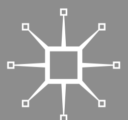
THE HANDBOOK OF GLOBAL SHADOW BANKING

Volume I

From Policy to Regulation

Luc Nijs



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palgrave
macmillan

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ISBN 978-3-030-34742-0 ISBN 978-3-030-34743-7 (eBook)
https://doi.org/10.1007/978-3-030-34743-7

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Preface

Writing a book is often a challenge, yes even a struggle from time to time. Writing a book on shadow banking goes quite a bit beyond that struggle. It's like shooting a moving target. Worse, it's like a Tour de France but then only with climbs 'hors catégorie'. But when persisting, it yields its benefits. If you can navigate, possibly over time, beyond the window dressing language of regulators, supervisors, lobbyists and the likes and can lift the fog on the paradigm and the schism that financial regulation has created between the regulated and less or otherwise regulated part of the financial industry, you're ultimately in a much better position to focus on what really matters. It also allows you to see much clearly the relative safety that was created in recent years through all the different layers of incoming regulation which was built on the existing and largely outdated regulatory infrastructure.

For those reasons only, I considered that I didn't want to write a book that had the 'look and feel' of an ordinary textbook. Not that there is something wrong with that but I felt that incremental value over and beyond existing literature could only come from a book that would allow to move across the different components of the shadow banking segment and allow for a deeper understanding of the different shadow banking facilities and their functionalities in the different countries and regions of the world. It would further cater to the interactions and cross-dynamics between regulation, macroeconomics, risk management, supervision, macroprudential oversight and aligned domains as monetary and fiscal policies.[1] I realized quickly in the process that meeting that objective wasn't possible if I would stick to a traditional textbook setting where individual topics would be digested separately and isolated from the other topics at hand.

[1] In particular fiscal policies are extremely relevant as they are directly linked, instrumental and very effective in triggering and fostering economic growth; see e.g., IMF, (2015), Fiscal Policy and Long-Term Growth, IMF Policy Paper, Washington DC, June. Much more than, for example, public investments, see: A. Berg et al., (2015), Some Misconceptions about Public Investment Efficiency and Growth, IMF Working Paper, WP/15/272, December 23.

So I had to come up with a different strategy, one that would cater to the objectives of a book that is called 'the global handbook on shadow banking' and therefore needs to aim for a certain level of completeness, realizing that a 100% completeness is a theoretical and unachievable goal within the context of one book and a broad topic like 'shadow banking'. But I thought I needed to give it a try. It would also need to demonstrate the complexity and the interwoven dimensions of the different shadow banking segments.[2] And I would have to do that by respecting and honoring the different aspects indicated in the previous paragraph. A normal textbook setting would have not been able to cater properly to that objective. I therefore decided that creating a book that would live up to all of this would look quite different and would have a structure that would foremost facilitate the above-mentioned objectives.

In this first volume, the shadow banking sector will be explored, segment by segment: from their historical emergence all the way through to how they have been regulated in recent years. The survey isn't limited to the regulatory and oversight choices effectively made, but also other options that (could) have been on the table, but were denied or neglected. Did all those incoming regulations and policies have made the sector safer?

The first six chapters of the book (Chaps. 2, 3, 4, 5, 6 and 7), after the initial introduction, are spent on an analysis of why there is a shadow banking market, and why we are so concerned about financial intermediation outside the regulated banking sector. I therefore don't shy away from 'old' and 'new' topics and those topics that will stick with us for years to come. I gently touch upon policy responses around the world, and the impact they had or are expected to have. I could have limited myself to an analysis of the nature of credit, maturity and liquidity transformation. But that would have yielded an informative brochure at best, but not the type of cross-dimensional analysis I was looking for.

So starting in Chap. 8, I wonder at length about the relationship between policy dimensions and regulation, regulation that was built above and beyond existing financial regulation. It will be demonstrated that building and executing proper financial regulation is a lot harder when built on the ruins of a system that just failed than if you have to build it from scratch. The overall conclusion is that regulation creates 'marginal improvements' at best, but that it has stayed too much within the traditional paradigm to make a real difference. To what degree that is due to enhanced lobbying efforts I leave up to you to decide. The sheer complexity of the regulation in place feels a lot like a 'negotiated solution' rather than one with tight objectives that were pre-defined. I also take the opportunity in that part of the book to start bringing in macroeconomics, macro/microprudential dimensions[3] as well as their direct and adjacent domains as monetary and fiscal policy, without losing track of an ongoing analysis of incoming regulation and policy

[2] And the fact that they are embedded in large global, multijurisdictional conglomerates whereby credit chains have become long-winded and spanning multiple jurisdictions. See for a review of the supervisory challenges in such an environment: T. Eisenbach et al., (2017), Supervising Large, Complex Financial Institutions: What Do Supervisors Do?, FRBNY Economic Policy Review, February, pp. 57–77.

[3] See for an overview: S. Claessens, (2015), An Overview of Macroprudential Policy Tools, Annual Review of Financial Economics, Vol. 7, pp. 397–422; L. D. Wall, (2015), Stricter Microprudential Supervision Versus Macroprudential Supervision, Journal of Financial Regulation and Compliance, Vol. 23, Issue 4, pp. 354–368.

responses.[4] Doing that forced me to retake some earlier, already discussed topics. But I realized as well that the time that people read books, with titles like these, from cover to cover is long behind us, and so rebuilding part of the topics in a different context was an honorable and justified objective, or at least I thought and think it is. Some that feel differently will potentially experience the setup and structure of the text as somewhat confusing or maybe even wildly chaotic. That was a risk I was willing to take. But to compensate for that, I ensured an extensive and well-documented index where the focused or specialist reader can quickly identify the areas in the book that cater to his or her needs so that they can avoid having to work through topics and thoughts that are of lesser interest.

