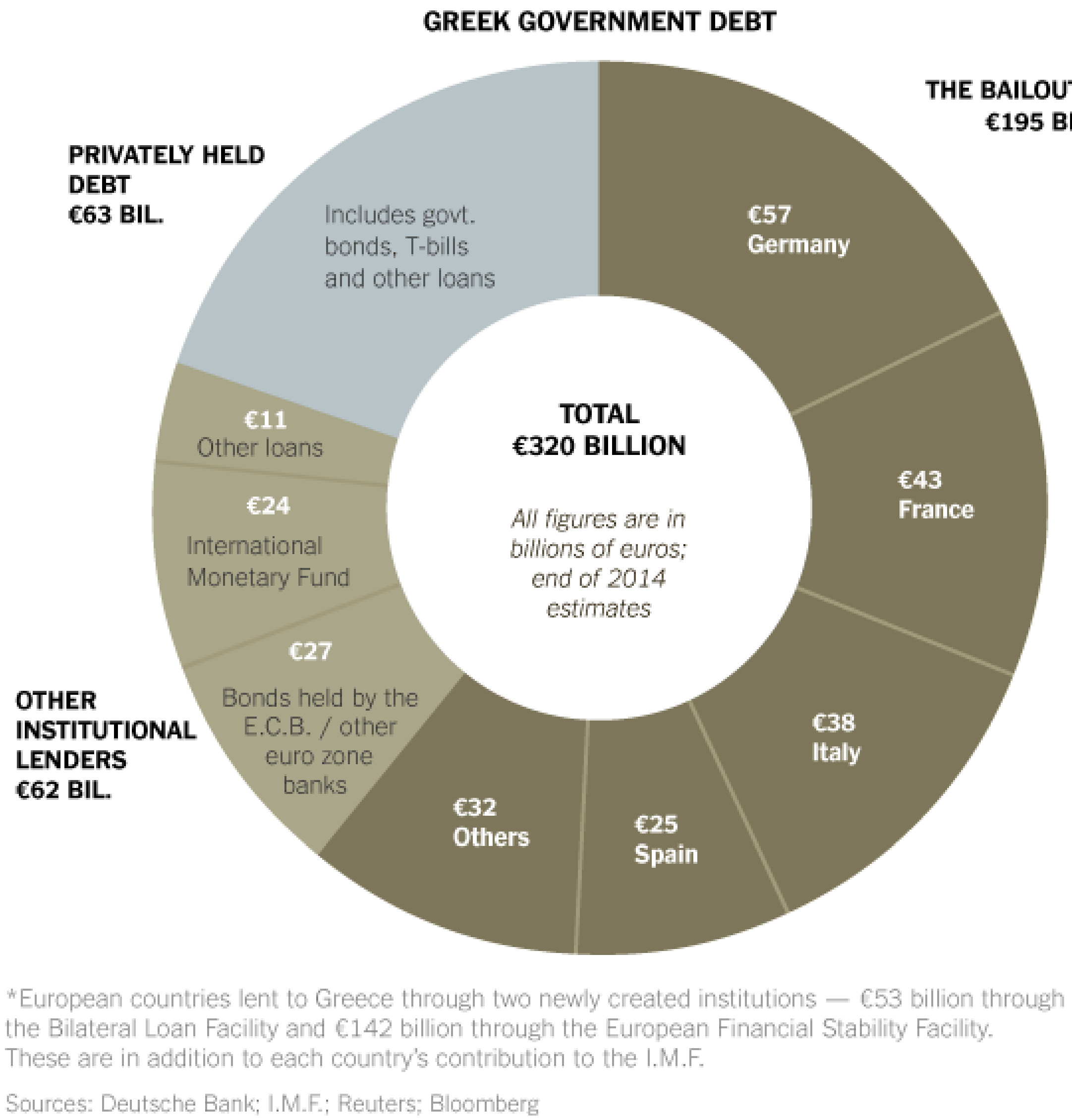
> Monetary Union requires a political centre that can take relevant fiscal and economic decisions.[969]

As a matter of fact, the European Union as whole is now at a cross-roads due to so many other exogenous issues where it must make the fundamental decision to develop further into a Federal State of sorts, preferably even further integrated than the United States, when it comes to taxation, professional standards and access to local markets. This would make the European Union not only a lot more competitive, it would provide Europeans to regain the sovereignty to exercise a true European economic and monetary policy that they no longer could pursue in their home member states – even if they would revert back to their small, domestic national currency – as if North Dakota would like to introduce a North Dakota dollar, the ND$.

The Legal Risk posed by the absence of a Political Union could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. Given its spread of competence on fiscal and economic matters over 19 jurisdictions it poses the risk due to an interpretation of the law that is considered not valid or based on competence pursuant to international agreements. Pursuant to Mahler it therefore could be also characterized as a Qualification Legal Uncertainty. However, given that in spite of having the monetary union on the European level, the United States all fiscal, economic and budgetary decisions are made on the national level of the Member State, the Legal Risk could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the absence of a Political Union in the European Union constitutes the Legal Risk of *Limitation.*

[969] Draghi, Mario, *President of the ECB, European Central Bank* (23 September, 2015), available online at www.twitter.com/ecb (Accessed 25 September 2015)

FIGURE 22: GREEK GOVERNMENT DEBT[970]



The **alternative to a bail out** is orderly debt restructuring, but that's usually impractical because of two market failures, a hold-out problem and a funding problem.[971] The hold-out problem is that any given creditor has an incentive to strategically hold out from agreeing to a reasonable debt restructuring plan hoping that the imperative of others to

[970] See supra note 838.

[971] Tamura, Kentaro, *The problem of sovereign debt restructuring*, Harvard Law School (April 2002), [online], available at http://www.law.harvard.edu/programs/about/pifs/education/llm/2001---2002/sp45.pdf (Accessed at May 20, 2014)

settle will persuade them to allocate to hold up more than its fair share of the settlement or purchase the hold out's claim.[972]

The funding problem is that a country likely to need to borrow new money to pay critical expenses during the debt restructuring process, but no lender is likely to be willing to lend such funds unless its right to repayment is per the over existing debt claims. Any effective solution to the sovereign debt dilemma would have to address these two problems.[973]

Addressing the hold-out problem; the hold-out problem can be addressed by legislating through international treaty a form of super majority voting on sovereign debt restricting plans in which the vote by the overwhelming majority of similarly situated creditors can bind dissenting creditors.

This is the tried and true method by which law including Chapter 11 of the U.S. Bankruptcy Court successfully and equitably address the hold-out problem in a corporate context and achieves consensual debt restructuring. Because only similarly situated creditors can vote to bind dissenting creditors and because any outcome of voting will bind all those creditors alike the outcomes of votes should benefit the claims of hold outs and dissenters as much as the claims of the super majority.[974]

The Legal Risk posed by sovereign debt restructuring by tribunal, arbitration panel or political backdoor-dealing but without the benefits of judicial authority with effective transnational jurisdiction could be qualified under Whalley as the risks of failure to enforce or comply with the terms of the contract, such as the use of non-standard terms and conditions.

Given that such settlements or even multilateral agreements only constitute a contractual agreement rather than a legal norm and given that there no specific minimum criteria, it poses the risk that its validity is depending on a set of facts and following Mahler it could also be characterized as Qualification Factual Uncertainty.

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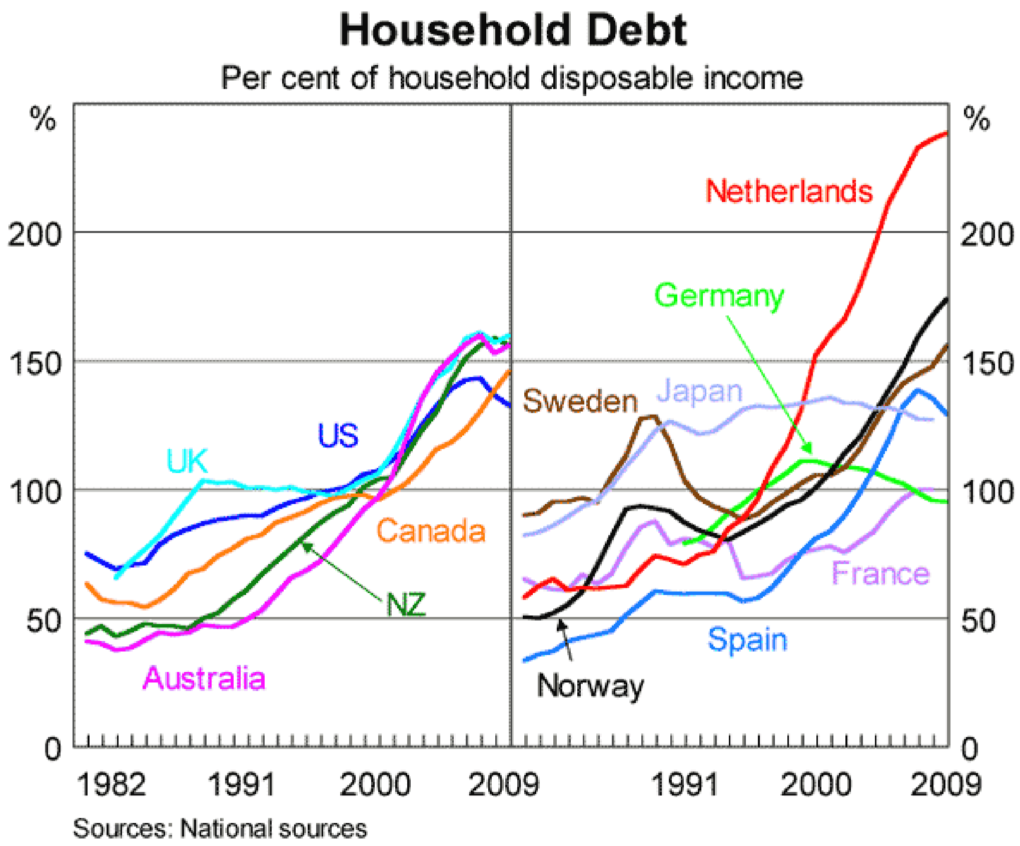
[972] See supra note 971.
[973] Id.
[974] Id.

Only a judicial authority that is entitled by law to enter a judgment that once in effect, unfolds universal effect among all subject of its jurisdiction rather than just binding effect between the parties of an agreement that still require a national court in any national jurisdiction in order to effectively enforce such terms, if at all possible.

However, given that such agreements may only be enforceable depending on whether the claim for debt restructuring is accepted, the Legal Risk could also be qualified pursuant to Hohfeld as a Liability.

In conclusion, following our FLDR-Model, the sovereign debt restructuring by way of tribunal, arbitration panels or political backdoor dealings constitute the Legal Risk of *Liability.*

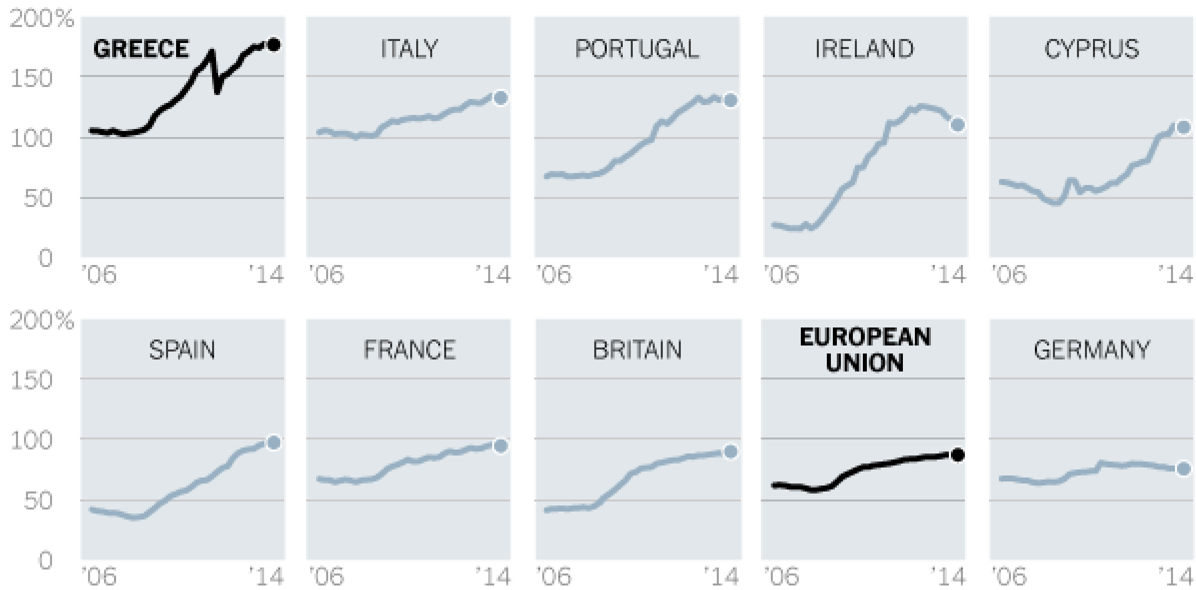
FIGURE 23: HOUSEHOLD DEBT 1982 - 2009[975]



[975] Battelino, Ric, Reserve Bank of Australia, *Aspects of Australia's Finances* (June 2010), [online], available at http://www.rba.gov.au/speeches/2010/sp-dg-150610.html (Accessed at 20 May 2014)

The third risk that we point to is the continued rise in household debt, not so much in the United States. The U.S. stands out as one of the countries that has actually seen a little bit of deleveraging, mainly in the private sector[976]. At the household level, debt to income ratios are back to where they were in 2002. You then take the low interest rates, and debt service to income is the lowest on record, compared with data going back to 1980, and corporations have also substantially deleveraged. If we look at debt-equity ratios, they are where they were before the 2001 recession, around 2000. Therefore, we are in a much more, sustainable position than we were going into the crisis.

FIGURE 24: GOVERNMENT DEBT IN THE EUROPEAN UNION AS % OF GDP[977]



One question is whether there is a right level, a safe level of government debt in an advanced economy? First of all most matters tend not to have thresholds and, and when you see them, it's an artifact of research, and debt, is not a dirty word. It depends on what it IS for and what the context is.

[976] See supra note 975.
[977] See supra note 843 at Eurostat.

If we took on more debt to invest more in infrastructure, that would be a good thing for our country, a good thing for our economy. If we took on a lot of debt to build a lot of houses people did not need, that would be a bad thing for our economy. It really depends on what you are using it for and then when we talk about policy solutions, whether there's distortions that are leading you to have too much, for example, in the corporate tax structure.[978]

But what is the legal risk for corporate and consumer households and their private debt and how do we assess the legal risk pursuant to our FDLR-Model for Member States of the European Union? First and foremost, we have to take note of the fact they both have in common: They are *users of the currency*[979]. Neither Member States of the Eurozone nor, unfortunately, private households are sovereign in currency matters – aside from those busy mines in Bitcoin.[980] As we discussed in the Case Study of the Financing Relation between the United States and the People's Republic of China, there is no Legal Risk absent voluntary default which does not qualify as a Legal Risk.

Here our case is different. The Legal Risk of non-payment by either private households or EU Member States could be qualified under Whalley as the risks of failure to enforce or comply with the terms of the contract, such as in the case of using non-standard terms and conditions.

Given that any enforcement of repayments is depending on a set of facts surrounding the liquidity, the ability to refinance of the debtors and certain other political condition, following Mahler it could also be characterized as Qualification Factual Uncertainty. However, given that such agreements may only be enforceable depending on whether the claim for payment is accepted, the Legal Risk could also be qualified pursuant to Hohfeld as a Liability. In conclusion, following our FLDR-Model, risk of non-payment by either private households or EU Member States constitutes the Legal Risk of *Liability*.

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[978] Bezemer, Dirk J., *Schumpeter May Be Right Again: the Functional Differentiation of Credit*, Economics of Credit and Debt, [online], available at http://www.economicsofcreditanddebt.org/media/research/The_Functional_Differentiation_of_Credit.pdf (Accessed at July 17, 2014)

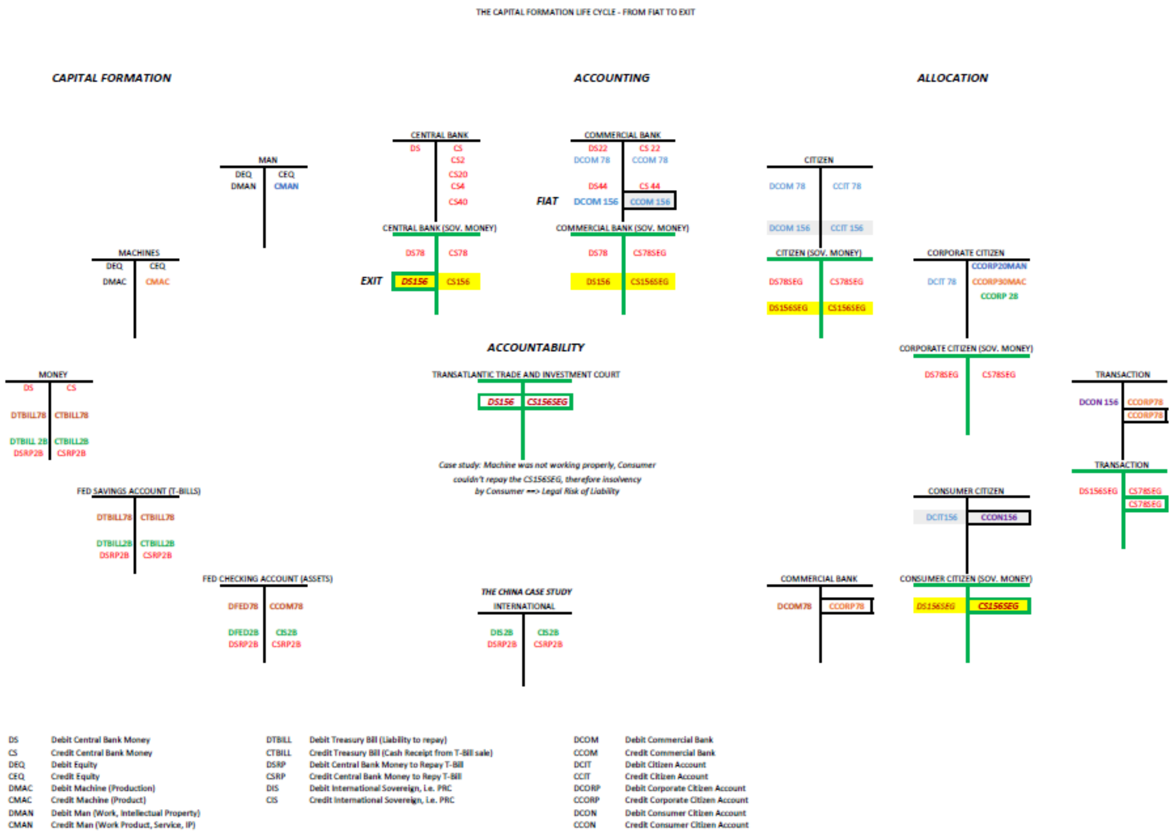
[979] See supra note 840.

[980] See supra note 665.

V. PROPOSED RESOLUTION OF LEGAL RISKS IN CAPITAL FORMATION

A. From *FIAT* to *EXIT* – *The Capital Formation Life Cycle* ™

EXHIBIT A (PLEASE SEE APPENDIX FOR A FULL PAGE DEPICTION)[981]



The author's Capital Formation Life Cycle, *see* Full Page in Exhibit A, represents the entire Life Cycle from non-monetary capital formation by Man and Machines to monetary capital formation by the creation of Money via the Three Actors of Capital Formation, Central Banks, Commercial Banks and Citizens, demonstrates how *FIAT* money is created, gets allocated to the Five Key Accounts of Capital Formation, the Sovereign, Financial, Corporate, Consumer and International Accounts and from there finds its *EXIT* by way of taxation, repayment or judgment by a Transatlantic Trade and Investment Court whose judicial authority includes the restructuring of transnational sovereign and private debt.

[981] See Exhibit A: *Capital Formation Life Cycle* (Appendix)

B. SOVEREIGN MONEY

What happens if you take the power to create money away from the banks and you return it to the state or some democratic body? They can actually create money without waiting for anybody to go into debt. There would still be a role for banks, banks would still exist, but they would do what people currently think they do, which is take money from savers and go and lend it to borrowers. What it does though is it breaks this Catch-22 situation where we either have to choose between more money and more debt or less money and less debt and it actually allows us to get more money into the economy whilst also having less debt as well. So it changes the dynamics of how our monetary system works.

The proponents of Sovereign Money[982] suggest a division between how much money is created and what that money is used for. Quantitative Easing (QE) may lead banks to be more confident so that they can lend again but also to more debt[983]. Sovereign money should lead to less debt in the economy. QE gave a huge boost to the very top 5 percent of the nation[984], not much for everybody else[985]. This system needs to change and Martin Wolf who is the chief economics commentator for Financial Times has now been talking along the same lines, so he recently said this.

> It is astonishing how little this crisis has shaken conventional wisdom. An expansion of private borrowing to buy ever more expensive houses is deemed good; privately created credit backed money from the banks is thought sound while government created money is not. None of this makes much sense and there isn't any sound economic reason for the fact that we do things the way we do. It's more based on ignorance of how the system really works; a lack of political awareness about the implications of these decisions; the fact that only 20 MPs asked any questions about quantitative easing. So what we're trying to do now is say that there is a better way of doing this and this sovereign money is something that we need right now to prevent us walking into another debt fueled financial crisis.[986]

[982] Joob, M. *The Sovereign Money Initiative in Switzerland*, World Economic Association (2015), [online], available at http://www.worldeconomicsassociation.org/newsletterarticles/momo/ (Accessed at 23 August 2015)
[983] R.A., *What is Quantitative Easing?* The Economist (March 2015), [online], available at http://www.economist.com/blogs/economist-explains/2015/03/economist-explains-5 (Accessed at 15 September 2015)
[984] See supra note 3.
[985] Id.
[986] Wolf, Martin, *Hair of the dog risks a bigger hangover for Britain*, Financial Times (February 2014), [online], available at http://www.ft.com/intl/cms/s/0/1cd67c18-93e6-11e3-a0e1-00144feab7de.html#axzz3mltYd9qF (Accessed at Jul 10, 2014)

We can have sovereign money creation whilst banks are still creating money and in the way that banks creating money is adding debt to the economy, sovereign money can be offsetting some of that effect. It is something they can do now so that the government can see that it can put money into the economy in a way that is useful and which actually benefits the economy and benefits them.

Let us compare the two ways money enters the Capital Formation Life Cycle today:

First: When banks were in charge and they very much still are, they put it all into the property bubble or into the next asset class that consequently bubbles up[987]. Second: When you facilitate it through sovereign money creation, banks no longer need to horde additional liquidity in order to fill potential gaping holes from credit-write offs. As this sort of Surplus Liquidity (SL) that we currently experience due to QE on the Commercial Bank's balance sheets will not be longer required, banks will no longer be tempted and in their fiduciary duty to their shareholders even to a degree obliged to seek rents and returns[988] for this SL in the financial markets.[989] Finally, as financial markets will be devoid of excessive SL, artificially inflated asset-prices will likely revert to less speculative pricing[990]. The more attractive way to earn a return is by successfully investing it directly into the real economy.

Now if we want to restrict one of those two ways, do we really want to restrict the one that actually creates jobs and actually creates growth in the economy?

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987 See supra note 29.

988 Whincop, Michael J. *Another Side of Accountability: The Fiduciary Concept and Rent-seeking in Government Corporations*, Griffith University, Griffith Law School (November 2000), [online], available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=258668 (Accessed at 20 May 2014)

989 Coppola, Frances, *Liquidity Hoarding and the end of QE,* Coppola Comment Blog (May 2014), [online], available at http://www.coppolacomment.com/2014/05/liquidity-hoarding-and-end-of-qe.html (Accessed at 23 August 2015) Coppola argues that "QE increases liquidity in the financial system, or rather in the regulated part of it, by buying assets that carry some form of risk - usually duration risk and interest rate risk. This has the effect of moving risk from the financial system to the central bank's balance sheet. The consequence of this is that the financial system is absolutely awash with the safest form of safe asset, namely cash, and rather short of slightly more risky cash substitutes. Those who want safety have no reason to buy longer-dated treasuries when there is so much cash around, while those who want yield will still prefer riskier assets. Rather than depressing yields on longer-dated treasuries, therefore, QE actually raises them as investors substitute cash for treasuries When QE stops, whether suddenly or gradually, there is of course no immediate withdrawal of liquidity. But the sudden removal of the INCREASE in liquidity gives the impression of a drought. It's like someone washing their hands under a running tap instead of in the sink: when that tap is suddenly turned off, or the flow through it is restricted, the washer thinks they have run out of water, even though there is an entire sink full because of the previous flow. This is what is happening in financial markets. The Fed is turning off the QE tap."

990 Id.

C. The New Chicago Plan

The Chicago Plan for the reform of the monetary system was a collection of bank reforms suggested by University of Chicago economists such as Irving Fisher, Frank H. Knight, Lloyd W. Mints, Henry Schultz, Henry C. Simons, Garfield V. Cox, Aaron Director, Paul H. Douglas, and Albert G. Hart in the wake of the Great Depression. A six-page memorandum on banking form was given limited and confidential distribution to about 40 individuals on March 16, 1933[991].

Pursuant to the Chicago Plan, the government should provide by way of the Central Bank instead of the commercial banks all the money for transactions and that is including the electronic book money the same way as coins, and the Central Bank also issues bills. The banks, the commercial banks, would keep this transaction money for its clients on accounts, and the individual client would pay a management fee.[992] Aside from that, the banks would also offer investment accounts that would provide for the provision of credits, but such credits could only be provided at that point any longer out of the depository accounts of the clients of the bank.[993] Thus, it would not be possible any longer by just by way of a pure computer entry create money out of thin air. The banks would become true intermediaries between those that have savings accounts and those that have credit accounts.

But, the Chicago Plan, of course, was never executed. It was if it abolished all the profit opportunity for those banks that now create money out of thin air. These memoranda generated much interest and discussion among lawmakers, but the suggested reforms such as the abolition of the fractional reserve system and imposition of 100 percent reserves on demand deposits were set aside and replaced by watered-down alternative measures[994].

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991 Phillips, Ronnie J., The *"Chicago Plan" and New Deal Banking Reform* (June 1992), The Jerome Levy Economics Institute at Bard College, available at http://www.levyinstitute.org/pubs/wp/76.pdf [online] (Accessed June 15, 2015)
992 Id.
993 Id.
994 Id.

The Banking Act of 1935[995] institutionalized federal deposit insurance and the separation of commercial and investment banking. It successfully restored the public's confidence in the banking system and ended discussion of banking reform. After apparent recovery in the mid-1930s America entered the recession of 1937 to 1938[996] and the key elements of the Chicago plan resurfaced and a July 1939 draft proposal entitled a Program for Monetary Reform but did not result in any new legislation. The Program for Monetary Reform 1939 was never published[997].

The Chicago Plan Revisited[998] is an IMF report from 2012 by Jaromir Benes and Michael Kumhof. The focus of the study is the so-called Chicago plan of the 1930s which the authors have updated to fit into today's economy. The basic idea is that banks should be required to have full coverage for money they lend. Under this proposal, banks would no longer be allowed to create new money in the form of credit in connection with their lending activities. Instead, the central bank should be solely responsible for all the creation of all forms of money, not just paper money and coins. The advantages of such a system, according to the authors, are a more balanced economy without the booms and busts of the current system, the elimination of bank runs, and a drastic reduction of both public and private debt. The authors rely on both economic theory and historical examples, and state that inflation, according to their calculations, would be very low.

