The Diverging Rationalities of Public Finance and Law:

Towards a Deliberative Approach in Monetary, Debt, and Banking Regulation

Matthias Goldmann[*]

October 2014
Draft – Please do not quote

A. Introduction 2

B. The Theory of Functional Separation and the Challenge of the Financial Crisis 4

I. From Keynes to Tinbergen: The Theory of Functional Separation 4

II. The Financial Crisis: Recognizing Interdependence 9

C. Public Finance and Law: Towards a Deliberative Approach 13

I. Epistemological Uncertainty in the Law 13

II. A Deliberative Approach 16

D. Implications for Public Finance and the Law: Three Case Studies 18

I. Deliberation in Monetary Law 18

1. The Mandate of the ECB: Separation vs. Interdependence of Monetary and Fiscal Policy 18

2. Rationality Check Instead of Full Review 21

II. Deliberation in Sovereign Debt Disputes 24

III. Rules for Stress Tests in Financial Supervision: A Deliberative Approach 27

1. Stress Tests as Supervisory Instruments 27

2. Stress Test Contingency and the Need for International Regulation 29

3. A Deliberative Approach to Stress Test Scenario Selection 32

E. Conclusion: The Deliberative Approach and Global Democracy 36

[*] Max Planck Institute of Comparative Public Law and International Law, Heidelberg, goldmann@mpil.de.
Parts B., C. and D.II. draw on a lecture held in Frankfurt earlier in 2014, entitled "International Investment Law and Monetary, Fiscal, and Banking Regulation: Towards a Deliberative Approach". Part D.I draws on M. Goldmann, "Adjudicating Economics? Central Bank Independence and the Appropriate Standard of Judicial Review", German Law Journal 15 (2014) 265-280.

Abstract

The current legal regulation of monetary and fiscal policy as well as banking regulation is based on the theory of functional separation. Accordingly, different actors are charged with different task. Each of them is obliged to pursue certain objectives in the fulfilment of his task and not to pay much attention to the objectives pursued by other actors in the fulfilment of their respective tasks. The idea behind functional separation is that it minimizes moral hazard and creates financial stability by, for example, preventing the printing of money in order to finance fiscal deficits.

The recent financial crisis has put the theory of functional separation under stress. It seems that it misses out crucial interdependencies among the various fields. This might lead to systemic instability, contagion and unintended consequences in times of crisis and perhaps even beyond. This observation has generated considerable debate among economists dealing with public finance, with no clear end in sight. But in any case, the broad consensus that some believed and still believe to exist in this field of economic theory has given way to essential contestations.

This constitutes a challenge for the legal discipline. Presently, important parts of the law relating to monetary policy, fiscal policy, and banking regulation follow the theory of functional separation. Nevertheless, just like economic theories, legal rules are imprecise, contested, and highly amenable to new situations. The paper argues that this insight should give rise to a deliberative approach to the function of law for the regulation of monetary policy, fiscal policy and financial markets. Law should be better understood as a medium for the discursive resolution of conflicts, as a procedural tool instead of a substantive instrument for the demarcation and enforcement of “red lines”.

The paper will explain the repercussions of the deliberative approach in three case studies stemming from three different policy fields. Regarding the field of monetary policy, it will suggest a new reading of the unorthodox monetary measures of the European Central Bank. Regarding debt regulation, it will provide new insights for domestic and international courts and tribunals confronted with claims by so-called vulture funds against sovereign states. Regarding the field of banking regulation, it will demonstrate how supervisory stress testing might become a helpful tool for the mitigation of the limits of the theory of functional separation.

The normative upshot of this paper might have far-reaching consequences. Given that deliberative structures are ideally embedded in democratic structures and procedures, the best reform of the financial system might lie in its profound democratization.

A. Introduction

This paper deals with what one might consider a watershed development in macroeconomic theory: The financial crisis has profoundly modified the way in which economists understand the relationship between the different segments of

financial regulation. During the decades preceding the crisis, the macroeconomic regulation of the different segments of the financial sector (monetary policy, fiscal policy, banking regulation, debt, investment law etc.) followed a theory of functional separation. Accordingly, different actors are charged with different task. Each actor is obliged to pursue specific objectives and may only give marginal consideration to other objectives. The idea behind this approach is that each actor only has limited knowledge, making it impossible to pursue different objectives.

The recent financial crisis has put the theory of functional separation under stress. Increasing evidence reveals the interdependence of one segment of financial regulation with another. Systemic risks spread across these segments, and require a response that transcends the various segments. In this paper, I will argue that a deliberative approach to international economic law might bridge the gap between those segments and provide for integrative solutions. This has consequences for financial regulation, both *de lege ferenda* for the way in which new rules and policies are designed, and *de lege lata* for the way in which the existing law is interpreted and applied.

Before I proceed, a terminological remark might be helpful. “Public finance” refers to those segments of the financial sector which pursue a public interest. I do not use this term in a narrow sense comprising only budgetary, debt and tax issues.[1] Rather, I also include monetary issues, as well as in financial market regulation. The choice of these sub-disciplines is guided by the scope of public law. As public law, I understand the legal relationships which pursue the common (or public) interest.[2] Public law spans over domestic, supranational, and the international legal orders.[3] I will, however, focus on the international level.

[1] Rosen, Harvey S., "Public Finance", in CharlesK Rowley and Friedrich Schneider (ed.), *The Encyclopedia of Public Choice* (Springer US, 2004) 252-262.
[2] Kingsbury, Benedict, "The Concept of "Law" in Global Administrative Law", *Institute for International Law and Justice Working Paper* 2009/1 (2009), New York University School of Law; Goldmann, Matthias,

In the following part, I will reiterate how the financial crisis has influenced our understanding about the interdependence of various segments of financial regulation (B.). Thereafter, I will set out what I understand as a deliberative approach to public finance and public law. This is an idea of legal interpretation which might facilitate the management of interdependencies which exist among the various segments of international economic law (C.). Subsequently, I will elaborate on three case studies relating to monetary, debt, and banking issues, which put the deliberative approach into practice (D.). However, the full development of the deliberative approach requires a democratic global order (E.).

B. The Theory of Functional Separation and the Challenge of the Financial Crisis

I. From Keynes to Tinbergen: The Theory of Functional Separation

The global financial architecture as we know it today originates in the aftermath of the Second World War. As such, it reflects in some respects the economic theories that dominated the thinking of decision-makers at different times during the post-war period. An influential voice for the design of economic relations immediately after the war was that of John Maynard Keynes. In his theoretical oeuvre, he had argued that the level of employment in a given economy resulted not only from the price of labor, but depended on a whole number of factors, such as public and private investments, as well as on the cost of credit, hence on monetary policy.[4] In

---

"A Matter of Perspective: Global Governance and the Distinction between Public and Private Authority (and Not Law)" (2013), manuscript.

[3] Bogdandy, Armin von, "Democratic Legitimacy of Public Authority Beyond the State - Lessons from the EU for International Organizations", *Jean Monnet Working Paper* (2011), New York University.

[4] John Maynard Keynes, *General Theory of Employment, Interest, and Money* (Palgrave Macmillan 1936) Ch. 3 (23ff.).

contrast to the classical theory of economics that had dominated the field since the end of the 18th century, Keynes considered the economy as representing an equilibrium resulting from both demand and supply. In his eyes, the economy was a complex machinery, but not unmanageable. Rather, he believed that macroeconomic steering of the economy was an important task of government. Government should use both demand and supply oriented instruments in order to strengthen growth – yet without preempting the microeconomic decisions of individuals. Thus, while he rejected the laissez-faire of early capitalism, he meticulously avoided following the anti-liberal agenda of socialist or fascists planning economies.[5]

Keynes' idea of macroeconomic steering exercised great influence on the way in which governments conducted their economic policy in the postwar period. In the 1960s, Germany adopted a law that stipulated the Keynesian equilibrium as the goal of macroeconomic policy.[6] This holistic view of macroeconomic policy-making also informed Keynes' proposals for a worldwide economic order for the postwar period. He thought that this order should encompass a coherent institutional framework for trade, money, and investments. A new international currency called "bancor" should replace the gold standard.[7] An International Clearing Union should take care of the settlement of current account deficits.[8] However, due to the reluctance of the US congress to bear the financial burden of the envisaged clearing union, Keynes' plan never came to be realized. Instead,

[5] E.g. John Maynard Keynes, *The End of Laissez-faire: The Economic Consequences of the Peace* (Prometheus Books 1926).