The last chapter is somewhat different and more philosophical in nature. Chapter 11 asks the question to what degree the tax system is embedded and instrumental to creating the shadow banking market and the externalities it has and will cause. In particular given their inexplicable willingness to favor debt over equity (debt bias). We will review the status quo and I will suggest a Pigovian tax model that would, as by the nature of a Pigovian levy, focus on reducing or neutralizing the externalities caused by the (shadow) banking system, a model I first suggested in 2015. We have seen, only recently, the Pigovian instrument occur in the financial sector despite the fact that Pigovian instruments belong in the wisdom toolbox of every regulators.[5]

A root-cause analysis of complex problems takes time. However, it is more the first-line nature of the regulator to regulate in white heat the symptoms of the previous crisis than to create a well-balanced framework (possible on a regional or global level although all that seems very difficult if not impossible) that can resist time. It (such a root-cause analysis) will undeniably force the parties involved to rethink the economy[6] and its process which the (shadow) banking market ultimately feeds into or drops its Cuckoo's eggs. Besides the fact that a lot of regulatory context is still designed on expert fora which traditionally have been very influenced by the players of the financial industry, the one thing that is still lacking most is a clear vision how the (shadow) banking sector can contribute to the real economy, productivity and growth.[7] Without such a clear vision, everything else doesn't really matter, because if you don't know where you're going it doesn't really matter how you get there.

Whether you call it 'shadow banking', 'market-based finance' or 'parallel banking' matters less. The Financial Stability Board, the supervisory guardian of shadow banking around the world, has made a significant U-turn in this respect in recent years regarding a segment that requires meaningful regulation and oversight. In all honesty, I have to admit that one gets intellectually bruised pretty badly if one listens and accepts the

[4] See C. Lopez et al., (2015), Macroprudential Policy: What Does it Really Mean, Working Paper, mimeo.

[5] T. Hartford, (2015), The Pillars of Tax Wisdom, Financial Times, November 20.

[6] T. Mitchell, (2008), Rethinking Economy, Geoforum, Vol. 39, pp. 1116–1121.

[7] B. Stellinga, (2015), Europese Financiële Regulering Voor en Na De Crisis, WRR Working Paper Nr. 15, p. 83. There is loosely a limited to modest positive relationship between credit supply and productivity growth, but a material negative impact on productivity of credit supply contractions. See F. Manaresi and N. Pierri, (2019), Credit Supply and Productivity Growth, IMF Working Paper Nr. WP/19/107, May.

arguments given at face value. I'm surprised to see and hear the constant rehashing of invalid arguments favoring, for instance, market-based finance as an attractive channel to promote SME funding.

The regulatory channels seem somewhat in lockdown not to say outright ignorance, and questions are being asked about the need for (a better balance between) ex ante versus ex post regulation,[8] realizing that the natural instability of a free market mechanism cannot be avoided at any time, whatever the legislation one puts in place. A holistic and systematic design of regulation is needed rather than the transaction-based one.[9] And so (complementary) suggestions were made to, for instance, limit the limited liability concept of legal entities, something our current business environment is built on but which has not been with us all that long.[10] 'Piercing the corporate veil' could put a halt to the eternality producing dynamics of the (shadow) banking sphere as it even under current regulatory dynamics can be used 'in order to bring corporate actors' behavior into conformity with a particular statutory scheme',[11] prioritizing shareholder welfare, or better stakeholder value, not shareholder value.[12] A more principle-based regulatory model rather than an endless codex might do the trick. Often it is anyway forgotten that regulation comes at a cost, a significant cost, so significant that it does not only warrant better and more focused attention but also that the legal principle of 'proportionality' might be at risk here.[13] The cost of financial regulation, in contrast to other laws, focuses on the behavioral, market, general equilibrium and political reactions.[14] A better and more trans-

[8] Ex ante is necessary but inherently insufficient; ex post deals with the aftermath, the clean-up and who picks up what part of the damage. The mechanical relation between those two segments prevents the creation of a true holistic regulatory model and avoids painful discussion about hidden topics like regulatory arbitrage and corporate governance, and abuse of corporate structures and corporate law at large. See regarding the emergence of the corporate form as we know it, for instance, G. Dari-Mattiacci et al., (2017), The Emergence of the Corporate Form, The Journal of law, Economic and Organization, Vol. 33., Nr. 2, pp. 193–236.

[9] If you do this, then… 'or' to counter this, 'the regulation responds with'. The regulator, policy design segment and the law profession are still pondering about how such regulation should be designed. Holistic and systematic regulation that deals with the unexpected, the unknown unknows, is regulation that meets qualities and properties our current legislative infrastructure cannot cater to. It's like building a Spanish hacienda on top of a drained swamp. It only works for a little while.

[10] A.G. Haldane, (2015), Who Owns a Company, Speech given by Andrew G Haldane, Chief Economist, Bank of England, University of Edinburgh Corporate Finance Conference, May 22.