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[995] Preston, Howard J. *The Banking Act of 1935*, University of Washington, [online], available at http://www.jstor.org/stable/1824546?seq=1#page_scan_tab_contents (Accessed at 20 August 2014)

[996] Bernanke, Ben S., *Money, Gold and the Great Depression*, Willis Lecture in Economic Policy, Washington and Lee University, Lexington, Virgina (March 2014), [online], available at http://www.federalreserve.gov/boardDocs/speeches/2004/200403022/default.htm (Accessed at 23 August 2014), Benanke argues that "sharp deflation of the price level that occurred during the contraction phase of the Depression, by far the most severe episode of deflation experienced in the United States before or since. Deflation, like inflation, tends to be closely linked to changes in the national money supply, defined as the sum of currency and bank deposits outstanding, and such was the case in the Depression. Like real output and prices, the U.S. money supply fell about one-third between 1929 and 1933, rising in subsequent years as output and prices rose. Some important lessons emerge from the story. One lesson is that ideas are critical. The gold standard orthodoxy, the adherence of some Federal Reserve policymakers to the liquidationist thesis, and the incorrect view that low nominal interest rates necessarily signaled monetary ease, all led policymakers astray, with disastrous consequences. We should not underestimate the need for careful research and analysis in guiding policy. Another lesson is that central banks and other governmental agencies have an important responsibility to maintain financial stability. The banking crises of the 1930s, both in the United States and abroad, were a significant source of output declines, both through their effects on money supplies and on credit supplies. Finally, perhaps the most important lesson of all is that price stability should be a key objective of monetary policy. By allowing persistent declines in the money supply and in the price level, the Federal Reserve of the late 1920s and 1930s greatly destabilized the U.S. economy and, through the workings of the gold standard, the economies of many other nations as well."

[997] Benes, J and Kumhof M., *The Chicago Plan Revisited* (August 2012), International Monetary Fund, [online], available at https://www.imf.org/external/pubs/ft/wp/2012/wp12202.pdf (Accessed June 16, 2015)

[998] Id.

With a historical perspective some see the Athenian leader *Solon*, whose debt write-offs in 599 B.C.[999] are described as the first known Chicago Plan, as the founding father of this school of thought. There is no doubt that the movement to eradicate the debt-based monetary system is still considered radical, but the fact that an IMF study[1000] now positions itself to the radical side, suggests that the global crisis is much greater than our governments and mainstream media are willing to acknowledge and also that people in high positions know that the decision makers basically are lacking alternatives. And a Centre for Economic Policy Research paper agrees with the conclusion that, "no real liability is created by new *FIAT* money creation, and therefore public debt does not rise as a result."[1001]

Critics from the Austrian School of Economics[1002], however, feel that proposals such as this would be akin to handing over the money fountain to the state which they believe would invariably lead to inflation or hyperinflation and be just as bad to let the state, or the central bank in alliance with the state, 'create money out of air' as it is to let the banks do it through their fractional reserve banking. Austrian economists believe that the only right thing to do would be to let the market take care of the creation of money, with a gold standard[1003], but without fractional reserve banking[1004].

However, the fact remains that seven years of Quantitative Easing have not lead to any inflation caused by an increased money supply. This should have convinced even the last Thomas, the Doubter.[1005] Rather the opposite occurred. Starting out at an inflation rate in 2008 of 4.1%, we ended up today at an inflation of 0.2%.[1006]

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999 Jones, Peter, *How Solon would have solved the Greek crisis*, The Spectator (July 2014), [online], available at http://www.spectator.co.uk/the-week/ancient-and-modern/9571732/how-solon-would-have-solved-the-greek-crisis/ (Accessed at 17 August 2014)

1000 See supra note 958.

1001 The economic crisis: How to stimulate economies without increasing public debt", *Centre for Economic Policy Research*, August 2012, http://www.cepr.org/pubs/PolicyInsights/PolicyInsight62.pdf [online] (Accessed 18 September 2013)

1002 See Chapter 3.I.C. *The Austrians: Eugen v. Boehm-Bawerk, Ludwig v. Mises and Friedrich v. Hayek*

1003 See supra note 961.

1004 Financial Times, *Iceland's daring raid on fractional reserve banks, Reykjavik considers wresting money creation from financial sector,* FT.com (April 2015), [online], available at http://www.ft.com/intl/cms/s/0/6773cec8-deaf-11e4-8a01-00144feab7de.html#axzz3mltYd9qF (Accessed at 17 July 2015)

1005 Stang, Charles M. *Doubting Thomas, Restaged. Between Athens and Berlin*, Harvard Divinity School (Spring 2013), [online], available at http://bulletin.hds.harvard.edu/articles/winterspring2013/doubting-thomas-restaged (Accessed at 17 July 2015)

1006 U.S. Inflation Calculator (2005-2015), [online], available at http://www.usinflationcalculator.com/inflation/current-inflation-rates/ (Accessed at 20 August 2015)

The reasons for that are apparent. Inflation, by its very definition, characterized as a general increase in prices and fall in the purchasing value of money over a period of time, can be found either in the case of limited supply of goods and services, for instance in the case of full employment and an ensuing pressure on wages, limited land or housing and the subsequent increase in rent or housing prices or in the case of exogenous price pressures such as in the case of high energy prices. So long neither of these conditions are present, the mere increase in money supply, will not lead to inflation – as proven over the past seven years.[1007]

A complete arbitrary Gold Standard[1008], however, that is idolatrized over and over by Austrian ideologists[1009], which has no correlation to the performance of an economic area will simply limit any flexibility in an economy that is necessary to provide any incentive for capital formation. Unsurprisingly, this dogma is a billionaire's darling given that it poses an artificial limit on money supply preventing even the slightest risk of devaluation of those assets they already have. An artificial limitation in the supply of currency due to the gold standard prevents the funding of essential public operations, supply of certain essential goods and services must increase in price as a result.

[1007] Mitchell, Bill, *Modern Money Theory and Inflation – Part 1,* Economic Outlook July 2010, [online], available at http://bilbo.economicoutlook.net/blog/?p=10554 (Accessed at 17 July 2014). Mitchell argues that "First, unemployment is always a greater problem than inflation in almost any dimension you want to define it and which are calibrated by metrics that different ideological persuasions agree on – such as lost GDP. There is nothing ideological in the statement that the losses from unemployment dwarf those associated with inflation. Even mainstream textbooks struggle to come up with large estimates of the costs of inflation that they itemize. There has been no credible study that shows that overall the losses from these "costs" amount to millions of dollars of foregone output every day. There is ample evidence that mass unemployment results in huge permanent losses every day in foregone output and income. And then if you study the broader literature (health, mental health, sociology, crime, family studies etc.) you realize that the macroeconomic losses from unemployment are just the tip of the iceberg. The personal, family and community losses are very large and persist across generations. Second, [there is] is a concern for price stability. It is one of the first principles of fiscal sustainability. The models developed provide innovative solutions to the twin evils of unemployment and inflation, even if we recognize as an empirical fact (independent of our ideologies) that unemployment is a much more significant evil. […] While a price rise is a necessary condition for inflation it is not a sufficient condition. Observing a price rise alone will not be sufficient to categorize the phenomena that you are observing as being an inflationary episode. Inflation is the continuous rise in the price level. That is, the price level has to be rising each period that you observe it. So if the price level or a wage level rises by 10 per cent every month, then you have an inflationary episode. In this case, the inflation rate would be considered stable – a constant rise per period. If the price level was rising by 10 per cent in month one, then 11 per cent in month two, then 12 per cent in month three and so on, then you have accelerating inflation. Alternatively, if the price level was rising by 10 per cent in month one, 9 per cent in month two etc. then you have falling or decelerating inflation. If the price level starts to continuously fall then we call that a deflationary episode."

[1008] See supra note 957.

[1009] Gregory, T.E., *The Gold Standard and Its Future, Mises Institute, Austrian Economics, Freedom and Peace* (January 2010), [online], available at https://mises.org/library/gold-standard-and-its-future (Accessed at 27 July 2014)

As a consequence, products become exclusively affordable by those who already are affluent providing them an additional opportunity to offer the very same goods and services to the public at a higher price, essentially triggering an accumulation effect of wealth at the top end of the society. In populist terms, the gold standard is the perfect instrument for the rich 1% to get even richer on the backs of the 99%[1010].

If this sounds similar to what the Eurozone has experienced recently it is true.[1011] Of course, in the crisis of the Eurozone this is further compounded that the levers of monetary policy are based in Frankfurt, not even in Brussels [at the European Commission or European Council], let alone in Strasbourg [at the European Parliament] and those of fiscal policy are in the capital cities of the Member States and sometime even of their provinces of the Eurozone. Even if it is hard enough to agree among 19 member states in Brussels to a common policy, it becomes completely impossible when the decisions of economic policy are made in about hundred different places across the continent. A comprehensive economic policy or strategy can neither be expected nor likely will be the result in that case.

After all, the only standard to which the value of a currency, as a means of exchange may truly be bound, is the collateral offered in exchange for its credit[1012] or in other words, the effective product of its economy and ability of capital formation as expressed in one form as Gross Domestic Product or GDP.

Similar to the Chicago Plan now Switzerland has started, on June 7, 2014[1013], a popular initiative in which this initiative requires a constitutional change to realize the Chicago Plan in Switzerland. In Switzerland, the monetary supply of M1 swelled, in the last 5 years, from 270 billion Francs to about 550 billion, and it's still increasing, which obviously led to a huge revaluation of the Franc as a consequence.[1014]

1010 Weiner, Keith, *The Gold Standard For the 1%*, Forbes Magazine (January 2015), [online], available at http://www.forbes.com/sites/keithweiner/2015/01/12/the-gold-standard-for-the-1/ (Accessed at 29 July 2015)

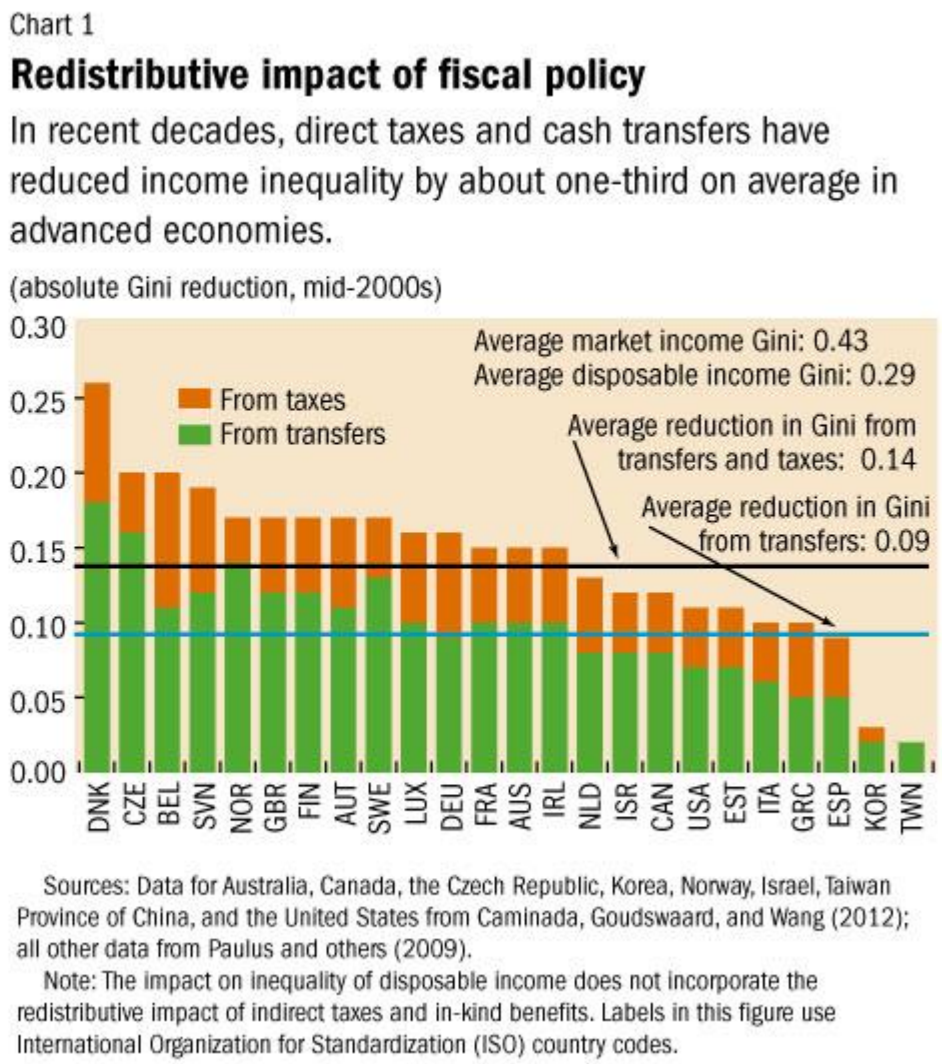
1011 Petitfor, Ann, *Why the euro is the gold standard writ large – and like the gold standard will fail*, Prime, Policy Research in Macroeconomics (July 2015), [online], available at https://static1.squarespace.com/static/541ff5f5e4b02b7c37f31ed6/t/55ba08e6e4b0c6602ddd7f9d/1438255334668/Why+the+euro+is+the+gold+standard+writ+large.pdf (Accessed at 27 September 2015)

1012 Id.

1013 Schöchli, Hansueli, *Die untypische Volksinitiative*, Neue Zuercher Zeitung (June 2014) http://www.nzz.ch/schweiz/die-untypische-volksinitiative-1.18314772 (Accessed at 6 August 2015)

1014 Id.

FIGURE 25: REDISTRIBUTIVE IMPACT OF FISCAL POLICY[1015]



In their book Inequality and Fiscal Policy[1016], authors Benedict J. Clemens, Ruud de Mooij, Sanjeev Gupta and Michael Keen show that that fiscal policy, provides the toolset to combat inequality by affecting household welfare directly through transfers and taxes and indirectly by modifying incentives to work and produce.

[1015] Francese, Maura, *Harnessing the Power of Fiscal Policy to Mitigate Inequality*, International Monetary Fund (September 2015), [online], available at http://www.imf.org/external/pubs/ft/survey/so/2015/POL092515A.htm (Accessed at 27 September 2015)

[1016] Clemens, Benedict J., de Mooij, Ruud A., Gupta, Sanjeev and Keen, Michael, *Inequality and Fiscal Policy*, International Monetary Fund (September 2015), [online], available at http://www.imfbookstore.org/ProdDetails.asp?ID=IRFPEA&PG=1&Type=BL (Accessed at 27 September 2015)

The authors find that direct taxes levied on income and wealth, such as the personal income tax, in contrast to indirect taxes, which are levied on exchanges and consumption, such as sales or value-added taxes and cash transfers in the form of direct payments from governments to eligible individuals are also two important tools at policymakers' disposal.

Measured by the Gini index[1017] which measures a country's income distribution income inequality was reduced by about one-third on average in advanced economies. Notably, Belgium, the Czech Republic, and Denmark registered particularly large reductions. According to the author's findings two-thirds of the reduction has been due to transfer programs and the remaining third to progressive taxation

Economist Paul Krugman found in his review of Thomas Piketty's latest work "The Economic of Inequality"[1018] that

> Mr. Piketty and Mr. Saez showed that the actual story of rising inequality since 1980 or so was dominated not by the modestly rising salaries of skilled workers but by gigantic gains at the very top — a doubling of inflation-adjusted income for the top 1 percent, a quadrupling for the top 0.1 percent, and so on. They also showed that these surging top incomes had more or less reversed earlier movements toward equality that the concentration of income in the hands of a small minority was back to "Great Gatsby" levels.[1019]

Thus the big expansion of inequality in the United States since the 1970s has so far been driven by high salaries, high bonuses and when we were just seeing the explosion of inequality. Ultimately, the United States has a much more unequal distribution of income than other advanced countries.[1020]

[1017] GINI Index (World Bank Estimate), [online], The World Bank (2015) available at http://data.worldbank.org/indicator/SI.POV.GINI (Accessed at 27 September 2015)

[1018] Krugman, Paul, Review, *The Economics of Inequality by Thomas Piketty*, The New York Times (August 2015), [online], available at http://www.nytimes.com/2015/08/03/books/review-the-economics-of-inequality-by-thomas-piketty.html (Accessed at September 27, 2015. Krugman argues that "the trend of inequality research since Mr. Piketty wrote this book has involved de-emphasizing supply and demand while giving more attention to privilege and power. These factors aren't ignored in "The Economics of Inequality," which among other things contains a good discussion of the role of unions in limiting inequality, and how this helps explain the divergence between the United States and Europe. But readers who see only this volume will end up placing far too much faith in a story that emphasizes the invisible hand of the market, and too little on the visible role of powerful institutions."

[1019] Id.

[1020] Id.

Piketty has also found his fair share of critics. Amongst them, a young MIT doctoral researcher, Matthew Rognlie.[1021] He argues that

> [n]either outcome is likely given realistically diminishing returns to capital accumulation. Instead—all else equal—more capital will erode the economywide return on capital. When converted from gross to net terms, standard empirical estimates of the elasticity of substitution between capital and labor are well below those assumed in *Capital*. Piketty's inference of a high elasticity from time series is unsound, assuming a constant real price of capital despite the dominant role of rising prices in pushing up the capital/income ratio. Recent trends in both capital wealth and income are driven almost entirely by housing, with underlying mechanisms quite different from those emphasized in *Capital*.

Rognlie mistakenly assumes empirically unfounded arbitrage between [predominantly public] financial markets and the "real economy" on part of the financial sector. This author argues that the underlying reason for higher rates of return on capital versus the rate of return on economic growth and salaries, wages and labor lies in the fungibility of assets that are either traded on exchanges, over the counter or in highly developed and liquid capital markets such as the stock markets and the housing sector opposed to the time and transaction cost intensive investments into the "real economy" by way of bank lending or equity investment and the fact that in today's markets we come to face two parallel worlds, possibly out of a Kafka novel[1022], of financial markets and the economy at large.

The reality of the last decade and certainly since the advent of QE has been that the commercial banking sector required an outlet for its well-financed balance sheets to earn reasonable returns without the need to enter into complex transactions with uncertain liquidity events in highly volatile markets. This hypothesis is supported both by the dataset Piketty used as pointed out by Rognlie and the fact that Piketty's observations with respect to CEO pay almost exclusively refers to executives from publicly traded companies.

Therefore, in this author's opinion, the substitution effect noticed by Piketty is not predominantly one motivated just by rent seeking capital looking for the highest return, albeit this holds true, but rather one that is an expression of a completed bifurcation of our economy into highly liquid financial markets and a comparably illiquid economy at large.

[1021] Rognlie, Matthew, *A note on Piketty and diminishing returns to capital*, MIT (June 2014), [online], available at http://www.mit.edu/~mrognlie/piketty_diminishing_returns.pdf (Accessed at August 27, 2015)

[1022] Caputo, Marie Luise, *Kafka Society of America* (2015), [online], available at http://kafkasocietyofamerica.org/about/index.php (Accessed at 26 September 2015)

Whilst financial markets are characterized these days by highly enhanced liquid balance sheets of financial institutions whose even more highly paid executives are even under a fiduciary duty[1023] to their shareholders to earn the highest return and the fact that a rising tide of QE has floated the boat of the entire Dow Jones Industrial Average from 7,000 in 2008 to 18,000 in February 2015,[1024] the rest of the economy at large has seen little of this new-found liquidity.[1025] Banker say "they are lending to small businesses but have trouble finding creditworthy borrowers. In addition, bankers note the dampening effect of increased regulatory oversight on the availability of small business credit. Not only is there more regulation and higher compliance costs, there is uncertainty about how regulators view the credit characteristics of loans in their portfolios, making them less likely to make a loan based on "softer" underwriting criteria such as knowledge of the borrower from a long term relationship".[1026] Therefore today, the rate of return, G or R, is a function of the absorption capacity of liquidity of either financial markets or the economy at large, rather than the inverse.

Hence, so long the dominant factor for an investment decision remains the significant higher absorption capacity of the enhanced liquidity in capital markets, we will neither find diminishing returns on capital as suggested by Rognlie nor a weaker substitution effect by capital of labor, or by the financial markets of the economy at large. In order to end these continuous dislocations in our economy resulting in unbearable inequities and inequalities, it is therefore of utmost importance, to provide for an alternative way to resolve the misallocations in our monetary system to QE and the flooding of the balance sheets of financial institutions, banks, insurances and publicly traded companies. Certainly, the introduction of Sovereign Money held in segregated accounts of Commercial Banks as a prerequisite to terminate such misallocations in the future without causing collateral collapses of the banking system, followed by a transnational judicial authority[1027] with the mandate to reform or rescind failed transaction by judgment, would offer a sound solution.

[1023] See supra note 988.
[1024] *Dow Jones Industrial Average Index Last 10 Years*, Interactive Chart, Macrotrends (2015) [online], available at http://www.macrotrends.net/1358/dow-jones-industrial-average-last-10-years (Accessed at 27 September 2015)
[1025] Gordon Mills, Karen and McCarthy, Brayden, *The State of Small Business Lending: Credit Access during the Recovery and How Technology May Change the Game*, Working Paper 15-004, Harvard Business School, (July 2014), [online], available at http://www.hbs.edu/faculty/Publication%20Files/15-004_09b1bf8b-eb2a-4e63-9c4e-0374f770856f.pdf
[1026] Id.
[1027] See Chapter 6.III. *A Plea for a Transatlantic Trade and Investment Court*

CHAPTER 5: CASE STUDY TTIP –
***NASCITURUS* FOR A NEW GLOBAL ECONOMIC ORDER**

I. THE TRANSATLANTIC TRADE AND INVESTMENT PARTNERSHIP (TTIP)

A. TTIP – *NASCITURUS* FOR A NEW GLOBAL ECONOMIC ORDER

> Even as we protect our people, we should remember that today's world presents not only dangers, but opportunities. […] And tonight, I am announcing that we will launch talks on a comprehensive Transatlantic Trade and Investment Partnership with the European Union – because trade that is free and fair across the Atlantic supports millions of good-paying American jobs.[1028]

With these words the President of the United States, Barack Obama, injected new life into what possibly may become the *nasciturus* of a New Global Economic Order, the Transatlantic Trade & Investment Partnership[1029], or TTIP.

In this part we will answer why only a New Global Economic Order, enforcing the Democratic Rule of Law, thereby reducing Legal Risk and enhancing Legal Certainty will lead to more sustainable Capital Formation. Only once the rule of law and commonly accepted processes following a transparent democratic process are in place that can be transnationally enforced in a system of justice that can be held accountable, outcomes will be again become more predictable.

Only institutions such as a TTIC that also wields jurisdiction over sovereign borrowers, will manage to reduce Legal Risk, enhance Legal Certainty by being able to more accurately price and discount the expected value of future events but also avert the creation of unsustainable bubbles and excess accumulation of capital with oligopolistic market participants.

It is also important to recall the methodological link to the application of our FDLR-Model which will not only prove the model but also help academics and legal practitioners alike to systematically identify and understand the components of Legal Risk. This will serve to determine which of the four, Law, Lack of Right, Liability or Limitation applies as a

[1028] Obama, Barack H., President of the United States, *State of the Union Speech*, 12 February, 2013, *available at* http://www.whitehouse.gov/state-of-the-union-2013 (Accessed at 12 February 2013)
[1029] Office of the United States Trade Representative, *Transatlantic Trade and Investment Partnership*, [online], available at https://ustr.gov/ttip (Accessed at 27 September 2015).

prerequisite to how they may be mitigated, remedied or resolved. In order to assist in the assessment of the Legal Risk, please see our comprehensive model of *Four Determinants of Legal Risk* entailing the different methodological and theoretical foundations in Chapter 1, Section I, D and Chapter 2, Section II.

Whilst the qualitative research and analysis certainly focuses on the legal framework of - as this author has called it - said *nasciturus*[1030] of a New Global Economic Order[1031], namely the TTIP, providing the operational conditions of business and trade of 50%[1032] of this planet's GDP or half of the accumulated Gross World Product[1033] and its regulatory effects for instance of the elimination of non-tariff barriers in key industries such as the automotive, chemicals, cosmetics and pharmaceuticals industries, communication services, construction services, wood and paper products, electronics, food and beverage, medical, measuring and testing appliances that have a significant impact on growth and are today subject to heavy protectionist measures both on the level of member states of the European Union and the EU itself as well as the states and the federal state of the United States, in the long protracted aftermath of the financial crisis of 2008 all eyes are still directed on the financial sector and how a new order for will provide to avert a future collapse.

Therefore, this case study provides for an especially innovative concept with the proposal for the establishment of a Transatlantic Trade and Investment Court (TTIC)[1034]. In particular, since this concept is able to answer three of the key issues none of its historic predecessors could solve: 1) acceptance, 2) financing and 3) minimal bureaucracy.

What has been proposed anew by President Obama at the beginning of his second term as 44th President of the United States, in fact has a long history of failed attempts. Already in 1995, the United States and the European Union agree on what was then called a "New Transatlantic Agenda" (NTA)[1035].

[1030] *Naciturus, The fiction of the "unborn child",* Oxford Journals [online] available at http://ejil.oxfordjournals.org/content/18/1/37.full (Accessed at 4 September 2015)
[1031] See supra note 4.
[1032] Stahl, Lukas M., *Business Briefing, The Transatlantic Trade and Investment Partnership (TTIP): Potential Impact and Dimensions of the World's Largest Trade Agreement*, 21st Austria (June 2014) New York, NY, [online], available at http://www.21st-austria.at/files/21austria/files/business_briefings/21st_austria_-_businessbriefing_june_2014.pdf (Accessed at 20 September 2015).
[1033] Id.
[1034] See Chapter 6.III. *A Plea for a Transatlantic Trade and Investment Court*
[1035] European Commission, The New Transatlantic Agenda, [online], available at http://eeas.europa.eu/us/docs/new_transatlantic_agenda_en.pdf (Accessed at 23 August 2014)

Only a few years later, in 1998 the first more comprehensive proposal for a closer economic cooperation was made in the form of "The Transatlantic Economic Partnership" (TEP)[1036]. None of those initiatives produced any significant results.

A number of smaller initiatives follow suit, dealing with "Guidelines for Regulatory Cooperation and Transparency" (2002)[1037], a "Strategy for Strengthening the EU-US Economic Partnership" (2004)[1038] and an "Initiative to Enhance Transatlantic Economic Integration and Growth" (2005).[1039] Arguably, all of those former initiatives helped foster an agreement that was ultimately signed by EU Commission President Barroso, German Chancellor Merkel and the 43rd President of the United States George Walker Bush establishing the Transatlantic Economic Council (TEC) dealing with issues such as "regulation, intellectual property rights, innovation and technology, secure trade and investment"[1040] that bore the nucleus of today's TTIP negotiations in the form of a High-Level Working Group (HLWG).

Almost to the day one month after President Obama's historic State of the Union Speech the United States-European Union High Level Working Group on Jobs and Growth released its Final Report on 11 February 2013 recommending

> US and EU Leaders that the United States and the EU launch […] negotiations on a comprehensive, ambitious agreement that addresses a broad range of bilateral trade and investment issues, including regulatory issues, and contributed to the development of global rules.