[6] Gesetz zur Förderung der Stabilität und des Wachstums der Wirtschaft, 8 June 1967, BGBl. I [1967] 582.

[7] John Maynard Keynes, 'Shaping the Post-War World: The Clearing Union`, in John Maynard Keynes (ed. by Donald Moggridge), *Collected Writings* XXV (CUP 1980) 1, 121. On the bancor see also Ernst Friedrich Schumacher, 'Multilateral Clearing', (1943) 10 Economia 150.

[8] John Maynard Keynes, 'Proposals for an International Clearing Union (1943)', in J Keith Horsefield (ed.) *The International Monetary Fund 1945-1965. Twenty Years of International Monetary Cooperation* (International Monetary Fund 1969) xxx, , 19ff <http://www.imsreform.org/reserve/pdf/keynesplan.pdf> accessed 27 August 2014.

Harry White's plan was put into practice.[9] It favored only a mild form of Keynesianism.[10] Accordingly, only the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD, part of the World Bank) saw the light of the day.[11] The dollar standard reintroduced the gold standard through the backdoor, countries short of currency were entitled to borrow from the IMF instead of receiving funds from surplus countries, and the envisaged International Trade Organization did not come into existence.[12] Still, the newly created institutions featured many links relating them to other segments of macroeconomic policy. The IMF Articles of Agreement prohibit restrictions of current account transactions.[13] Art. XV(2) of GATT 1947 serves as an interface between trade liberalization and exchange arrangements. Thus, the postwar legal order was half-Keynesian.]

In the end, it was not realpolitik, but theoretical contestations which changed the tides against Keynes. Friedrich Hayek presented a powerful defense of the liberal view. Accordingly, human knowledge is highly imperfect. Society is therefore most successful when it organizes in a spontaneous fashion. Government interference in the regulation of macroeconomic should be reduced to a minimum, including the provision of sound rules for competition.[14] In line with this mistrust in the capacity of governments to steer the economy, Jan Tinbergen argued that the different parts of macroeconomic regulation, in particular monetary policy, fiscal policy, and the maintenance of financial stability should be assigned to

---

[9] Cf. note 8, xxx.

[10] James M Boughton, 'Why White, Not Keynes? Inventing the Postwar International Monetary System' (2002) IMF Working Paper WP/02/52, 5-6.

[11] Rosa Maria Lastra, 'The International Monetary Fund in Historical Perspective' (2000) 3 J. Int'l Econ. L. 507, 511-2.

[12] Michael Trebilcock, Robert Howse & Antonia Eliason, *The Regulation of International Trade* (4th edn, Routledge 2013) 23f.

[13] Art. VIII(2). On further cross-references see Annamaria Viterbo, *International Economic Law and Monetary Measures* (Edward Elgar Pub 2012) 62-3.

[14] Friedrich August von Hayek, *Law, Legislation and Liberty*, vol. 1: Rules and Order (University of Chicago Press 1973) 11, 38.

different regulators that should pursue primarily one task.[15] In the field of monetary policy, this approach resonated in the monetary theory of Milton Friedman. He taught that the quantity of money should develop in accordance with strict rules, irrespective of other macroeconomic aspects.[16] In addition, in order to reduce political slack and the influence of interest groups, Friedman argued that central banks should be independent.[17] This paved the way for a much more fragmented regulation of macroeconomic issues.

After the collapse of the Bretton Woods system of dollar pegging, fragmentation by and by became a reality. On the whole, the legal and institutional framework regulating macroeconomic issues developed more in line with the Tinbergen theory of functional separation than with the Keynesian idea of interdependence. Multilateral surveillance remained relatively weak within the IMF and only gained significance when a member actually drew on the fund.[18] Only what is now the G8 has provided a cross-sectorial forum since the late 1970s. In monetary policy, the political momentum promoting the free movement of capital *de facto* overrode the provisions of the IMF Articles of Agreement, which still enable the control of capital transfers.[19] More and more states established independent central banks.[20] The European Monetary Union made central bank independence an accession requirement.[21] Regarding bank regulation, the Basel Committee has developed an informal mode of coordination since the end of the 1980s. However, it does not cover a number of significant aspects of financial market regulation. They fall in

[15] Jan Tinbergen, *Economic Policy: Principles and Design* (North Holland Publishing Company 1956) 186ff.; Jan Tinbergen, *Centralization and Decentralization in Economic Policy* (North Holland Publishing Company 1954) 75.
[16] Milton Friedman, *The Optimum Quantity of Money and other Essays* (Aldine Transaction 1969).
[17] Milton Friedman, *Capitalism and Freedom* (University of Chicago Press 2002) 51 *et seq.*
[18] Armin Schäfer, 'Resolving Deadlock: Why International Organizations Introduce Soft Law' (2006) 12 European Law Journal 194.
[19] Art. VI (3), IMF Articles of Agreement. On the development towards the free movement of capital beyond the European Union, see Claus D Zimmermann, *A Contemporary Concept of Monetary Sovereignty* (OUP 2013) 45ff.
[20] First example: New Zealand Central Bank (source?)
[21] Art. 130, TFEU.

the responsibility of specialized organizations, such as IOSCO, the organization of domestic securities commissions, or private and hybrid organizations like the International Securities and Derivatives Associations or the International Accounting Standards Board.[22] In trade matters, the WTO emerged in 1994 on the basis of the substantive provisions of GATT 1947, including those on the relationship with the IMF. However, in practice, the organization drew a clear line between trade and finance, paying full deference to the IMF for issues within the competence of the latter.[23] The law relating to investment protection remains highly fragmented, [24] despite a decentralized but standardized system for the settlement of disputes.[25] Indeed, the idea of functional separation might constitute the underlying deeper reason why investment arbitration in the eyes of many fails to pay due respect to other policy concerns.[26] [Of course, other macroeconomic issues like fiscal policy did not experience even the slightest form of international coordination, at least outside the European Union.[27] But the transnational dimensions of fiscal policy are less obvious than those of investment law.]

---

[22] Christian Tietje, 'The International Financial Architecture as a Legal Order' (2011) 54 GYIL 11, 20ff.; Maurizia De Bellis, 'Public law and private regulators in the global legal space' (2011) 9 Int'l. J. Const. L. 425.
[23] Trebilcock, Howse, Eliason (note 12) 236-9.
[24] Andreas F. Lowenfeld, *International Economic Law* (2nd edn, OUP 2008) 494.
[25] Stephan W Schill, *The Multilateralization of International Investment Law* (CUP 2009).
[26] E.g. only Rainer Hofmann and Christian J Tams (eds), *International Investment Law and Its Others* (Nomos 2012).
[27] Matthias Goldmann, 'On the Comparative Foundations of Principles in International Law: The Move towards Rules and Transparency in Fiscal Policy as Examples' in Carlos Espósito, Yuefen Li and Juan Pablo Bohoslavsky (eds), *Sovereign Financing and International Law* (OUP 2013) 113-133.

II. The Financial Crisis: Recognizing Interdependence

The last global financial crisis has called into question the theory of functional separation to some extent. Two developments account for this in particular: the recognition of the role played by systemic risk, and the unorthodox measures taken by central banks.

Soon after the collapse of Lehman Brothers, "systemic risk" became the buzzword of the subprime crisis. In this initial stage, systemic risk referred to a problem intrinsic to banking regulation. The focus of financial regulation on the micro perspective, on the financial soundness of a single firm rather than of the entire financial industry, came to be recognized as a factor that facilitated the spread of trouble from one institution to others that held similar assets, faced counterparty risks, or were exposed to generally deteriorating market conditions.[28] However, soon the subprime crisis turned into a sovereign debt crisis in some states, caused by public sector bailouts of private firms, sinking tax revenue, credit shortage, and a general lack of competitiveness.[29] Systemic risk thus affects all sectors of economic policy.[30]

A second development that raised doubts about the accuracy of the theory of functional separation concerns unorthodox monetary policy measures. Since the beginning of the crisis, central banks have flooded the market with liquidity. The Federal Reserve and the European Central Bank (ECB) lowered their interest rates and expanded their balance sheets considerably in order to mitigate the consequences of the banking crisis for the economy. They accepted certain

[28] E.g. Steven L Schwarcz, 'Systemic Risk' (2008) 97 Geo. L.J. 1 193; Christoph Ohler, 'International Regulation and Supervision of Financial Markets After the Crisis' (2010) 1 EYIEL 3, 19.
[29] E.g. Gerhard Illing, Sebastian Jauch and Michael Zabel, 'Die Diskussion um den Euro. Endogene Risiken und multiple Gleichgewichte' (2012) 40 Leviathan 156.
[30] Overview: Ohler (note 28) 4-5.