[11] J. R. Macey, (2014), The Three Justifications for Piercing the Corporate Veil, Harvard Law School Forum on Corporate Governance and Financial Regulation, March 27.

[12] Based on the idea that everybody is willing to sacrifice some money for our beliefs. Why not the companies we own? See: L. Zingales, (2018), Public Companies Should Prioritise Shareholder Welfare, Not Value, FT, December 11. Decent governance also reduces financial intermediation costs for banks, sovereign and non-bank corporations, see: M. Jarmuzek and T. Lybek, (2018), Can Good Governance Lower Financial Intermediation Costs?, IMF Working Paper Nr. WP/18/279, December.

[13] Also recently: F. Restoy, (2019), Proportionality in Financial Regulation: Where Do we go from Here?, Speech by Mr Fernando Restoy, Chairman, Financial Stability Institute, Bank for International Settlements, at the BIS/IMF policy implementation meeting on proportionality in financial regulation and supervision, Basel, Switzerland, 8 May, via bis.org

[14] J.H. Cochrane, (2014), Challenges for Cost-Benefit Analysis of Financial Regulation, The Journal of Legal Studies, Vol. 43, Issue S2, pp. S63–S105.

parent process is an often cited objective. That is because currently the previous crisis drives the response, not the objective and the way it is translated in the process followed by the regulator. There is also no real tradition of monitoring or communicating the cost and benefits of regulation in a quantitative way. That is because the regulators understand very little about the causality between benefits and incurred costs in (financial) regulation. Or worse, they think they do without proper justification. And so, ineffective regulation stays in place long after its ineffectiveness has become clear and more new regulation is built on the carcass of old, ineffective regulation impacted optimal functioning of markets, competition and the relation with adjacent policy spheres such as monetary and fiscal policy. The solution comes from within the regulators' process and is not endogenous as some claim,[15] but is immanent to the process. Financial regulation should be welfare optimizing and welfare inducing and that can only happen when the process takes into account how all parties involved represent their interest and weigh in on the writing process, impact assessment and so on and ultimately co-determine the shaping of the final texts. Because make no mistake, vulnerabilities are still in the market and in fact they are bigger and brighter than at the time of the 2008 crisis,[16] and many of the umbrella objectives like growth, price and financial stability and so on are often intrinsically conflicting in nature.[17]

Both financial regulation and vulnerabilities stifle productivity, and productivity expansion is needed for economic growth.[18] But there is no silver bullet or well-defined list of factors that lead to productivity growth. We know however that reliable institutions, fully operating markets and competition may provide incentives for investment, human capital accumulation and productivity growth, but other factors do too. But even if we could agree on their absolute performance, we would fall over each other debating the relative importance or ranking of these elements in the mix.[19]

[15] J.C. Coates IV, (2014), Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications, Harvard John. M. Olin Center for Law, Economics and Business, Discussion Paper Nr. 757.

[16] See the annual BIS reporting on the matter; see for the recent report: BIS, (2015), 85th Annual Report, Basel June 28.

[17] See e.g. S. Kim and A. Mehrotra, (2015), Managing Price and Financial Stability Objectives-What Can We Learn From The Asia-Pacific Region?, BIS Working Paper Nr. 533, Basel, December.

[18] Which determinants are constitutive for growth is still largely up for discussion and matrixes and tools are designed and (re)shaped. One of the factors that are always tabled is 'financial development and institutional robustness'. See e.g. R. Cherif et al., (2018), Sharp Instrument: A Stab at Identifying the Causes of Economic Growth, IMF Working Paper Nr. WP/18/117, May. Financial development is mostly beneficial for emerging economies, but largely detrimental for advanced economies. Financial innovations trigger financial instability with a 1- to 2-year delay. See in detail: S.B. Naceur et al., (2019), Taming Financial Development to Reduce Crises, IMF Working Paper Nr. WP/19/94, April.

[19] M. Sánchez, (2015), Productivity, Growth, and the Law, Remarks by Mr Manuel Sánchez, Deputy Governor of the Bank of Mexico, at the Annual Bank Conference on Development Economics, organized jointly by the World Bank and the Bank of Mexico, Mexico City, June 16, p. 3.

Toward the end, I have argued that the factor that is most missing is capital or equity if you want, in contrast to debt. Both are needed to create a resilient and robust financial infrastructure.[20] Thinking there is as such competition or a stifling effect between bank-based and market-based financial models is essentially a misnomer.[21] They can perfectly live together and each in their own way contribute to economic growth. Bank-based models have, for example, a pedigree of being better equipped to deal with the asymmetry in the SME sector than a market-based model.[22] Market-based models tend to facilitate better larger deals and are better at bringing down the cost of funding under constant risk terms. But they are more procyclical and recover better after recessions. Ying and Yang and all is just fine. But not when we treat them like they are identical. Being equal doesn't mean being identical and so they shouldn't be treated that way. A market-based system is inherently unstable and requires an exogenous backstop in order to rebalance. The question that we can ask is whether the Treasury Department should function as a final backstop to make this happen over and over again, realizing the private money creating features of the shadow banking segment, or whether only equity should make that happen. Underwriting unlimited private money creation is like underwriting a house that is already on fire: you can only lose and will have to fight moral hazard[23] left, right and center. Just like piercing the corporate veil will equity bring responsibility and accountability back to the center of the business models in the financial sector. So equity might be a better disinfectant for many of the problems experienced in the 2008 crisis. However, more equity will create some sort of ex ante identical position for (shadow) banks, but the development and end position will be different and raising equity post-crash delivers crowded trades and misallocations.[24]