1036 Winikoff, Justin, U.S.-EU Trade & the Transatlantic Trade and Investment Partnership, July 2013, Fact Sheet, [online], *available at* www.AmericanSecurityProject.org (Accessed at 23 August 2014)

1037 Office of the United States Trade Representative, TEP Guidelines on Regulatory Cooperation and Transparency Implementation Roadmap, [online], available at https://ustr.gov/archive/World_Regions/Europe_Middle_East/Europe/US_EU_Regulatory_Cooperation/TEP_Guidelines_on_Regulatory_Cooperation_Transparency_Implementation_Roadmap.html (Accessed at 23 August 2014)

1038 Council of the European Union, EU-U.S. Declaration on Strengthening our Economic Partnership, (June 2004), [online], available at http://trade.ec.europa.eu/doclib/docs/2004/september/tradoc_119049.pdf (Accessed at 15 September, 2014)

1039 Council of the European Union, EU-U.S. Declaration, Initiative to enhance transatlantic economic integration and growth (June 2005), [online], available at 15 September 2014)

1040 High Level Working Group, Final Report, February 11, 2013, *available at* http://trade.ec.europa.eu/doclib/docs/2013/february/tradoc_150519.pdf (Accessed at June 20, 2013)

This time it clearly appears to be different. Only four months after President Obama's State of the Union Speech, on 17 June 2013 in a meeting of President Obama with U.K. Prime Minister Cameron, then European Commission President Barroso and then European Council President Van Rompuy, Prime Minister Cameron restated his support:

> I always said that the whole point of this […] is to fire up our economies and drive growth and prosperity around the world -- to do things that make a real difference to people's lives. And there is no more powerful way to achieve that than by boosting trade. And there's no better way than by launching these negotiations on a landmark deal between the European Union and the United States of America -- a deal that could add as much as a £100 billion to the EU economy, £80 billion to the U.S. economy, and as much as £85 billion to the rest of the world.
>
> And we should be clear about what these numbers could really mean: 2 million extra jobs, more choices and lower prices in our shops. We're talking about what could be the biggest bilateral trade deal in history; a deal that will have a greater impact than all the other trade deals on the table put together.[1041]

President Obama seconded:

> As has already been mentioned, the U.S.-EU relationship is the largest in the world. It makes up nearly half of global GDP. We trade about $1 trillion in goods and services each year. We invest nearly $4 trillion in each other's economies. And all that supports around 13 million jobs on both sides of the Atlantic. And this potentially groundbreaking partnership would deepen those ties. It would increase exports, decrease barriers to trade and investment. As part of broader growth strategies in both our economies, it would support hundreds of thousands of jobs on both sides of the ocean.[1042]

Two significant studies have been presented since about the economic impact of the TTIP. One report was published by the Bertelsmann Stiftung[1043] and one by the Centre for Economic Policy Research[1044].

[1041] Cameron, David, Prime Minister of the United Kingdom, Press Conference on June 17, 2013, [online] *available at* http://www.whitehouse.gov/the-press-office/2013/06/17/remarks-president-obama-uk-prime-minister-cameron-european-commission-pr (Accessed at 3 July 2014)

[1042] Obama, Barack H., President of the United States, id.

[1043] Felbermayr, Gabriel Ph.D. et al, Transatlantic Trade and Investment Partnership (TTIP) Who benefits from a free trade deal? Part 1: Macroeconomic Effects, Bertelsmann Stiftung, Global Economic Dynamics, 2013, *available at* http://www.bfna.org/sites/default/files/TTIP-GED%20study%2017June%202013.pdf (Accessed at 3 July 2014)

[1044] Francois, Joseph, Reducing Transatlantic Barriers to Trade and Investment, An Economic Assessment, Final Project Report, Centre for Economic Policy Research, March 2013, *available at* http://trade.ec.europa.eu/doclib/docs/2013/march/tradoc_150737.pdf (Accessed at 17 August 2013)

The Bertelsmann report studied two possible policy options: either the simple elimination of tariffs in trade between the European Union and the United States or in the alternative a comprehensive trade agreement that deals with the vast array of non-tariff barriers.

Whilst eliminating tariffs would likely raise real wages by 0.8%, the reduction or elimination of non-tariff barriers is estimated to see real per capita income grow by 13.4% in the United States and countries such as Germany or the United Kingdom by 4.7% or 9.7% respectively.[1045]

The study conducted by the Centre for European Economic Policy Research[1046] came to the conclusion that due to the TTIP in the European Union for a family of 4 there will be disposable income gains between €306 and €545 annually and between €366 and €655 in the United States.[1047]

Key findings by the CEPR also included that besides possibly bringing

> [s]ignificant economic gains as a whole for the EU (€119 billion a year) and the US (€95 billion a year) […] liberalising trade between the EU and US would not be at the expense of the rest of the world. On the contrary [it would be] increasing global income by almost €100 billion. […] EU exports to the US would go up by 28%, equivalent to an additional €187 billion worth of exports of EU goods and services. Overall, total exports would increase 6% in the EU and 8% in the US.[1048]

Both studies agree that they key to unlock these significant potential gains for both the European Union and the United States is to strive this time for the big prize. Rather than just being comfortable and satisfied by eliminating the low number of remaining tariff barriers and thus establishing a customs union, both major trading blocs should aim to eliminate as much non-tariff trade barriers as possible.

[1045] Felbermayr, Gabriel Ph.D. et al, Transatlantic Trade and Investment Partnership (TTIP) Who benefits from a free trade deal? Part 1: Macroeconomic Effects, Bertelsmann Stiftung, Global Economic Dynamics, 2013, *available at* http://www.bfna.org/sites/default/files/TTIP-GED%20study%2017June%202013.pdf, p.30 (Accessed at 3 July 2014)

[1046] Francois, Joseph, Reducing *Transatlantic Barriers to Trade and Investment, An Economic Assessment*, Final Project Report, Centre for Economic Policy Research, March 2013, *available at* http://trade.ec.europa.eu/doclib/docs/2013/march/tradoc_150737.pdf, p.47 (Accessed at 17 August 2013)

[1047] Id.

[1048] Id.

And the time appears to be ripe right now. In a survey conducted by the Bertelsmann Foundation[1049] 88% of all respondents believed that the US and EU will come to an agreement and although only 37% thought that the agreement will be broad, an overwhelming majority of additional 55% were found to believe at least in a moderate agreement.[1050]

Ranking the issues by degree of importance to the successful negotiation of an overall agreement, the respondents in the survey conducted by the Bertelsmann Foundation clearly placed as their top concern "significant regulatory process convergence across multiple sectors". In other words, businesses, entrepreneurs and investors alike want legal certainty in order to be prepared to invest. An insight that Finn Kydland and Edward Prescott awarded the Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel in 2004[1051].

Their work "Rules Rather than Discretion. The Inconsistency of Optimal Plans" from 1997, studies the sequential choice of policies, such as tax rates or monetary policy instruments[1052]. They showed that the outcome in a rational-expectations equilibrium where the government cannot commit to policy in advance – discretionary policymaking – results in lower welfare than the outcome in equilibrium where the government can commit. [1053]

Whilst a lot of their work has focused on issues of taxation and monetary policy and was found highly controversial and laden with ideology in the context of monetary policy and the function of central banks, the discussion has since shifted to institutional frameworks that would provide consistency over time and lend credibility to policies.

[1049] Barker, Tyson, *The Transatlantic Trade and Investment Partnership, Ambitious but Achievable, A Stakeholder Survey and Three Scenarios,* April 2013, *available at* http://www.bertelsmann-stiftung.de/cps/rde/xbcr/SID-CA819006-5438477D/bst/xcms_bst_dms_37655_37656_2.pdf, p. 2-3 (Accessed at 20 June 2013)

[1050] Id.

[1051] Kydland, Finn and Prescott. Edward. Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel (2004), *Rules Rather than Discretion. The Inconsistency of Optimal Plans* (1997), [online], available at http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2004/advanced-economicsciences2004.pdf, p.2 (Accessed at 23 August 2014)

[1052] Id.

[1053] Id.

B. REGULATORY COOPERATION

(ELIMINATING NON-TARIFF BARRIERS – ENHANCING LEGAL CERTAINTY)

With respect to the expected effects of implementing TTIP, Regulatory Cooperation in the area of the respective industry verticals should lead to mutually recognized minimum standards that lead to a non-discriminatory regime for both US and EU, regardless of whether they operate in- or outside the European Union. Regulatory Cooperation meets one of its most noble purposes in enhancing legal certainty by reducing or eliminating non-tariff barriers that by in large pertain to excessive regulations and requirements for foreign entities and investors doing business in the US or the EU.

The most eminent non-tariff barriers to this date still are a number of disparities between the regulatory frameworks in the EU and US, and the lack of mutual recognition agreements relating thereto. Albeit many observers are reluctant to believe that there is still work to do in this field, we beg to differ and hope to convince those with our analysis of the following nine industry verticals.

The following Case Study will provide us with an analysis of the envisaged regulatory cooperation in nine industry verticals of the proposed Transatlantic Trade and Investment Partnership (TTIP). It will also afford us the opportunity to assess the legal risks inherent in sectors encompassed by the TTIP in the case of inbound transactions into the United States. Moreover, it will allow us to develop further insight to what extent, beyond the mere reduction of customs and tariffs, the elimination of non-tariff barriers, regulatory cooperation and the transnational setting of standards between the United States and the European Union effectively affects the exposure of actors in cross-border transactions to Legal Risk pursuant to the *Four Determinants of Legal Risk* (FDLR) developed *supra.*[1054]

The implementation of a common jurisdiction for the entire single TTIP market and depending on the establishment of a Transatlantic Trade Court (as discussed further *infra*) a uniform application of the law, and the mutually recognized standards, could be enforced thus providing an instrument of terminal resolution for any of the current legal risks incurred.

[1054] See Figure 7. *Four Determinants of Legal Risk*

II. AUTOMOTIVE

A. Corporate Average Fuel Economy Standard

The Corporate Average Fuel Economy law (CAFE) was created by the Energy Policy and Conservation Act of 1975 (EPCA) and is regulated by the National Highway Traffic Safety Administration (NHTSA) and Environmental Protection Agency (EPA).[1055] CAFE establishes mandatory average fuel economy levels for automobiles and imposes civil penalties upon manufacturers for noncompliance.[1056] The EU argues that CAFE favors large integrated car producers rather than those who target the top end of the market, such as EU automakers.[1057]

Although CAFE standards apply to all manufacturers, it discriminates against foreign automakers that are both importers and domestic manufacturers. In such cases, average fuel economy must be calculated separately for imported cars ("imported fleet") and those domestically manufactured ("domestic fleet") and must independently satisfy the CAFE standard (known as the "Two-Fleet Rule").[1058] This prevents manufacturers of large domestic cars from meeting their domestic fleet requirement by adding small foreign cars, which would otherwise offset a poor fuel economy rating. In a dispute brought by the EU against the US, the GATT Panel found that the Two-Fleet Rule was a discriminatory measure.[1059] Although NHTSA may exempt certain manufacturers from the rule, it rarely does. The 2012 CAFE legislation not only retains the Two-Fleet Rule despite criticism from both domestic and foreign producers, but also makes the requisite fuel economy standards far more stringent.[1060]

1055 *EPCA*, 42 U.S.C. § 6201; *CAFE*, 75 Fed. Reg. 25324 (Oct. 15, 2012) (amending 40 C.F.R. §§ 85, 86, 600, 49 C.F.R. §§ 531, 533, 536-38).

1056 Summary of CAFE Fines Collected (Apr. 9, 2013), *available at* http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/cafe_fines-040913.pdf. (Accessed at 20 June 2013)

1057 EC Market Access Database: Trade Barriers, *Corporate Average Fuel Economy (CAFE) Payment* (Feb. 4, 2008), *available at* http://madb.europa.eu/madb/barriers_details.htm?barrier_id=960072&version=3; *see also* GATT Panel Report, *United States – Taxes on Automobiles*, DS31/R at 8 (Oct. 11, 1994) (unadopted).

1058 GATT Panel Report, DS31/R at 8, 77. (Accessed at 20 June 2013)

1059 Id. at 1016, 112-13.

1060 *See, e.g.*, NHTSA, *NHTSA Grants Nissan Petition to Combine Car Fleets under CAFE* (Apr. 20, 2004), *available at* http://www.nhtsa.gov/nhtsa/announce/press/pressdisplay.cfm?year=2004&filename=pr18-04.html. *See also* Fed. Reg. 25324 (Oct. 15, 2012) (raising CAFE standard to 54.5 mpg for passenger vehicles). (Accessed at 20 June 2013)

The Legal Risk posed by CAFE could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. Albeit CAFE applies to all manufacturers, provisions affecting foreign automakers in- and outside the United States that a GATT Panel found discriminatory, it poses a risk due to an interpretation of the law that is considered not valid or based on competence pursuant to international agreements.

Therefore, it could also be characterized as a Qualification Legal Uncertainty. However, given that in spite of the GATT Panel's declaration as a discriminatory measure, the United States continues to enforce this standard and therefore, the Legal Risk could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the CAFE rules constitute the Legal Risk of *Limitation.*

B. GAS GUZZLER TAX

The Gas Guzzler Tax law was enacted pursuant to the Energy Tax Act of 1978 and, like CAFE, targets automakers who fail to meet certain fuel economy standards.[1061] The Tax is an excise tax imposed on manufacturers and collected directly by the IRS, does not apply to minivans, SUVs or pick-up trucks, which is arguably a protectionist measure since US manufacturers are the primary makers of such cars. The statutory standard is set at 22.5 mpg, much lower than the new CAFE standard, and while it appears to serve the same purpose, it has been less controversial than CAFE.[1062]

The Legal Risk posed by the Gas Guzzler Tax could be qualified under Whalley the risk of a business failing to implement regulatory requirements. The Gas Guzzler Tax constitutes like the CAFE regulations a risk due to the interpretation of the law. However, other than the CAFE Regulation it presents a risk due to being an obligation. Following Mahler could be also qualified as a Deontic Legal Uncertainty. Given the obligatory nature of the norm, pursuant to Hohfeld, it therefore could also be characterized as a Duty. In conclusion, following our FDLR-Model, the Gas Guzzler Tax constitutes the Legal Risk of *Law*.

[1061] Energy Tax Act of 1978, 26 U.S.C. § 1 (2006); IRC § 406.
[1062] GATT Panel Report, DS31/R at 113 (finding Gas Guzzler Tax to be consistent with the GATT, Art. III.2).

C. LABELING & TECHNICAL SPECIFICATIONS

The American Automobile Labeling Act (AALA) requires vehicles to be labeled with their percent content of US and Canadian parts, their country of assembly, and country of origin of the engine and transmission.[1063] The Act is intended to encourage consumers to purchase American-made cars and imposes additional procedural burdens for EU automakers. Identifying the precise origin of specific parts may be challenging for EU exporters, but the US refuses to recognize the EU as a “country” of origin.[1064]

The US also imposes technical safety and environmental rules, Federal Motor Vehicle Safety Standards, many of which do not conform to the UNECE standards and EU Directives required within the EU. This lack of regulatory harmony is addressed in a recent proposal by the American Automotive Policy Council (AAPC) and European Automobile Manufacturers Association (ACEA) calling for mutual recognition of safety and environmental regulations. Regulations that would serve as potential candidates for such an agreement are listed on Attachment A hereto.[1065]

The Legal Risk posed by the American Automobile Labelling Act could be qualified under Whalley as the risk of failing to comply with the standard of care and the letter of the law of the AALA. However, given that the United States refuses to recognize the European Union as “country of origin“, it poses a risk due to an interpretation of the law that is considered not valid or based on competence pursuant to international agreements.

Following Mahler it could be also characterized as a Qualification Legal Uncertainty. Given that the US standards neither conform to UNECE standards nor to EU regulation, pursuant to Hohfeld, it therefore could also be characterized as a Disability. In conclusion, following our FDLR-Model, the American Automobile Labelling Act, constitutes the Legal Risk of *Limitation.*

[1063] 49 C.F.R. § 583 (1992).
[1064] ECORYS Report
[1065] *See* AAPC-ACEA Joint Submission in Response to USTR’s Request for Comments Concerning Proposed Transatlantic Trade and Investment Partnership (TTIP) Agreement (May 10, 2013), *in response to* US Trade Representative, *Request for Comments Concerning Proposed Transatlantic Trade and Investment Agreement*, 78 Fed. Reg. 62, p.19566 (Apr. 1, 2013).

D. STATE REGULATION

The Clean Air Act (CAA) provides that control of air pollution be primarily regulated at the state and local government level.[1066] An exception to this presumption, however, relates to the regulation of emissions from new mobile sources that have not yet reached the consumer. In these cases, regulation of emissions predominantly occurs at the federal level.[1067]

The EPA, however, has granted one state (California) a preemption waiver, authorizing the State to create and enforce its own emissions standards, even if more stringent than that required by federal law.[1068] Other states seeking to implement similar regulations may seek to do so by adopting CAA federal or California emission standards and will not be preempted, provided that a waiver has been granted in the latter case.[1069]

The Legal Risk posed by the Clean Air Act could be qualified under Whalley as the failure to assert non-contractual rights under the CAA given the preemption waiver that has already been granted to the state of California. However, given the fact that other states may fail to assert a similar exemption for their jurisdiction, following Mahler the CAA poses a risk based on a factual uncertainty due to a obligation, permission or prohibition and could also be characterized as a Deontic Factual Uncertainty.

Given a fact pattern where a states may fail to assert such exemption, pursuant to Hohfeld it could also be characterized as the absence of a right and therefore as No Right. In conclusion, following our FDLR-Model, the Clean Air Act, constitutes the Legal Risk of *Lack Of Right.*

[1066] CAA § 101(a)(3) (1990), codified as amended at 42 U.S.C. § 7401(a)(3) (2005).
[1067] *See* Engine Mfrs. Ass'n v. EPA, 88 F.3d 1075, 1079 (D.C. Cir. 1996).
[1068] *See* CAA § 209(e)(2); 40 C.F.R. § 1074.105.
[1069] *See, e.g.*, Green Mt. Chrysler Plymouth Dodge Jeep v. Crombie, 508 F. Supp. 2d 295, 302 (2007) (Vermont's GHG standard, insofar as identical to California standard with preemption waiver, is permissible; federal statutes governing fuel economy in EPCA and carbon dioxide emissions in CAA were not expressly preempted).

III. CHEMICALS, COSMETICS & PHARMACEUTICALS

A. CLASSIFICATION DIFFERENCES

One fundamental trade barrier in this arena concerns the Food, Drugs and Cosmetics Act FDCA) classification of products as cosmetics, drugs, or over-the-counter (OTC) drugs, which may be classified differently under EU law. Since EU exports must comply with FDCA requirements, this in turn generates further regulatory hurdles with respect to registration, product safety and labeling requirements. The below chart provides a non-exhaustive list of differences in product classification between the EU and US.[1070]

FIGURE 26: PRODUCT CLASSIFICATION DIFFERENCES[1071]

PRODUCT	EU[1072]	US
Sunscreen	Cosmetic	OTC drug
Anti-acne lotion	Medicinal product	OTC drug
Anti-cavity toothpaste	Cosmetic	OTC drug
Anti-perspirant	Cosmetic	OTC drug
Anti-dandruff shampoo	Cosmetic	Cosmetic & OTC drug
Hair dye	Cosmetic	Cosmetic

In the US, but not the EU, products may fall under more than one classification; EU businesses exporting anti-dandruff shampoo to the US, for example, must satisfy FDA requirements for both cosmetics and OTC drugs.[1073] In general, drugs but not cosmetics must obtain FDA premarket approval before entering the market, which is accomplished through the New Drug Application (NDA) process or through monograph conformity in

[1070] RPA Report, *Comparative Study on Cosmetics Legislation in the EU and Other Principal Markets with Special Attention to so-called Borderline Products* at 7 (2004), *available at* http://ec.europa.eu/enterprise/newsroom/cf/_getdocument.cfm?doc_id=4557. (Accessed at 20 June 2013)
[1071] Id.
[1072] Effective as of July 11, 2013, EC Regulation No. 1223/2009 will replace the Cosmetics Directive.
[1073] RPA Report at 23.

accordance with the FDA's OTC Drug Review.[1074] Although premarket approval is not required for cosmetics, EU exporters may be pressured to submit their information through the FDA's Voluntary Cosmetic Registration Program to mitigate the risk of detainment or denial of entry for importing prohibited items.

The Legal Risk posed by the Food, Drugs and Cosmetics Act could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. Given that the classifications of the FDCA are interpreted differently under EU law than under US law, it poses a risk due to an interpretation of the law that is considered not valid or based on competence.

Therefore, it could also be characterized as a Qualification Legal Uncertainty. However, given that in spite of the disparity in interpretation, the United States continues to enforce this standard and therefore, the Legal Risk could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the FDCA rules constitute the Legal Risk of *Limitation.*

B. LABELING & INGREDIENTS

Under US law, a cosmetic may be prohibited as "adulterated" or "misbranded" for failure to follow Good Manufacturing Practice (GMP). Cosmetic GMP, however, consists only of guidelines; it does not forth specific minimum criteria to which foreign exporters can conform and on which they can rely to ensure compliance.[1075] However, there are specific labeling requirements that must be satisfied for OTC drugs.[1076] The US has also prohibited certain cosmetic ingredients that are permitted in the EU, which may create uncertainty for EU exporters who, unlike the US, often maintain positive lists of specific ingredients permitted in cosmetics.[1077]

[1074] FDA, *Is It a Cosmetic, a Drug, or Both? Or Is It Soap?* (last updated Apr. 30, 2012), *available at* http://www.fda.gov/Cosmetics/GuidanceComplianceRegulatoryInformation/ucm074201.htm. (Accessed at 20 June 2013)

[1075] FDA, *Good Manufacturing Practice (GMP) Guidelines/Inspection Checklist* (last updated Apr. 24, 2008), *available at* http://www.fda.gov/Cosmetics/GuidanceComplianceRegulatoryInformation/GoodManufacturingPracticeGMPGuidelinesInspectionChecklist/ucm2005190.htm. (Accessed at 20 June 2013)

[1076] 21 C.F.R. § 201.66 (2012) (OTC drug labeling requirements).

[1077] RPA Report at 52 (examples of ingredients permitted in EU, but not US, include many color additives for eye area cosmetics; various UV filters in sunscreen products; and bleaching products).

The Legal Risk posed by the Good Manufacturing Practice (GMP) could be qualified under Whalley as the risks of failure to enforce or comply with the terms of the contract, such as the use of non-standard terms and conditions. Given that the GMP only consists of guidelines and thus constitutes a contractual agreement rather than a legal norm and given that there no specific minimum criteria, it poses the risk that its validity is depending on a set of facts it could also be following Mahler characterized as Qualification Factual Uncertainty. However, given that such GMP may still be enforceable, the Legal Risk could also be qualified pursuant to Hohfeld as a Liability. In conclusion, following our FLDR-Model, the GMP Guidelines constitute the Legal Risk of *Liability.*

C. PHARMACEUTICALS

Under the FDCA, labeling requirements to which EU exporters must conform differ considerably for prescription (Rx) drugs than for OTC drugs.[1078] With respect to market access, Section 232 of the Trade Expansion Act of 1962 allows US industries (not only pharmaceuticals) to petition for the restriction of imports from foreign countries on the grounds of national security, which the EU worries may be used by US manufacturers as a disguise for restricting free trade and competition.[1079]

FDA approval requirements remain costly and time consuming. A drug manufacturer seeking to market a new prescription drug must, as discussed above, submit a NDA and undergo a comprehensive and costly testing process, only after which the FDA will grant marketing approval.[1080] This process requires full reports of investigations into the drug's safety and effectiveness, a list of all component, and complete descriptions of how the drug is manufactured, processed and packaged.[1081] While the Hatch-Waxman Act provides for a less burdensome Abbreviated Drug Application, this has limited application to generic manufacturers seeking authorization to market an already FDA-approved brand name drug.[1082]

[1078] 21 C.F.R. § 201.56 (2012) (Rx drug labeling requirements)
[1079] ECORYS Report, *Non-tariff measures in EU-US trade and investment – An economic analysis* (2009) (written on behalf of the European Commission).
[1080] 21 U.S.C. § 355(b)(1).
[1081] Id.
[1082] 21 U.S.C. §§ 355(j)(2)(A)(ii), (iv).

The EU has argued that other exclusionary measures exist for keeping foreign producers out of US markets on the basis of intellectual property rights infringement. For example, Section 337 of the Tariff Act of 1930 provides remedies to US patent holders by excluding the products infringing upon such rights from US markets. However, the Act does contain a statutory safe harbor exemption, although ITC investigations against European companies often compel them to settle such costly disputes.[1083]

However, in their recent efforts to combat non-tariff barriers and encourage competition in the pharmaceutical industry, the US and EU appear to be in agreement. On June 17, 2013, the Supreme Court upheld the FTC's ruling that a reverse payment settlement agreement between an innovative drug maker and a generic manufacturer constituted anticompetitive behavior in violation of the Federal Trade Commission Act and antitrust laws.[1084]

Following on the heels of this decision, on June 19, 2013, the European Commission imposed a € 93.8 million fine on a Danish pharmaceutical company, and smaller fines on other EU pharmaceuticals, for blocking the supply of a cheaper anti-depressant from entering the market through a pay-for-delay agreement.[1085]

The Legal Risk posed by the Trade Expansion Act could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. Given that the TEA entitles US producer to petition for the restriction of imports, it poses a risk due to an interpretation of the law that annihilates the competence to trade. Following Mahler it therefore could also be characterized as a Qualification Legal Uncertainty. However, given that effectively provides US producers with an immunity against any competition, the Legal Risk for EU manufacturers could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the TEA rules constitute the Legal Risk of *Limitation.*

[1083] 35 U.S.C. § 271(e)(1). For litigation regarding this safe harbor exemption, *see* Amgen, Inc. v. ITC, 565 F.3d 846 (2009) (US patent holder's infringement claim fails regarding EPO produced in and exported from EU; imported EPO not subject to exclusion for infringement pursuant to safe harbor exemption); *see also* Eli Lilly & Co. v. Medtronic, Inc., 496 U.S. 661 (1990) (safe harbor includes medical devices, noting "[t]he phrase 'patented invention' in § 271(e)(1) is defined to include all inventions, not drug-related inventions alone.").

[1084] FTC v. Actavis, Inc., 2013 U.S. LEXIS 4545 (Jun. 17, 2013).

[1085] European Commission Press Release, *Antitrust: Commission fines Lundbeck and other pharma companies for delaying market entry of generic medicines* (Jun. 6, 2013), *available at* http://europa.eu/rapid/press-release_IP-13-563_en.htm?locale=en. (Accessed at 20 June 2013)

IV. COMMUNICATIONS SERVICES

A. COMMUNICATIONS ACT

Section 310 of the 1934 Communications Act imposes restrictions on foreign ownership and investment in the telecommunications sector.[1086] Section 310(b) of the act prohibits a foreign person, governmental body or other entity from directly holding a common carrier radio (for terrestrial wireless and microwave, mobile, or satellite service) or aeronautical license, which constitutes a restriction on Foreign Direct Investment (FDI). The Communications Act does, however, allow indirect foreign investment in such licensees, subject to the following restrictions: (a) for non-controlling investors with aggregate direct or indirect foreign ownership of more than 20%, FCC requires licensee to obtain declaratory ruling finding that such ownership would serve the public interest; foreign ownership of up to 100% is presumed to serve the public interest for WTO member countries (including the EU); and (b) for controlling investors, Section 310(b)(3) prohibits direct, controlling ownership in the licensee of more than 20%; for such investments with ownership greater than 25%, licensee must obtain declaratory ruling (see subsection (a)).

In April 2013, the FCC relaxed/streamlined certain foreign ownership rules in its Second Report and Order in IB Docket No. 11-133, but retained procedures for deferring FCC actions on applications for initial licenses and consents for M&A pending negotiation of security Resolution arrangements with and to the Team Telecom agencies.

The Legal Risk posed by the Communications Act could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. Given that the CA prohibits a foreign person from holding a common carrier radio, it poses a risk due to an interpretation of the law that annihilates the competence to trade. Therefore, it could also be characterized following Mahler as a Qualification Legal Uncertainty. However, given that effectively provides US citizens with an immunity against any competition, the Legal Risk for EU common carriers could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the CA rules constitute the Legal Risk of *Limitation.*

[1086] 47 U.S.C. § 609.