categories of troubled assets as collateral, although at huge discounts.[31] At the height of the sovereign debt crisis, the ECB began purchasing sovereign bonds of troubled states under its controversial Securities Markets Program, later followed by its Outright Monetary Transactions program.[32] The ECB considers this program as coherent with its mandate to ensure price stability.[33] SMP and OMT purportedly target liquidity problems caused by the lack of market confidence in heavily indebted Eurozone states. The German Federal Constitutional Court disagreed.[34]

The legal dispute reflects the disagreement between the theory of functional separation on the one hand, and more integrative approaches to macroeconomic regulation on the other.[35] This debate arose from central bank policy. In that respect, it addresses the question whether and to what extent the concern for medium-term price stability justifies measures targeting financial stability, even though they put short-term price stability at risk.[36] However, the debate between

---

[31] For data on the balance sheets of the Federal Reserve and the ECB, see http://www.federalreserve.gov/monetarypolicy/quarterly-balance-sheet-developments-report.htm, http://www.federalreserve.gov/monetarypolicy/bst_recenttrends.htm; https://www.ecb.europa.eu/stats/money/aggregates/bsheets/html/index.en.html; on collateral see, e.g. Guideline of the European Central Bank of of 2 August 2012 on additional temporary measures relating to Eurosystem refinancing operations and eligibility of collateral and amending Guideline ECB/2007/9, ECB/2012/18, OJ L 218/20 of 15 August 2012 (as amended).

[32] Decision of the European Central Bank of 14 May 2010 establishing a securities markets programme (ECB/2010/5), OJ L 124/8 of 20 May 2010; ECB, Press Release: Technical Features of Outright Monetary Transactions, 6 September 2012, <http://www.ecb.europa.eu/press/pr/date/2012/html/pr120906_1.en.html> accessed 27 August 2014.

[33] Art. 127(1), TFEU.

[34] Federal Constitutional Court, 2 BvR 2728/13 of 14 January 2014, English version available at <http://www.bundesverfassungsgericht.de/entscheidungen/rs20140114_2bvr272813en.html> accessed 27 August 2014 .

[35] Matthias Goldmann, 'Adjudicating Economics? Central Bank Independence and the Appropriate Standard of Judicial Review' (2014) 15 GLJ 265-280.

[36] In favor of greater interdependence: Committee on International Economic Policy and Reform, Rethinking Central Banking (Brookings Institution, 2011) 30 *et seq.*; Olivier Blanchard, Giovanni Dell'Ariccia and Paolo Mauro, 'Rethinking Macroeconomic Policy' (2010) SPN/10/03 IMF Staff Position Note,; with respect to the OMT Programme: Marcel Fratzscher, Francesco Giavazzi, Richard Portes, Beatrice Weder di Mauro and Charles Wyplosz, 'A Call for support for the European Central Bank's OMT Programme' 19 July 2013, <https://berlinoeconomicus.diw.de/monetarypolicy/a-call-for-support-for-the-european-central-banks-omt-programme/> accessed 27 August 2014. For a survey of the respective views cf. Kai A Konrad, Clemens Fuest, Harald Uhlig, Marcel Fratzscher and Hans-Werner

functional separation and more integrative approaches has implications that reach well beyond monetary policy. The basic question is: Was Keynes right? Should economic policy follow a more holistic approach and give up the doctrine of functional separation?

Some insights of Hayek and the liberals can certainly not be repealed. Knowledge is imperfect, and so are the macroeconomic policy tools available to the different actors. Centralized steering remains an illusion. One cannot simply return to square one. However, it appears equally illusory to turn a blind eye on the multiple interrelations among the various segments of economic policy, as a crude version of the theory of functional separation would have it.[37] The debate is ongoing, with no identifiable outcome as of yet. I have presented the developments in economic thinking in a highly stylized way, leaving out many nuances. But in any case, the broad consensus that seemingly existed in this field for the past two decades or so has given way to essential contestations.

This debate has had implications in two respects, on the one hand for policy-making and institutional design, on the other hand for the interpretation and application of the law. Regarding the former, it gave rise to the insight that crises required a coherent, concerted response. This led to the creation of new institutions. On the domestic level, bodies like the Financial Stability Oversight Council (FSOC) and the European Systemic Risk Board (ESRB) now engage in macroprudential oversight. They have strong links with microprudential regulators, like the ESRB through the European Supervisory Authorities (ESA) in the frame of the European System of Financial Supervision (ESFS),[38] or are

---

Sinn,'Bundesverfassungsgericht und Krisenpolitik der EZB — Stellungnahmen der Ökonomen' (2013) 93 Wirtschaftsdienst 431.

[37] See, however, the more nuanced view of Tinbergen, *Economic Policy* (note 15) 186.

[38] EU Regulation 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board, OJ L 331 of 15 December 2010, 1ff.

directly involved in microprudential regulation like the FSOC.[39] On the international level, the G20 and the Financial Stability Board acquired the status of the leading international fora for the coordination of the regulatory response. For the first time, the interdependence of the various segments of economic policy received an institutionalized shape as the Financial Stability Board, which unites regulatory agencies and central banks of the most important economies, operates under the supervision of the G20. In theory, this might ensure coherence among various segments of economic policy, including trade and investment. Nevertheless, the G20 and the FSB not only lack compulsory decision-making power. Their agendas remained limited for a long time. Until far into the sovereign debt crisis, fiscal policy issues did not figure prominently.[40]

Not least for these institutional and political shortcomings, one should take a look at the second set of implications of the debate about macroeconomic interdependence, those relating to the interpretation and application of the *lex lata*. As the example of the concept of price stability demonstrates, important parts of financial regulation broadly understood were drafted with a view to the theory of functional separation. However, they might be amenable to an interpretation that takes into account the insights about interdependence learned from the crisis.

The reminder of this paper sets out a legal theory which takes these considerations into account (C.) and illustrates its operation by way of three examples from different branches of public finance (D.).

---

[39] Dodd Frank Act, Section 113(a)(1).

[40] Christian Tietje, *Architektur der Weltfinanzordnung* (Institut für Wirtschaftsrecht Halle 2011) 27. Note, however, that the 2014 agenda of the G20 includes fiscal and monetary policy and considers their impact on economic growth, cf. <www.g20.org> accessed 27 August 2014.

C. Public Finance and Law: Towards a Deliberative Approach

This part argues that the insights into the interdependence of the various segments of financial regulation gained through the financial crisis should give rise to a new approach to law-making and legal interpretation. Law should be better understood as a means for the discursive resolution of problems of fragmentation and interdependence, as a toolbox for figuring out situation-specific solutions instead of an instrument for the demarcation and enforcement of "red lines". I call this the deliberative approach to public finance and law.

I. Epistemological Uncertainty in the Law

This approach to interpretation is based an insight that is as trite as important, namely that law is indeterminate. Law as a language-based normative system is confronted with the paradox that the meaning of language is always contextual,[41] while the whole point of legal rules is to de-contextualize behavioral prescriptions. Indeterminacy is both the vice and virtue of the law. On the one hand, it challenges the authority of the law and the whole idea of the rule of law. American Realism and Critical Legal Scholarship therefore tend to dismiss law as a means for steering society. In their view it is not the law, but the political preferences of the law-applier that decides about the outcome of a specific dispute.[42]

But indeterminacy might also be the virtue of the law. It transforms law into a "living instrument"[43] that offers some orientation without imposing rigid,

[41] Ludwig Wittgenstein, *Philosophische Untersuchungen* (16th edn, Suhrkamp 2004) § 43.
[42] Roberto Mangabeira Unger, *The Critical Legal Studies Movement* (HUP 1986); David Kennedy, 'Theses about International Law Discourse' (1980) 23 GYIL 353, 367; Martti Koskenniemi, *From Apology to Utopia* (2nd edn,CUP 2005) 590.
[43] ECtHR, *Tyrer v United Kingdom*, Application No. 5856/78, Judgment of 25 April 1978, para. 31.

inflexible straightjackets. In that respect, law is an excellent means of communication for decision-making on the basis of highly abstract, contested, and changing economic theories. Law's indeterminacy makes it amenable to evolving economic theories, as well as their contestations. Consequently, law is not intrinsically committed to one specific economic theory, but may accommodate diverging views.[44]

How to combine these seemingly diverging features of the law? I am not the first one to realize that this has specific implications for the law that relates to the financial sector.[45] How to enhance stable financial conditions through law, given that, first, law is indeterminate, and that second, on top of that, the economic theories underlying many aspects of financial regulation are heavily contested and evolving?

