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# ФИНАНСИЈСКА ТРЖИШТА

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## SHADOW BANKS BETWEEN INNOVATION AND REGULATION

### Summary

*Cost minimisation has pushed traditional banks towards shadow banking activities with high leverage. Shadow banks rest upon a network of contracts which are legally independent, but economically interconnected. The current regulatory debate attacks shadow banks for failing to internalise their costs. This paper reviews private contracting and dematerialisation patterns in the shadow banking sector. Regulatory policies under Basel III and US and EU laws are assessed.*

**Key words:** *shadow banks, securitisation, banking regulation.*

### I Introduction

#### 1. The Debate on Shadow Banks

Ideally, traditional banking focuses on loan business financed by insured demand business. Securitised banking re-packages and sells loans. Additional liquidity is generated by repurchase agreements (repo agreements)<sup>1</sup>

1 *Gorton/Metrick, Securitized Banking and the Run on Repo (November 2010), available at: <http://ssrn.com.abstract=1440752>. Under a repurchase agreement or a 'repo', a parcel of securities is sold to the buyer who agrees to sell back the parcel after the expiry of the agreement. Economically, this is operates as a secured loan. The 'buyer' can be said to*

or the securitisation of a securitisation.<sup>2</sup> The financial crisis originated in securitised banking, but soon came to infect the entire banking system because of the interdependence between traditional and more ‘innovative’ forms of wholesale banking.<sup>3</sup> Since then, the reputation of ‘shadow banks’ has suffered considerably.<sup>4</sup> In November 2010, the European Union urged the G 20 summit to take regulatory action on market integrity and shadow banking.<sup>5</sup> A little later, the president of the German BaFin attacked shadow banks as financial institutions unduly benefiting from regulatory arbitrage with the perspective of becoming a growth industry.<sup>6</sup> The Financial Stability Board is currently working on recommendations to the G20 Leaders “to strengthen the regulation and oversight of the ‘shadow banking system’”.<sup>7</sup>

“Shadow banking institutions – such as hedge funds and securitisation vehicles – ...are not regulated to the same degree as banks, but carry out some of the functions typically conducted by banks (such as maturity transformation).”<sup>8</sup> Shadow banks do not have access to central bank facilities.<sup>9</sup> Traditional banks face stiff competition from the shadow banking system,<sup>10</sup> resting upon a network of finely tuned contracts which are legal independent, but economically interconnected.<sup>11</sup>

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have transferred the purchase price to the ‘seller’ and the transfer of the securities ‘collateralises’ the repayment pledge (*Ali*, *The Law of Secured Finance – An International Survey of Security Interests over Personal Property* (2002), at p. 23; *Ooi*, *Shares and Other Securities in the Conflict of Laws* (2003), at p. 172).

2 See *infra* sub II.1.

3 *Blundell-Wignall/Atkinson*, *Thinking Beyond Basel III: Necessary Solutions for Capital and Liquidity*, *OECD Journal: Financial Market Trends*, Vol. 2010 – Issue 1 1(2); cf. on risk transmission mechanisms between non-financial firms and larger financial institutions: *Levitin*, *In Defense of Bailouts*, *Geo. L. J.* 99 (2011), 435 (455 et seq.).

4 For an account on the role of shadow banks in the financial crisis: *Gorton/Metrick*, *Regulating the Shadow Banking System* (October 2010), available at: <http://ssrn.com.abstract=1676947>.

5 See letter by the Presidents of the European and the European Commission, to the Participants of the G20 Seoul Council, Brussels, 5 November 2010.

6 BaFin President *Sanio*, Speech in Frankfurt on 13 January 2011, available at: [http://www.bafin.de/nm\\_722754/SharedDocs/Reden/DE\\_2011/re\\_110113\\_neujahrs,ccs=bg.html](http://www.bafin.de/nm_722754/SharedDocs/Reden/DE_2011/re_110113_neujahrs,ccs=bg.html).

7 Financial Stability Board, *Progress in the Implementation of the G20 Recommendations for Strengthening Financial Stability*, Report of the Financial Stability Board to G20 Finance Ministers and Central Bank Governors, 15 February 2011, sub IV.