B. EXON-FLORIO PROVISION

The Exon-Florio provision, adopted as part of the Omnibus Trade and Competitiveness Act of 1988, authorizes exclusionary trade measures on the basis of national security.[1087] The provision authorizes the President to block proposed or pending foreign mergers, acquisitions, or takeovers upon a determination that the foreign interest exercising control might take action that threatens to impair the national security.[1088] An additional deterrent to telecommunications operators is the PATRIOT Act requirement that they may be compelled to assist law enforcement and national security agencies by implementing wiretaps and disclosing call records.[1089]

The Legal Risk posed by the Exon-Florio Provision could be qualified under Whalley as the risk of failing to comply with certain terms of a contract, or here an Executive Order. Given that the EFP authorizes exclusionary trade measures, it poses a risk depending on a set of facts whether measures are taken that annihilate the competence to trade.

Therefore, it could also be characterized following Mahler as a Qualification Factual Uncertainty. However, given that effectively provides US authorities with a power to restrain any competition, the Legal Risk for EU common carriers could also be qualified pursuant to Hohfeld as a Liability. In conclusion, following our FDLR-Model the EFP rules constitute the Legal Risk of *Liability*.

C. CLASSIFICATION OF SERVICES

Another regulatory disparity between EU and US law is the FCC's classification of internet services as "information" rather than "telecommunication." This classification is in conflict with the EU's; it impedes new EU telecom operators from entering the US market and conflicts with net neutrality principles since, given the classification, US competitors

[1087] 50 U.S.C. § 2170, 31 C.F.R. § 800 (2007).
[1088] See James K. Jackson, CRS Report for Congress, *The Exon-Florio National Security Test for Foreign Investment* (Mar. 29, 2013).
[1089] See 47 U.S.C. §§ 229, 1001-1010; 50 U.S.C. §§ 1801-1811, 1841-46 (2006); Uniting and Strengthening America by Providing Appropriate Tolls Required to Intercept and Obstruct Terrorism (USA PATRIOT Act) Act of 2001, Pub. L. No. 107-56, tit. II, 115 Stat. 272, 278 (codified as amended in scattered sections of 18, 22, 28, 47, 50 U.S.C.).

are not required to provide equal access to high-speed connections. Despite its discriminatory nature, the Supreme Court has upheld the FCC's discretion over such classification.[1090]

The Legal Risk posed by the FCC Classification of Services could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. Given that the classifications of the FCC are interpreted differently under EU law than under US law, it poses a risk due to an interpretation of the law that is considered not valid or based on competence.

Therefore, following Mahler it could also be characterized as a Qualification Legal Uncertainty. However, given that in spite of the disparity in interpretation, the United States continues to enforce this standard and therefore, the Legal Risk could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the FCC COS constitute the Legal Risk of *Limitation.*

V. CONSTRUCTION SERVICES; IRON, STEEL & OTHER METAL

A. BUY AMERICAN ACT (BAA)

With respect to government funded projects and the purchase of goods from foreign suppliers (including, but not limited to, iron, steel and other metal products), the Buy American Act (BAA) represents a major domestic preference statute governing procurement by the US federal government.[1091]

BAA applies to any direct purchase by the federal government of more than $3,000 provided that they are consistent with the public interest, reasonable in cost, and "substantially all" (at least 50% of the cost) of the acquisition is attributable to American-made components.[1092] A product is deemed of domestic origin based on the place of mining, production or manufacture, and not on the nationality of the contractor or investor.

[1090] See NCTA v. Brand X, 545 U.S. 967, 980, 992 (2005).
[1091] 41 U.S.C. §§ 8301-8305. For an overview of BAA and comparison to other methods of US procurement, *see* John R. Luckey, CRS Report for Congress, *Domestic Content Legislation: The Buy American Act and Complementary Little Buy American Provisions* (Apr. 25, 2012).
[1092] 48 C.F.R. § 25.101; CRS Report, *Domestic Content Legislation* at 1.

The lack of any statutory or regulatory definition as to what is sufficient to constitute "manufacturing" has created concerns for the EU about the lack of transparency in awarding government funded contracts and whether funds are truly awarded on a non-discriminatory basis with regard to the manufacturer's country of origin.[1093]

The Legal Risk posed by the BAA could be qualified under Whalley as the risk of failing to comply with certain terms of a contract, or here content prescriptions in public tenders. Given that the BAA authorizes exclusionary trade measures, it poses a risk depending on a set of facts whether measures are taken that annihilate the competence to trade. It therefore could also be characterized as a Qualification Factual Uncertainty. However, given that it effectively provides US authorities with a power to restrain any competition, the Legal Risk for EU construction companies could also be qualified pursuant to Hohfeld as a Liability. In conclusion, following our FDLR-Model the BAA rules constitute the Legal Risk of *Liability*.

B. BUY AMERICA ACT LIKE RESTRICTIONS (BAR)

Even if BAA, alone, does not constitute an impermissible or unfair restriction on foreign trade and investment, the US utilizes other federal and state level regulations with more stringent domestic-content requirements.

At the federal level, the Buy *America* Act (hereafter, "Buy America") is the popular name for several domestic content restrictions on funds administered by the Department of Transportation, including Federal Transit Administration funds, 49 U.S.C. § 5323(j); Federal Highway Administration funds, 23 U.S.C. § 313; AMTRAK funds, 49 U.S.C. § 24305; Federal Railroad Administration High Speed Rail Program, 49 U.S.C. 24405; and Federal Aviation Administration funds, 49 U.S.C. § 50101.[1094]

Buy America is one of several Little Buy American Acts used to restrict procurements that are not covered by BAA or to impose more stringent domestic content requirements.[1095] Legislation restricting Federal Highway Administration funds, for example, prohibits the

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1093 ECORYS Report, Annexes, p. 58

1094 For more information, *see* CRS Report, *Domestic Content Legislation* at 3-6; *see also* Department of Transportation's Buy America website, available at http://dot.gov/buyamerica.

1095 CRS Report, *Domestic Content Legislation* at 2.

Secretary of Transportation from awarding federal funds for any highway or transit project unless the steel or iron manufactured products used in such project are produced in the US.[1096] In order to be subject to the Act, the product must be manufactured predominantly of steel or iron, which FHWA has interpreted to mean a product that consists of at least 90% steel or iron upon delivery for installation or construction.[1097]

While this bright-line rule has the virtue of clarity, there seems to be little rationale for defining “substantially all” to mean “at least 50%” for purposes of BAA while defining “predominantly all” to mean “at least 90%” for purposes of Buy America. Subsection 313(g), added in 2012, also considerably extended Buy America’s coverage by providing that Buy America’s requirements extend to *all* contracts for an eligible project, “regardless of the funding source of such contracts, if at least 1 contract for the project is funding with amounts made available to carry out this title.”[1098]

The increasing use of appropriations and procurement legislation to deter foreign contractors and investors appears to be a current trend.[1099] State level regulations may provide an additional means for more restrictive trade measures against foreign contractors. In connection with a state-funded bridge construction project, the Third Circuit upheld the Pennsylvania Steel Products Procurement, which contains more stringent domestic-content requirements than Buy America, finding that the state legislation was *not* preempted.[1100]

Some Little Buy America Acts impose “super” percentage requirements for domestic content, such as The Berry Amendment, other Department of Defense BAA requirements, and Department of Homeland Security requirements.[1101]

1096 23 U.S.C. § 313.

1097 FHWA Memorandum, *Clarification of Manufactured Products under Buy America* (Dec. 21, 2012), available at http://www.fhwa.dot.gov/construction/contracts/121221.cfm.

1098 23 U.S.C. § 313(g) (2012).

1099 Indeed, although the BAA has only been amended four times, “since its enactment, every Congress in the intervening years has seen fit to enact some form of additional preference legislation.” CRS Report, *Domestic Content Legislation* at 1 & n.4.

1100 See Mabey Bridge & Shore, Inc. v. Schoch, 666 F.3d 862, 869-70 (3d Cir. 2012).

1101 See 10 U.S.C. §§ 2533a-b (Berry Amendment, imposing 100% domestic content requirements for certain products, generally textiles and specialty metals); 10 U.S.C. § 2534 (other Dpt. of Defense super percentage requirements for certain naval vessels and goods relating thereto); 6 U.S.C. § 453b (prohibits Dpt. of Homeland Security from using funds to procure certain non-domestic items if the item is directly related to US’s national security interest).

The Legal Risk posed by the BAR much like the BAA could be qualified under Whalley as the risk of failing to comply with certain terms of a contract, or here an Executive Order. Given that the BAR authorizes exclusionary trade measures, it poses a risk depending on a set of facts whether measures are taken that annihilate the competence to trade.

Therefore, following Mahler it could be also characterized as a Qualification Factual Uncertainty. However, given that effectively provides US authorities with a power to restrain any competition, the Legal Risk for EU construction companies could also be qualified pursuant to Hohfeld as a Liability. In conclusion, following our FDLR-Model the BAR rules constitute the Legal Risk of *Liability.*

C. AMERICAN RECOVERY & REINVESTMENT ACT (ARRA)

Section 1605 of the ARRA, a well-known US appropriation rider, imposes super percentage domestic content requirements to direct government purchases as well as to indirect purchases by non-federal recipients of such funds.[1102] Section 1605(a) provides that none of the funds appropriated or can be used on a project for the construction, alteration, maintenance, or repair of any public building or public work, unless all of the iron, steel, and manufactured goods used in said project have been produced in the US.

The Legal Risk posed by ARRA could be qualified under Whalley the risk of a business failing to implement regulatory requirements. The ARRA constitutes like the CAFE regulations a risk due to the interpretation of the law. However, other than the CAFE Regulation it presents a risk due to being an obligation.

Therefore, following Mahler it could be also qualified as a Deontic Legal Uncertainty. Given the obligatory nature of the norm, pursuant to Hohfeld, it therefore could also be characterized as a Duty. In conclusion, following our FDLR-Model, ARRA constitutes the Legal Risk of *Law*.

[1102] P.L. 111-5, § 1605, 123 Stat. 115, 303, 111th Cong. 1st Sess. (2009); 48 C.F.R. 25.6 (applies to construction projects).

VI. WOOD & PAPER PRODUCTS

A. LACEY ACT

The 1990 Lacey Act to combat illegal logging, as amended by the 2008 Farm Bill, requires importers of covered plants and planted products, including timber and other wood products to produce an import declaration, which must specify shipping information, plant details and other information to be in compliance with the Act.[1103] This is a discriminatory trade measure by the US as domestic products are not subject to these reporting requirements.

The Legal Risk posed by the Lacey Act could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. The Lacey Act has been found discriminatory and poses a risk due to an interpretation of the law that is considered not valid or based on competence pursuant to international agreements.

Therefore, following Mahler it could be also characterized as a Qualification Legal Uncertainty. However, given that in spite of its declaration as a discriminatory measure, the United States continues to enforce this standard and therefore, the Legal Risk could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the Lacey Act constitutes the Legal Risk of *Limitation.*

B. ALTERNATIVE FUEL MIXTURE CREDIT

This tax credit was created by the 2005 Highway Bill (although credit for Black Liquor ended in 2010). The US pulp and paper industry qualified for this tax credit, because certain by-products of the paper making process qualified as a biofuel. The US industry's use of this tax credit provided significant monetary aid to the paper industry in the US and distorted the competition.[1104]

[1103] 16 U.S.C. §§ 3371-3378.
[1104] ECORYS Report, Annexes at p. 196.

Overall, there are very few trade and investment barriers remaining between the EU and US in this sector and the actual trade between the two in wood and paper products is very low, due to steep transportation costs and the fact that the industry is generally more regionally-based.[1105]

The Legal Risk posed by the AFMC could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. The AFMC has been found discriminatory and poses a risk due to an interpretation of the law that is considered not valid or based on competence pursuant to international agreements.

Therefore, following Mahler it could be also characterized as a Qualification Legal Uncertainty. However, given that in spite of its declaration as a discriminatory measure, the United States continues to enforce this standard and therefore, the Legal Risk could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the AFMC constitutes the Legal Risk of *Limitation.*

VII. ELECTRONICS

A. STATE LEVEL REGULATIONS

The EU has expressed concerns about divergent US state legislation concerning electronics, in particular certain restrictions on the use of hazardous substances (RoHS), but the adoption of such standards appears to have been influenced by existing EU regulations and may actually be an instance of greater convergence. For example, California RoHS laws are modeled after EU Directive 2002/95/EC and are actually less stringent than the EU's laws.[1106] Another, the Electronic Waste Recycling Act of New Jersey, bans all manufacturers not in compliance with the Act, but imposes no more stringent requirements than those under EU law.[1107]

[1105] ECORYS Report at p.164
[1106] CA Health & Safety Code §§ 25214.9-25214.10.2; 22 CA Code of Regulations § 66260.202
[1107] P.L.2007, c.347 (C.13:1E-99.95) § 2, as amended (2008); *see also* Proposed New Rules, N.J.A.C. 7:26A-13.

The Legal Risk posed by the ROHS could be qualified under Whalley as the failure to assert non-contractual rights under the ROHS given the convergence of regulation in the state of California. However, given the fact that other states may fail similar convergence for their jurisdiction, following Mahler the ROHS poses a risk based on a factual uncertainty due to an obligation, permission or prohibition and could also be characterized as a Deontic Factual Uncertainty. Given a fact pattern where a states may fail to assert such convergence, pursuant to Hohfeld it could also be characterized as the absence of a right and therefore as No Right. In conclusion, following our FDLR-Model, the ROHS, constitutes the Legal Risk of *Lack Of Right.*

B. SAFETY STANDARDS

The EU has also expressed concerns that US regulation of safety standards are developed by separate bodies, both OSHA and ANSI. The International Electrotechnical Commission develops internationally accepted standards for electrical and electronic technologies, with which EU standards are aligned.[1108] OSHA and ANSI purportedly rely on IEC standards as well, but the agencies do not create standards as to how each safety component is considered safe, causing a lack of transparency and possible diverge from international standards.[1109]

The Legal Risk posed by the ESS could be qualified under Walley as the failure to assert non-contractual rights under the ESS given the convergence of regulation is dependent on two separate bodies. However, given the fact that either OSHA or ANSI may fail similar convergence for their jurisdiction, following Mahler the ESS poses a risk based on a factual uncertainty due to an obligation, permission or prohibition and could also be characterized as a Deontic Factual Uncertainty. Given a fact pattern where a states may fail to assert such convergence, pursuant to Hohfeld it could also be characterized as the absence of a right and therefore as No Right. In conclusion, following our FDLR-Model, the ESS, constitutes the Legal Risk of *Lack Of Right.*

[1108] IEC 62061

[1109] *See* IFM, *http://www.ifm.com/ifmus/web/prod_tip_safety.htm*.

VIII. FOOD & BEVERAGE

A. REGULATORY FRAMEWORK

Regulation is bifurcated between the FDA and U.S. Dpt. of Agriculture (USDA), the latter of which has exclusive jurisdiction to regulate meat (beef, lamb, and pork), poultry, eggs, and products made therefrom.[1110]

The FDA has significant regulatory over the following areas and corresponding compliance issues (non-exhaustive list): (i) fresh produce- pesticide residues and microbiological contamination; (ii) processed foods- microbiological contamination, submission of scheduled process documentation for canned foods, and food labeling requirements; (iii) dietary and nutritional supplements- ingredient and product safety, dietary supplement facts labeling, and marketing claims; (iv) infant formulas- FDA minimum nutrition and labeling requirements; (v) fruits and vegetable juices, carbonated and functional beverages- permissible food additives and ingredients, safe color additive, percent-juice declarations, juice labeling requirements, and nutrition facts labeling for all types; (vi) bottled water- FDA bottled water standards, chemical and microbiological contamination; (vii) dairy products- specific FDA food standards and import restrictions; (viii) seafood products- processing requirements such as Hazard Analysis and Critical Control Point (HACCP) regulations; (ix) food ingredients- generally recognized as safe (GRAS) status; (x) functional food ingredients- intended uses and food label ingredient declarations; (xi) alcoholic beverages- beer, wine, note also disputes with EU relating to US wine labels and marketing.[1111]

One hotly disputed issue concerns the EU's stringent regulations on Genetically Modified Organisms. Here our analysis is limited to US-imposed trade barriers but we can provide additional resources to support that those standards shall be maintained.[1112]

[1110] See FDA Imports, Food & Beverages, available at http://www.fdaimports.com/industries/food_beverages/. (Accessed at 20 September 2015)
[1111] *Id.*
[1112] For information on the ongoing dispute, *see* WTO Dispute Settlement, *EC – Approval and Marketing of Biotech Products*, DS291 (2006). For recent measures taken by the EU, *see* Neil Munshi & Gregory Meyer, *EU urges tests of US wheat imports* (May 31, 2013), *available at* http://www.ft.com/cms/s/0/7ee5832a-ca1c-11e2-af47-00144feab7de.html#axzz2Wy9702S5.

The Legal Risk posed by the FDA could be qualified under Whalley as the risk of failing to comply with certain terms of a contract, or here a Regulatory Order by the FDA. Given that the FDA may authorize exclusionary trade measures, it poses a risk depending on a set of facts whether measures are taken that annihilate the competence to trade. Therefore, following Mahler it could be also characterized as a Qualification Factual Uncertainty. However, given that effectively provides US authorities such as the FDA with a power to restrain any competition, the Legal Risk for EU food importers could also be qualified pursuant to Hohfeld as a Liability. In conclusion, following our FDLR-Model the BAR rules constitute the Legal Risk of *Liability*.

B. BIOTERRORISM ACT

In relation to the general FDA-imposed requirements already discussed in Part III, FDA registration requirements imposed by the Bioterrorism Act for food and beverage (as well as medical device and drug) manufacturers pose an additional burden on foreign producers by requiring foreign producers to obtain a US Agent, to give the FDA advance notice of all shipments for animal or human consumption, and to register all facilities manufacture, process, pack or hold food for human or animal consumption. Products from unregistered food facilities cannot be imported and will be removed to secure storage.[1113] An additional impediment to EU-US trade is compliance with record-keeping requirements by foreign businesses to allow for the traceability of food and procedures for the administrative detention of foods suspected to be noncompliant with import rules.[1114]

The Legal Risk posed by the BA could be qualified under Whalley as the risk of failing to comply with certain terms of a contract, or here a Regulatory Order under the BA. Given that the FDA may authorize exclusionary trade measures under the BA, it poses a risk depending on a set of facts whether measures are taken that annihilate the competence to trade. Therefore, following Mahler it could be also characterized as a Qualification Factual Uncertainty. However, given that effectively provides US authorities such as the FDA with a power to restrain any competition, the Legal Risk for EU food importers could also be qualified pursuant to Hohfeld as a Liability. In conclusion, following our FDLR-Model the BAR rules constitute the Legal Risk of *Liability*.

[1113] 21 C.F.R. 1.225-1.243
[1114] ECORYS Report, Annexes at p.168.

C. DAIRY EXPORTS

The Grade "A" Pasteurized Milk Ordinance (PMO) provides three options to foreign companies seeking to enter the US market. First, the exporting company can sign a contract with a US state, agreeing to treat it as within its own jurisdiction, including rules concerning inspection and control.[1115] Second, the country of the exporting company can adopt and comply with US rules in order to become a member of the National Conference on Interstate Milk Shipments (NCIMS). Third, the FDA may recognize the program and regulations of the exporting country as equivalent to its own.[1116]

The Legal Risk posed by the BA could be qualified under Whalley as the risk of failing to comply with certain terms of a contract, or here a Regulatory Order under the DER. Given that the FDA may authorize exclusionary trade measures under the DER, it poses a risk depending on a set of facts whether measures are taken that annihilate the competence to trade. Therefore, following Mahler it could be also characterized as a Qualification Factual Uncertainty. However, given that effectively provides US authorities such as the FDA with a power to restrain any competition, the Legal Risk for EU dairy importers could also be qualified pursuant to Hohfeld as a Liability. In conclusion, following our FDLR-Model the BAR rules constitute the Legal Risk of *Liability*.

D. WINE REGULATION

Some US state laws prevent interstate retail sales of wines and spirits, prohibits direct to consumers' shipment of wine to foreign wineries by denying them permits, prohibit EU exporters from distributing, rebottling or retailing their wine, require duplicate label approvals and impose fees and charges.[1117] In addition, recent legislation proposed in the House would, if passed, gives states the power to prohibit consumers from purchasing imported wines through bans on shipments of wine from out of state retailers.[1118]

[1115] For key provisions concerning safety requirements for dairy products, *see* 21 C.F.R. § 1B.101 (food labeling), § 1B.104 (nutritional quality guidelines for foods), § 1B.110 (current good manufacturing practices in manufacturing, packing, and handling food for human consumption), and 21 C.F.R. §§58, 131 in various parts (standards of identity for milk and milk products).
[1116] See ECORYS Report at p. 170.
[1117] ECORYS Report at p. 171.
[1118] H.R. 1161 (originally proposed in H.R. 5034).

The EU has also been concerned about inadequate protections of Geographical Indications (GIs), distinctive terms or place names that identify particular characteristics or origins of a product, with respect to US wine labels and marketing.[1119] US wine labels continue to violate EU policy by using such terms, and the US continues to criticize EU restrictions as "severely restrict[ing] the ability of non-EU wine producers to use common or descriptive and commercially valuable terms to describe their products sold in the EU."[1120] In light of the US's victory in a 2005 WTO Dispute Settlement case against the EU concerning trademarks and geographical indications, EU attempts to protect such terms may result in continued disputes and litigation.[1121]

The Legal Risk posed by Wine Regulation could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. Given that Wine Regulation entitles US states to enact legislation regarding the restriction of imports, it poses a risk due to an interpretation of the law that annihilates the competence to trade.

Therefore, following Mahler it could be also characterized as a Qualification Legal Uncertainty. However, given that effectively provides US producers with an immunity against any competition, the Legal Risk for EU manufacturers could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the TEA rules constitute the Legal Risk of *Limitation.*

IX. MEDICAL, MEASURING & TESTING APPLIANCES

A. FOOD, DRUG & COSMETIC ACT

Pursuant to the Food, Drug & Cosmetic Act (FDCA), medical device owners or operators must register with the FDA and obtain premarket approval, the requirements for which are similar to those discussed in relation to Food & Beverages and Chemicals, Cosmetics & Pharmaceuticals.[1122]

[1119] EC Regulation 607/2009.
[1120] US Trade Representative, 2013 Report on Technical Barriers to Trade at p.64 (Apr. 1, 2013).
[1121] WTO Dispute Settlement, *EC – Trademarks and Geographical Indications,* DS174, 290 (adopted 2005).
[1122] 21 C.F.R. §§ 807, 812, 814.

The Legal Risk posed by the Food, Drugs and Cosmetics Act could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. Given that the classifications of the FDCA are interpreted differently under EU law than under US law, it poses a risk due to an interpretation of the law that is considered not valid or based on competence.

Therefore, it could be also characterized as a Qualification Legal Uncertainty. However, given that in spite of the disparity in interpretation, the United States continues to enforce this standard and therefore, the Legal Risk could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the FDCA rules constitute the Legal Risk of *Limitation.*

B. MEDICAL DEVICE REPORTING

Pursuant to the Medical Device Reporting (MDR) regulation, manufacturers, importers and user facilities are subject to various reporting requirements with the FDA concerning possible malfunctioning or injuries likely to be caused by such devices, which may entail high costs in terms of regular monitoring to ensure compliance.[1123] Domestic distributors, but not importers, are exempt from the MDR reporting requirement.[1124]

The Legal Risk posed by the MDR could be qualified under Walley as the failure to assert non-contractual rights under the CAA given the preemption waiver that has already been granted to domestic distributors. However, given the fact that foreign distributors may fail to assert a similar exemption for their jurisdiction, following Mahler the CAA poses a risk based on a factual uncertainty due to a obligation, permission or prohibition and could also be characterized as a Deontic Factual Uncertainty. Given a fact pattern where a states may fail to assert such exemption, pursuant to Hohfeld it could also be characterized as the absence of a right and therefore as No Right. In conclusion, following our FDLR-Model, the MDR, constitutes the Legal Risk of *Lack Of Right.*

[1123] 21 C.F.R. § 803.
[1124] Pursuant to the Food & Drug Administration Modernization Act of 1998.

C. SAFE MEDICAL APPLIANCES ACT

Under the Safe Medical Appliances Act of 1990 (SMDA), additional burdensome reporting requirements include the requirement that manufacturers of certain high-risk devices include a summary of safety and effectiveness data upon application for pre-market clearance, establish a Device Tracking system for future-patient notification in the event of a malfunction, and to submit post-market surveillance protocols.[1125]

The Legal Risk posed by the SMDA could be qualified under Walley as the failure to assert non-contractual rights under the SMDA given that it applies exclusively to certain high risk devices. However, given the fact that certain producers may fail to assert their rights obtaining clearance, following Mahler the SMDA poses a risk based on a factual uncertainty due to a obligation, permission or prohibition and could also be characterized as a Deontic Factual Uncertainty. Given a fact pattern where a states may fail to assert such exemption, pursuant to Hohfeld it could also be characterized as the absence of a right and therefore as No Right. In conclusion, following our FDLR-Model, the SMDA, constitutes the Legal Risk of *Lack Of Right.*

D. MEDICAL DEVICE USER FEE & MODERNIZATION ACT

Through the Medical Device User Fee & Modernization Act (MDUFA) of 2002 (amended in 2012, MDUFA III), other discriminatory measures were imposed such as granting reductions and reimbursement of fees charged to obtain premarket approval for US Small and Medium Enterprises (SMEs), but EU SMEs are not eligible.[1126] The 2012 MDUFA III amendments make compliance more costly by expanding the definition of types of manufacturers that must pay registration fees. Noncompliance with MDUFMA may result in a device being found to be "adulterated," prohibiting import to the US.[1127]

[1125] P.L. 102-300, amending FD&CA § 519.
[1126] P.L. 112-14, which includes MDUFA III.
[1127] For an illustration of these complicated requirements, *see* United States v. Undetermined Quantities of Boxes of Articles of Device, No. 07-1769 U.S. Dist. LEXIS 38952 (D.N.J. May 30, 2007) ("Read together, [§§ 381(e)(1) and 382(f) create the following rule: an adulterated device may be exported *if* it meets the four requirements found in § 381(e)(1)(A)-(D); *however,* this exception does not apply if the product is unapproved *unless* the product…meets the CGMP [current good manufacturing practices] requirements…*Moreover,* devices that fail to meet the requirements of § 360(e) (relating to…premarket approval) are not eligible for export under § 381(e), *unless* the FDA grants an exception.") (emphasis added).

The Legal Risk posed by MDUFA could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. Given MDUFA applies exclusively to US SMEs it was found discriminatory and poses a risk due to an interpretation of the law that is considered not valid or based on competence pursuant to international agreements.

Therefore, it could be also characterized as a Qualification Legal Uncertainty. However, in spite of its declaration as a discriminatory measure, the United States continues to enforce this standard and therefore, the Legal Risk could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the MDUFA rules constitute the Legal Risk of *Limitation.*

X. FINANCIAL SERVICES

A. DISCRIMINATORY TAXATION

In a WTO dispute by the then European Communities against the US concerning US tax exemptions for Foreign Sales Corporations (FSCs) with respect to their foreign-source trade income, the Appellate Body found that the MFC measure constituted prohibited export subsidies under ASCM Art. 3.1(a) (prohibited subsidies – export subsidies), and that the US violated Art. 10.1 (export subsidies not listed in Art. 9.1) and subsequently Art. 8 (export competition commitments) through the use of FSC exemptions with no limitations on the amount of exemption and no discretionary element to its grant.[1128]

The US subsequently adopted the FSC Repeal and Extraterritorial Income Exclusion Act of 2000 (FSCE), and the Appellate Body found that the FSCE was not justified as a measure to avoid double taxation of foreign-source income, that it effectively extended certain prohibited FSC provisions, and that it accorded less favorable treatment to imported products than to similar US domestic products in violation of GATT Art. III:4.[1129]

[1128] WTO Dispute Settlement, *United States – Tax Treatment for "Foreign Sales Corporation,"* DS108 (adopted 2000), *available at* http://www.wto.org/english/tratop_e/dispu_e/cases_e/1pagesum_e/ds108sum_e.pdf. (Accessed at 20 September 2014)
[1129] Id. (adopted 2002).