Rules of interpretation do not help. Art. 31 VCLT only stipulates *that* other agreements, rules and practice should be taken into account, but not *how*. Three options come to mind:

First, one might defer to another regime of economic law once certain conditions are met. This is the approach pursued by the WTO in matters relating to exchange agreements.[46] However, this approach merely reproduces the theory of functional separation. It does not take into account that the various segments of international economic law are interrelated.

That brings me to the second option, to the idea of systemic integration. This resembles the idea of "systematic interpretation" known from domestic law, but

---

[44] Cf. Matthias Herdegen, *Principles of International Economic Law* (OUP 2013) 11.
[45] Cf. Katharina Pistor, "Towards a Legal Theory of Finance", *Columbia Public Law Research Paper* (2012), No. 12-323.
[46] Cf. above note 23 and associated text.

should be distinguished from it. Systematic interpretation denotes the interpretation of a provision in the context of the treaty or legislative act to which it belongs.[47] It does not refer to the interpretation of a provision in the context of general international law. This is what the idea of systemic integration is about. Based on Art. 31(3)(c) VCLT, systemic integration pursues the idea of bringing the fragmented parts of international law into one coherent order.[48] However, this idea of systemic integration presupposes a strong idea of a "system" that may be "discovered" in the international legal order, or at least the idea of a system that can be construed coherently. This requires an omniscient, herculean interpreter who is able to draft a contradiction-free master plan for international law.[49] This idea suffers from the same flaw as Keynes' idea of macroeconomic steering. It is obvious that this kind of systemic integration would overburden any interpreter who by definition only sees the law only from his or her concrete position. The interpreter actively participates in interpretative contestations and does not watch them from above.[50] The presupposed master plan is only what the interpreter believes it to be.[51] However, without a master plan, the idea of systemic integration collapses into casuistry.[52] In order to avoid this conclusion, one might take advantage of the deliberative rationality of law.

---

[47] Herdegen (note 44) margin no. 12-3.

[48] International Law Commission, Fragmentation of International Law: Difficulties Arising from the Diversification and expansion of International Law, Report of the Study Group, finalized by Martti Koskenniemi, 13 April 2006, UN Doc. A/CN.4/L.682, paras. 410-480; Campbell McLachlan, 'The Principle of Systemic Integration and Article 31(3)(C) of the Vienna Convention' (2008) 54 Int'l. & Comp. L.Q..

[49] Elaboration such an approach: Ronald Dworkin, *Taking Rights Seriously* (HUP 1977).

[50] For a thorough critique of this approach: Jürgen Habermas, *Faktizität und Geltung* (Suhrkamp 1992) 272ff. (ch. 5, III.). See also Ingo Venzke, *How Interpretation Makes International Law* (OUP 2013) 63 (on the subjective character of semantic authority).

[51] Ralph Christensen and Andreas Fischer-Lescano, 'Die Einheit der Rechtsordnung. Zur Funktionsweise der holitischen Semantik' (2007) Zeitschrift für Rechtsphilosophie 8.

[52] Cf. International Law Commission (note 48) para. 474.

II. A Deliberative Approach

This brings me to the third option. I call it the deliberative approach to finance and public law. This approach dispenses with the idea of a fully coherent economic or financial order. Rather, public finance is composed of different segments, each of which follows its own rationality. Specialization and contestation might achieve global financial stability.[53] Nevertheless, each segment of public finance is required to integrate the concerns of other segments of into its own rationality. This is what I call deliberative rationality. It is deliberative because it takes other perspectives seriously and factors them in into its own rationality. This does not end up in mere casuistry, but in a kind of rationality check: Any legal interpretation that follows this approach needs to be *rationally justifiable*, whereby the predicate "rational" refers to the ratio pursued by the particular segment of public finance in question. In other words, other segments of public finance need to be taken into account to the extent that they can be aligned with the purpose of the segment in question.[54] A rationality check implies that there might be more than one "right" solution to a given case. On the other hand, this keeps legal regulation flexible in order to accommodate changing situations and economic theories that change accordingly.

[53] On global financial stability as a public good, see Viterbo (note 13) 11ff.; Ohler (note 28) 15ff.

[54] This idea is based on the method of rational reconstruction as it has been developed by Jürgen Habermas. This is a general method that helps constructing coherent, understandable structures in a initially disordered environment with the help of guiding normative ideas. Comprehensively: Markus Patberg, 'Suprastaatliche Verfassungspolitik und die Methode der rationalen Rekonstruktion' (2013) 4 Zeitschrift für politische Theorie 80. Habermas initially developed this method in order to reconstruct the practice of language guided by the idea of communicative reason and later applied it to the reconstruction of the practices of rule of law and democracy guided by discourse ethics. This article expands it to the reconstruction of the fragmented practice of international economic law guided by the idea of economic interdependence. For a more general approach that explores the potential of Habermas' method of rational reconstruction for legal doctrine ("Dogmatik") see Matthias Goldmann, 'Principles in International Law as Rational Reconstructions. A Taxonomy' (2013) Working Paper, SSRN.

This approach to legal interpretation is generally applicable to any legal provision relating to public finance.[55] Nevertheless, some types of norms might be more amenable to such interpretation than others. I think of (1) broadly phrased general clauses that are by definition open to a wide range of possible interpretations; (2) rules granting discretion to the decision-maker; (3) stipulations of the standard of review.[56]

[I do not think, however, that exceptions to legal rules such as necessity doctrines, whether under Art. XX, XXI GATT or the customary law defense codified in Art. 25 of the Articles on State Responsibility, constitute a primary field of application for the pluralistic approach to deliberative rationality. Rather, such exceptions urge the interpreter to balance the rationality of the legal regime in question (e.g. trade law) with the rationality pursued by the exception (e.g. human rights, environmental concerns). The integrative approach proposed here is different from a rule-exception model, since it tries to integrate different rationalities, not weight one against the other. Rule-exception models might also lead to some kind of coherence in international law,[57] but it is not the integrative model pursued here. Thus, this is by no means a call to subordinate human rights to the ends of international economic law. The proposed method addresses the relation between different segments of international economic law.]

[55] For the application of a similar approach to regulation, see Julia Black, "Proceduralizing Regulation: Part I", 20 *Oxford Journal of Legal Studies* (2000) 597-614.
[56] Cf. Goldmann (note 35).
[57] In the context of investment law: James Crawford, 'International Protection of Foreign Direct Investments: Between Clinical Isolation and Systematic Integration' in Rainer Hofmann and Christian Tams (eds), *International Investment Law and General International Law* (Nomos 2011) 17-28; in the WTO context: Gabrielle Marceau, 'A Call for Coherence in International Law. Praises for the Prohibition Against "Clinical Isolation" in WTO Dispute Settlement (1999) 33 J.W.T. 87.

D. Implications for Public Finance and the Law: Three Case Studies

The methodological approach proposed in the preceding part has many implications for international economic law. This part presents only a small selection of three case studies. They deal with unorthodox monetary policy measures and their reivew (I.); sovereign debt workouts and their relationship with the fair and equitable treatment standard (II.), and stress tests carried out by supervisory authorities.

I. Deliberation in Monetary Law

1. The Mandate of the ECB: Separation vs. Interdependence of Monetary and Fiscal Policy

Earlier in 2014, as you know, the German Constitutional Court had to decide on the legality of the ECB's OMT programme.[58] In particular, the dispute concerned the scope of the ECB's obligation to pursue the goal of price stability under Art. 127(1) TFEU.[59]

The dispute at hand raised the question to what extent considerations regarding financial stability might be taken into account in the pursuance of price stability. This is the subject of a lively debate in financial economics. Participants in the debate are divided over the relationship between monetary policy and other forms of economic policy. While both sides would agree that price stability and financial

[58] See above note 34 and associated text.