8 Independent Commission on Banking, *Issues Paper – Call for Evidence* (London, September 2010), p. 9.

9 Independent Commission on Banking, *supra* N. 8, p. 14.

10 *Hufbauer/Xie*, *Financial Stability and Monetary Policy: Need for International Surveillance*, *J. Intl’ Econ. L.* 13(2010), 939 (945).

11 For a survey over the participants in the shadow banking system: *Farhi/Macedo Cintra*, *The Financial Crisis and the Global Shadow Banking System*, *Revue de la régulation*

The current regulatory policy debate on shadow banks appears to suffer from a lack of direction. It is common ground that financial conglomerates and complex financial groups are increasingly blurring the line between traditional and innovative forms of finance.<sup>12</sup> This begs the question whether groups and network of contracts fully internalise business risk.<sup>13</sup> However, when international banks began to assess the impact of the new capital requirements under Basel III,<sup>14</sup> they complained about too much regulation driving financial institutions to the largely unregulated sector of shadow banking.<sup>15</sup> It requires some imagination to appreciate the intricate logic of this reasoning. Traditional banks attempt to escape the predicament of more regulation by pointing out to the dangers of ill-reputed business activities with little regulation.<sup>16</sup> On the other hand, if too much regulation invites traditional banks to take refuge to shadow banking, then cross-border shadow banking may either be beyond regulation or, produce some innovative benefits for international finance after all. In this case, it might be more apposite to balance the microeconomic benefits of shadow banking activities against their macroeconomic repercussions before an outright judgement of condemnation is passed.

## 2. Traditional Banks v. Shadow Banks – The Issues

Historically, regulators have taken a much stricter position on traditional banks than on shadow banks and other forms of more ‘innovative’ finance.<sup>17</sup> Cost minimisation considerations pushed traditional banks towards shadow banking activities with high leverage.<sup>18</sup> New sources of liquidity were

Numéro n° 5 (1er semestre 2009), numéro 5 Crise du capitalisme financier 1 (3 et seq.).

12 Goodhart/Lastra, Border Problems, J. Int’l. Econ. L. 13 (2010), 705 (708 et seq.).

13 See the warning of the then President and Chief Executive Officer of the Federal Reserve Bank of New York, on a ‘parallel system’: Geithner, Reducing the systemic risk in a dynamic financial system, Speech at the Economic Club of New York, New York 9 June 2008.

14 On the Basel III framework, see infra sub II.4a.

15 Reuters, 27 January 2011, Davos – Goldman warns about the resurgence of shadow banking, available at: <http://www.reuters.com/assets/print?aid=USLDE70Q0y620110172>; Handelsblatt online, 28 January 2011, Benders/Landgraf/Maisch, Gefahren der Regulierung – Das Schattenreich der Finanzindustrie, available at: <http://www.handelsblatt.com/unternehmen/banken/das-schattenreich-der-finanzindustrie/3817918.html>.

16 See Standard Chartered, Independent Commission on Banking, A response from Standard Chartered to the Issues Paper, Call for Evidence, November 2010.

17 Cf. Kling, The Financial Crisis: Moral Failure or Cognitive Failure?, Harv. J. L. & Pub. Pol’y 33 (2010), 507 (512 et seq.); Washington Outlook: Agencies Grant Shadow Banks Approvals, Banking Pol’y Rep. 15 No. 15 (5 August 1996), 3.

18 Blundell-Wignall/Atkinson, supra N. 3, at p. 16 et seq.

opened up which had been previously unavailable. In an exercise of regulatory arbitrage traditional financial institutions escaped the constraints of mandatory banking law.<sup>19</sup> Since many financing vehicles did not have to be consolidated, banks could push certain activities off their balance sheets.<sup>20</sup> Thus lower-weighted assets and promises disappeared from the system.<sup>21</sup> Prior to the financial crisis, profit margins in the shadow-banking sector proved to be much higher than in traditional banking so that commercial banks were eager to supplement their activities by additional income.<sup>22</sup> In the US, shadow banking offered an opportunity to cross the statutory border line between commercial and investment banking.<sup>23</sup>

Shadow banking is as much a problem of regulating banking activities on an international scale as it raises questions about the concept of secured transactions. In an attempt to both spread risk and to seek intermediate finance, collateralised transactions are securitised and sold to professional and retail investors. Moreover, the dematerialisation of securities as collateral invites careful business planning in order to assess the potential impact of national insolvency laws and private international law systems. Mandatory insolvency law steps in if creditor rights and those of third parties are likely to be prejudiced.