Similarly, when the American Jobs Creation Act of 2004 was enacted, the Appellate Body upheld the Panel's finding that "to the extent that the United States, by enacting Section 101 of the Jobs Act, maintains prohibited FSC and ETI subsidies through the transitional and grandfathering measures, it continues to fail to implement fully the operative DSB recommendations and rulings…"[1130] To the extent such measures continue today, if at all, the US remains noncompliant.

The Legal Risk posed by the FSCE could be qualified under Walley as the failure to assert non-contractual rights under the FSCE given that it applies exclusively to certain Foreign Sales Corporations. However, given the fact that certain sales corporations may fail to assert their rights with respect to their exemption from taxation or may not be entitled to it due to the fact that they are a domestic sales corporation, following Mahler the FSCE poses a risk based on a factual uncertainty due to a obligation, permission or prohibition and could also be characterized as a Deontic Factual Uncertainty. Given a fact pattern where a state may fail to assert such exemption, pursuant to Hohfeld it could also be characterized as the absence of a right and therefore as No Right. In conclusion, following our FDLR-Model, the FSCE, constitutes the Legal Risk of *Lack Of Right.*

B. DISCLOSURE REQUIREMENTS UNDER DODD-FRANK ACT

Section 1504 of Dodd-Frank, Disclosure of Payments by Resource Extraction Issuers requires such issuers to disclose payments made to a foreign government of the US Federal Government for the purposes of the development of oil, natural gas, or minerals, and such reports must be filed annually. While the measure was purportedly an attempt at increased transparency, it may have the effect of deterring transactions with foreign entities and restrict foreign investments in such public projects as discussed in Part V above. The provision also imposes a very low materiality threshold of $100,000, making reporting very costly, and some US companies have even disclosed to investors in 10-K filings that it poses a governmental risks that undermines international competiveness.[1131]

[1130] Id. (adopted 2006).
[1131] Brigham A. McCown, *Oil and Gas Payment Disclosures May Harm Investors* (Mar. 22, 2013), *available at* http://www.forbes.com/sites/brighammccown/2013/03/22/oil-and-gas-payment-disclosure-may-harm-investors/. (Accessed at 20 September 2014)

The Legal Risk posed by the DFA could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. Given that the disclosure requirements of Section 1504 of DFA apply exclusively to transactions with foreign entities, it was found discriminatory and poses a risk due to an interpretation of the law that may be considered not valid or based on competence pursuant to international agreements.

Therefore it could also be characterized as a Qualification Legal Uncertainty. However, in spite of its declaration as a discriminatory measure, the United States continues to enforce this standard and therefore, the Legal Risk could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the DFA rules constitute the Legal Risk of *Limitation.*

C. SARBANES-OXLEY ACT (SOX)

Compliance with the SOX, adopted in 2002, is costly for EU firms listed on US exchanges as well as EU auditing firms, which may be faced with conflicting laws on audits and corporate governance. Section 104(a) of SOX gives the PCAOB authority to conduct inspections to ensure compliance and PCAOB Rule 4012 implements the mandate to inspect foreign registered firms. The rule sets out a sliding scale approach for cooperating with foreign regulators, but it is unclear whether it provides sufficient guidance or predictability for foreign firms seeking compliance with US laws.[1132]

The Legal Risk posed by SOX could be qualified under Whalley the risk of a business failing to implement regulatory requirements. The SOX constitutes like the CAFE regulations a risk due to the interpretation of the law. However, other than the CAFE Regulation it presents a risk due to being an obligation. Following Mahler could be also qualified as a Deontic Legal Uncertainty. Given the obligatory nature of the norm, pursuant to Hohfeld, it therefore could also be characterized as a Duty. In conclusion, following our FDLR-Model, the SOX constitutes the Legal Risk of *Law.*

[1132] Gray, Elizabeth P. & Matelis, Jessica L, *PCAOB Foreign Inspections – A Chinese Conundrum,* 44 Rev. Securities & Commodities Reg. 12, 145 (Jun. 22, 2011)

D. Foreign Account Tax Compliance Act (FATCA)

In 2010, the US enacted FATCA, which creates serious barriers for EU financial institutions seeking to invest in the US market. Under FATCA, all Foreign Financial Intermediaries (FFIs) must enter into agreements with the IRS to carry out burdensome due diligence and information reporting tasks with respect to client known or suspected to be US citizens. Participating FFIs must also withhold US tax on payments to non-participating FFIs and to account holders who fail to disclose their identities to US tax authorities.[1133]

Another issue under FATCA is the "Pass thru Payments" rule, which compliance with which is especially difficult for FFIs. The rule requires that FFIs must withhold a 30% tax on any Pass thru Payments made to an account holder that (1) does not agree to disclose its identity, or (2) is a non-participating FFI.[1134]

The IRS, however, has not defined the scope of pass thru payments and as currently drafted, could include payments having no direct or apparent US source. Compliance with FATCA, however, may put EU FFIs in breach of EU laws on data protection, customer relations, and withholding tax procedures as well as EU Member States' tax treaties with other countries.[1135]

To avoid this, in 2012 the UK entered into an intergovernmental agreement (IGA) with the US, under which UK FFIs must comply with certain reporting obligations and in return, will be exempt from FATCA withholding rules. Implementing regulations are expected to take effect later this year. The adoption of IGAs by other EU countries, however, may create duplicative or inconsistent reporting requirements for FFIs that qualify as residents in multiple jurisdictions with different IGAs.

[1133] See Market Access Database, *Foreign Account Tax Compliance Act (FATCA)* (last updated Dec. 19, 2011), *available at* http://madb.europa.eu/madb/barriers_details.htm?barrier_id=115416&version=1.

[1134] Id.

[1135] See Devon Robotics v. Deviedma, 2010 U.S. Dist. LEXIS 108573, 10-11 (E.D. Pa. Oct. 7, 2010) (a foreign nondisclosure statute "do[es] not deprive an American court of the power to order a party subject to its jurisdiction to produce evidence even though the act of production may violate that statute"); *see also* Market Access Database, *SEC Regulations for Securities Firms* (last updated 2009), *available at* http://madb.europa.eu/madb/barriers_details.htm?barrier_id=990025&version=5. (Accessed at 20 September 2014)

The Legal Risk posed by FATCA could be qualified under Walley as the failure to assert non-contractual rights under the FATCA given that it applies exclusively to certain Foreign Financial Intermediaries. However, given the fact that certain Foreign Financial Intermediaries may fail to assert their rights with respect to entering into agreements with the IRS or may not be entitled to it.

Following Mahler FATCA poses a risk based on a factual uncertainty due to a obligation, permission or prohibition and could also be characterized as a Deontic Factual Uncertainty. Given a fact pattern where a states may fail to assert such a right to an agreement with the IRS, pursuant to Hohfeld it could also be characterized as the absence of a right and therefore as No Right. In conclusion, following our FDLR-Model, FATCA, constitutes the Legal Risk of *Lack Of Right.*

E. SEC REGULATIONS FOR SECURITIES FIRMS

While EU securities firms can technically register as broker-dealers or investment advisors, in the form of both branches and subsidiaries, this is difficult in practice. The establishment of a US broker-dealer branch by foreign firms requires SEC registration, making such firms subject to SEC regulation. Foreign mutual funds have been unable to make public offerings in the SEC, because SEC requirements make it similarly impractical for a foreign fund to register as required by the US Investment Company Act of 1940.[1136] However, Rule 15a-6 pursuant to the Exchange Act specifies certain exemptions from registration for foreign broker-dealers, and the SEC has recently issued a guidance letter for compliance.[1137]

The Legal Risk posed by BDC could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. Given BDC makes it very difficult in practice for foreign firms to set up broker dealer operations in the United States, it was in spite of certain exemptions that are subject to interpretation found discriminatory and poses a risk due to an interpretation of the law depending on uncertain validity rules.

[1136] See Market Access Database, *SEC Regulations for Securities Firms.*
[1137] See SEC, *FAQs Regarding Rule 15a-6 and Foreign Broker-Dealers* (Mar. 21, 2013, updated Jun. 6, 2013), *available at* http://www.sec.gov/divisions/marketreg/faq-15a-6-foreign-bd.htm. (Accessed at 20 September 2014)

Therefore, it could be also characterized as a Qualification Legal Uncertainty. However, in spite of its declaration as a discriminatory measure, the United States continues to enforce this standard and therefore, the Legal Risk could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the BDC rules constitute the Legal Risk of *Limitation.*

F. Different Accounting Standards

IFRS reporting standards, adopted by the EU in 2005, are mandatory in the EU for public companies and differ from US GAAP in the following areas, which affects requirements for financial statements and thus on the general conduct of IFRS-reporting entities doing business in the US: (i) consolidation, (ii) statement of income, (iii) inventory, (iv) earning-per-Share, (v) development costs.[1138] The SEC supports efforts by the FASB and IASB in their efforts to attain convergence between GAAP and IFRS standards, with the US GAAP moving towards IFRS principles, but the process remains incomplete. Specific differences that may result in different reported results have been declining but include that IFRS does not allow Last, In, First Out (LIFO), uses a single-step method for impairment write-downs, rather than GAAP's two-step method, and does not permit debt for which a covenant violation has occurred to be classified as non-current, unless a waiver has been obtained.[1139]

The Legal Risk posed by DAS could be qualified under Whalley as the risk of a non-contractual obligation failing to meet a defined standard of care. Given DAS makes it very costly in practice for foreign firms to set up operations, raise financing or even go public in the United States, it poses a risk due to an interpretation of the law depending on uncertain validity rules. Therefore, it could be also characterized as a Qualification Legal Uncertainty. However, in spite of its declaration as a discriminatory measure, the United States continues to enforce this standard and therefore, the Legal Risk could also be qualified pursuant to Hohfeld as a Disability. In conclusion, following our FDLR-Model the DAS rules constitute the Legal Risk of *Limitation.*

[1138] For information on these differences, see Remi Forgeas, *Is IFRS That Different From U.S. GAAP?* (Jun. 16, 2008), *available at* http://www.ifrs.com/overview/General/differences.html. (Accessed at 20 June 2014)

[1139] See IFRS, Questions and Answers, *available at* http://www.ifrs.com/updates/aicpa/ifrs_faq.html#q10. (Accessed at 20 June 2014)

XI. PROPOSED MECHANISM OF TRANSNATIONAL DISPUTE RESOLUTION

A. Investor-State Dispute Resolution in Free-Trade Agreements

As early as 1796, John Adams, after having negotiated for the United States the first Treaty on Friendship, Commerce and Navigation with France, emphatically highlighted the protection of alien property by the rules of international law.[1140]

> There is no principle of the law of nations more firmly established than that which entitles the property of strangers within the jurisdiction of another country in friendship with their own to the protection of its sovereign by all efforts in his power.[1141]

Under rules of customary international law, no state is obliged to accept a foreign investment within its borders in accordance with the concept of state sovereignty. However, if a state has admitted a foreign investment, it will be subject to a minimum standard towards that investment. Sovereignty also dictates that states may enter into treaties with other states. Modern treaties on foreign investment, go far beyond the minimum standard required by customary international law with regards to the scope of obligations that a host State owes a foreign investor.[1142]

1140 Dolzer Rudolf and Christoph Schreuer (2012), Principles of International Investment Law, p.1., Oxford University Press

1141 Id. Dolzer and Schreiner argue that "[u]ntil the Communist Revolution in Russia in 1917 rules protecting foreign investment were of no relevance and importance. Very different though is the picture in recent years due to the exponential growth in Bilateral Investment Treaties: in 2005 the global total of Bilateral Investment Treaties was put at 2,495. They serve as an international instrument between two State parties to regulate the bilateral treatment of foreign investments. Although they provide for different forums of dispute settlement for investment disputes, the most common by far is the ICSID Tribunal, which entered into force in 1966 and has 155 member states."

1142 Dolzer and Schreuer argue that [b]efore WWII, most states adopted legislation providing 'absolute immunity from relinquishing property in their state courts. These policies forced any foreign investor with commercial disputes to rely on diplomatic negotiations by their home state as a way to resolve claims. This often was a careful balance between both states that required political capital and resulted in inaccurate remedies. Over time, developed nations began instituting reforms to change this post-WWII absolute immunity to restrictive immunity. By the 1980s, many developed and developing states enacted legislation providing their national court system "jurisdiction over disputes involving commercial activities, real property, expropriatory actions, and a limited number of other specified actions, as well as over disputes in which states had waived their immunity, particularly through arbitration agreements."

B. PROPOSED INVESTOR-STATE DISPUTE SETTLEMENT MECHANISM IN TTIP

The proposed arbitration agreements that are currently negotiated in the form of a so-called Investor State Dispute Settlement or ISDS mechanism are almost always present in modern International Investor Agreements. Usually they mandate that arbitration awards will be recognized by parties to the agreement and provide clearly defined enforcement mechanisms.[1143]

> States negotiate these international investment arbitration agreements to secure investor protection of neutral international dispute arbitration by including provisions against both direct and indirect expropriation. They mandate that legal expropriation only occurs when it is: (1) done for a public purpose; (2) does not discriminate against a foreign investor; (3) involves a "prompt, adequate, and effective" payment of compensation; and (4) is in agreement with the due process of law[1144].

Customarily, two doctrines are used to determine state and investor rights and obligations, the *Hull Rule* and the *Calvo Doctrine*. The Hull Rule, argued to be customary international law mostly by developed states, declares foreign investors should receive "prompt, adequate and effective compensation" when a host state expropriates investments or resources.[1145]

Alternatively, the Calvo Doctrine argued "to be customary international law by mostly developing states, conditions that foreign investors should be under the exclusive jurisdiction of host state courts with no more favorable rights than the host state's nationals."[1146] Therefore, international arbitration is becoming increasingly more important to international trade as states are seeking to avoid either the Hull Rule or Calvo Doctrine to resolve disputes.

[1143] See supra note 1101. Dolzer and Schreuer argue that "[t]he enforcement procedures depend on whether the conflicting parties are both members of the ICSID Convention or if enforcement procedures fall under the New York Convention. These are often under the auspices of the New York Convention and ICSID. One example can include coercive enforcement against state property. Generally, ISDS provisions are executed as a way to protect foreign investors from host state expropriation."

[1144] Id.

[1145] Rudolf Dolzer, *New Foundations of the Law of Expropriation of Alien Property*, 75 AM. J. INT'L L. 553, 558 (1981); Ryan J. Bubb & Susan Rose-Ackerman, *BITs and Bargains: Strategic Aspects of Bilateral and Multilateral Regulation of Foreign Investment*, 27 INT'L REV. L. & ECON. 291, 294 (2007).

[1146] R. Dolzer, *supra*, at 560; Bubb & Rose-Ackerman, *supra*, at 294. UN General Assembly Resolution 3171, similar to the Calvo Doctrine, declared that states should have the right to use their national legislature to determine where international disputes would be settled, how much compensation would be due to investors, and which way the compensation would be paid. G.A. Res. 3171, U.N. GAOR, 28th Sess., Supp. No. 30, at 52, U.N. Doc. A/9030 (1973), *reprinted in* 13 I.L.M. 238 (1974)

The ISDS provisions allow foreign investors to initiate international arbitration claims against host states for violations investment agreement violations. They contain provisions establishing the treatment of investors, mandating requirements for expropriation and nationalization of investments, codifying rules regarding financial transfers and payment between parties of different states, and providing for dispute settlement mechanisms[1147]

C. Failure of ISDS in the Resolution of Transnational Risk

In December 2013, a consortium of more than 100 citizen protection groups signed an open letter ("Open Letter") seeking to exclude ISDS provisions from the TTIP.[1148] On 21 January 2014 the European Commission announced that it will halt certain talks with the U.S. over the TTIP until it a public consultation about how to deal with ISDS concerns.[1149]

Civil organizations opposed provisions that would allow foreign companies to sue host governments over policies aimed at public policy and environmental protection goals. It has also been feared that ISDS may award foreign companies large compensations as a result of any lost profit or investment money due to any host government's enacted legislation. This has also been referred to as the "Right to Regulate" that needs to be protected for any Member State of the European Union and the United States alike.[1150]

Another major criticism with respect to these investor statement dispute settlement mechanisms or arbitration tribunals has been that they are actually creating a separate jurisdiction above or besides the national jurisdictions. Another point of criticism that had been featured prominently was that these arbitration tribunals consist predominately of attorneys nominated by corporations and attorneys that are actually dependent on such corporations' contracts or mandates in the future and therefore cannot arbitrate or judge independently or cannot be perceived as judging independently. [1151]

[1147] Carrie E. Anderer, *Bilateral Investment Treaties and the EU Legal Order: Implications of the Lisbon Treaty*, 35 Brook. J. Int'l L. 851, 856–57 (2010).

[1148] *Open letter of civil society against investor privileges in TTIP*, Bilaters.org (Dec. 16, 2013), *available at* http://www.bilaterals.org/?open-letter-of-civil-society]. (Accessed at 23 June 2014)

[1149] *EU Says It Will Hit 'Pause' on TTIP Investment Talks Pending Public Debate*, Inside U.S. Trade (Jan. 21, 2014), *available at* http://insidetrade.com/201401212458789/WTO-Daily-News/Daily-News/eu-says-it-will-hit-pause-on-ttip-investment-talks-pending-public-debate/menu-id-948.html (Accessed at 23 June 2014)

[1150] European Commission, *Investment protection in TTIP*, [online], available at http://trade.ec.europa.eu/doclib/docs/2015/january/tradoc_153018.5%20Inv%20Prot%20and%20ISDS.pdf (Accessed at 4 September 2015)

[1151] See supra note 1148.

Several years ago the International Monetary Fund proposed a sovereign debt restricting convention that was never adopted because of political opposition in the United States by the second Bush administration. At the time, the United States preferred so-called collective action clauses, allowing essentially payment terms of a loan facility to be changed through super majority as opposed to unanimous one[1152].

Another important factor in ISDS was the composition of the actual arbitral tribunal. The U.S. Model follows a more traditional approach, whereas the EU Draft creates a new process of selecting arbitrators. The U.S. Model specifies that

> [T]he tribunal shall comprise three arbitrators, one arbitrator appointed by each of the disputing parties and the third, who shall be the presiding arbitrator, appointed by agreement of the disputing parties.[1153]

Furthermore, the Secretary-General of the ICSID acts as the appointing authority for all arbitration proceedings. Contrary to the U.S. Model, the EU Draft developed a new methodology implemented for

> [A]ll future EU investment arbitration agreements in which: 1) each party proposes at least five arbitrators of their own choosing; (2) each party selects at least five arbitrators "who are not nationals of either Party to act as chairperson of the tribunals;" and (3) additional arbitrators, as agreed upon by both parties [..][1154]

Furthermore, the EU Draft outlines that arbitrators "shall have a specialized knowledge of international law, in particular international public law and international investment law," be independent of affiliation with any government party[1155].

[1152] Schwarcz, Steven L., *The Global Financial Crisis and Systemic Risk*, Oxford University (November 2010), [online], available at http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=2974&context=faculty_scholarship (Accessed at 20 May 2014) He argues that "There are two fundamental problems with collective action clauses. First, collective action clauses are not always included in sovereign loan and bond agreements.[1152] In the Greek debt crisis[1152] for example 90 percent of the total debt was not governed by collective action clauses.[1152] Second even if every sovereign loan and bond agreement included collective action clauses those clauses only work on an agreement-by-agreement basis. Therefore anyone or more syndicated banks or group of bond holders that fails to achieve a super majority vote would itself be a hold out vis a vis other creditors. It therefore is unlikely that collective action clauses can ever effectively resolve the hold-out problem in sovereign debt restructuring. I therefore believe that an international convention in which super majority ruling can bind all of a nation's creditors is needed to solve the hold-out problem."

[1153] *2012 U.S. Model Bilateral Investment Treaty*, note 103, art. 27(1), U.S. DEP'T OF STATE (2012), *available at* http://www.state.gov/e/eb/ifd/bit/index.htm. (Accessed at 20 June 2014)

[1154] Commission Proposal for a Regulation of the European Parliament and of the Council Establishing a Framework for Managing Financial Responsibility Linked to Investor-State Dispute Settlement Tribunals Established by International Agreements to which the European Union is Party, *COM (2012) 335 final (May 6, 2012)*

[1155] Id.

Here are the most common criticisms against ISDS that prove why ISDS whilst performing crucial functions in principle, still is not a very effective provision for the resolution of transnational risk:

1) ISDS unravels democratic decisions

   The decision to enter into a Free-Trade Agreement or into any international treaty requires a democratic decision making process that in the case of the TTIP, in particular involves national parliaments, Congress and the European Parliament. The many changes that have already been negotiated are testament to the workings of that very democratic process.

   Once adopted, ISDS would be in place to enforce exclusively the terms of this democratically legitimated agreement. Neither ISDS nor any other judicial institution that would be entrusted with the enforcement of an international agreement would be in a position to unravel democratic decisions. However, the Right to Regulate must be ascertained and constitutional part of the TTIP.[1156]

2) ISDS undermines state sovereignty

   The negotiation of any international agreement between sovereign countries is an act of state sovereignty. Therefore, any substantive provisions of an agreement such as the TTIP, even including international investment arbitration tribunals such as ISDS are an act of sovereignty.

[1156] Lester, Simon, Talk of a '*Right to Regulate' Is Hurting the Trade Debate*, HuffPostPolitics (July 2015) [online], available at http://www.huffingtonpost.com/simon-lester/talk-of-a-right-to-regula_b_7839680.html (Accessed at 4 September 2015), Lester argues that "[u]nfortunately, the term "right to regulate" is misleading, as it glosses over key distinctions in how international economic law rules affect domestic regulation. It is true that such international rules do affect regulation; but they do so in much more nuanced ways than the debate acknowledges, and the nuances are important here. In simple terms, international rules may identify and prohibit one particular policy goal (e.g., protectionism) that regulations might pursue; or, in the alternative, they may hold every policy goal open to review under a broader standard that gives international courts significant oversight power. It is this distinction that holds the key to the debate, but it is often ignored. [,,,] Talk of "rights" can be unproductive when carried out with a lack of precision, and that is what is going on here. When domestic regulation intersects with international economic law, the underlying issue is the scope and extent of the constraints imposed by international law, and the allocation of power between the national and the international. International law can certainly interfere with the ability of governments to regulate; indeed, that might be the point of it."

ISDS or better the proposed Transatlantic Trade and Investment Court are necessary to enforce the provisions of the agreement whenever there is a difference of interpretation or an allegation that either party did not comply. Neither ISDS nor any other judicial institution defines the terms of the agreement – it merely enforces the law and policy as decided upon between states.

3) ISDS allows issues of public interest to be decided behind closed doors

Arbitration conducted under the UNCITRAL-Arbitration Rules of 2014[1157] would be more transparent than many, even most, national courts in the EU. Even if international arbitration is typically a confidential proceeding, investor-state disputes are different from this norm and more transparent, given that the development is towards more open dispute resolution between investors and states.

However, even UNCITRAL-arbitrations tribunals do not constitute a court integrated into the hierarchy of judicial systems in the Member States of the European Union or in the state or federal courts of the United States of America.

4) ISDS favors large corporations

Investment protection under existing treaties has to a large degree been sought by small and medium-sized companies (SMEs). According to a 2012 OECD study, individuals or small companies with limited international presence have initiated 22% of cases. Statistics from ICSID (2014) also indicate that individuals have initiated 16% of their cases.[1158]

Hence, while it is true that the majority of cases is carried by larger corporations, the reason for this comes also, quite literally, with the territory. Customarily, it will be and are larger corporations that operate on a transatlantic level.

[1157] UNCITRAL Rules on Transparency in Treaty-based Investor-State Arbitration, UNCITRAL (April 2014), [online], available at http://www.uncitral.org/uncitral/en/uncitral_texts/arbitration/2014Transparency.html (Accessed at 20 June 2014)

[1158] European Commission, Investor-to-State Dispute Settlement (ISDS) Some facts and figures (January 2015), [online], available at http://trade.ec.europa.eu/doclib/docs/2015/january/tradoc_153046.pdf (Accessed at 6 August 2015)

However, it is also true, given the disintermediation by and the cross-border nature of the internet and information technology in general, an ever growing number of even young start-up businesses will transact on a transnational level and benefit from investor protections in the future.

5) ISDS is a private system intended to circumvent national courts

As one important cornerstone of international trade with predictable rules and rule of law, arbitration is regulated by legislation which provides for the rules and procedures how arbitration must be conducted in order to comply with the rule of law. After all, it is the national courts that decide, if necessary, whether or not a specific proceeding has been conducted in compliance with the rule of law.

However, ISDS is not a judicial system of democratically legitimated and elected judges living up to the standard of judges we came to be used to in our Article III Courts of the United States[1159], where judges are nominated by the President and confirmed in a Senate Hearing[1160] or at the European Court of Justice, where members of the Court are nominated by the governments of the Member State whose citizen they are and confirmed by the European Parliament.

ISDS as arbitration tribunals are as mentioned *supra* in a co-existence with national courts than being fully integrated into a hierarchical procedure where national courts can ask for a preliminary ruling, an advisory opinion or can order a delegation to them as a particular court of competent jurisdiction for either a particular subject matter or geographic area, as would be the case with TTIP. Therefore, even if ISDS is not

[1159] Resnik, Judith, *The Mythic Meaning of Article III Courts,* Yale Law School (January 1985), [online], available at http://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1935&context=fss_papers (Accessed at 25 June 2014)

[1160] Article III of the U.S. Constitution states: "Section 1. The judicial power of the United States, shall be vested in one Supreme Court, and in such inferior courts as the Congress may from time to time ordain and establish. The judges, both of the supreme and inferior courts, shall hold their offices during good behaviour, and shall, at stated times, receive for their services, a compensation, which shall not be diminished during their continuance in office. Section 2. The judicial power shall extend to all cases, in law and equity, arising under this Constitution, the laws of the United States, and treaties made, or which shall be made, under their authority;--to all cases affecting ambassadors, other public ministers and consuls;--to all cases of admiralty and maritime jurisdiction;--to controversies to which the United States shall be a party;--to controversies between two or more states;--between a state and citizens of another state;--between citizens of different states;--between citizens of the same state claiming lands under grants of different states, and between a state, or the citizens thereof, and foreign states, citizens or subjects. In all cases affecting ambassadors, other public ministers and consuls, and those in which a state shall be party, the Supreme Court shall have original jurisdiction. […]"

circumventing national courts, it certainly is neither a part of the regular judicial system nor entrusted with the same powers of terminal resolution that compared with a judgment that multilaterally takes effect not only between the two parties present at the arbitration but also with legal effect towards all potentially interested third parties.

6) ISDS is mute when you have nations with well working courts

Whether the courts of country are well working or not is not the issue when choosing international arbitration. Factors such as neutrality, the language of the domestic court and procedural peculiarities, questions of enforcement of the award, knowledge about the subject matter on part of the domestic judges and the time that must be expected the procedure takes and whether there is an enforceable decision are the issues of concern in most cases and they rarely weigh in favor of unspecialized domestic courts.

However, arbitration panels remain still subject to the criticism that they are not integrated into the judicial hierarchy and exist in a parallel-structure to existing courts, whereas an effective trade and investment court would combine all the advantages of international arbitration with the authority and legitimacy of a court that integrated into the court systems of its member states.

7) A free trade agreement can be negotiated without ISDS

Also TTIP needs a mechanism to ensure that the terms of the agreement can be enforced. In this respect, a contract between two business partners is no different than a treaty between states. If an agreement does not provide for the possibility to sue for an alleged breach of the agreement, the terms of the agreement will become moot. The only remedies to settle a dispute that remain are national courts or arbitration, which means that the investor effectively needs to sue in a foreign court, where he must trust said court that he in fact operates completely independent from its own government, facing on average longer trials than in arbitration with a result that can only be enforced in a limited number of countries, for instance in EU countries if rendered by an EU court, and in the United States, if rendered by a U.S. Federal or U.S. State Court.