[59] The concept of "price stability" is rather undefined, leaving the meaning of the goal to be pursued somewhat in the dark. The ECB understands price stability as "inflation rates below, but close to, 2% over the medium term." See Monthly Bulletin, European Central Bank (Sept. 6, 2012), https://www.ecb.europa.eu/pub/pdf/mobu/mb200306en.pdf. Previously, the ECB understood price stability as "a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%." Press Release, European Central Bank, A Stability-Oriented Monetary Policy Strategy for the ESCB (Oct. 13 1998), http://www.ecb.europa.eu/press/pr/date/1998/html/pr981013_1.en.html.

stability are empirically interrelated, questions arise as to the normative consequences to be derived thereof. On the one hand, the approach which follows "separation theory" favors a monetary policy that largely disregards other policy objectives like financial stability or fiscal policy.[60] They firmly stand in the tradition of Tinbergen and Friedman.[61] They fear that political slack and the influence of interest group pressure might prevent central banks from pursuing their stability objective unless they are independent from government.[62] On that basis, many economists reject the OMT Programme.[63]

On the other hand, the separation theorem 8which has never remained uncontested by the more Keynesian economists,[64]] has come under pressure since the beginning of the present crisis. A number of economists challenge it, arguing that central banks should give more weight to issues of financial stability in their policy decisions, and thereby taking greater account of interdependencies among the various fields of economic policy.[65] They think central banks should take into account the development of private and public credit in their monetary policy decisions. Before the crisis, the prevention of credit bubbles or crunches was not considered to be the business of the central bank, but that of financial regulation and supervisory authorities. However, there is an intrinsic relationship between monetary policy and credit markets. Low monetary policy rates might fuel credit

---

[60] International Monetary Fund Staff Position Note, Olivier Blanchard, Giovanni Dell'Ariccia, & Paolo Mauro, *Rethinking Macroeconomic Policy* (Feb. 12, 2010); Gary Hufbauer & Daniel Danxia Xie, *Financial Stability and Monetary Policy: Need for International Surveillance*, *in* INTERNATIONAL LAW IN FINANCIAL REGULATION AND MONETARY AFFAIRS 382, 385 (Thomas Cottier, John H. Jackson, & Rosa M. Lastra eds., 2012).

[61] Cf supra notes 15 and 16 and accompanying text. MILTON FRIEDMAN, A PROGRAM FOR MONETARY STABILITY 77 *et seq.* (1959).

[62] MILTON FRIEDMAN, CAPITALISM AND FREEDOM 51-54 (2002).

[63] With respect to the programme preceding OMT: Ansgar Belke, *Driven by the Markets? ECB Sovereign Bond Purchases and the Securities Markets Programme*, 45 INTERECONOMICS: REV. OF EUROPEAN ECON. POL'Y 357 (2010); Dirk Meyer, *Kosten des Europäischen Finanzstabilisierungsmechanismus (EFSM) aus deutscher Sicht*, 231 J. Econ. & Stat. 288, 292–94 (2011).

[64] Peter Sester, *Plädoyer für die Rechtmäßigkeit der EZB-Rettungspolitik*, 59 Recht der Internationalen Wirtschaft 451, 452 (2013).

[65] Report, Brookings Institution, The Committee on International Economic Policy and Reform, Rethinking Central Banking (Sept. 2011); International Monetary Fund Staff Position Note, *supra* note 26.

bubbles, such as in a situation where growth in the entire economy remains below growth in one sector of the economy. Consequently, central bank policy affects financial stability.[66] What is important for the present case is that the reverse situation is also true: If credit remains below the level necessary for expected growth, there is a risk of deflation. This is the effect of the so-called "bank lending channel," the increase and decrease in the quantity of money due to the growth or contraction of the volume of credit.[67] Furthermore, regulatory policy affects monetary policy since it influences the lending activities of banks and thereby the quantity of money. According to this view, what is required is the "joint optimization" of policies pursued by different agencies. If the central bank discards issues of financial stability, it risks ruining its legitimacy.[68] One might call this the "interdependence theorem". It finds already some reflection in practice, whether in the OMT Programme or in the augmentation of supervisory tasks of central banks.[69]

When judges engage in a full review of central bank policy, they may have difficulty getting around this dispute. Whatever the mandate of the central bank is, they will have to take a position on the underlying, highly contested dispute about the relation of monetary politics to issues of financial stability.[70] However, judges usually do not possess the qualification or legitimacy to adjudicate economics.[71] A court that gets entangled in economic debates might compromise its legitimacy when its views are contested by those with more expertise on the issue. Likewise, making the economic issues at stake look uncontroversial involves the identical

---

[66] Report, *supra* note 34, at 5–7; Hufbauer & Xie, *supra* note 26, at 384.
[67] Frederic S. Mishkin, *The Channels of Monetary Transmission: Lessons for Monetary Policy,* NBER Working Paper Series (1996), No. 5464, 9 *et seq.*
[68] Report, *supra* note 34, at 7, 10; Hufbauer & Xie, *supra* note 26, at 395; International Monetary Fund Staff Position Note, *supra* note 26, at 11–13.
[69] Rosa M. Lastra, *The Evolution of the European Central Bank*, 35 FORDHAM INT'L L.J. 1260–1281, 1276 (2012).
[70] *Cf.* BVerfG, 2 BvR 2728/13, para. 17 (Gerhardt, J., dissenting).
[71] Christoph Herrmann, *Die Bewältigung der Euro-Staatsschulden-Krise an den Grenzen des deutschen und europäischen Währungsverfassungsrechts*, EUROPEAN J. ECON. L. (2012) 805, 810-11.

risk, especially since the expert testimonies solicited by the FCC reveal fundamental disagreement.[72] To avoid this risk, it would be wise for judges to review ECB measures with some restraint.[73]

2. Rationality Check Instead of Full Review

The idea of judicial restraint raises the question where the line should be drawn. While full review appears inappropriate, full discretion would be incompatible with Art. 35 of the ECB Statute, which explicitly provides for judicial review of ECB measures, as well as with the constitutional law of the member states.

In between these two extreme positions, courts might take recourse to rationality checks. In a theoretical perspective, rationality checks lend themselves to the present situation. They are situated in the middle between legal theories that assume the existence of a "single right answer" to any legal question and consequently favor full judicial review,[74] and legal theories that are skeptical of law's rationality and therefore consider judges as mere procedural "referees" that should not engage in substantive arguments.[75] Advocates of rationality checks consider the former view as incompatible with a pluralistic society where one might rationally disagree about the values underlying a certain policy,[76] and the latter view as normatively insufficient for law to ensure its integrative function in a pluralistic society that is supposed to express the common interest which everybody can agree with and not just the self-interest of the prevailing interest group.[77]

---

[72] Kai A. Konrad, Clemens Fuest, Harald Uhlig, Marcel Fratzscher & Hans-Werner Sinn, *Bundesverfassungsgericht und Krisenpolitik der EZB — Stellungnahmen der Ökonomen,* 93 WIRTSCHAFTSDIENST (2013) 431-454.
[73] HAHN & HÄDE, *supra* note 17, § 17 para. 34.
[74] RONALD DWORKIN, TAKING RIGHTS SERIOUSLY 81, 116 (1977).
[75] JOHN HART ELY, DEMOCRACY AND DISTRUST 87–88 (1980).
[76] JÜRGEN HABERMAS, FAKTIZITÄT UND GELTUNG 272 (1992).
[77] Frank I. Michelman, *Law's Republic*, 97 YALE L.J. 1493, 1526–7 (1988).

[[What is meant by rationality checks that fall short of full reviews, but exceed mere procedural control? According to Sunstein, rationality checks of the legislature require legislation to be based on a "reasoned analysis" of the problem at stake and the proposed solution, thereby ensuring that legislation pursues public and not private interests.[78] However, it is difficult to legitimately distinguish between public and private reasons. Another starting point for an understanding of rationality checks might be Habermas' proposal to disentangle the different types of reasons characterizing law-generating (as opposed to law-applying) discourses.[79] Law-generating discourses may include moral arguments of universal applicability, ethical arguments that define and relate to the self-understanding of the respective community, and pragmatic arguments that represent compromise among the self-interests of various groups.[80] Therefore, judicial review of legislation needs to respect the pragmatic, ethical, and moral choices of the legislature. Courts may only review whether the discursive requirements which ensure that legislative procedures are rationally acceptable have been respected.[81] These discursive requirements comprise more than just the legislative procedure, but the entirety of procedural, institutional, and deliberative requirements necessary in a democratic society, including human rights.[82] The FCC has followed this approach in a number of cases in which it did not doubt the policy reasons of the legislature, but in which it reviewed whether legislative acts

---

[78] Cass Sunstein, *Interest Groups in American Public Law*, 38 Stanford L. Rev. 29, 56, 78 (1985).
[79] On the difference between law-generating and law-applying discourses: HABERMAS, *supra* note 46, at 212.
[80] HABERMAS, *supra* note 46, at 187, 343.
[81] *Id*. at 347, 361.
[82] *Id*. at 208.