It therefore would have been way too easy to limit a shadow banking analysis to the analysis of leverage, maturity and liquidity transformation and regulatory arbitrage. Of course, these are key ingredients and have shaped the dynamics largely so far. But also data availability and how the supervisory model has been developed are essential too. Supervision is never a pure objective and biases are undeniable.[25] That counts if your object of 'affection' is a shadow banking market that is agile, driven by financial innovation[26] and co-shaped by

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[20] An infrastructure that is characterized by rising levels of market concentration and consequently market power. In its most recent World Economic Outlook the IMF indicates that, besides a number of other conclusions, further market concentration and corporate market power will make it for difficult for monetary policy to stabilize output. See in detail: IMF, (2019), The Rise of Corporate Market Power and its Macro-Economic Effects, April, Chapter 2, pp. 55–76.

[21] J. Weidmann, (2015), Of Credit and Capital – What is needed for an Efficient and Resilient Financial System? Speech by Dr Jens Weidmann, President of the Deutsche Bundesbank, at the IIF (Institute of International Finance) Europe Summit, Frankfurt am Main, June 25, pp. 2–3.

[22] See extensively: S. Aiyar et al., (2015), Revitalizing Securitization for Small and Medium-Sized Enterprises in Europe, IMF Staff Discussion Note Nr. SDN/15/07, May.

[23] S. L. Schwarcz, (2016), Misalignment: Corporate Risk-Taking and Public Duty, Notre Dame Law Review Vol. 92, pp. 1–50.

[24] C. Bertsch and M. Mariathasan, (2015), Fire Sale Bank Recapitalizations, Sveriges Riksbank Working Paper Series Nr. 312, September, Stockholm.

[25] R. Jansen and M. Aelen, (2015), Biases in Supervision: What Are They and How Can We Deal With Them?, DNB Occasional Studies Nr. 13-6.

[26] S. Rossi, (2018), Which New Frontiers in Banking? Speaking Notes by Salvatore Rossi, Senior Deputy Governor of the Bank of Italy and President of IVASS, 2018 Conference on "New Frontiers

regulatory interventions. And those datasets are used for regulatory design as well. Admati has already indicated a while ago that 'flawed and ineffective financial regulation fails to counter, and may exacerbate, distorted incentives within the financial system. The forces that lead to excessive fragility through unnecessary and dangerous levels of leverage, opacity, complexity and interconnectedness also distort credit markets and create other inefficiencies'…'confusions about the sources of the problems and about the tradeoffs associated with specific tools have muddled the policy debate and have allowed narrow interests and political forces to derail progress towards a safer and healthier financial system.'[27] In fact, the regulator has often been an initiator of regulatory arbitrage, the contributor to systemic risk and used econometric model-based regulation to solve issues.[28] Even more regulation has become tainted as it has been blamed for 'coding' selectively 'certain assets, endowing them with the capacity to protect and produce private wealth. With the right legal coding, any object, claim, or idea can be turned into capital'.[29]

And then there is the demand side of the shadow banking market. The demand for safe assets has been outstripping the supply in recent years and for almost two decades. The welfare economics we created triggers a demand that couldn't be met in the Treasuries market only, and so artificial solutions were created that over-lubricated the economic machine and ultimately derailed it. If market-based finance cannot live without an external backstop,[30] it will never have the feature of 'stability' the way we want it to see. In fact, asking implicitly for the sovereign to underwrite the 'free' markets sounds like a horrible and equally unrealistic idea. Shadow banking or market-based finance implies that a lot of it is conducted not in a firm but facilitated by markets. A sovereign that is not involved in the money creation process is in no position to facilitate a backstop. That would be like underwriting insurance that provides coverage under all conditions and situations imaginable and unimaginable.

If that is near impossible under normal circumstances it is totally impossible under the constrained condition the supervisors and regulators are operating at present. Many critical concepts are still under development and embryonically understood (vulnerability, contagion, interconnectedness etc.), and although I'm not prepared to go as far as saying that 'we don't know anything' about the intrinsic and hidden risks in shadow banking,[31] I'm prepared to proclaim that knowledge and granularity of data is indeed thin, very thin about what constitutes often large parts of shadow banking segments in some countries.

in Banking: from Corporate Governance to Risk Management", Rome, Faculty of Economics, Sapienza University 16 March.

[27] A.R. Admati, (2015), Rethinking Financial Regulation: How Confusions Have Prevented Progress, Stanford University, Rock Center for Corporate Governance, Working Paper Series Nr. 207, June 25, p. 1.

[28] S. Kleimeier, et al., (2015), Deposit Insurance in Times of Crises: Safe Haven or Regulatory Arbitrage?, University of Maastricht Working Paper Nr. RM/15/026.

[29] Stocks, bonds, ideas and even expectations – assets that exist only in law – are coded to give financial advantage to their holders, thereby allowing wealth creation and production of inequality. Regulation is tainted as 'pervasive', including the people who shape it, and the governments that enforce it, documents Pistor. See in detail: K. Pistor, (2019), The Code of Capital: How the Law Creates Wealth and Inequality, Princeton University Press, May 28, Princeton, New Jersey.