Therefore, TTIP, most certainly will require an instrument of enforcement of its own terms and conditions. However, it does not necessarily require ISDS or any other form or arbitration tribunal with its apparent shortcomings in terms of its democratic legitimacy and incorporation into the judicial process of the agreement's member states.

Moreover, neither international arbitration panels or tribunals nor the proposed ISDS has any of the competences that are so required with respect to insolvency proceedings of private parties that incur a nexus both in the European Union and the United States of America and are cross-border in nature, in order to provide for a transnational, transatlantic insolvency procedure. Certainly, it needs to include the competence even more in demand these days with respect to insolvency proceedings with sovereign state debtors that require workouts between sovereign debtors. For instance a member state in the European Union, with creditors, both private, institutional, international or sovereign in nature that have a nexus both to the United States and the European Union, should have the possibility to file for sovereign debt restructuring at a Transatlantic Trade and Investment Court.[1161]

Due to this apparent shortcomings of ISDS it is certainly upon us, to propose an alternative judicial institution that encompasses these competences and provides for an instrument that effectively has the ability commensurate with its jurisdiction extending to cases of breach of contract concerning the Transatlantic Trade and Investment Partnership also to complete the Capital Formation Life Cycle resolving cases of default with transnational judicial authority for terminal resolution of misallocations without the ensuing dangers of systemic collapse from *FIAT* to *EXIT*. How such a judiciary could be modelled, on which principles it should be based, which historical examples it could embrace and which values it shall be committed to, we will discuss in the next chapter.

[1161] See Chapter 6.III. *A Plea for a Transatlantic Trade and Investment Court*

CHAPTER 6: FROM *FIAT* TO *EXIT*

I. CREATIVE DESTRUCTION AND EQUITABLE DEFAULT

A. SCHUMPETER'S CONCEPT OF CREATIVE DESTRUCTION

Austrian-American economist Schumpeter's Concept of Creative Destruction[1162] has been widely recognized as a process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. He coined the seemingly paradoxical term "creative destruction," and generations of economists have adopted it as a shorthand description of creating innovation by an almost darwinistic way of survival of the fittest where the market choses those as winners who have the ability to adapt the fastest to new demand quickly discarding yesterday's product or business. In *Capitalism, Socialism, and Democracy* (1942)[1163], the Austrian-American economist wrote:

> The opening up of new markets, foreign or domestic, and the organizational development from the craft shop to such concerns as U.S. Steel illustrate the same process of industrial mutation—if I may use that biological term—that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism.[1164]

Although Schumpeter devoted a mere six-page chapter to "The Process of Creative Destruction," in which he described capitalism as "the perennial gale of creative destruction," it has become the centerpiece for modern thinking on how economies evolve. Schumpeter and the economists who adopt his succinct summary of the free market's ceaseless churning echo capitalism's critics in acknowledging that lost jobs, ruined companies, and vanishing industries are inherent parts of the growth system. Schumpeter's conviction was that over time, societies that allow creative destruction to operate grow more productive and richer; their citizens see the benefits of new and better products, shorter work weeks, better jobs, and higher living standards.

[1162] Schumpeter, Joseph A. (1975, orig. pub. 1942) *"Creative Destruction" From Capitalism, Socialism and Democracy* (New York: Harper, pp. 82-85, available at: https://notendur.hi.is/~lobbi/ut1/a_a/SCUMPETER.pdf
[1163] Ibid.., available at http://eh.net/book_reviews/capitalism-socialism-and-democracy/ [online] (Accessed September 17, 2016)
[1164] Id. p. 83

B. THE CONCEPT OF EQUITABLE DEFAULT

The Concept of Equitable Default in response to Schumpeter's economic chemotherapy with mimicking an immunotherapy that strengthens the *corpus economicus* own immune system provides for the judicial authority to terminate precisely those misallocations that have proven malignant causing default perusing the century old common law concept of equity[1165] that allows for the equitable reformation, rescission or restitution of contract by way of judicial order[1166].

Traditionally, equitable remedies are a distinct category of remedies that can be obtained in a breach of contract situation[1167]. For instance, the default on the sovereign debt obligation would be a classic breach of contract situation. In general, remedies may be divided into two categories, legal and equitable. Legal remedies allow the non-breaching party to recover monetary damages.[1168] In contrast, equitable remedies are actions that the court prescribes, which will serve to resolve the breach or dispute.[1169] Equitable remedies are typically granted when legal remedies or monetary compensation cannot adequately resolve the wrongdoing[1170]. It is often required that legal damages be unavailable before court will decide to issue equitable. The goal in a legal claim is for the defendant to compensate the plaintiff and make him or her whole. If the plaintiff wins the judge will order the defendant to pay money to the plaintiff for loss or injury, which is also known as damages. There will be a need to be some notion of compensation. So compensation will inevitably involve some effort to measure what was lost. Often compensation will require some sort of substitution that is an effort to translate the measurement of what was lost into some other currency, but compensation is imperfect.

1165 Porter, Robert: *Contract Claims Against the Federal Government: Sovereign Immunity and Contractual Remedies*, Harvard Law School (2006) [online], available at http://www.law.harvard.edu/faculty/hjackson/ContractClaims_22.pdf (Accessed at 27 September 2015)

1166 Klaeger, Roland, *Fair and Equitable Treatment in International Investment Law*, Cambridge Studies in International Law and Comparative Law (October 2013), [online], available at http://www.cambridge.org/an/academic/subjects/law/arbitration-dispute-resolution-and-mediation/fair-and-equitable-treatment-international-investment-law (Accessed at 23 September 2015)

1167 Id.

1168 Tan, Daniel: *Enforcing International Arbitration Agreements in Federal Courts: Rethinking the Court's Remedial Powers*, [online], available at https://www.international-arbitration-attorney.com/wp-content/uploads/EnforcementofInternationalArbitrationAgreements.pdf (Accessed at 27 September 2015

1169 Id.

1170 Id.

Compensation is also imperfect for another reason. It offers nobody to compel in their behavior except payment, so of course there is and has always been bargaining in the shadow of the compensation required by law and the solution to this problem is fairly obvious. There must be some way for courts to compel action or non-action. So in contemporary American law this is usually done by means of an equitable remedy, especially the injunction, the counting for profits, a constructive trust, an equitable lien and specific performance.

Last we clearly know that there is a breach of contract then we clearly also know that any court order that requires specific performance would not be to any particular affect.[1171] We do know from the classic bankruptcy procedure under the reorganization provisions of Chapter 11 that for instance Bankruptcy Code §356 works similarly as an injunction against all the creditors for a specific period of time until a new plan of organization has been submitted to the court and approved by the court where all the creditors are at the same time enjoying from litigating and claiming any payments, but at the same time also required to still perform any pre-default obligations.[1172]

Under the construct of specific performance[1173] and under the constructive injunction the equitable remedies in such a case could be that whenever a sovereign borrower declares its need for a reorganization before a Transatlantic Trade and Investment Court, the court would be in a position to enjoin any of the creditors from requiring payment until a restructuring of the outstanding obligations has been adjudicated; however, at the same time it could also require specific performance of the creditors of any particular contractual obligations that would come along with a particular contract. At the same time, such court would be in a position to make use of two very traditional equitable remedies, the rescission and reformation of contract, as we are seeing that the old contract that ended in default by one of the parties – that now claims the reorganizational process – is at the same time re-written and reformed into a contract by the court rather than by political horse-trading or not at all – in a way that is equitable to all parties but charts a way forward.

[1171] Shavell, Steven, *Specific Performance versus Damages for Breach of Contract*, Harvard Law School (2005), [online], available at http://www.law.harvard.edu/programs/olin_center/papers/pdf/Shavell_532.pdf (Accessed at 26 August 2014)

[1172] 11 U.S. Code § 365 - *Executory contracts and unexpired leases* https://www.law.cornell.edu/uscode/text/11/365

[1173] See supra note 1171.

Such a legally prescribed judicial process of sovereign debt restructuring or settlement of private transnational agreements with a nexus in both the European Union and the United States rather should be much preferred than a process or product of political backdoor dealing. At last this would be in contrast of such political backdoor dealing, a transparent process given the fact that all these court documents that would be filed would be public record and any of the court procedures would be of course also subject to the participation of the public. Other than what we find today where there is little or no or even absolutely no minutes of for instance, the meetings of the Eurogroup[1174], in this case we would have a completely transparent process that would be pursued in a non-political manner, but on the principles of equitable relief and distribution.

Now someone will of course claim that this is like an invitation for non-payment and if it is as easy as it sounds that sovereign borrows can relieve themselves of the obligations to repay, we probably would have to expect a tsunami of sovereign debt in insolvency proceedings. First and foremost, I would hold against that the practical experience is on the domestic level with corporate and private households alike is as such that this process has rarely ever been abused in any excessive manner other than with a few examples of a certain presidential candidate[1175], but aside from that it has always been the prime objective of ordinary and serious participants in the financial markets to repay the obligation for one and one simple reason only, which is that the likelihood to refinance yourself in the future is obviously severely hampered if you have a credit rating and a credit history that has number of bankruptcy proceedings on your record. That alone should be motivation enough for a number of sovereign debtors to refrain from undergoing this process.

This process is for those that have no other alternative to return to sustainable debt levels, but for the reorganization of their debt structures and if we look into the extensive analysis of the McKinsey report[1176] of the different households that will see that there is either need to reduce state debt by way of monetary reform as proposed by me in this thesis or like it or not we will undergo either a political restructuring process that can take the form of

[1174] See supra note 921.
[1175] *A Trip Down Donald Trump's Bankruptcy Lane*, Forbes Business, August 18, 2015 @ 12;44PM http://www.forbes.com/sites/debtwire/2015/08/18/a-trip-down-donald-trumps-bankruptcy-memory-lane/ (Accessed at September 23, 2015)
[1176] McKinsey Global Institute, *Debt and (Not Much) Deleveraging,* Executive Summary, (February 2015), [online], available at http://www.mckinsey.com/insights/economic_studies/debt_and_not_much_deleveraging (Accessed at July 28, 2015)

kicking the can down the road and prolonging and rolling over debt until it is inflationed away in the hopes of restructuring the debt by the passing of time as that had happened in the past in the case of certain obligations with the predecessor of the United Nations, the League of Nations[1177], or we consciously decide for a proactive process of debt resolution and debt reorganization by way of a court-ordered process that is wielding jurisdiction over these complex transnational and often transatlantic contractual credit relations.

C. FROM *FIAT* TO *EXIT-TERMINAL RESOLUTION OF MISALLOCATIONS IN A NEW GEO*

Sovereign defaults are not a new feature of financial markets, and the incidence is widespread through history. For example, Spain defaulted six times between 1550 and 1650, and France defaulted eight times between 1550 and 1800.[1178] Moreover, there are no reasons to rule out the occurrence of default episodes in the future.

The amount of sovereign debt in default peaked at more than $335,000,000,000 in 1990. This debt was issued by 55 countries. One of the largest defaults in history occurred in late December 2001 when Argentina defaulted on $82,000,000,000[1179]. The ability of creditors to impose higher borrowing costs on defaulting sovereigns has lately received a great deal of attention.[1180]

[1177] The United Nations Office at Geneva, *The League of Nations* (1919-1946), [online], available at https://www.unog.ch/80256EDD006AC19C/(httpPages)/17C8E6BCE10E3F4F80256EF30037D733?OpenDocument (Accessed at 5 February 2014)

[1178] See Uanhut, Frogehoff, and Selastano in 2003. Thompson Wright, Document 250, *sovereign defaults by 106 countries between 1820 and 2004*.

[1179] Das, Udaibir S, Papaioannou, Michael G., Trebesch, Christoph, *Restructuring Sovereign Debt*, International Monetary Fund (2012), [online], available at https://www.imf.org/external/np/seminars/eng/2012/fincrises/pdf/ch19.pdf (Accessed at 15 July 2015)

[1180] Hatchondo, Juan Carlos, Martinez, Leonardo, Sapriza, Horacio, *The Economics of Sovereign Default*, Economic Quarterly, Volume 93, (2007), pp.163-187, [online], available at https://www.richmondfed.org/~/media/richmondfedorg/publications/research/economic_quarterly/2007/spring/pdf/martinez.pdf (Accessed at 19 July 2014) Hatchondo et alt argue that "In general, increasing a defaulting sovereign's borrowing costs would require coordination among holders of defaulted debt and a lot of potential lenders. Such a degree of coordination seems unlikely to occur in competitive credit markets with a large number of potential lenders. It is apparent that in the past three decades, the sovereign debt market has become more competitive, and this explains how an increase in competition may diminish the creditor's ability to coordinate. But coordination is less likely nowadays when almost anyone can buy sovereign bonds. This requirement of increased coordination is also a good argument for the establishment of a transnational trade court which, in all actuality, would facilitate this coordination amongst creditors and lenders so that sovereigns have less of an opportunity to circumvent the forum of coordinated creditors but actually must make their case within a court setting that ultimately has the jurisdiction and legal power to not only resolve potential disagreements over sovereign debt but also dissolves reformed contracts in a manner that make the service of past debt in the future sustainable and serviceable."

Past lenders can also try to impose financial sanctions that do not require such coordination. A very recent example is the example of a hedge fund that managed to obtain an injunction in a New York court against the Republic of Argentina that came with an attachment on several sovereign assets by the Republic of Argentina that eventually were upheld[1181].

In any case, there are other financial alternatives available to defaulting economies.[1182] They could issue bonds in local markets, obtain aid, or ask for official credit from other governments or multi-lateral financial institutions. It is not obvious whether a sovereign forced to use these alternatives would face higher borrowing costs.[1183]

Default decisions may have a range of unintended consequences. Increasing the future cost of borrowing may be one. That the government is considered untrustworthy in other areas besides the credit relationship with lenders may be another one[1184].

At the extreme level, instead of imposing a higher borrowing cost on defaulting sovereigns, creditors may exclude the sovereigns from capital markets[1185]. This is yet another good argument for the establishment of the transnational trade court since a court of such jurisdiction and scope would effectively be able to enjoin a sovereign debt if subject to the jurisdiction of such a trade court from capital markets for a certain period of time up until a either defaulted or troubled sovereign debt can be resolved and reformed.

[1181] Bloomberg Business, *Hedge Funds' Latest Salvo Is Ignored by Argentina's Bondholders,* (May 2015), [online], available at http://www.bloomberg.com/news/articles/2015-05-13/hedge-funds-latest-salvo-is-ignored-by-argentina-s-bondholders (Accessed at 18 June 2015). Bloomberg reports that "This week, Aurelius Capital Management and Elliott Management asked a New York judge to block payments on local Argentine bonds due 2024 after the country issued $1.4 billion more of the notes in April. They say the notes were offered to overseas investors, making them subject to a ban preventing the nation from paying foreign debt before it settles a decade-long dispute with them. But while Elliott and Aurelius managed to persuade the judge to stop payments on some local notes as recently as March, this time bondholders are skeptical the hedge-fund creditors have much of a shot. That's because unlike those securities -- issued as part of international debt swaps -- the offering last month was done through a local auction. The bonds, due in 2024, are little changed at 97.9 cents on the dollar since Aurelius sought its court order on Monday."

[1182] Id.

[1183] Id.

[1184] See supra note 1141. Hatchondo et alt. argue that "[t]his can generate a contraction for lending to domestic firms, so an overall reduction in foreign direct investment and, as a consequence, also a credit crunch, which has as a result, a sudden reduction in the availability of loans or other forms of credit in the economy in domestic credit markets. The signals implied by a government's default decision may also have political consequences. The default may reveal important characteristics of the incumbent policymakers such as their competence. For instance, the poor economic conditions that trigger a default decision can be interpreted as the result of bad policies.

[1185] Id.

II. CURRENT COURT SYSTEMS WITH TRANSNATIONAL JURISDICTION

A. THE CONCEPT OF TRANSNATIONAL JURISDICTION

According to the President of Court of Justice of the European Free Trade Association, Carl Baudenbacher, the New York University Project on International Courts and Tribunals lists forty-three different institutions worldwide, sixteen of which are currently active[1186]. Following this project

> International Courts and tribunals are defined as permanent institutions that are composed of independent judges which adjudicate disputes between two or more entities, work on the basis of predetermined rules of procedure, and render decisions that are binding.

For the purpose of this thesis, we have examined the general scope and jurisdiction and methods of appointment of judges for the following three courts as they appeared to be the most relevant in the context of the analysis of the envisaged Transatlantic Trade and Investment Partnership. These four courts are: The European Court of Justice of the European Union, the EFTA Court of the European Free Trade Association, The International Court of Justice and the U.S. Court for International Trade.

B. THE EUROPEAN COURT OF JUSTICE OF THE EUROPEAN UNION

The Court of Justice of the European Union (ECJ) has existed since Western European states began integrating their economies and governments after World War II.[1187] The first of these organizations, the European Coal and Steel Community, was created in 1951, and the Court was established the following year. The Court originally had seven members - one for each of the six original member states and a seventh appointed in order to break ties. As the EU has expanded new judges from each member state have been added to the Court.

[1186] Baudenbacher, C. (2004) The EFTA Court: *An Actor in the European Judicial Dialogue*, [online], Fordham International Law, Volume 28 available at http://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=1958&context=ilj (Accessed at May 5, 2015)
[1187] European Commission, *Court of Justice of the European Union*, [online], available at http://europa.eu/about-eu/institutions-bodies/court-justice/index_en.htm (Accessed at 17 August 2014)

The current Court consists of 28 judges - one from each current member state. Each judge is appointed to a six-year term and can serve multiple terms. In addition to the judges there are nine advocate-generals in the Court that are in charge with presenting the opinions of each case to the judges. All other minor cases, including those brought by individual citizens, are decided by the lower, General Court, which is also considered part of the Court of Justice of the European Union. The function of the ECJ is stated in Article 220 of the Treaty of Rome; the court must [e]nsure that in the interpretation and application of the Treaty the law is observed".

One of the very important tasks of the Court is to submit advance notification of interpretation of Community law which it does pursuant to Article 234. When cases are brought before the ECJ, they are first assigned to one judge and one advocate-general. The judge issues the case, then accepts written statements from all the aggrieved or offending parties in the case. After collection, the judge reviews each statement and prepares a summation for the rest of the court to read[1188]. After this, the Court then decides how many judges should hear the oral arguments. Depending on the case's complexity and importance, a panel of three, five, 13, or the entire 28-judge Court listen to oral arguments from each party. The advocate-general responsible for the case then gives their opinion on the case if they believe the legal points in question could create new EU law or significantly change existing law. After a period of discussion between the EU judges themselves, the ECJ then makes a ruling, which has to be agreed to by a majority of the Court.

[1188] The ECJ hears complaints brought by individuals through the subsidiary General Court under three circumstances under Article 263 of the Treaty on the Functioning of the European Union (TFEU). First, individuals may bring a “direct actions” against anybody of the EU for acts “of direct and individual concern to them.” Second, individuals may bring “actions for annulment” to void a regulation, directive or decision “adopted by an institution, body, office or agency of the European Union” and directly adverse to the individual. Third, individuals may bring “actions for failure to act” that can challenge an adverse failure of the EU to act, but “only after the institution concerned has been called on to act. Where the failure to act is held to be unlawful, it is for the institution concerned to put an end to the failure by appropriate measures.” General Court judgments and rulings on an individual action may be appealed, only on points of law, to the Court of Justice. The EU recognizes “three sources of European Union law: primary law, secondary law and supplementary law. The main sources of primary law are the Treaties establishing the European Union. Secondary sources are legal instruments based on the Treaties and include unilateral secondary law and conventions and agreements. Supplementary sources are elements of law not provided for by the Treaties. This category includes Court of Justice case-law, international law and general principles of law. An essential, primary source of EU human rights law is the Charter of Fundamental Rights of the European Union, which covers the civil, political, economic and social rights protected within the EU. The Charter binds EU bodies, and also applies to domestic governments in their application of EU law, in accordance with the Treaty of Lisbon.”

C. THE EFTA COURT OF THE EUROPEAN FREE TRADE ASSOCIATION

The EFTA Court was established under the Agreement on the European Economic Area (EEA) and the Agreement between the EFTA States on the Establishment of a Surveillance Authority and a Court of Justice of 1992.[1189] The Court is mainly competent to deal with infringement actions brought by the EFTA Surveillance Authority against an EFTA State with regard to the implementation, application or interpretation of EEA law rules, for giving advisory opinions to courts in EFTA States on the interpretation of EEA rules and for appeals concerning decisions taken by the EFTA Surveillance Authority[1190].

Thus the jurisdiction of the EFTA Court largely corresponds to the jurisdiction of the Court of Justice of the European Union over EU States. The proceedings before the EFTA Court consist of a written part and an oral part and all proceedings will be in English. In direct actions, the judgment is rendered in English only. Advisory opinions are rendered in English and in the language of the requesting court.[1191] The President of the EFTA Court, Carl Baudenbacher explains:

> In order to avoid constitutional problems in certain EEA/EFTA States, the drafters of the Surveillance and Court Agreements have deviated from EC law, particularly in two respects: (1) unlike national courts of last resort in the EC with respect to the ECJ, national supreme courts of the EEA/EFTA States are not legally obliged to refer European law questions to the EFTA Court; (2) unlike preliminary rulings of the ECJ under the Article 234 EC procedure, decisions rendered by the EFTA Court in response to a question by a national court are, strictly speaking, not legally binding on the referring national court. In Article 34 of the Surveillance and Court Agreement, EFTA Court decisions are referred to as "Advisory Opinions".[1192]

[1189] Baudenbacher, C. (2004) *The EFTA Court: An Actor in the European Judicial Dialogue*, [online], Fordham International Law, Volume 28, p. 353, available at http://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=1958&context=ilj (Accessed at May 5, 2015) He states that "The EFTA Court is cooperating with national courts of the EEA/EFTA countries under the Article 34 of the Surveillance and Court Agreement preliminary reference procedure which has been modeled on Article 234 of the EC. The EFTA Court has jurisdiction with regard to EFTA States which are parties to the EEA Agreement (at present Iceland, Liechtenstein and Norway)."

[1190] Id

[1191] Id.

[1192] Baudenbacher, C. (2004) *The EFTA Court: An Actor in the European Judicial Dialogue*, [online], Fordham International Law, Volume 28, p. 359 available at http://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=1958&context=ilj (Accessed at May 5, 2015)

According to the President of the EFTA Court, Carl Baudenbacher "Opinions of the EFTA Court have, as a matter of principle, always been followed by the national courts. If a national court were to refuse to follow those Opinions, it would bring its country into breach of the EEA Agreement. Therefore, Opinions of the EFTA Court are […] not weaker than preliminary rulings of its big sister court, the ECJ. The EFTA Court refers to them as "judgments"".[1193]

It is this notion of an Advisory Opinion, that is not legally binding on a national court but still effective, that makes the example of the EFTA Court so particularly attractive for consideration as a role model for a judicial authority in the context of the TTIP given the constitutional restraints that will always take precedence in the considerations of the United States counterparty to any transnational agreement on courts. The Supreme Court is the highest court in the United States. Article III of the U.S. Constitution created the Supreme Court and authorized Congress to pass laws establishing a system of lower courts.[1194]

Therefore, any U.S. negotiator of any transatlantic agreement will be confronted with a constitutional bar whenever it would come to accept a hierarchically higher Court than the Supreme Court of the United States. The commonly accepted tradition and practice of Advisory Opinions of the EFTA Court under similar circumstances could provide an analogy and show the way towards a resolution of this seemingly unresolvable constitutional conflict.

D. The International Court of Justice

The International Court of Justice (ICJ) is the principal judicial organ of the United Nations (UN). It was established in June 1945 by the Charter of the United Nations and began work in April 1946. The Court's role is to settle, in accordance with international law, legal disputes submitted to it by States and to give advisory opinions on legal questions referred to it by authorized United Nations organs and specialized agencies.

[1193] Baudenbacher, C. (2004) The EFTA Court: *An Actor in the European Judicial Dialogue*, [online], Fordham International Law, Volume 28, p. 360 available at http://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=1958&context=ilj (Accessed at May 5, 2015).

[1194] *Court Role and Structure*, U.S. Courts [online], available at http://www.uscourts.gov/about-federal-courts/court-role-and-structure (Accessed at June 10, 2015).

The Court is composed of 15 judges, who are elected for terms of office of nine years by the United Nations General Assembly and the Security Council. It is assisted by a Registry, its administrative organ. Its official languages are English and French.[1195]

Once elected, a Member of the Court is a delegate neither of the government of his own country nor of that of any other State. Unlike most other organs of international organizations, the Court is not composed of representatives of governments. Members of the Court are independent judges whose first task, before taking up their duties, is to make a solemn declaration in open court that they exercise their powers impartially and conscientiously.

E. The U.S. Court of International Trade

With the Customs Courts Act of 1980, Congress, equipped the federal judicial system to deal effectively and efficiently with the complex problems arising from international trade litigation. The Act clarified and expanded the status, jurisdiction, and powers of the former United States Customs Court. As described by President Jimmy Carter, the 1980 Act

> [c]reates a comprehensive system for judicial review of civil actions arising out of import transactions and federal transactions affecting international trade.[1196]

This system, rooted in the mandate of Article I, Sec. 8 of the Constitution that "all Duties, Imposts and Excises shall be uniform throughout the United States,

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[1195] The International Court of Justice, [online], available at http://www.icj-cij.org/homepage/ (Accessed at 17 August 2015) "The ICJ is composed of 15 judges elected to nine-year terms of office by the United Nations General Assembly and the Security Council. These organs vote simultaneously but separately. In order to be elected, a candidate must receive an absolute majority of the votes in both bodies. This sometimes makes it necessary for a number of rounds of voting to be carried out. In order to ensure a measure of continuity, one third of the Court is elected every three years. Judges are eligible for re-election. Should a judge die or resign during his or her term of office, a special election is held as soon as possible to choose a judge to fill the unexpired part of the term. The 1980 Act also changed the name of the Court to the United States Court of International Trade. The new name more accurately reflects the Court's jurisdiction and judicial functions relating to international trade disputes. The geographical jurisdiction of the United States Court of International Trade extends throughout the United States. The court can and does hear and decide cases which arise anywhere in the nation. The court also is authorized to hold hearings in foreign countries."

[1196] Customs Court Act of 1980, [online] available at http://www.gpo.gov/fdsys/pkg/STATUTE-94/pdf/STATUTE-94-Pg1727.pdf (Accessed at June 10, 2015).

[e]nsures expeditious procedures, avoids jurisdictional conflicts among federal courts and provides uniformity in the judicial decision-making for import transactions[1197].

The different types of cases the court is authorized to decide--that is, its subject matter jurisdiction--are limited and defined by the Constitution and specific laws enacted by the Congress. The subject matter jurisdiction of the court was greatly expanded by the Customs Courts Act of 1980.[1198] Under this law, in addition to certain specified types of subject matter jurisdiction, the court has a residual grant of exclusive jurisdictional authority to decide any civil action against the United States, its officers, or its agencies arising out of any law pertaining to international trade.[1199]

This broad grant of subject matter jurisdiction is complemented by another provision in the Customs Courts Act of 1980 which makes it clear that the United States Court of International Trade has the complete powers in law and equity of, or as conferred by statute upon, other Article III courts of the United States[1200]. Under this provision, the court may grant any relief appropriate to the particular case before it, including, but not limited to, money judgments, writs of mandamus, and preliminary or permanent injunctions.