followed these policy reasons in a consistent and coherent manner[83] or whether the legislature observed a transparent and comprehensible procedure.[84]

By contrast, the judicial review of law-applying discourses like court decisions needs to respect the pragmatic, ethical, and moral decisions of the legislature and may not replace them with their own. Judges might take recourse to these reasons in order to interpret the law and ensure its consistent application.[85] In principle, the same considerations apply to executive decisions to the extent that their legal basis spells out the relevant moral, ethical and pragmatic decisions. Courts may therefore replace the legal reasoning of the administration that puts the law into practice with their own reasoning.[86] However, the executive branch might enjoy different degrees of discretion, especially if it is charged with the implementation of policies that formulate goals while leaving the means open. To the extent that the reasoning expected from the executive emulates the reasoning of the legislature and legitimately engages in moral, ethical, and pragmatic discourse, judicial review should respect such reasoning and only review whether the discursive prerequisites were in place.[87]]]

The decisions required from the ECB under Art. 127(1) TFEU therefore require a deliberative interpretation of these provisions that pays heed to both the institutional position of the ECB and the theoretical implications of its mandate. This might show that the TFEU charges the ECB with a good deal of pragmatic [,

---

[83] *E.g.*, Bundesverfassungsgericht [BVerfG] [Federal Constitutional Court] Dec. 18, 1968, 1 BoL 5/64 (BVerfGE 25, 1, 17) (Ger.) (Mühlengesetz). On the constitutional significance of consistency checks as part of rationality checks: Niels Petersen, *Gesetzgeberische Inkonsistenz als Beweiszeichen. Eine rechtsvergleichende Analyse der Funktion von Konsistenzargumenten in der Rechtsprechung*, 138 ARCHIV DES ÖFFENTLICHEN RECHTS 108–34, 114–17 (2013).
[84] *E.g.*, Bundesverfassungsgericht [BVerfG] [Federal Constitutional Court] Feb. 9, 2010, 1 BoL 1, 3, 4/09 (BVerfGE 125, 175, 225) (Ger.) (Hartz IV). Criticising the court and advocating a review limited to procedure: Philipp Dann, *Verfassungsgerichtliche Kontrolle gesetzgeberischer Rationalität*, 49 DER STAAT 630–646 (2010).
[85] *Id*. at 235–6.
[86] *Id*. at 231.
[87] *Id*. at 233.

ethical and maybe even moral] reasoning, whereas courts may only define some outer limits. Within these boundaries, courts may not replace the ECB's [moral, ethical or] pragmatic reasoning with their own, i.e. the ECB's assessment of possible interactions between its monetary policy on the one hand, and financial stability on the other. They may only exercise a rationality check and ask whether the presuppositions of such discourses have been observed, i.e. whether the act in question is rationally justifiable in a deliberative sense, bearing in mind the possibility of rational disagreement.

II. Deliberation in Sovereign Debt Disputes

The next case study takes the interaction of international investment law with sovereign debt workouts as an example. [[Today, the resolution of sovereign debt crises follows fairly standardized procedures, even though a Sovereign Debt Resolution Mechanism did not come into existence in 2003.[88] Since about the end of the 1980s, international institutions and bilateral creditors have made enormous efforts to facilitate exit from the debt trap. The Paris Club, the venue of bilateral creditors, changed its terms in order to facilitate debt relief. Together with the IMF and the World Bank, it set up the Heavily Indebted Poor Countries Initiative, which has successfully brought about debt relief for nearly three dozen developing countries. The IMF has repeatedly changed its access terms with a view to enabling debtor states to help themselves.[89]]]

---

[88] Background: Randal Quarles, 'Herding Cats: Collective-Action Clauses in Sovereign Debt - The Genesis of the Project to Change the Market Practice in 2001 through 2003' (2010) 73 Law & Contemp. Probs. 29.

[89] Udaibir S Das, Michael G Papaioannou and Christoph Trebesch, 'Sovereign Debt Restructurings 1950-2010: Literature Survey, Data, and Stylized Facts' (2012) IMF Working Paper 203; Armin von Bogdandy and Matthias Goldmann, 'Sovereign Debt Restructurings as Exercises of International Public Authority: Towards a Decentralized Sovereign Insolvency Law' in Carlos Espósito, Yuefen Li and Juan Pablo Bohoslavsky (eds), *Sovereign Financing and International Law* (OUP 2013) 39-70.

[[These remarkable, although far from perfect,]] efforts to tackle the debt problem are currently jeopardized by litigation before domestic courts and international investment tribunals.[90] Since about the 1990s, sovereign debt has been increasingly issued in the form of sovereign bonds, and prior syndicated loans were transformed into such bonds.[91] They were purchased by private retail investors. In case of a debt crisis, many of them exchange their old bonds into new ones with reduced principal and interest payments. Others do not participate in the bond exchanges and instead sue the debtor state for the nominal amount of the old bonds. Some investors sell their bonds at huge discounts to institutional investors, also known as "vulture funds" who make their living from the difference between the nominal and the market prices of such bonds.[92] This behavior is known as holdout litigation. Most holdout litigation takes place before domestic courts. In summer 2014, it has led to a default of Argentina known as "Griefault".[93] However, I will not focus on this here, but instead on litigation before investment tribunals, although some of the following applies *mutatis mutandi* to litigation before domestic courts.

In the *Abaclat* case, an ICSID tribunal held such litigation to be admissible under investment law.[94] More cases might follow since sovereign debt instruments might be covered by many BITs.[95] Collective action clauses are not yet included in all

---

[90] Overview: Michael Waibel, *Sovereign Defaults before International Courts and Tribunals* (CUP 2011). On domestic litigation Lee C Buchheit and Jeremiah S Pam, 'The Pari Passu Clause in Sovereign Debt Instruments' (2004) 53 Emory L.J. 869; Ugo Panizza, Federico Sturzenegger and Jeromin Zettelmeyer, 'The Economics and Law of Sovereign Debt and Default' (2009) 47 J. Econ. Lit. 651.

[91] Lowenfeld (note 24) 681ff.; Manuel Monteagudo, 'The Debt Problem: The Baker Plan (1985) and the Brady Initiative (1989) – History, Experience, Practice and Prospects' in Dominique Carreau and Malcom Shaw (eds), *La dette extérieure* (Brill 1995) 139.

[92] Jill E Fisch & Caroline M Gentile, 'Vultures or Vanguards?: The Role of Litigation in Sovereign Debt Restructuring (2004) 53 Emory L.J. 1043; Kevin P Gallagher, 'The New Vulture Culture: Sovereign Debt Restructuring and Trade and Investment Treaties' (2011) The IDEAs Working Paper Series 2.

[93] http://www.scotusblog.com/case-files/cases/republic-of-argentina-v-nml-capital-ltd/.

[94] *Abaclat v. Argentine Republic* [2011] ICSID Case ARB/07/5, Decision on Jurisdiction and Admissibility,.

[95] Kevin P Gallagher, 'Financial Crises and International Investment Agreements: The Case of Sovereign Debt Restructuring' (2012) 3 Global Policy 362.

sovereign debt, and even if they are, they are not necessarily successful.[96] Whether legislative measures to introduce such clauses retroactively will survive judicial scrutiny remains untested.[97]

One might therefore consider whether and to what extent the fair and equitable treatment standard affords protection to investors choosing to hold out and litigate. Fair and equitable treatment requires respecting the legitimate expectations of investors at the time of the investment.[98] Legislative changes are still permitted as long as they can be considered as part of the normal evolution of regulation.[99] Problems might arise, however, if an investor has received specific assurance. Such assurance might derive from a contract, i.e. from the sovereign bond. Also, breaking contractual obligations by means of sovereign powers usually violates the fair and equitable treatment standard.[100]

General international law offers a number of potential solutions to this dilemma. Invoking necessity as a defense might be one, but it has not always worked properly for the debtor state.[101] The principle of good faith might allow courts and

---

[96] Mitu Gulati and Anna Gelpern, 'Sovereign Snake Oil' (2011) 73 Law & Contemp. Probs. i; Fisch & Gentile (note 92) 1094-5.

[97] Their introduction is mandatory for Eurozone member states, cf. Art. 12(3), Treaty Establishing the European Stability Mechanism. On the risks of such legislation: Lee C. Buchheit and Mitu Gulati, 'How to Restructure Greek Debt' (2010) SSRN Working Paper <http://ssrn.com/abstract=1603304> accessed 27 August, 10ff.