In spite of its negative connotation shadow banking has introduced innovation into the globalised world of finance.<sup>24</sup> But it requires a double internalisation check as it may increase systemic risk by neglecting sound business judgment on refinancing decisions. In this respect, financial institutions externalise their risk by endangering the integrity of the capital market.

19 *Iwaisako*, Global Financial Crisis, Hedge Funds, and the Shadow Banking System, Policy Research Institute, Ministry of Finance, Japan, Public Policy Review, Vol. 6, No. 3 (March 2010), 347 (364), see also the warning by the Independent Commission on Banking, supra N. 8, p. 32.

20 *Wyman*, State of the Financial Services Industry 2011, The Financial Crisis of 2015 – An Avoidable History (2011), at p. 7.

21 *Blundell-Wignall/Atkinson*, supra N. 3, at p. 14.

22 *Gorton/Metrick*, Securitised Banking, supra N. 1. Arbitrage considerations will also be controlling when tightening the rules on shadow banking is on the regulatory agenda: see *Gans*, Institute for Law and Finance: Regulatory Implications of the Global Financial Crisis, Working Paper Series No. 102, 1783 PLI/Corp 631 (651) (2010). For a Chinese perspective cf. *The Economist*, 10 February 2011, China's shadow-banking system, Trust belt – Trust companies are growing fast, fuelling fears of excessive growth, available at: <http://www.economist.com/node/18118975>.

23 Cf. *Gabilondo*, So Now Who is Special?: Business Model Shifts among Firms that Borrow to Lend, *J. Bus. & Tech. L.* 261 (267 et seq.) (2009).

24 Nonetheless, innovations which spread risk under a short or medium-term perspective may be less beneficial under long-term considerations, hence the need to adjust liquidity models: *Gordon/Muller*, Confronting Financial Crisis: Dodd-Frank's Dangers and the Case for a Systemic Risk Emergency Insurance Fund, *Yale J. Reg.* 28 (2011), 151 (173).

This is an externalisation analysis different from the one usually undertaken in the context of the effects of contractual networks or international groups. Regulators are invited to assess how much mandatory law for shadow banking transactions is necessary without forsaking the benefits of private ordering.<sup>25</sup>

This paper will first identify the business transactions which are typical for shadow banking. It will then assess the private law aspects of the transactions which are often secured by collateral or dematerialised collateral. Many of these secured transactions are cross-border, thus magnifying the externalities from doing business under several legal orders. This will require an assessment of international policy reactions by the Basel Committee on Banking Supervision, US regulatory efforts under the Dodd-Franks Act and current European Union law.

## II Why are Shadow Banks Shadow Banks?

### 1. Characteristics

The shadow banking system – like traditional banking – ‘recycles’ money by supplying borrowers with credit. Contrary to traditional banking, ‘financial’ institutions do not generate cash through deposits. Instead, funds invest in the liabilities of shadow banks which offer a great spectrum of financial products with varying seniority and risk. Borrowers will receive loans, leases and mortgages. Shadow banks build on a comprehensive network of diversified players who have outsourced financing services previously offered by one deposit-funded, hold-to-maturity bank. To a large extent, this intermediation process depends on securitisation. It transforms risky, long-term loans into seemingly risk-free, short-term instruments. Risk is spread.<sup>26</sup> The availability of credit is improved and issuers may limit their credit concentration to certain borrowers. Lenders employ asset-backed securitisation techniques to re-calibrate the match between assets and liabilities.

25 Cf. *Wyman*, State of the Financial Services Industry, supra N. 20, at p. 8 et seq.; and speeches by the President of the European Commission *Barroso*, ‘The G20: putting Europe at the centre of the global debate, European Parliament Plenary debate on G20, Strasbourg, 24 November 2010; and by Director *J. Smets* (National Bank of Belgium), EU Retail Banking – Getting reform right, EU Retail Banking Conference, 2 December 2010.

26 For a realistic assessment: *Wyman*, State of the Financial Services Industry, supra N. 20, p 8: “In a game of cat and mouse between regulators and shadow bankers, the mice will win. There are far more mice; they are typically better informed and better motivated than cats; and the extraordinary complexity of modern financial products and the global scope of the industry give the mice a nearly limitless supply of nooks and crannies to hide in”.