[30] See for an extensive overview: I. Hardie and D. Howarth (eds.), (2013), Market-Based Banking and the International Financial Crisis, Oxford University Press, Oxford.

[31] R. Lenser, (2015), Hidden Dangers that Banking Regulators Fail to Chart, Financial Times, April 20.

And then we're not even talking about the interconnectedness, contagion effects and so on . Mapping it doesn't equal understanding it, regulating it, sustaining it or stabilizing it after it has destabilized. Some aspects can't even be regulated (e.g. moral hazard) might be the conclusion, and peer disciplining through market-based forces and mutualization post-crisis might not function effectively or not at all.[32] In other cases, we might not be willing to live with the consequences of such interventions[33] or need to realize that the use of market-based probabilities in policy and regulatory decision making has severe limits.[34]

Just like the regulator co-shaped the shadow banking market through its incoming regulation, so do monetary policies. It creates inefficient allocations and might trigger or at least enhance the probability of a financial crisis.[35] In such an environment a new reassessment of the economic role of the state might be warranted.[36] Mandating private rent-seeking economic agents to guard a public interest of this size might not be such a great idea to begin with as profit-seeking and risk-taking go hand in hand (and reinforce each other), even for the best and brightest financial institutions out there: '[a] more profitable core business allows a bank to borrow more and take side risks on a larger scale, offsetting lower incentives to take risk of given size. Consequently, more profitable banks may have higher risk-taking incentives.'[37] And that poses 'a direct risk for real assets and the real economy overall.'[38] Having these financial institutions listed makes them prone to 'short-termism' mainstream in public markets. Also that is a characteristic of market-based finance and which doesn't bode well with the real economy whose objectives tend to be, in general, of a longer duration.[39] A full re-engineering of our financial and capitalist system might well be a necessity in this context.[40] Financial stability monitoring,[41] even

[32] F. Palazzo, (2015), Peer Discipline via Loss Mutualization, Working Paper, November 2, mimeo.

[33] A. Uluc and T. Wieladek, (2015), Capital Requirements, Risk Shifting and the Mortgage Market, Bank of England Working paper Nr. 572, December, London and M. Croisignani, (2015), Why Are Banks Not Recapitalized During Crises, Oesterreichische Nationalbank Working Paper Nr. 203, June, Vienna.

[34] R. Armenter, (2015), On the Use of Market-Based Probabilities for Policy Decisions, Federal Reserve Bank of Philadelphia Working Paper Nr. 15-44, December.

[35] A. Cesa-Bianchi and A. Rebucci, (2015), Does Easing Monetary Policy Increase Financial Instability?, Bank of England Staff Working Paper Nr. 570, December, London also published in Journal of Financial Stability Vol. 30, June, pp. 111–125.

[36] G. Mastromatteo and L. Esposito, (2015), The Two Approaches to Money: Debt, Central banks and Functional Finance, Levy Economics Institute, Working Paper Nr. 855, November.

[37] N. Martynova et al., (2015), Bank Profitability and Risk-Taking, IMF Working Paper Nr. WP/15/249, November.

[38] L. Mutkin, (2015), Mispricing Derivatives a Danger for Real Assets, Financial Times, December 16.

[39] J. Plender, (2015), Shareholder Short-Termism is Damaging the Economy, Financial Times, November 8.

[40] A. Nesvetailova, (2015), A Crisis of the Overcrowded Future: Shadow Banking and the Political Economy of Financial Innovation, New Political Economy, Vol. 20, Issue 3, pp. 431–453; M. Wolf, (2014), The Shifts and the Shocks. What we've Learned- and Have Still to Learn From the Financial Crisis, Penguin Press, New York.

[41] Rather than monitor we should rethink financial stability at its core. Haldane provides some reflections given the experiences in previous years and points some areas of contention, and thus

when it is forward looking, needs to be met with a healthy dose of skepticism.[42] I therefore can only disagree with Jeffrey M. Lancker, the president of the Federal Reserve Bank of Richmond, when he states that 'the intent is not for regulators to decide how much maturity transformation is too much – that is ultimately a question for markets to decide. Instead, our goal should be to make credible changes in policy that properly align the incentives of financial market participants to monitor and control risk.'[43] It ignores the fact that direct interventions are a real and effective policy option, even when carefully observing the proportionality of any given intervention. If society doesn't want to pick up the pieces and act as a lender of last resort after the next wave of financial innovation and creative destruction it often goes hand in hand with, the regulator will have to step in and rewrite the rules of the game. That is unlikely to happen as long as they are very dependent on the banking system to hold their paper and facilitate fund raising at very, very mild conditions in recent years.