[98] Rudolf Dolzer and Christoph Schreuer, *Principles of International Investment Law* (2nd edn, OUP 2012) 146.

[99] Ibid., 149.

[100] Ibid., 152; *Bayindir v Pakistan* [2009] ICSID Case No. ARB/03/29, Award , para. 377; *Consortium RFCC v Morocco* [2003] ICSID Case No. ARB/00/6, Award , para. 33f.

[101] Stephan Schill, 'International Investment Law and the Host State's Power to Handle Economic Crises. Comment on the ICSID Decision in LG&E v. Argentina' 24 (2007) J. Int'l. Arb. 265; Christina Binder, 'Changed Circumstances in Investment Law: Interfaces between the Law of Treaties and the Law of State Responsibility with a Special Focus on the Argentine Crisis' in Christina Binder, Ursula Kriebaum, August Reinisch and Stephan Wittisch (eds), *International Investment Law for the 21st Century* (2009) 608-630ff.; Christina Binder, 'Stability and Change in Times of Fragmentation: The Limits of Pacta Sunt Servanda Revisited (2012) 25 LJIL 909, 916ff. (emphasizing at 933 that regime-specific emergency clauses might work better in economic crises. However, they do not facilitate debt workouts).

tribunals to impose a standstill on holdout litigation.[102] In addition, and cumulatively to these solutions from general international law, an interpretation of the fair and equitable treatment standard following the deliberative approach might offer a possible solution. This requires interpreting the concept of legitimate expectations in a more deliberative fashion and to accommodate the needs of the regime governing sovereign debt workouts to the extent that they can be aligned with the rationality of international investment law. Accordingly, investment law should ensure fair conditions for investors. It is not a purpose of investment law to facilitate the unfair treatment of some investors (those who accept bond exchange offers) to the benefit of other investors in the same situations (those who chose to litigate). Hence, the fair and equitable treatment should only protect investors against unfair sovereign debt workout procedures, against intransparent or inaccessible workout negotiations. In that respect, investment tribunals' exercise of jurisdiction would be welcome – both from an investment law and a sovereign debt law perspective.

III. Rules for Stress Tests in Financial Supervision: A Deliberative Approach

The last example will demonstrate the potential of the deliberative approach in rule-making. I select macroeconomic stress tests as an example. In this example, the deliberative approach will show its potential in integrating contested economic theories into meaningful international rules.

1. Stress Tests as Supervisory Instruments

External or macro-level stress tests are usually conducted by supervisors and

[102] Matthias Goldmann, 'Necessity and Feasibility of a Standstill Rule for Sovereign Debt Workouts' (2013) Paper prepared for the UNCTAD Working Group on a Debt Workout Mechanism, <http://www.unctad.info/upload/Debt%20Portal/DWM%20Goldmann%20Standstill%20Study%2020140123.pdf> accessed 27 August.

assess the stability of the entire financial system or certain parts of it within a specified jurisdiction. Apart from surveillance, another reason for supervisory stress tests, which emerged during the recent financial crisis, is to restore confidence in the stability of the banking system. Supervisors may stress the assets or liabilities of financial firms under their jurisdiction either in aggregate form, or in a firm-specific way by applying a specified stress scenario to all selected portfolios or firms simultaneously.[103]

Supervisors started using external stress tests only relatively recently, but they quickly gained popularity.[104] Today, all supervisors which are members of the Basel Committee on Banking Supervision apply macro-level stress tests.[105] The Financial Stability Board jumped on the wagon and recommends their use to supervisors.[106] A prominent example is the Financial Sector Assessment Program of the International Monetary Fund (IMF), under which the fund has carried out stress tests of domestic financial systems since 1999 as a reaction to the Asian financial crisis.[107] It has been instrumental for the spread of stress testing as a regulatory instrument, as it encourages supervisors to organize tests themselves.[108] In lending programs for countries with a banking crisis, the IMF calculated the amounts necessary for the recapitalization of banks by using stress tests.[109]

---

[103] M. T. Jones, P. Hilbers, and G. Slack, "Stress Testing Financial Systems: What to Do When the Governor Calls", IMF Working Paper 04/127 (2004) 5, 14f.

[104] One of the first supervisors to do so was the Österreichische Nationalbank, cf. Boss et al. (2001).

[105] BCBS, Peer review of supervisory authorities' implementation of stress testing principles, April 2012, 8.

[106] Financial Stability Board, press release, http://www.financialstabilityboard.org/press/pr_100723.pdf; cf. also Report of the Financial Stability Forum on Addressing Procyclicality in the Financial System (2009), available at http://www.financialstabilityboard.org/publications/r_0904a.pdf.

[107] After a round of pilot assessments, the program was adopted by the Board, see IMF, "Summing Up by the Acting Chairman—Financial SectorAssessment Program—A Review—Lessons from the Pilot and Issues Going Forward", Executive Board Meeting 00/123, 13 December 2000, available in IMF, *Selected Decisions*, 35th ed. (2010), 115 et seq.

[108] http://www.imf.org/external/np/exr/facts/fsap.htm. For an overview see Jones et al. (note 103).

[109] IMF, "Macrofinancial Stress Testing – Principles and Practices", 22 August 2012, 13.

2. Stress Test Contingency and the Need for International Regulation

Stress tests are highly contingent instruments. They are based on a whole array of indicators which define the baseline and adverse macroeconomic scenarios, the application of the scenario on individual institutions, and the way in which results are presented. Suffice it here to shed some light on the contingency of the baseline and adverse scenarios.

The selection of the baseline and adverse scenarios is probably the largest source of contingency for stress tests. Supervisors have to decide what they want to consider as the baseline (or benchmark) scenario, i.e. the most probable macroeconomic development during the testing period, as well as the adverse scenario, i.e. the macroeconomic turmoil which they use for the simulation. All these scenarios use indicators in order to describe highly complex economic situations and developments with not more than a few figures. Naturally, the power to determine these scenarios gives the supervisory authorities a large margin of discretion.

The baseline scenario requires a guess about the expected economic development. While such guesses usually are fraught with uncertainty, at least they have to follow accepted methods, unless the supervisor is willing to make a fool of itself. The main purpose of the baseline scenario is to enable the definition of an adverse scenario as a digression from the baseline scenario with respect to certain macroeconomic indicators to a specific degree each (e.g. growth rate of 0.1% of GDP instead of 2% as expected under the baseline scenario).[110] This is where the main contingency of stress test scenarios resides.

[110] Jones et al. (note 103), at 8.

The textbook solution is that adverse scenarios should be severe, but plausible.[111] Obviously, this raises almost more questions than it answers. The choice of indicators depends very much on the interests of the test designers and their estimates regarding macroeconomic developments which are likely to destabilize the financial system. Most stress test frameworks define the adverse scenario in terms of actual historic events such as the 1987 stock market crash, or econometric models such as standard deviations from normal downside events like a light recession, or use entirely hypothetical scenarios.[112] All these approaches suffer from historic bias, since even hypothetical scenarios are deemed to be plausible especially if they resemble past downside events. However, as Alfaro and Drehmann have analysed, stress tests based on historic scenarios fail to predict future crises in 70% of all cases included in the sample.[113] Financial crises often do not follow the patterns of the past, since markets are constantly under development and produce new risks.[114] Estimates about the probability of certain events and thus about the plausibility of the respective scenario are little helpful if new developments create new causal relationships. Also, existing regulation tends address problems of the past rather than of the future. Econometric models suffer from the additional weakness that about every second banking crisis is not preceded by macroeconomic downturns, as these scenarios regularly assume.[115] In the end, adverse scenarios again and again turn out to be overly optimistic.[116]

The 2010 EU stress test carried out by CEBS, the predecessor of the European Banking Authority, provides ample evidence for the difficulties involved in

---

[111] Quagliariello (2009), 25ff.; Tarullo 3.
[112] R. Alfaro and M. Drehmann, "Macro stress tests an crises: what can we learn?" BIS Quarterly Review 4 (2009), 29-41, 34; M. Čihák, "How Do Central Bankers Write on Financial Stability?", IMF Working Paper 06/163 (2006), 24.
[113] Alfaro and Drehmann (note 112), at 35.
[114] Jones et al. (note 103), at 19.
[115] Alfaro and Drehmann (note 112), at 34.
[116] Ibid., at 30; Bowen, O'Brian, Steigum (2003) on Norway.

scenario selection.[117] First of all, it assumed that there would be no sovereign default (i.e. no haircut) within the Union because of the backup provided by the European Financial Stability Facility.[118] As a result of this decision, the stress test did not consider the effects of the sovereign debt crisis on assets held in the banking book. The test basically assumed that those assets would be paid back in full at maturity. Had the test scenario included the assumption that these assets would be paid back at their market value only, the stress test results would have had to recognize that banks might lose an additional EUR 138bn in case of the adverse scenario.[119] Likewise, the scenario did not include the possibility of bank failures. In that case, all the assets of a bank have to be sold at market price, irrespective of whether they are kept in the trading book or banking book.[120]

On the whole, prior to the recent financial crisis, the stress tests have not been very effective as a means of prevention. None of the macro-level stress tests prior to the crisis identified the upcoming turmoil. The tests conducted by the IMF Financial Sector Assessment Program in 2005, 2006, and 2007 revealed robust results for banking systems in most countries covered even in case of severe downside events.[121] It seems probable that these shortcomings relate to stress test contingency. This might threaten global financial stability. Worse than that, stress tests might be used to generate undue confidence and create a regulatory race to the burden which undermines common standards such as Basel III.