For *Poszar/Adrian/Ashcraft/Boesky* the most crucial criterion in evaluating shadow banking transactions is the type of funding (maturity matched or mismatched) and the underlying collateral.<sup>27</sup> With respect to the underlying collateral, structured credit securities constitute a very sophisticated form of securitisation which largely dissociates the consequences of moral hazard from the risk they were originally intended to insure. Strikingly enough, *Poszar/Adrian/Ashcraft/Boesky* find that both, investments in traditional banks, financial holdings companies or broker-dealers and those in shadow banks were considered to be risk-free.<sup>28</sup> Traditional banks earned this reputation because of their statutory deposit insurance schemes. Shadow banks were regarded as low-risk on the basis of the collateral.<sup>29</sup> Ratings established by rating agencies had come to be acknowledged as an assurance of the quality of a specific financial product. Implicitly, this qualification assumes that there is sufficient transparency to examine the details of a financial product.<sup>30</sup> However, as shadow banks and intermediaries introduce more elaborate securitisation schemes, the complexity of the underlying contractual arrangements increases. As a corollary, the risks of these contractual networks will be ignored since borrowers are unable to monitor the transparency of the securitised claims.<sup>31</sup>

The nature of the shadow banking transaction, the need for professional expertise and the nature of the risk (to be spread) dictate the qualifications and the legal structure of the intermediary.<sup>32</sup> Funding loans are issued by single- or multi-seller conduits. Once securities are asset-backed or structured-purpose, finance companies or structured investment vehicles will be employed to offer intermediation services.<sup>33</sup> This appears to be clear case of diversification and specialisation in financial products. To add a dose of realism, structured investment vehicles tend to take the form of a partnership not necessarily subject to rigorous scrutiny under securities regulation or consolidation rules under accounting law. In the case of the Lehman group, non-domestic structured vehicles were integrated into the financial conglomerate.<sup>34</sup> This implied partici-

27 *Poszar/Adrian/Ashcraft/Boesky*, Shadow Banking, Federal Reserve of New York Staff Report no. 458 (July 2010), available at: [http://www.newyorkfed.org/research/staff\\_reports/sr458.pdf](http://www.newyorkfed.org/research/staff_reports/sr458.pdf).

28 *Ibid.*

29 *Ibid.*

30 *Ibid.*

31 *Ibid.*

32 *Ibid.*

33 *Ibid.*

34 See Registration Document of 30 August 2006 filed with the German Capital Market Authority BaFin by Lehman Brothers Securities N.V., incorporated in Curaçao, Netherlands Antilles (available at: [http://www.bafin.de/chn\\_179/nn\\_720794/SharedDocs/Downloads/](http://www.bafin.de/chn_179/nn_720794/SharedDocs/Downloads/)

pation of the cash management system<sup>35</sup> of the group, administered by the US financial holding group.<sup>36</sup> Lehman had used the arbitrage facilities of various jurisdictions to organise its cash management and to externalise the risk of its securitisation schemes.<sup>37</sup> At the same time, Lehman would lend money earned from securitisation to third parties and insist on collateral.<sup>38</sup> Internal banking services were combined with credit intermediation and highly sophisticated securitisation. When Lehman collapsed, the non-domestic subsidiaries faced severe liquidity problems and bankruptcy proliferated.

The financial crisis has shown that shadow banks are particularly vulnerable to market fluctuations. The dematerialisation of collateral resulted in greater risk exposure, leaving some participants in the intermediation chain without adequate protection. This was also due to the inherent weakness of contractual network structures. The chain from intermediaries to the ultimate borrower is doomed to unravel without appropriate ‘risk insurance’ as soon as illiquidity or defaults occur somewhere. Despite recent pleas for driving shadow banks out of business, non-bank financial intermediation leaves a complicated message for regulators. Shadow banking transactions did not contribute to the financial crisis indiscriminately. Certain finance activities escaped the crisis without any negative verdict; others have earned the unflinching attention of regulators. This suggests that a typology of shadow banking products and contracting practices will shed more light on whether private ordering unduly externalises the risks of innovative non-bank finance.<sup>39</sup>

*DE/Verbraucher/Prospekte/Lehman\_20Securities/Registrierungsformulare/Formular30082006,templateId=raw,property=publicationFile.pdf/Formular30082006.pdf*; Walters, Lehman Brothers and the British Eagle Principle, Comp. L. 31 (3) (2010), 65 et seq.