Regardless of how you feel about any of these matters, I have tried to allow for as many viewpoints to be represented (even when they contradict and trust me they do), without shying away from giving mine from time to time and as always accompanied by extensive research, analysis and context from various parts of the world. The book therefore has stayed adequate and attractive for both industry professionals and academics and their students who are eager to delve a little deeper. It will also prove to be instrumental for policy makers, serious enthusiasts and everybody who is interested in issues that are centered on a multidisciplinary paradigm. The extensive footnote apparatus will help the focused and analytical research-driven reader. For the industry professional and those that scan the text in search for answers, the index will facilitate locating the part and areas in the book that are most of interest to them and will cover the different functional domains already indicated. I have tried to make the content of the book as time resistant as possible and therefore only as little as possible and 'as actual as possible' datasets have been used as

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some room for academic improvement of our understanding. On that list are some usual suspects such as optimal capital levels, multi-polar regulation, stress-testing and financial stability model improvements and so on but also issues such as the political economy of financial regulation, and an assessment of the contribution of the financial system to the economy and society at large. See in detail: A.G. Haldane, (2017), Rethinking Financial Stability, Speech given by Andrew G Haldane, Chief Economist, Bank of England, at the 'Rethinking Macroeconomic Policy IV' Conference, Washington, DC, Peterson Institute for International Economics 12 October. Also as an extensive working paper: D. Aikman et al., (2018), Rethinking Financial Stability, Bank of England Working Paper Nr. 712, February 23. Regarding the contribution of financial development see, for example, the positive relation between credit and industrial pollution (negative indirect externality): R. de Haas and A. Popov, (2018), Financial Development and Industrial Pollution, ECB Discussion Paper Nr. Nr. 1, July 16.

[42] T. Adrian et al., (2015), Financial Stability Monitoring, Annual Review of Financial Economics, Vol. 7, pp. 357–395.

[43] J.M. Lancker, (2014), Maturity Mismatch and Financial Stability, President's Message. Nobody can disagree with the latter aspect but the former triggers some serious questions as to whether the regulators should not directly intervene in what is considered a serious source of externalities. Also in environmental aspects has the regulator used both instruments: (1) discourage such externality-inducing behavior, mainly (indirectly) through taxes and (2) effectively reduce the amount of externality-inducing output (e.g. direct reduction of CO_2 emissions), Econ Focus, 2014 Q1, p. 1.

they will most likely be outdated by the time the book hits the (electronic) shelves. But they are part of the context and deserve some space in a book that carries 'global handbook' in its title. When I started writing the volumes in early 2013, I was under the impression that the pace and magnitude of attention for shadow banking were waning; now being halfway through 2019, I can say out loud that that was a major misperception back then. Recent years brought many new evolutions and dynamics in many spheres, often more in niche areas and refinements across the board, but nevertheless very relevant for the financial industry and the shadow banking market as such. It has set a tone that will continue in the years to come. A consolidating work that tries to bring together what has been done (thereby drawing extensively on existing research, and without which the writing of these handbooks clearly would not have been possible), what has been learned and what already has been forgotten, as well as those things that we anticipate will happen in this 52+ trillion USD market,[44] and also zooms in on all those things that are left open or have been dealt with in an unsatisfying way deserve equal attention and the book in front of you does exactly that. Happy reading!

P.S. The content of both volumes is updated up till and including June 30, 2019. I produced an extensive non-layered, non-staggered index to facilitate easy identification of possible areas of interest. Non-published articles or papers can be accessed through srn.com and/or the relevant webpage of the university or institution. Updates, most likely in e-format, will be made available between editions of the book. Please visit the book website for further information.

June 2019 Luc Nijs

[44] Reports Monitor, (2019), Global Shadow Banking Market Size, Status and Forecast 2019-2025, January 16, via reportsmonitor.com

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1

Introduction

1.1 Introduction: The Concept of Shadow Banking

If we want to be successful in analyzing what has become a global phenomenon, we need to jump through the complex and difficult hoop(s) of trying to define the concept of shadow banking (SB). That is likely to pose significant problems, at least if we try to be fully comprehensive and as accurate as we possibly can be. We will most likely end up with a cascade of different components of different (existing) definitions and partial descriptions of what altogether might turn out to be a reflection of the shadow banking world. In that sense, shadow banking is effectively somewhat of a parallel universe.

1.2 An Industry with Many Faces

We are therefore at risk of defining 'shadow banking' as everything that happens behind the curtain, while everything that happens on the podium, in the limelight and therefore subject to regulation, would then become the officially regulated (and therefore licensed) banking sector. The tone is set: we're on a mission but unsure yet where we want to end. If we can agree on the fact that the shadow banking industry historically has grown driven by innovation, it will be no surprise to experience that the shadow banking industry is not an accurately defined industry where regulation built a nice framework around and which is now for everybody consistently observable. It has multiple layers, looks and feels different in different parts of the world as it is continuously co-shaped by (different) regulation trying to work its way into the caves and dens of that part of the financial industry happening behind the curtain. Just like water flows to its lowest point regardless of the many hurdles it may face, capital will always flow to that part of the spectrum where it can operate freely (i.e. as unregulated as possible) and generate the returns it is looking for undone of restrictions

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L. Nijs, *The Handbook of Global Shadow Banking, Volume I*,
https://doi.org/10.1007/978-3-030-34743-7_1

that the formal banking sector imposes. Not surprisingly that shadow banking therefore is characterized by moving paradigms (or is 'one' moving paradigm) with many different layers that requires puzzling together. That way it has become a house with many rooms, each with its own particularities, shenanigans and intricacies.

But let's not be mistaken: the shadow banking industry is considered a USD 60–75 trillion + industry (depending on how you measure it; on more of that later). To compare: the global economy is valued at around USD 100 trillion. It is therefore not something we can sweep under the carpet, in particular because it is linked to 'Main Street' and the 'regulated part of the global financial infrastructure'. It has generated the attention of policy makers and regulators globally. They are trying each from their perspective, to channel the operations and intrinsic risks of the system via regulation, with a minimum objective of sheltering the official part of the industry and protect the real economy from a potential fallout.