It therefore seems advisable to agree on some common international rules for stress tests. But this is easier said than done. International rules may not escape the

---

[117] CEBS, Aggregate Outcome of the 2010 EU Wide Stress Test Exercise – Coordinated by CEBS in Cooperation with the ECB, 23 July 2010, 2ff.
[118] A. Blundell-Wignall and P. Slovik, "The EU Stress Test and Sovereign Debt Exposures", OECD Working Papers on Finance, Insurance and Private Pensions No 4 (2010), 10.
[119] Ibid., at 7.
[120] Ibid., at 9.
[121] C. Borio, M. Drehmann and K. Tsatsaronis, "Stress-testing macro stress testing: does it live up to expectations?", BIS Working Paper 369 (2012), at 7.

contingency of stress test scenarios. They also involve the risk of spreading insufficient standards and cementing mistakes, making it difficult for domestic or supranational supervisors to apply their own, possibly better, testing method. In this regard, the deliberative approach might be helpful.

3. A Deliberative Approach to Stress Test Scenario Selection

Indeed, some recent initiatives from international organizations aim at the development of standards for stress testing. The Basel Committee adopted a document stipulating principles for sound stress testing in 2009. It mostly concerns the design of internal stress tests required by the Basel Accord, but also recommends supervisors to consider carrying out stress tests.[122]

Supervisory stress tests are in the focus of an IMF paper of 2012, which proposes a number of practice-oriented principles for stress testing.[123] It is based on a study of the practice of domestic supervisory authorities and on the benefits and flaws of stress testing during the crisis. Accordingly, it proposes a total number of 7 principles, two of which could be qualified as procedural and hence in line with the deliberative approach (No. 4: Make use of the Investors' Viewpoint in the Design of Stress Tests; No. 6: When Communicating Stress Test Results, Speak Smarter, Not Just Louder). The other principles stipulate goals or objectives of stress testing without formulating rules, which also follows very much the deliberative approach (No. 1: Define Appropriately the Institutional Perimeter for the Tests; No. 2: Identify All Relevant Channles of Risk Propagation; No. 3: Include All Material Risks and Buffers; No. 5: Focus on Tail Risks; No. 7: Beware of the "Black Swan" [i.e. be aware that stress tests have only limited predictive

[122] BCBS, "Principles for sound stress testing practices and supervision", May 2009, principle 20.
[123] IMF, "Macrofinancial Stress Testing – Principles and Practices", 22 August 2012.

value]). While this document could probably not be underestimated as the seed crystal for the future development of international stress testing standards, it still needs refinement. Each of the IMF's principles stipulating goals or objectives (No. 1, 2, 3, 5, and 7) defies a material solution and has procedural implications. The same goes for a list of principles recently elaborated by a group of economists.[124] For example, one can never be sure whether one has included all relevant channels of risk propagation, or all material risks.

However, one might formulate a set of mostly procedural principles which allow achieving the goals stipulated in the IMF's principles. In this respect, the deliberative approach may inspire rule-making. This will be demonstrated by the example of potential rules for scenario selection.

The path dependency of stress scenarios in existing testing models calls for regulation of this issue. At the same time, regulation must not create new path dependencies, but ensure that scenario selection and risk model design remain normatively and cognitively open. A deliberative approach offers an avenue which might help achieving these goals. Its idea is to make decision-making processes inclusive and to keep them normatively and cognitively open, inviting challenges to convictions and truths believed to be waterproof.[125] According to this approach, one might require public consultations on stress testing scenarios that include a wide array of stakeholders. In this respect, the Basel Committee recommends supervisors to exchange views on stress test designs,[126] while the IMF's Principle No. 4 recommends including the views of investors. This would have the additional positive effect of strengthening the democratic legitimacy of stress tests.

---

[124] D. Greenlaw, A.K. Kashyap, K. Schoenholtz, H. Song Shin, "Stressed Out: Macroprudential Principles for Stress Testing", University of Chicago Initiative on Global Markets Working Paper No. 71 (2012), 36-7.

[125] E.g. Habermas, Jürgen, *Faktizität und Geltung* (Suhrkamp, Frankfurt a.M. 1992); Amartya K. Sen, *The Idea of Justice* (2009).

[126] BCBS (note 122), principle 21.

As of now, many supervisory stress tests amount to a form of quasi-regulation. Administrative authorities whose regulatory activities are otherwise subject to notice-and-comment procedures, ministerial or parliamentary approval should not circumvent these safeguards.

The cognitive openness of scenario selection could further be fostered by default rules derived from past experience with path dependency. Since stress tests were almost consistently over-optimistic, the dogma of rare but realistic downside events should be questioned. Experience and historical events should not divert from new risks. Therefore, it might be useful to test events which are highly unlikely, if not unrealistic.[127] Perhaps the worst forecast error would be a better indicator than the worst historical downside event.[128] It is also questionable whether the adverse scenario should always be defined by certain macroeconomic events, as not all crises are preceded by them.[129] Instead, new financial products are an issue which has often caused banking crises in the past.[130]

Further, in line with the idea of inclusive deliberation, the integrated nature of global financial markets need to be better taken into account in order to identify potential levers of contagion instead of focusing on bilateral relationships between institutions.[131] The identification of such potential levers of contagion requires an enormous amount of information. Supervisors need to take into account the balance sheet structures of financial firms both within and outside their jurisdiction in order to identify potential triggers of systemic turmoil.[132]

[127] Borio et al. (note 121), at 14f.
[128] Alfaro and Drehmann (note 112), at 35.
[129] Ibid., at 39.
[130] Ibid., at 40.
[131] Ibid., at 39; Borio et al. (note 121), at 17.
[132] Jones et al. (note 103), at 6-8.

The list could be continued. The deliberative approach would guide the translation of contested econometric models into legal rules which provide for sufficient coordination, while at the same time taking the epistemic uncertainty facing stress tests into consideration.

E. Conclusion: The Deliberative Approach and Global Democracy

The conclusion brings me to the normative upshot of this paper. Given that deliberative structures in their ideal *Gestalt* are embedded in democratic structures and procedures, the best reform of the financial system might lie in its profound democratization. Certainly, this raises more questions than it answers. To many scholars, global democracy seems unavailable, at least not in the form of a global state.[133] However, imperfect, yet valuable forms of democracy, or rather, of legitimate global governance might be available, which by and large follow the deliberative approach.[134] They might consist in deliberative procedures, which allow for the inclusion of diverging rationalities, diverging segments of public finance, diverging opinions in economic theory. The previous examples may have demonstrated that such an approach is not merely a distant hope, but could be a realistic perspective.

[133] E.g. Jürgen Habermas, "The Constitutionalization of International Law and the Legitimation Problems of a Constitution for World Society", 15 *Constellations* (2008) 444-455. Sceptical also Nico Krisch, *Beyond Constitutionalism. The Pluralist Structure of Postnational Law* (Oxford University Press, 2011).

[134] Cf. Sen (note 125); Stewart, Richard B., "Remedying Disregard in Global Regulatory Governance: Accountability, Participation, and Responsiveness", 108 *The American Journal of International Law* (2014) 211-270; Bogdandy, Armin von, Philipp Dann and Matthias Goldmann, "Developing the Publicness of Public International Law: Towards a Legal Framework for Global Governance Activities", 9 *German Law Journal* (2008) 1375-1400.