35 On cash management systems see *infra* sub II.2b.

36 Cf. Neue Zürcher Zeitung, NZZ Online, 8 July 2010, Lehman's langes Begräbnis – Komplizierte Entflechtung der Tochtergesellschaften (available at [http://www.nzz.ch/finanzen/nachrichten/lehmans\\_langes\\_begraebnis\\_1.6472110.html](http://www.nzz.ch/finanzen/nachrichten/lehmans_langes_begraebnis_1.6472110.html)).

37 Cf. on Lehman's securitisation practices: *Gariety v. Grant Thornton, LLP*, 368 F. 3d 356 (359) (4th Cir., 2004); *Aurora Loan Services, LCC v. Dream House Mortgage Corporation*, 2010 WL 678131 (D.R.I., 2010); *Lehman Brothers Holdings v. First Financial Lender*, 2010 WL 1037950 (N.D. Cal., 2010); *In re Lehman Brothers Securities and ERISA Litigation*, 2010 WL 337997 (S.D.N.Y., 2010).

38 Cf. Čihák/Nier, The Need for Special Resolution Regimes for Financial Institutions – The Case of the European Union, International Monetary Fund Working Paper No. WP/09/200 (September 2009), at p. 4.

39 The current policy debate does not focus on a systematic analysis of the externalities of the shadow banking transactions. For *Blundell-Wignall/Atkinson*, *supra* N. 3, at p. 10 et seq., this appears to be a problem of a lack of a proper micro-economic perspective: “... just as securitization dampened balance sheet credit growth in the past – leading to a false signal that there was no leverage problem – so too might future developments in the shadow banking system lead to similar distortions that would be difficult for supervisors and other policy makers to identify”. See, however, the empirical analysis by *Singh/*

## 2. Contracting for Securities and Dematerialisation

A combination of law and economics renders shadow banking particularly vulnerable to post-crisis calls for tighter regulation. Shadow banking defies the benefits of conglomerate organisation. Instead, it relies on private contracting to forge chain of vertically integrated intermediaries who channel credit to borrowers. This realm of interdependent contracts invites opportunistic behaviour once an individual link of the chain defaults or becomes illiquid, triggering runs to demand redemption of a bank's liquidity. The dynamics of such a run accelerate the final break-up of the chain as bank's assets involve long-term commitment financed by short-term financial instruments.<sup>40</sup> In the end, financial firms, not depositors, started 'running' on other financial firms by not renewing repo agreements.<sup>41</sup> However, these developments have not deterred Federal Reserve banking professionals from praising the comparative advantages of private ordering and shadow banking.<sup>42</sup> In the following, aspects of securitisation practices, asset-backed securities, structured investment vehicles, credit default swaps and dematerialisation of securities will be assessed.<sup>43</sup>

Securitisations are basically an instrument for generating liquidity and spreading risk on the market.<sup>44</sup> In the pre-financial crisis period, most mortgage loans were securitised.<sup>45</sup> The original lenders sold the loans to special purpose vehicles<sup>46</sup> which were either partnerships or trusts.<sup>47</sup> These special

*Aitken*, The (sizable) Role of Rehypothecation in the Shadow Banking System, International Monetary Fund, IMF Working Paper WP/10/172 (July 2010).

40 *Poszar/Adrian/Ashcraft/Boesky*, Shadow Banking, supra N. 27; *Crawford*, CDO Ratings and Systemic Instability: Causes and Cure, N.Y.U. J. L. & Bus. 7 (2010), 1 (29).

41 *Lastra/Wood*, The Crisis of 2007–09: Nature, Causes and Reactions, J. Int'l. Econ. L. 13 (2010), 531 (541).

42 See *Poszar/Adrian/Ashcraft/Boesky*, Shadow Banking, supra N. 27.

43 Regulators perceive structured investment vehicles, asset-backed commercial paper conduits and securities lenders to be at the centre of shadow banking: *Wyman*, State of the Financial Services Industry, supra N. 20, at p. 7, and the Mansion House Speech of the Chairman of the United Kingdom Financial Services Authority *Turner*, London 21 September 2010, available at: [http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2010/0921\\_at.shtml](http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2010/0921_at.shtml).