That makes sense as long as we could possibly stick to a reasonable way of regulating industries. For over 100 years now, regulators try to find that equilibrium where regulation can play its role without disproportionately hampering economic activity. We have, during that period, explored every corner of that equation: from communism to socialism to the other extreme opposite which society has come to qualify as neoliberalism. We learned that centralizing policy leads to an implosion of the system and it literally faints under its own weight, caused by the fact that the market dynamics couldn't play properly and therefore resources were not optimally allocated. It leads many to believe that Western capitalism (and aligned market liberalism) was the only valid model left.[1] Recent times have learned us otherwise. The aforementioned 'neoliberalism' has been claimed as the major cause underlying the market meltdown in 2008 and everything that followed from there. I beg to disagree. Neoliberalism and its most recent advocates like F. von Hayek, L. von Mises, M. Friedman and the likes indeed have been using varying strategies to submit society to market imperatives assuming that would optimize resource allocation and maximize prosperity for all or at least those that meaningfully used the opportunities a free market provides. Regulatory impact needs to be limited as much as possible as it would unbalance the natural equilibrium the market always will move toward. However, during the last 2–3 decades, the regulatory impact in many countries around the world, including those in many Western capitalist nations, has only increased and in a very significant way. A quick check taught me that in many countries the volume of the 'official journal' where legislation is published after it successfully went through the national parliamentary process often quadrupled during the last 2–3 decades. For example, in my own country Belgium, the 'official gazette' in 1991, when I started Law School, counted a 'miserable' 25,000 pages. That has, in 2018, crept up to well over 100,000 pages. So, there is apparently no lack of regulation but a lack of proper, effective and adequate regulation.

To prove my point, I will go back for a second to the very early days of neoliberalism, that is, right after the crash of 1929. In the early '30s of the last century, the mood was understandably anti-liberal. Those remaining liberals joined forces and created the Walter

[1] F. Fukuyama, (1992), *The End of History and the Last Man*, Free Press, NY.

Lippman Colloquium that had its first session in Paris in 1938. During that session where people like Hayek, von Mises and Rüstow were present, they discussed the recent book of W. Lippman called *The Good Society*. In short: their conclusion was that the 'old' or 'laissez faire' liberalism had failed and that the world was in need for a new sort of liberalism which was coined by Rüstow 'neoliberalism'. Already during the first meeting, it was clear that there was a schism in the group: on the one hand von Hayek and Von Mises and the others represented by Rüstow. Von Hayek and von Mises were not prepared to let go of the old 'laissez faire' capitalism. Rüstow c.s. took a different approach and wanted neoliberalism to create an alternative for the failed classical liberalism while at the same time provide an adequate alternative to the rising communist threat coming from the East. Their proposition, which is the original neoliberal axiom, is that the effective functioning is subject to a strong rule of law (that could avoid concentration in industries as was the case in the last two decades of the nineteenth century in Germany). The rule of law would have to be a partner of the free market to ensure it effective and optimally functioning. To that end the regulator was best placed to provide a regulatory framework within which the free market adequately functions. The regulator was not best placed to do enhanced handholding for the free market as it had proven in previous decades that it could not adequately replace the free market. The free market and the regulator were partners, yin and yang; they were communicating vessels through which society could indicate which values they prioritized at any given point in time and which mechanism re-established the equality of society versus economy. Only 50 years later, J. Habermas, 'avant la lettre', concluded that the economy was colonizing other spheres of private and social life. These were the first steps of the submission of society and political life to the imperatives of what was then the beginning of a (globalizing) free market.[2] It does not only demonstrate how neoliberalism got adrift already in the early days (it got so bad that Hayek and von Mises called Rüstow c.s. 'socialists of the worst kind' at later gatherings of the group especially after the group restarted the meetings in Europe after the end of the Second World War), but also that anno 2019 we are still not in a position (by far not) to get that equilibrium right. The regulator, as always, in white heat enacts legislation that tries to micro-manage the industries it tries to regulate rather than provide a framework for effective performance. The regulator wants the market to contribute to its wider objectives and the market needs the 'rule of law' in order to not get out of whack and not become subject to the Schumpeterian 'creative destruction' competitive markets are continuously exposed to. I'm afraid the shadow banking sphere will undergo the same faith as the rest of the regulated financial sector.

But first we need to go back to our (attempt) of a definition. While the name 'shadow banking' seems to conjure an image of a strange, mysterious and parallel universe, the term itself is commonly used, and this despite its pejorative connotation,[3] to refer to

[2] J. Habermas, (1981), *Theorie des Kommunikativen Handelns*, (Bd. 1: Handlungsrationalität und gesellschaftliche Rationalisierung, Bd. 2: Zur Kritik der funktionalistischen Vernunft), Suhrkamp.

[3] Federal Reserve Bank of Minneapolis, (2010) *The Region Magazine*, Interview with Gary Gorton, December 1, 2010.

market-funded (i.e. in contrast to bank funding) credit intermediation techniques. Although the term 'shadow banking' is recent, most of its components are not[4]: repurchase agreements have been in use since 1917, the first securitization transaction was executed in 1970 and the first MMMF ('Money Market Mutual Funds') was established in 1971. The obscurity of the shadow banking sector is undeniably linked to their alleged involvement in the 2008–2009 financial crisis. Starting in 2007, the liquidity in the US repurchase agreement market contracted already significantly. In 2008, a MMMF could not obtain financial support.[5] It might be useful to keep in mind that MMMFs account for a significant amount of the short-term wholesale funding market (infra) and that way can and did unbalance the regulated financial sector. The regulated and unregulated banking sectors are ultimately communicating vessels.