The President, with the advice and consent of the Senate, appoints the nine judges who constitute the United States Court of International Trade, which is a national court established under Article III of the Constitution[1201]. The judges, who are appointed for life, as are all judges of Article III courts, may be designated and assigned temporarily by the Chief Justice of the United States to perform judicial duties in a United States Court of Appeals or a United States District Court[1202].The chief judge of the Court of International Trade is a statutory member of the Judicial Conference of the United States, and convenes a judicial conference of the Court of International Trade periodically for the purposes of considering the business and improving the administration of justice in the court.[1203]

[1197] See supra note 1196.
[1198] Id.
[1199] Id.
[1200] Id.
[1201] Id.
[1202] Id.
[1203] Id.

III. PLEA FOR A TRANSATLANTIC TRADE AND INVESTMENT COURT (TTIC)

A. ORIGINS FOR THE PROPOSAL OF A TRANSATLANTIC TRADE AND INVESTMENT COURT

One proposal for an ad-hoc arbitration process goes back to the Austrian economist Kunibert Raffer and was published for the first time in 1989 and 1990. With some of its features further developed it ultimately became what is known as the “Fair and Transparent Arbitration Process (FTAP)”[1204].

The International Monetary Fund made a proposal for a statutory “Sovereign Debt Restructuring Mechanism (SDRM)” in 2003[1205]. More recent proposals were made for the establishment of an international insolvency court or the proposal for establishing a sovereign debt arbitration chamber at the Permanent Court of Arbitration in The Hague, Netherlands, as well as the proposal for establishing a sovereign debt tribunal under the auspices of the United Nations by Christoph Paulus and Stephen Kargman in 2008.[1206]

Raffer’s proposal suggests the emulation of Chapter 9 of the US Insolvency Code which regulates the insolvency of “municipalities”. Raffer postulates that Chapter 9 includes all ingredients for a sovereign insolvency if you substitute the insolvency judge with an ad-hoc arbitration process. There would be, however, clear defined rules and an inclusion of all creditors rather than just a group of more important or privileged creditors that have the ear of power brokers. Also Raffer’s proposal would not require any new international institution to be created. In his case not even a technical infrastructure would be absolutely necessary as the process would remain the hands of the parties involved. He also suggests the establishment of a technical secretariat located at one of the existing UN agencies, presumably in Vienna and New York. However, his proposal does not solve the issue of financing of such an organization.

[1204] Raffer, Kunibert, *The Present State of the Discussion on Restructuring Sovereign Debts: Which Specific Sovereign Insolvency Procedure? , available at* http://r0.unctad.org/dmfas/pdfs/raffer.pdf (Accessed at 4 July 2014)

[1205] Geithner, Timothy et al., *Proposed Features of a Sovereign Debt Restructuring Mechanism*, February 2003, *available at* http://www.imf.org/external/np/pdr/sdrm/2003/021203.pdf (Accessed at 30 July 2014)

[1206]Paulus, Christoph G., *Sovereign defaults to be solved by politicians or by a legal proceeding*, Volume 1 – Part 2 – 2012, *available at* http://www.laweconomicsyearlyreview.org.uk/Law_and_Economics_Yearly_Review_LEYR_Journal_vol_1_part_2_2012.pdf, p.203 (Accessed at 4 July 2014)

In 2001 right after the events of 9/11 the International Monetary Fund surprised the international community with a proposal for a Sovereign Debt Restructuring Mechanism (SDRM). At the heart of this proposal was the creation of a Sovereign Debt Dispute Resolution Forum (SDDRF). This Forum would be established out of a pool of arbitrators, identified by the IMF board. However, neither the United States nor emerging market countries supported the proposal and the initiative was ultimately shelved as likely would be any future initiative that requires the agreement of any existing international organizations and their sovereign member states rather than just creditors to a transaction.

All of these proposals do hold their merits and constitute an important stepping stone toward the establishment of a fundamental cornerstone of a New Global Economic Order in the form of a Transatlantic Trade and Investment Court, TTIC.

However, none of the existing proposals manage to address the key issues that need to be resolved before such an International Resolution Mechanism can see the light of the day: First: How do you build acceptance of such a Court? Second: How do you finance it? Last but not least: Who decides about its constitution and membership in light of dysfunctional or non-existing international political and democratically legitimated bodies and organizations?

B. Proposal for a Transatlantic Trade Court following the EFTA-Court Model

Here, in the proposal for the establishment of a TTIC answers have been found to all three of these issues: First, acceptance will be built one contract and one transaction at the time each time parties agree to submit under the jurisdiction of the Transatlantic Trade and Investment Court. Moreover, the Transatlantic Trade and Investment Court will be incorporated by the Free Trade Agreement itself, much like the European Court of Justice (ECJ) was founded over 60 years ago[1207] or the EFTA Court was established for the European Free Trade Association[1208]. Second, as mentioned *supra*, one contract and one transaction at the time, TTIC's secretariat shall receive a pro-mille of the total transaction amount. Third, the Court will be guided by its secretariat, but by in large develop its own

[1207] 60th anniversary of the Court of Justice of the European Union, *available at* http://curia.europa.eu/jcms/jcms/P_93450/ (Accessed at 4 July 2014)
[1208] ESA/Court Agreement, *available at* http://www.eftacourt.int/the-court/jurisdiction-organisation/esa-court-agreement/ (Accessed at 4 July 2014)

body of case law, starting with its initial bench that shall be democratically legitimated by the US Senate and the European Parliament and nominated from the ranks of judges, attorney generals and attorneys admitted either before the U.S. Court of International Trade or the European Court of Justice.

The proposal for a judicial resolution mechanism following the example of the EFTA-Court was made first by this author in a Business Briefing for 21st Austria about the Transatlantic Trade and Investment Partnership[1209], a group of industrialists, entrepreneurs and member companies of the Vienna Stock Exchange in New York City in June 2014 where it was pointed out that:

> [R]ecent events during the financial crisis in Europe and in the United States have shown that there is a need to provide for a judicial resolution mechanism when it comes to investments in sovereign debt and transnational investments. Here, the case needs to be made for legal certainty where traditional domestic regulation and courts either fall short or deny access to justice. Historically, the establishment of any new legal order as once was also the case with the European Free Trade Agreement or the European Communities itself always required a resolution mechanism. No citizen or investor can be guaranteed any rights under this TTIP if there is no legal recourse to enforce those rights effectively. Fortunately, there are several examples that can lead the way assuring both those concerned with private investor tribunals becoming the enforcer of laws against sovereign states but also ascertaining the rights of citizens and investors that put their trust into the guarantees provided by TTIP. One particular example that serves to this day well the remaining member states of the European Free Trade Association, EFTA, is the EFTA Court.[1210]

Following this briefing in June 2014 until to date the proposal for a judicial resolution mechanism gained significant traction, was discussed in a number of conferences of several political groups both in Europe and in the United States and also supported in an interview in April 2015 by former Austrian Federal Chancellor and Prime Minister Dr. Alfred Gusenbauer who endorsed in an interview with the Austrian monthly Industriemagazin a solution "following the model of the EFTA-Court". [1211]

[1209] Stahl, Lukas M., *Business Briefing, The Transatlantic Trade and Investment Partnership (TTIP): Potential Impact and Dimensions of the World's Largest Trade Agreement*, 21st Austria (June 2014) New York, NY, [online], available at http://www.21st-austria.at/files/21austria/files/business_briefings/21st_austria_-_businessbriefing_june_2014.pdf (Accessed at 20 September 2015).

[1210] Id.

[1211] Was hat Sie so verwandelt, Herr Gusenbauer? *Interview with Dr. Alfred Gusenbauer in Austrian monthly Industriemagazin* (April 28, 2015), *available at* http://industriemagazin.at/a/was-hat-sie-so-verwandelt-herr-gusenbauer (Accessed at 12 September 2015)

C. The Lange-Martin – Proposal of the European Parliament

Only a year later, the Lange-Martin Proposal on behalf of the S&D Group in the European Parliament, dated June 3, 2015 in the context of the negotiations for the Transatlantic Trade and Investment Partnership did unequivocally address the issues that justifiably are criticized at the proposal for an Investor-State Dispute Settlement mechanism.

David Martin's and Bernd Lange's amendment states:[1212]

> [t]o propose a permanent solution for resolving disputes between investors and states – without the use of investor-state-dispute-settlement (ISDS) private arbitration – which is subject to democratic principles and scrutiny, where potential cases are treated in a transparent manner by publicly appointed independent professional judges in public hearings and which includes an appellate mechanism, where consistency of judicial decisions is ensured and the jurisdiction of courts of the EU and the Member States is respected.

This Proposal by the former Vice-President of the European Parliament and the Rapporteur of the European Parliament on TTIP Bernd Lange already carries the *nucleus* and describes in a few sentences the very important key characteristics of what should become a democratically elected Transatlantic Trade Court that completes a most important piece of the architecture of a New Global Economic Order in the form of a democratically controlled transatlantic jurisdiction in which misallocations can be legally and lawfully resolved based on the rule of law rather than following political arrangements. The proposal was adopted by the plenary of the European Parliament[1213] as part of the entire report by Bernd Lange on TTIP with European Parliament resolution of 8 July 2015 containing the European Parliament's recommendations to the European Commission on the negotiations for the Transatlantic Trade and Investment Partnership (TTIP) (2014/2228(INI))[1214]

[1212] Amendment 114, Bernd Lange, David Martin, *available at* http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+AMD+A8-2015-0175+114-116+DOC+PDF+V0//EN

[1213] European Parliament resolution of 8 July 2015 containing the European Parliament's recommendations to the European Commission on the negotiations for the Transatlantic Trade and Investment Partnership (TTIP) (2014/2228(INI)) [online] available at http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P8-TA-2015-0252+0+DOC+XML+V0//EN (Accessed at September 16, 2015)

[1214] Report of the Vote of the European Parliament on TTIP, July 8, 2015, [online], available at https://www.youtube.com/watch?v=YFW_e0FjJR0 (Accessed at September 16, 2015)

D. THE MALSTROEM – PROPOSAL OF THE EUROPEAN COMMISSION

On 16 September 2015, The European Commission has approved its proposal for a new and transparent system for resolving disputes between investors and states – the Investment Court System. The Investment Court System would replace the existing investor-to-state dispute settlement (ISDS) mechanism in all ongoing and future EU investment negotiations, including the EU-US talks on a Transatlantic Trade and Investment Partnership (TTIP)[1215].

The proposal for an Investment Court System builds on the substantial input received from the European Parliament, Member States, national parliaments and stakeholders through the public consultation held on ISDS. Built around the same key elements as domestic and international courts, it enshrines governments' right to regulate and ensures transparency and accountability.

First Vice-President Frans Timmermans said:

> With our proposals for a new Investment Court System, we are breaking new ground. The new Investment Court System will be composed of fully qualified judges, proceedings will be transparent, and cases will be decided on the basis of clear rules. In addition, the Court will be subject to review by a new Appeal Tribunal. With this new system, we protect the governments' right to regulate, and ensure that investment disputes will be adjudicated in full accordance with the rule of law.[1216]

Trade Commissioner Cecilia Malmström:

> Today, we're delivering on our promise – to propose a new, modernized system of investment courts, subject to democratic principles and public scrutiny," said "What has clearly come out of the debate is that the old, traditional form of dispute resolution suffers from a fundamental lack of trust. However, EU investors are the most frequent users of the existing model, which individual EU countries have developed over time. This means that Europe must take the responsibility to reform and modernize it. We must take the global lead on the path to reform." She added: "We want to establish a new system built around the elements that make citizens trust domestic or international courts. I'm making this proposal public at the same time that I send it to the European Parliament and the Member States. It's very important to have an open and transparent exchange of views on this widely debated issue.[1217]

[1215] Commission proposes new Investment Court System for TTIP and other EU trade and investment negotiations, Brussels, 16 September 2015, [online] available at; http://europa.eu/rapid/press-release_IP-15-5651_en.htm (Accessed at September 16, 2015)
[1216] Id.
[1217] Id.

The proposal for the new court system includes major improvements such as:

> [A] public Investment Court System composed of a first instance Tribunal and an Appeal Tribunal would be set up; judgements would be made by publicly appointed judges with high qualifications, comparable to those required for the members of permanent international courts such as the International Court of Justice and the WTO Appellate Body; the new Appeal Tribunal would be operating on similar principles to the WTO Appellate Body; the ability of investors to take a case before the Tribunal would be precisely defined and limited to cases such as targeted discrimination on the base of gender, race or religion, or nationality, expropriation without compensation, or denial of justice; governments' right to regulate would be enshrined and guaranteed in the provisions of the trade and investment agreements.[1218]

Finally, in parallel to the TTIP negotiations, the Commission will start work, together with other countries, on setting up a permanent International Investment Court. The objective is that over time the International Investment Court would replace all investment dispute resolution mechanisms provided in EU agreements, EU Member States' agreements with third countries and in trade and investment treaties concluded between non-EU countries. This would further increase the efficiency, consistency and legitimacy of the international investment dispute resolution system.[1219]

The text proposal states that the right to regulate for public policies is fully preserved. It also clarifies that investment protection provisions shall not be interpreted as a commitment from governments not to change their legal framework, including in a manner that may negatively affect the investor's expectations of profits.[1220]

The text proposes the establishment of a new court system composed of: a Tribunal of First Instance ("Investment Tribunal") with 15 publicly appointed judges and an Appeal Tribunal with 6 publicly appointed members. On the Investment Tribunal**,** the 15 judges would be appointed jointly by the EU and the US governments, including, five EU nationals, five US nationals and five nationals of third countries.[1221]

[1218] See supra note 1215.
[1219] Id.
[1220] Id.
[1221] Id.

These judges would be the only ones to hear disputes under TTIP. The judges would have very high technical and legal qualifications, comparable to those required for the members of permanent international courts such as the International Court of Justice and the WTO Appellate Body. Disputes under TTIP would be allocated randomly, so disputing parties would have no influence on which of the three judges will be hearing a particular case.

This is a fundamental change compared to the old ISDS system which operates on an *ad hoc* basis with arbitrators chosen by the disputing parties. Taken together, the elements proposed for the operation of the Investment Tribunal, are an effective way to insulate judges from any real or perceived risk of bias[1222].

The appeal tribunal – which is also new - would be composed of six members appointed jointly by the EU and the United States including two EU nationals, two US nationals and two nationals of third countries. The members of the Appeal Tribunal would be subject to strict qualifications and ethical requirements. They would ensure that there could be no doubt as to the legal correctness of the decisions of tribunals. Also, in the interest of investors and states, the text proposes strict time limits to ensure swift final ruling.

[1222] Commission proposes new Investment Court System for TTIP and other EU trade and investment negotiations, Brussels, 16 September 2015, [online] available at; http://europa.eu/rapid/press-release_IP-15-5651_en.htm (Accessed at September 16, 2015) Malmstroem announces at http://ec.europa.eu/commission/2014-2019/malmstrom/blog/proposing-investment-court-system_en that [t]oday, I've presented a major change in our trade and investment policy. I'm proposing to set up a modern and transparent system for resolving disputes between investors and states – an Investment Court System. This new system will replace the old ISDS model in all our ongoing and future trade negotiations, including in the EU-US trade talks. From the start of my mandate almost a year ago, ISDS has been one of the most controversial issues in my brief. […] We must keep in mind that investment protection is an important part of the EU's investment policy. EU investors are the most frequent users of the existing system, which individual EU countries have developed over time. This means that we, from the EU side, must take our responsibility to reform and modernize it. […] We need to introduce the same elements that lead citizens to trust their domestic courts. Concretely, I want to restore trust by setting up an Investment Court System under TTIP – one that is accountable, transparent and subject to democratic principles. It will be judges, not arbitrators, who sit on these cases. They must have qualifications comparable to those found in national domestic courts, or in international courts such as the International Court of Justice or the WTO Appellate Body. Also – the judges will be publically appointed in advance. And, like in courts, you won't be able to choose which judges hear your case. Furthermore, we will guarantee there is no conflict of interest. […] The Investment Court System will also enshrine governments' right to regulate […].All this will be done in a system where there is even greater transparency than in domestic courts, with all documents online and all hearings open to the public. An overview of the proposal can be found here. The full text of the proposal along with a reader's guide is also available. Some have argued that the traditional ISDS model is private justice. What I'm setting out here is a public justice system – just like those we're familiar with in our own countries, and the international courts which Europe has so actively promoted in the past. As a bigger part of this reform process, the Commission is working in parallel to create an international court for investment.

> The Jubilee year is the end of seven cycles of *shmita* (Sabbatical years), and according to Biblical regulations had a special impact on the ownership and management of land in the Land of Israel. […]. This fiftieth year is sacred – it is a time of freedom and of celebration when everyone will receive back their property, and slaves will return home to their families[1223]

The text pertaining to the Jubilee year and the Sabbat year in 3. Mose 25 and 5 Mose 15 that Jesus refers to in his first recorded sermon[1224] at *Lukas 4:16* have an astounding actuality with respect to the debt crises of this century. Each seventh Shabbat year, i.e. the year following seven seven-year cycles, the fiftieth year was the year of relief. Not only were the debts to be relieved and the slaves to be released, all mortgaged property should be returned to its original owner. Once each generation should have the opportunity to see the property returned that its predecessors had lost.

Modern insolvency laws for individuals as well as corporations portray an astounding resemblance to those old-testamentary regulations. Individual insolvency laws limit the rights of the creditor where the survival of the debtor would be endangered; an existential minimum usually remains untouched regardless of the amount owed.

Insolvent corporations tend to be treated in a manner that ensures their ability to remain a going concern, if possible. Debt relief is granted whenever necessary. The once-per-generation rule of the ancient Israelite society gets adapted to the realities of a modern-day capitalist global economy.

Insolvency has a (national) legal basis. Neither rich creditors nor powerful governments can prevent the application of insolvency laws. Much like the religious authorities of ancient Israel were holding their secular leaders to apply the mosaic laws, today the justice system is charged with the same. Access to due process and a fair trial has nothing to do with charity. It is a right.

[1223] Leviticus, 25:10, The Bible [online], available at http://biblehub.com/leviticus/25-10.htm (Accessed at 23 August 2014)

[1224] Lk 4:16 ff, The Bible [online], available at http://biblia.com/bible/esv/Luke%204.16%20ff (Accessed at 23 August 2014)

A right, however, that is severely limited to national individuals and corporations, where applicable, in civil societies. Today's insolvency laws do not cover all debtor-creditor relations. Neither global corporations can apply to a transnational forum of similar span and jurisdiction for debt relief nor so called "sovereign debtors", i.e. countries, such as Greece or many of the African countries that are way over the head in state debt with little or no prospect of ever digging their way out of the hole they are solidly put into.

Their creditors reserve the rights to grant debt relief to institutions such as the "Paris Club".[1225] The Paris Club grants debt relief based on recommendations by the International Monetary Fund[1226] or the World Bank[1227]. With little or no prospect for any assets that can be exploited or realized, debt relief is usually not granted. Moreover, International Monetary Fund and World Bank are regularly among the major creditors, a classic conflict of interest. All that in spite of the fact that there are numerous proposals by leading scientists, international organizations such as the United Nations or Non-Governmental Organizations, how national insolvency procedure could be adapted to indebted sovereigns.

Throughout the entire modern economic history there have been insolvencies by sovereigns. Today's crisis has start to hit close to home and ordinary people have started to innately understand that we should not leave our destiny in the hands of unelected officials or government ministers known for their chaotic backdoor dealings but come forward with a transparent and predictable due process as to how we and future generations will deal with both insolvencies that deal with sovereigns as well as entities that span multiple jurisdictions in our global economy.

[1225] The Paris Club, [online], available at http://www.clubdeparis.org/en/ (Accessed at 23 August 2014). It states that "[t]he Paris Club is an informal group of official creditors whose role is to find coordinated and sustainable solutions to the payment difficulties experienced by debtor countries. As debtor countries undertake reforms to stabilize and restore their macroeconomic and financial situation, Paris Club creditors provide an appropriate debt treatment. Paris Club creditors provide debt treatments to debtor countries in the form of rescheduling, which is debt relief by postponement or, in the case of concessional rescheduling, reduction in debt service obligations during a defined period (flow treatment) or as of a set date (stock treatment). The origin of the Paris Club dates back to 1956 when Argentina agreed to meet its public creditors in Paris. Since then, the Paris Club has reached 431 agreements with 90 different debtor countries. Since 1956, the debt treated in the framework of Paris Club agreements amounts to $ 583 billion."

[1226] See supra note 76.

[1227] See supra note 623.

Arguments are plenty, far and in between such as insolvency are for firms and not for countries since countries are sovereign. If one considers the common perception of corporate or individual insolvency, this is legally right. However, that is why the purpose of chapter 9 is to provide a financially-distressed municipality protection from its creditors while it develops and negotiates a plan for adjusting its debts. Reorganization of the debts of a municipality is typically accomplished either by extending debt maturities, reducing the amount of principal or interest, or refinancing the debt by obtaining a new loan.[1228]

Another argument often heard is that international law knows no bailiff.[1229] Arbitration awards cannot be enforced. That, however, applies to all arbitration cases. Nevertheless, arbitration works well in international disputes. Formal enforcement is not the concern, so long the decision making body has been approved and accepted by all parts involved. No less or no more any political decision between Mme. Merkel and Monsieur Hollande, if they ever can come to an agreement, can be enforced internationally and still they wield the power.

After all enforcement has most to do with a regime that is based in the rule of law and the acceptance of the parties involved. In most cases, all parties are well served in the long run to achieve predictability of the decisions concerned. Even, if adverse, a decision that can be foreseen based on a canon of law and judgments, may be priced into the overall calculations, may be insurable and may provide basis for a more cautious handling of affairs in the first place. More importantly, if the outcome becomes more certain, and actions actually do have consequences, moral hazard is on the decline and cases, in particular such as Greece, will see diminishing returns.

[1228] The first municipal bankruptcy legislation was enacted in 1934 during the Great Depression. Pub. L. No. 251, 48 Stat. 798 (1934). Although Congress took care to draft the legislation so as not to interfere with the sovereign powers of the states guaranteed by the Tenth Amendment to the Constitution, the Supreme Court held the 1934 Act unconstitutional as an improper interference with the sovereignty of the states. *Ashton v. Cameron County Water Improvement Dist. No. 1*, 298 U.S. 513, 532 (1936). Congress enacted a revised Municipal Bankruptcy Act in 1937, Pub. L. No. 302, 50 Stat. 653 (1937), which was upheld by the Supreme Court. *United States v. Bekins*, 304 U.S. 27, 54 (1938). The law has been amended several times since 1937. In the more than 60 years since Congress established a federal mechanism for the resolution of municipal debts, there have been fewer than 500 municipal bankruptcy petitions filed. Although chapter 9 cases are rare, a filing by a large municipality can— like the 1994 filing by Orange County, California—involve many millions of dollars in municipal debt.

[1229] Pfaller, Alfred and Lerch, Marika, *Challenges of Globalization: New Trends in International Politics and Society*, [online], available at https://play.google.com/store/books/details?id=_Wd2HP83KgwC&rdid=book-_Wd2HP83KgwC&rdot=1&source=gbs_vpt_read&pcampaignid=books_booksearch_viewport (Accessed at 23 September 2015)

Another argument against a mechanism for sovereign default is that countries will never receive any new loans after an insolvency procedure. Not only have we disposed of that argument before[1230]if that held to be true, no reorganized company could ever get any new loans. Republican presidential hopeful Donald Trump would be a long time out of business following his four corporate bankruptcy proceedings[1231]. Last but not least a lot less people would have been employed and a lot more would have lost their job, if there would not be the opportunity to restructure operations and keep what is good and healthy and rid what is bad and ill.

However, it is also wrong when it comes to sovereigns. No new investor wants to see his money used to repay old debtors. They consider their investment based on the likelihood a sovereign will be in the position to repay his debt in the future. That probability, of course, is by large enhanced, when service of interest and principal of legacy debt does not swallow the entire economic prowess of a country. Hence, the inverse is true. The sooner a country can restructure and reorganize its debt in a manner that future investors will not come to the conclusion that the sovereign is burdened down to its knees in repayments to the past, the earlier they will be prepared again to come to the fore and ramp up their foreign direct investments and their bets on that country's future by buying that foreign sovereign debt.

Also another argument is that countries will borrow even more irresponsible and a moral hazard ensues. Part of the debt restructuring process is to reduce the debt burden in a predictable and structured process. Such process is not without its pains. Much like in the process of a company that enters into bankruptcy, a minimum quota may have to be paid over a certain period time and all creditor parties involved will still ascertain that such quota will be as high as possible. The difference, however, to the endless political manifestations, is that an insolvency procedure will result in a definitive and lasting resolution of bad sovereign debt.

[1230] See supra note 1184.

[1231] Emily Stewart, *The Backstory on Donald Trump's Four bankruptcies,* 09/15/15 - 11:12 AM EDT [online], available at http://www.thestreet.com/story/13286068/1/the-backstory-on-donald-trump-s-four-bankruptcies.html (Accessed 19 September 2015)

Here is the ultimate argument of all promoters of small government until - of course - their creditors are in trouble. A new international bureaucracy will be created. This is what brings us to this chapter. The Transatlantic Trade and Investment Partnership is the unique opportunity of our generation not only to enhance legal certainty by eliminating non-tariff barriers but also by creating the legal framework for sovereign debt restructuring at least within its jurisdiction, the 28 member states of the European Union and the 50 federal states of the United States of America.

F. Architecture of a Transatlantic Trade and Investment Court

How should the architecture of a Transatlantic Trade and Investment Court look like? All that is required for a Transatlantic Trade and Investment Court are three ingredients:

(1) The bench of internationally trained professional judges,

(2) the technical personnel and

(3) A secretariat that could either be organized within the organizational framework of the TTIP established as a not-for-profit foundation, which documents the cases at hand and provides the continuing education for the international bench of judges to ensure consistency of the application of law developed.

Aside from the secretariat, the bench for any case before the Transatlantic Trade and Investment Court should be called from a transcontinental group of judges, attorney generals and attorneys admitted to the bar of either U.S. Court of International Trade or the European Court of Justice. The initial bench should consist of 12 judges for life from each continent, electing a Chief Justice out of their middle that rotates between candidates from the two constituting courts on a 6-year basis. Each case is judged by a 3-judge panel consisting of judges from 3 [EU Member] States of which at least one has to come from the [EU Member] State at least one party comes from. The panel decides on a rapporteur and finds its decision by 2/3 majority.

Each case can be appealed to the full bench on legal grounds only without any further discovery. However, the full bench can reverse the judgment and bring it on for retrial with a 2/3-majority. Otherwise judgment will take effect.

The Members of the TTIC shall be be nominated by former or actual Heads of State, US State Governors and EU Prime Ministers or Heads of supranational organizations such as the EU, UN etc. In the United States such nominations shall need approval by the Senate, in the European Union by the judicial committee and the plenary of the European Parliament.

The ultimate decision for admission to the court shall be with the court who decides with 2/3 majority about the election of a new nominee to the bench. This will guarantee uniform application of the law and serve at least as a disincentive to political cronyism. It also will ensure a certain global acceptance whilst nominations are performed regionally. This shall be a court of educated peers.

The secretariat that is charged with the day-to-day operations of the Transatlantic Trade and Investment Court finances itself by requiring that 1/1000 of each transaction submitted under the jurisdiction of the TTIC much like an insurance is paid to the secretariat's not-for-profit foundation. For instance a $1,000,000 bond would only cost $1,000 to be adjudicated by the TTIC, much cheaper than any arbitration.

The three key elements that an effective Transatlantic Trade and Investment Court needs to incorporate that are currently not yet appropriately provided for in the Malmström-European Commission-Proposal are as follows:

1. In order to gain the acceptance and authority in the judicial system of the United States and not infringe on the constitutional provisions of Article III Courts in the U.S. judiciary system of courts, a Transatlantic Trade and Investment Court will only be able adjudicate with Advisory Opinions, that ultimately will be autonomously reenacted by the national courts, following the EFTA-Model. A supranational Transatlantic Court of Justice, following the model of the European Court of Justice would neither be constitutional in the United States of America nor politically viable in either European Union or the U.S.

2. However, a Transatlantic Trade and Investment Court, should have the ability to adjudicate binding decisions between private parties and sovereigns, for instance in the case of Sovereign Debt Financings under two conditions: First, that the parties contractually agreed to submit under the jurisdiction of the TTIC and second, when a domestic court assigns such an insolvency case to the TTIC for an advisory opinion in order to assure the uniform application of the law with the intent to autonomously reenact such decision with the authority of its local court.

3. The composition of the TTIC that in the current proposal of an International Investment Court is still modeled after the composition of the arbitration tribunals with members from the European Union, the United States and „independent" third party countries, needs to be exclusively from the two constituencies, the European Union and the United States, preferably from the sitting bench of either the European Court of Justice or one of the Article III Courts of the United States, such as the U.S. Court of International Trade, pertinent academia or practicing bar before one of these courts, in order to gain the acceptance, authority and affirmation of the rulings of the Transatlantic Trade and Investment Court within the respective domestic judicial systems. This is of particular importance when the uniform application of law is dependent on the autonomous application and affirmation of the judgments in the respective [EU Member] States.

Without these three key elements an International Investment Court [Malmstroem] or a Transatlantic Trade and Investment Court [Stahl] will always remain short of becoming a Court of judicial authority and likely end up being mistaken as the Trojan Horse of an arbitration tribunal in the name and camouflage of a Court.

CHAPTER 7: CONCLUSIONS

I. REVISITING THE ARGUMENTS

Following the intrinsically linked balance sheets in the Capital Formation Life Cycle, the author explained with his Triple A Model of *Accounting*, *Allocation* and *Accountability* the stages of the Capital Formation process from *FIAT* to *EXIT*.

Based on the mutually exclusive Four Determinants of Legal Risk of *Law, Lack of Right, Liability* and *Limitation* that we developed in order to assess, and precisely describe the respective legal risk at all stages of the Capital Formation Life Cycle we demonstrated their application in case studies of nine industry verticals of the proposed and currently negotiated Transatlantic Trade and Investment Partnership between the United States of America and the European Union, TTIP, as well as in the case of the often cited financing relation between the United States and the People's Republic of China.

Having established the Four Determinants of Legal Risk and its application to the Capital Formation Life Cycle, we then explored the theoretical foundations of capital formation, their historical basis in classical and neo-classical economics and its forefathers such as The Austrians around Eugen von Boehm-Bawerk, Ludwig von Mises and Friedrich von Hayek and most notably and controversial, Karl Marx, and their impact on today's exponential expansion of capital formation.

Starting off with the first pillar of his Triple A Model, *Accounting*, we then moved on to explain the Three Factors of Capital Formation, *Man, Machines and Money* and showed how "value-added" is created with respect to the non-monetary capital factors of human resources and industrial production.

Followed by a detailed analysis discussing the roles of the Three Actors of Monetary Capital Formation, *Central Banks, Commercial Banks and Citizens* we readily dismissed a number of myths regarding the creation of money providing in-depth insight into the workings of monetary policy makers, their institutions and ultimate beneficiaries, the corporate and consumer citizens.

In our second pillar, *Allocation*, we continued our analysis of the balance sheets of the Capital Formation Life Cycle by discussing the role of The Five Key Accounts of Monetary Capital Formation, the *Sovereign, Financial, Corporate, Private* and *International* account of Monetary Capital Formation and the associated legal risks in the allocation of capital pursuant to his Four Determinants of Legal Risk.

In our third pillar, *Accountability,* we then discussed the ever recurring Crisis-Reaction-Acceleration-Sequence-History, in short: CRASH, since the beginning of the millennium starting with the dot-com crash at the turn of the millennium, followed seven years later by the financial crisis of 2008 and the dislocations in the global economy we are facing another seven years later today in 2015 with several sordid debt restructurings under way and hundred thousands of refugees on the way caused by war and increasing inequality. Together with the regulatory reactions they have caused in the form of so-called landmark legislation such as the Sarbanes-Oxley Act of 2002, the Dodd-Frank Act of 2010, the JOBS Act of 2012 or the introduction of the Basel Accords, Basel II in 2004 and III in 2010, the European Financial Stability Facility of 2010, the European Stability Mechanism of 2012 and the European Banking Union of 2013, we analyzed the acceleration in size and scope of crises that appears to find often seemingly helpless bureaucratic responses, the inherent legal risks and the complete lack of accountability on part of those responsible.

II. LESSONS LEARNED

The order of the day requires to address the root cause of the problems in the form of two fundamental design defects of our Global Economic Order, namely our monetary and judicial order. Inspired by a 1933 plan of nine University of Chicago economists abolishing the fractional reserve system, the author proposes the introduction of Sovereign Money as a prerequisite to void misallocations by way of judicial order in the course of domestic and transnational insolvency proceedings including the restructuring of sovereign debt throughout the entire monetary system back to its origin without causing domino effects of banking collapses and failed financial institutions.

In recognizing Austrian-American economist Schumpeter's Concept of Creative Destruction, as a process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one, my response to Schumpeter's economic chemotherapy is my Concept of Equitable Default mimicking an immunotherapy that strengthens the *corpus economicus* own immune system by providing for the judicial authority to terminate precisely those misallocations that have proven malignant causing default perusing the century old common law concept of equity that allows for the equitable reformation, rescission or restitution of contract by way of judicial order.

Following a review of the proposed mechanisms of transnational dispute resolution and current court systems with transnational jurisdiction, the author advocates as a first step in order to complete the Capital Formation Life Cycle from *FIAT*, the creation of money by way of credit, to *EXIT*, the termination of money by way of judicial order, the institution of a Transatlantic Trade and Investment Court constituted by a panel of judges from the U.S. Court of International Trade and the European Court of Justice by following the model of the EFTA Court of the European Free Trade Association.

Since the first time his proposal has been made public in June of 2014 after being discussed in academic circles since 2011, his or similar proposals have found numerous public supporters. Most notably, the former Vice President of the European Parliament, David Martin, has tabled an amendment in June 2015 in the course of the negotiations on TTIP calling for an independent judicial body and the Member of the European Commission, Cecilia Malmström, has presented her proposal of an International Investment Court on September 16, 2015.

III. OPPORTUNITY FOR *EXIT*

There are seven arguments that strongly speak in favor of taking advantage of this historic opportunity the negotiation of the TTIP provides to establish a transatlantic judicial instance that will help not only to level the playing field of the this cross-border multilateral global market for all market participants, it will also provide a market based solution when one of its actors fail.

1) Given the fact that TTIC and its bench will be democratically legitimated, it will not only enjoy higher acceptance, it also will provide a higher level of predictability given that the bench's opinions will be known.

2) Operating as a judicial institution between the Five Key Accounts of Monetary Capital Formation, TTIC will serve the important purpose of terminally resolving default contractual relationships in one common *forum* between contracting parties.

3) Rather than the current situation where there is a real transfer of assets from private taxpayers that have to pay by way of beefing up financial institutions for the failures of sovereign states, TTIC will be able to declare default, foreclose and resell the claims. Instead of taxpayers footing the bill, default sovereign debt can be re-securitized and resold to the markets by way of public auction.

4) If default becomes a real option, lending will become more cautious and lenders more reasonable in their famine for new funds – asset price bubbles become less likely based on a self-imposed ceiling on supply and demand of loans – the equilibrium shifts south, albeit not geographically.

5) Rather than relying on the unruliness of European and American politics, the process of working out sovereign debt, will be based on the rule of law.

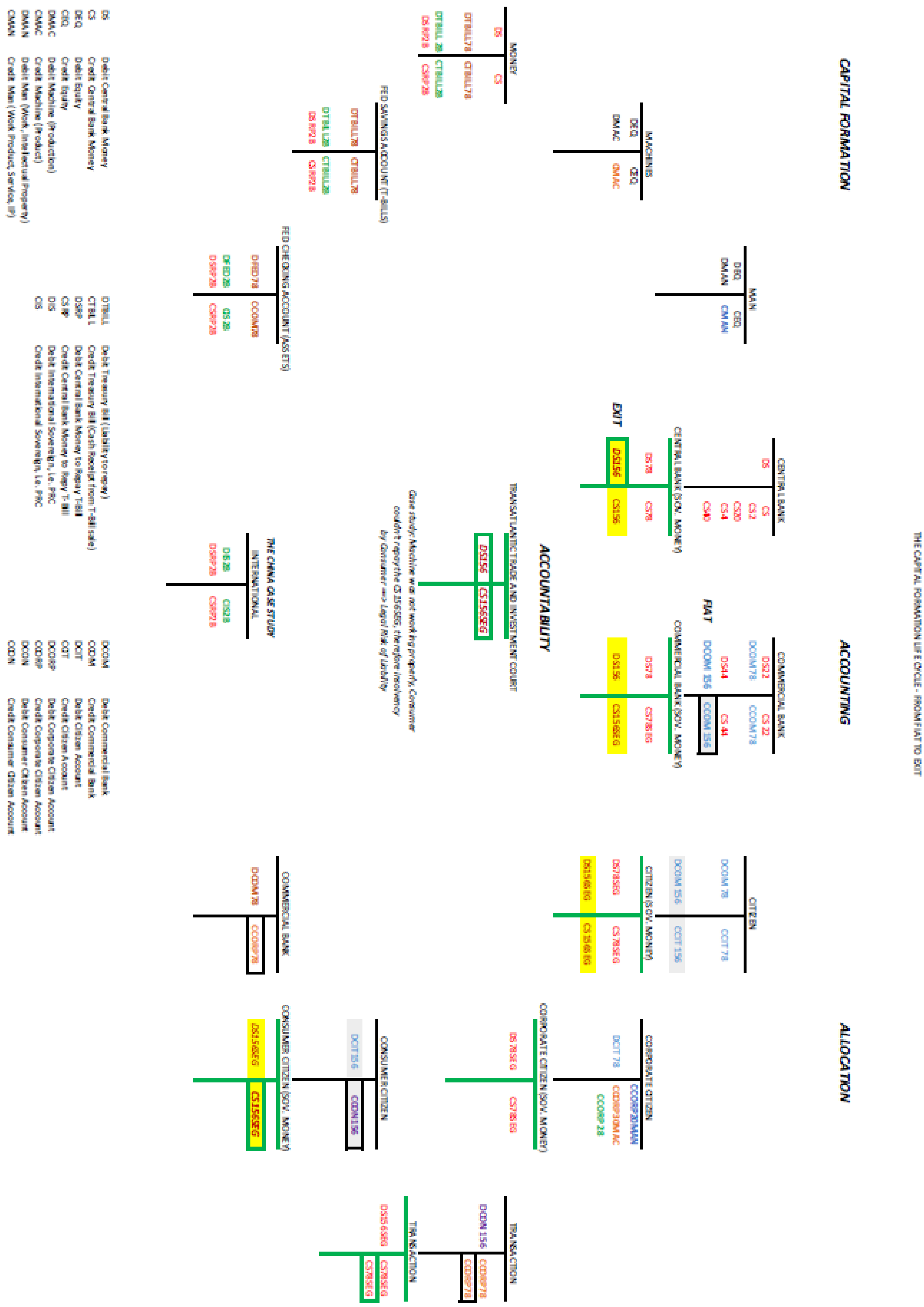
6) In effect, over time, the establishment of a body of law, much the same way we have learned from the Supreme Court of the United States, the European Court of Justice or any High Court in our home countries, will create a certain amount of predictability in its decisions and therefore more legal certainty.

7) Last but not least, TTIC limits in several ways the *moral hazards* that have become such a common feature of financial institutions that found themselves *"too big to fail*" thanks to the fact that banking collapses do not any longer have to averted by flooding the balance sheets but by voiding failed allocations assuming the introduction of sovereign money in segregated accounts as a prerequisite for *EXIT*.

It is now that the negotiations over a Transatlantic Trade and Investment Partnership provide a unique opportunity. To establish the fundament for a Jubilee year that finally tackles the problems and answers with a solution: to set a cornerstone for a New Global Economic Order with the creation of a Transatlantic Trade and Investment Court.

For the first time in the history of our generation it appears that there is a real opportunity for reform of our Global Economic Order by curing the two fundamental design defects of our monetary order and judicial order with the abolition of the fractional reserve system and the introduction of Sovereign Money and the institution of a democratically elected Transatlantic Trade and Investment Court that commensurate with its jurisdiction extending to cases concerning the Transatlantic Trade and Investment Partnership may complete the Capital Formation Life Cycle resolving cases of default with the transnational judicial authority for terminal resolution of misallocations in a New Global Economic Order without the ensuing dangers of systemic collapse from *FIAT* to *EXIT*.

EXHBIT A: CAPITAL FORMATION LIFE CYCLE



Discussing the Capital Formation Life Cycle, we have to follow the intrinsically linked balance sheets of the Capital Formation Life Cycle from its creation to its termination.[1232]

[1232] The Capital Formation Life Cycle starts off with three factors of capital formation, the first of which for the purposes of monetary capital formation is money. This is the T-account that you see at the very left at the very beginning of this Exhibit A and moving upwards towards the right side of this exhibit, you will see the two factors of non-monetary capital formation, the T-accounts of machines and man.

How does capital formation work? This is all there is to it. You have a sovereign represented by either a Central Bank or, let's call it Federal Reserve that has the authority to actually create a currency, in the form of bills or coins which can legally be used to pay taxes. The fact of the permission to pay taxes with this currency makes this newly minted coins and bills the legal tender and therefore money.

This creation can be in the form of printing bills or can be also in the form of minting coins. On our balance sheets this is expressed by our **Money** T-account debiting sovereign money and at the same time credits sovereign money. We have an accounting identity and money has been created. Money *may exist*, in Latin: *FIAT*.

How about our two T-accounts for non-monetary capital formation? **Machines** and **Man**, or in other words, *industrial production* and *human resources* or as some modern day economists like to call it human capital. Usually machines start with a production facility so we can safely assume that there has been some equity in the form of some machinery and production facility, therefore we will show on our Machine T-Account a debit in equity and some credit in equity, our accounting identity, followed by a debit on the machine account that represents the actual production on that machine. Whatever that machine produces derives from that machine and will therefore be debited on the Machine T-account and will have an equivalent in value as a credit on the Machine T-account in the form of whatever has been produced including its value added.

For purposes of simplicity, we did not separate out exactly the cost of the production and the cost of the energy and the cost of the original raw materials and then the value added but simplified it so it becomes it a lot easier to follow through the different stages that on the one end there is a debit to the Machine T-account which shows the source of production and the credit to the Machine T-account demonstrating what has been produced in the form of the equivalent value on the credit side to the production process at the production facility of the machine. Again, we have an accounting identity. We know that this is a simplified form of depicting a very complex processes but it helps to not get distracted and really understand that there is always an accounting identity. There is always a debit for the source where the actual value or production facility or raw material comes from, and there's a credit that expresses it as an equivalent on that very T-account as the result of that production.

Moving along the Capital Formation Lifecycle we come to our next T-account, **Man**, in other words *human resources* or *human capital*. Here we will also find some equity be it in the form of your workforce, your labor, and in the case of a one-person business, you yourself, and we'll have provide for a debit on that workforce or on yourself showing all the efforts you undertake to produce something, learn something, invent something, or to create some intellectual property, code some software, write a book, consult a business, provide legal advice, provide tech advice, be a good medical doctor, a fantastic engineer or a huge performer as an artist, for instance, and all these efforts get credited on the right side of your Man T-account. Let it be clear that Man here stands for men and women. It stands for mankind, and as we debit on the equity as a source it always has an accounting identity in the form of a credit on equity and all the efforts that create that wonderful intellectual property gets expressed in the Credit on the Man T-account.

Here we are. We have three essential credits in our capital formation accounts; a credit of sovereign **money**, a credit on **machines**, and a credit of **man**; all expressions of capital formation in one of these three accounts.

How does this non-monetary capital that get actually translated into monetary values and how does money actually end up in consumer's hands?

Let me step back again to our Money T-account. As we said before the money, the ***FIAT*** gets created by the sovereign, represented by the Central Bank. Once a Central Bank makes the decision to print money this is a debit on the Sovereign T-Account and we see it here as **DS**, but that has an equivalent with sovereign credit, expressed on our T-Account as **CS**. Once we go to our Central Bank T-account we see also a number of other credits. Again, for purposes of simplification, we will credit all of these credits against **DS,** sovereign debit, because all of these credits have their origin and source in the sovereign debit. They are all created by a decision by the sovereign as expressed by or delegated to the Central Bank.

What is the significance of all these other credits? Let us take a step further along the Capital Formation Lifecycle on to our next balance sheet that we show here in the form of a T-account for **Commercial Banks**. Commercial Banks in our economic system play a crucial role because all the money that is created by Central Bank gets multiplied many, many times over by Commercial Banks by way of extending credit. Recent estimates are that more than 84 percent of our "money" in today's circulation is actually money that has not been created by Central Banks but money created by Commercial Banks by way of extending credit to **Corporate Citizens** or **Consumer Citizen**.

How does that work? If you look at the debit side of the Commercial Banks T-account, you will see that there is a debit of sovereign money in the amount $22. Because if the Commercial Bank wants to lend out $78.00 then it has to deposit at the Central Bank $2.00 and keep another $20.00 as a minimum reserve. It does not have to have this $22.00 as it actually can obtain it from the Central Bank. Once it has a $22.00 debit, it can actually create a books entry $78.00 on the debit side of its T-account. Why can it do that? Because the credit in the form of the Corporate or Consumer Citizen's liability is an asset on the credit side of its balance sheet. Once again, we have an accounting identity as balance sheets balance out. The loan is a credit on the Commercial Bank's balance sheet and balances the debit of $78.00, and the $22 that it has are also credits, of course, as an asset on its balance sheet, the $22 that it got from the Central Bank because it has deposited the $2 into Central Bank and $20 in its own reserves allows her to actually create $78.00 of new money. That's important to remember and we will address the issue of banking facilities and financial collapses in just a minute.

Next the Commercial Bank debits $44.00 to the Central Bank if it actually wants to lend out $156.00. In our scenario here the Commercial Bank then moves on and lends the $78.00 to a Corporate Citizen and it also lends the $156.00 to a Consumer Citizen. The Corporate Citizen with this new found money of $78.00 then goes and actually starts paying salaries of $20 to the Man T-account paying for human resources. It moves on and moves $30.00 to the Machine T-account for all the machine production and facility and keeps $28.00 as a reserve.

Because the Corporate Citizen already plans to enter into a transaction with the Consumer Citizen, who as we know already obtained $156 from the Commercial Bank. That is just enough to pay for the products that the Corporate Citizen wants to sell because the Corporate Citizen actually plans to have a 100 percent margin on its machine product. That is a good deal to have, therefore in this transaction, we go to the transaction T-account and see a debit of $156.00 coming from the Consumer Citizen. There is a credit from the Corporate Citizen of $78.00 and then there is a net profit of $78.00 on the corporate side, so the $78.00 from the Corporate Citizen goes straight, moving all the way in our Capital Formation Life Cycle now back down to the Commercial Bank the account on the right side, on the lower right side where Commercial Bank the account now holds $78.

One would like to believe now that this was a great transaction, but unfortunately there is a little problem. In our case study, the Consumer Citizen had to find out that the machine that he actually bought from the Corporate Citizen was not working properly and he couldn't make the income from its production that he originally expected. Therefore, he went into default and ended up unable to repay the $156 that he originally lent from the Commercial Bank in the middle of our Capital Formation Life Cycle.

What to do? The Consumer Citizen is insolvent and cannot repay the credit to the Commercial Bank. If this would be a situation between a domestic Consumer Citizen and domestic Commercial Bank, for instance, in the United States, he could request a Chapter 11 proceeding that would allow him for restructuring and arguably, write off the $156 which leaves the Commercial Bank with a debit of $156.00 that leaves a big hole in its balance sheet because all the sudden that credit of $156.00 has been wiped out. That's a dangerous situation for a Commercial Bank. If, as we can imagine in a financial crisis, this does not happen once, not twice, but hundreds of thousands of times as we experienced it, for instance, after the collapse of the housing crisis and the bursting of the asset price bubble in 2008 but when it happens, it leaves big gaping holes in the T-accounts, or in other words, in the balance sheets of our Commercial Banks. If the equity in the Commercial Bank is not big enough, or in the alternative if the Central Bank is not filling up those gaping holes in the balance sheets, they can be so big that eventually the bank is insolvent and the bank has to close or to merge with other Commercial Banks that together can fill the gaping holes. We can see where this ends; the more misallocations we have, the more defaults we have in this current structure of the Capital Formation Life Cycle the buck quite literally always ends with the Commercial Bank. But the buck actually started with the Central Bank and therefore the buck in our case does not end where it started but somewhere else. That clearly is a birth defect of our monetary order.

How this can be corrected? One very profound idea to resolve this birth defect in our monetary order has been the idea of sovereign money. It has been reiterated in many versions, it has been discussed as part of the so-called Chicago plan and in a new version of the Chicago plan that has even found approval by economists from the IMF and by many other thought-leaders like Adair Turner or even the chief economist of the Financial Times Martin Wolf. The essence of it is always the same. Let us end the money where it starts. Let us exit the money where it has been created, where it *FIAT* which is at the Central Bank.

One prerequisite is the so-called abolition of the fractional reserve system and with that, the creation of money by way of credit. How would that work? Again, for simplification purposes so it is more apparent, let us go back to our T-accounts in the Capital Formation Life Cycle: This time we look at the new green T-accounts below the old black T-accounts, the Central Bank T-account of *Sovereign Money* is very simple. If the Commercial Bank knows that it wants to lend out $78, it picks up $78 from the Central Bank. In practice, of course it might pick up some more because it has to operate itself and has to pay its own people and has operational expenses and has to be compensated for its own profits or what used to be the profits that it made off the loan process before on the fractional reserve, but in essence it lends out $78.00 and that is what it needs. It still can charge fees to its consumers. It still can charge interest. It will no longer have the same leverage it had when it created money out of thin air just by extending credit.

But in order to make it very transparent, we will see what happens. The Central Bank the same way as always debits *Sovereign Money*, in our case now $78 and credits it on a Central Bank T-account the same time the Commercial Bank debits it on its Commercial Bank account. But now something different happens than what we used to see before. The credit on the Commercial Bank's account will be in a ***segregated account*** the same way we know, for instance, when we hold a brokerage account with securities. It's a segregated account. It does not belong to the Commercial Bank. It remains sovereign Central Bank money. This is what you see here; CS78SEG Credit Sovereign $78 Segregated Account. When the Citizen, the corporate or the consumer gets his loan, that money is held in a segregated account and it is still the property of the Central Bank. It does not become the property of the Commercial Bank as is the case today. That is essential as we will later see when we have to unravel this whole Capital Formation Life Cycle.

From there we go to debit at the Citizen T-account and the Corporate Citizen gets his $78 of segregated money. We enter into the transaction. The Consumer Citizen obtained his $156 but now he holds it in a segregated account at the Commercial Bank and the $156 are also Central Bank money. And now we are back to our case study. Unfortunately, the machine doesn’t work, the consumer enters into default, is insolvent, and we are back in our domestic bankruptcy court. If the bankruptcy court now declares that demand by the Commercial Bank invalid, what happens? It's in the segregated account. It belongs to the ownership of the Central Bank so if we want to void this $156, it's not going to be a problem for the Commercial Bank because it is not any longer on the balance sheet of the Commercial Bank. Since it's in a segregated account, we look straight through to the Central Bank's T-account, the credit gets cancelled in the segregated account, and the original debit that entered this money into existence, the *FIAT*, is also cancelled by judicial order on the Central Bank's T-account both on the credit and on the debit side. This is how we come full circle from *FIAT* to *EXIT*.

The Commercial Bank is not any longer affected the same way as it would be today as all its segregated accounts are separate and apart from the balance sheet of the Commercial Bank. The balance sheet of the Commercial Bank would reflect only the income from operations through fees and interest. A default or insolvency or haircut is not going to create any more any of those gaping holes in the balance sheets of Commercial Banks that led to their massive collapses or to the many mergers of banks that are once again too big to fail.

Hence a side effect of this is not only that Commercial Banks will be immune to this sort of cascading bank failures. It will also allow smaller banks to continue to exist. All the community banks, all the local banks, regional banks that are known to be much closer to the customer, much closer to the businesses, much more precise also in their support and their lending efforts, much closer to the market which is what is always claimed as one of the big advantages of allocation of credit by Commercial Banks and sold as a big concern if money gets exclusively created by Central Banks, all that could actually continue to exist or exist again because smaller banks would have a much easier life to exist. Their performance, their success would only be measured by their effectiveness of running their operation and not any more by running a pyramid scheme with money created out of thin air that obviously creates bigger leverage effects the bigger the balance sheet. Under these new conditions, Commercial Banks will be more successful if they know their customers better and are closer to the market since they will be judged by their operational success and not any longer by balance sheet tricks.

This is the way how we get from *FIAT* to *EXIT* with the introduction of *Sovereign Money*.

Why do we need a Transatlantic Trade and Investment Court in this model?

At least in the United States and also in the European Union we do have domestic bankruptcy courts and domestic trade courts and we also have the European Court of Justice of the European Union and we have the U.S. Court of International Trade, but we do not have a court that has the judicial authority that may adjudicate in any commercial trade or investment relationship that goes not only across state borders within the United States or the European Union but also across continents. Currently, that is a space free of a common judicial authority that upholds the rule of law. It is an area that is free of judicial supervision. It is an area where local courts predominantly like New York Courts or English Courts fill the void, but even if they are concerned about uniformity of law, they will rule according to their local laws and their local case law and their local precedent and will neither follow nor establish a uniform comprehensive body of law which is essential for the reduction of legal risk and predictability of an effective application of the law on both sides of the Atlantic. Now that we covered the Capital Formation Life Cycle from *FIAT* to *EXIT*, there is the final quarter of our Capital Formation Life Cycle still left to go. We will discuss this final stretch in the course of our China case study.

Why the China Case Study in this model?

Because it is so often claimed that the United States would go bankrupt if China would tomorrow seize to finance the United States, and it is just blatantly false. It is simply not true. Let's go back to the beginning of our **Money** T-account on the left-hand side of the Capital Formation Life Cycle. Right below where we originally had our first Debit of *Sovereign Money* there is now also a debit for T-bills; one T-bill that gets sold at auction to our Corporate Citizen that made his $78.00 profit and has his money invested via his Commercial Bank and then a T-bill of $2 billion that gets sold to China.

How do we do this? The Money T-account is in essence identical with the Central Bank and its account must be identical with the Federal Reserve or what we call the Fed Savings Account. Because, this is what it means for our Corporate Citizen customer or for our International Chinese customers. Purchasing T-Bills, they are saving their money on a savings account. In order to do that, both China and our corporate customer has to transfer their money first to our Fed Checking Account, which we may safely assume the banks that represent them have. We debit the $2 billion from China, we debit the $78.00 from our Corporate Citizen, credit the Fed Checking Account, debit the Fed Checking Account and credit the Fed Savings Account, thus debiting this account for the T-Bills both our investors now hold. Of course, there are now many ways to pay this T-Bills back. For once, we could just simply refinance, and sell more T-Bills to pay down the old ones. The commonly expected solution would be to use tax receipts but what will always remain an option is the following:

The Federal Reserve debits the Money T-Account creating new money you can see in the Fed Savings T-account as DSRP2B, it takes the T-Bills back from China and credits the Fed Checking Account with DSRP2B. China is repaid. So long, at least in the United States, Congress does not impose any artificial debt ceilings, there is no reason why China or any other international investor into T-Bills should not be repaid. After all, a sovereign currency issuer, always finances herself. This way the cycle from *FIAT* to *EXIT* for all investors into T-Bills is a relatively short and by all accounts [no pun intended] safe and certain.

LIST OF FIGURES

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