The contemporary definition(s) of shadow banking in vogue piles together divergent institutions, instruments as well as markets. That makes the analysis more complicated and un-transparent.[6] If one tries to assess the level of systemic risk a vehicle, institution or sector provides, it often helps being as specific as possible in defining its role in the wider global financial radar.[7]

A second problem is that the shadow banking sector in recent years has been expanding to include new types of activities driven by (the need for) financial innovation. It caught the attention of the regulators, market observers and others already in the early 2000s when it was coined to describe how the growth of financial market disintermediation outside the regulators' purview contributes to liquidity shocks.[8] That was followed in 2012 by Treasury Secretary T. Geithner saying that '[a] large shadow banking system had developed without meaningful regulation, using trillions of dollars in short-term debt to fund inherently risky financial activity'[9] as well as B. Bernanke saying '[a]s became apparent during the crisis, a key vulnerability of the system was the heavy reliance of the shadow banking sector'.[10]

The growth of shadow banking can be traced to multiple developments. Deregulation and competition encouraged commercial banks to enter higher-risk businesses. Financial innovations such as securitization contributed to an 'originate-to-distribute' model, where loans were transformed into securities for sale, funded by financial markets rather than deposits. Other products, such as MMMFs, substituted for traditional deposits but

[4] G. Gorton and A. Metrick, (2010), Regulating the Shadow Banking System, Brookings Working Paper on Economic Activity, Fall.

[5] F. Norris, (2008), Pride Goeth Before a Fall, *NY Times*, September 16.

[6] S. L. Schwarcz, (2012), Regulating Shadow Banking, *Review of Banking and Financial Law*, Vol. 31, Nr. 1, pp. 619–642.

[7] A. Turner, (2012), Shadow Banking and Financial Stability, Lecture at the Cass Business School, March 14.

[8] P. McCulley, (2009), The Shadow Banking System and Hyman Minsky's Economic Journey, Global Central Bank Focus, PIMCO.

[9] Timothy Geithner, (2012), Financial Crisis Amnesia, *Wall Street Journal*, Op-Ed, March 2.

[10] Ben Bernanke, Russell Sage Foundation and the Century Foundation Conference on 'Rethinking Finance', New York, April 13, 2012.

generally were not insured or backed by a central bank. Some contend growth was fueled by regulatory arbitrage,[11] demand from institutional cash pools,[12] financial engineering and growth in financial market intermediation.[13]

That confusion shows as we line up the different (non-exhaustive) attempts of a possible definition,[14] all of which hover between an entity-, a functional or an activity-based approach[15]:

1. 'A system of credit intermediation that involves entities and activities outside the regular banking system, and raises i) systemic risk concerns, in particular by maturity/liquidity transformation, leverage and flawed credit risk transfer, and/or ii) regulatory arbitrage concerns.'[16]
2. 'Shadow banks are financial intermediaries that conduct maturity, credit, and liquidity transformation without access to central bank liquidity or public sector credit guarantees. Examples of shadow banks include finance companies, asset-backed commercial paper conduits, limited-purpose finance companies, structured investment vehicles, credit hedge funds, money market mutual funds, securities lenders, and government-sponsored enterprises.'[17]
3. 'Shadow banking, as usually defined, comprises a diverse set of institutions and markets that, collectively, carry out traditional banking functions – but do so outside, or in ways only loosely linked to, the traditional system of regulated depository institutions. Examples of important components of the shadow

[11] S. L. Schwarcz, (2012), Regulating Shadow Banking, *Review of Banking and Financial Law*, Vol. 31, Nr. 1, pp. 619–642.

[12] Z. Pozsar, (2011), Institutional Cash Pools and the Triffin Dilemma of the U.S. Banking System, International Monetary Fund.

[13] S. L. Schwarcz, (2012), Regulating Shadow Banking, *Review of Banking and Financial Law*, Vol. 31, Nr. 1, pp. 619–642.

[14] See for a historical analysis: I. D. Lazcano, (2013), The Historical Role of the European Shadow Banking System in the Development and Evolution of Our Monetary Institutions, CITYPERC Working Paper Nr. 2013/05, London.

[15] See for an alternative write-up of the garden variety of definition and conceptualizations of shadow banking and its subcultures: E. Agirman et al., (2014), Shadow Banking: an Overview, Working Paper, pp. 5–6, mimeo and a comparison with the traditional banking system (pp. 7–9); J. Poshmann, (2014), The Shadow Banking System – Survey and Typological Framework, Working Papers on Global Financial Markets Nr. 27, University of Jena/Halle, March; and IMF, (2014), Global Financial Stability Report, chapter two: Shadow Banking around the Globe: how Large, and How Risky?, October, pp. 65–104.

[16] FSB, (2011), Shadow Banking: Strengthening Oversight and Regulation, Recommendations of the Financial Stability Board, Basel, October 27.

[17] Z. Pozsar, et al., (2012), Shadow Banking, Staff Report Nr. 458 (original July 2010), Federal Reserve Bank of New York, NY NY, February.