44 For a comprehensive account on securitisation processes: *Bratton*, Corporate Finance (6<sup>th</sup> ed. 2008), 37 et seq.

45 *Levitin/Twomey*, Mortgage Servicing, Yale J. on Reg. 28 (2011), 1 (6).

46 Cf. *Foster*, Structured Investment Vehicles, Rev. Banking & Fin. L. 29 (2009), 33 (34 et seq.).

47 See common law trusts where the trustee distributes the cash flow generated by the pool of assets: *In re Lehman Brothers and ERISA Litigation*, 2010 WL 337997 (S.D.N.Y., 2010); *Coughlin/Peabody*, Caught in the Cross-Fire: Securitization Trustees and Litigation During the Subprime Crisis, 917 PLI/Comm 515 (518 et seq.) (2009).



purpose vehicles issued special securities (usually bonds) which were ‘asset-backed’ since they built on the cash flows generated by the payments on the mortgage. The securities offered by the special purpose vehicles draw on a pool of collateralised claims which may be repackaged, mixing riskier transactions with less risky ones. The investors in asset-backed securities may protect themselves against losses by re-securitising their claims into collateralised debt obligations.<sup>48</sup> This securitisation of a securitisation places investors in a collateralised debt obligation a step removed from the mortgage servicer<sup>49</sup> and, the collateral. From the perspective of traditional secured transactions, the collateral gets more and more dematerialised as the claims and obligations involved turn into a financial product where the collateral is a parameter, referencing the risk of structured product.

Asset-backed securities and collateralised debt obligations are created through an intricate network of contracts, fraught with principal-agent problems. The contractual structure of the intermediation chain, however, insulates principals from controls by the market and the agents.<sup>50</sup> The partners of a structured vehicle or the trustees have little incentive to scrutinise the mortgage servicers or other offerors. If one those involved in the securitisation chain defaults, insolvency risk materialises with investors further down the intermediation line who are likely to lose money with little hope of recovering damages under capital market laws.

Credit default swaps carry securitisation even further. They operate as highly sophisticated insurance mechanisms. Under a bilateral contract, the protection buyer undertakes to pay a premium (and/or an upfront payment) in exchange for a payment by the protection seller in the event of a credit default of a reference entity or a basket of reference entities.<sup>51</sup> These reference entities may include debt securities, collateralised loan agreements, collateralised debt obligations or related indexes.<sup>52</sup> Due to the nature of credit swaps and the volatility of reference identities, expected payouts may evaporate easily.<sup>53</sup> If a referenced entity becomes insolvent, the obligee may not sufficient funds to make payments. To mitigate this counterparty risk, trading partners are often

48 *Crawford*, supra N. 40 N.Y.U. J. L. & Bus. 7 (2010), 1 (4).

49 *Levitin/Twomey*, supra N. 45, Yale J. on Reg. 28 (2011), 1 (7).

50 On the extent of hidden risk-taking: *Crawford*, supra N. 40, N.Y.U. J. L. & Bus. 7 (2010), 1 (27).

51 European Central Bank, Credit Default Swaps and Counterparty Risks (August 2009), 9 et seq.

52 *Johnson*, Things Fall Apart: Regulating the Credit Default Swap Commons, U. Colo. L. Rev. 82 (2011), 167 (194).

53 *Kress*, Credit Default Swaps, Clearinghouses, and Systemic Risk: Why Centralized Counterparties Must Have Access to Central Bank Liquidity, Harv. J. on Legis. 48 (2011), 49 (56).

required to post collateral.<sup>54</sup> Counterparty contagion happens frequently, hence the need to contain a ‘domino effect’<sup>55</sup> by private contracting. Professional buyers and sellers of credit default swaps often subscribe to a master agreement which establishes a centralised counterparty clearinghouse through private ordering. It operates as a risk mutualisation device<sup>56</sup> and effectuates multilateral or bilateral wash-outs once a default occurs in the system. This is a mechanism to address problems of default although it is as yet unclear how this exercise of private ordering will fare in a cross-border setting. Similar problems occur when securities pledged as collateral dematerialise and, and the pledgor’s claim is a simple entry in an account held with an intermediary who transcends the traditional teachings on secured transactions.<sup>57</sup>

### 3. Private Contracting in a Network Setting

#### a) Netting

Within the network of shadow banking transactions the bankruptcy clauses of the individual contract automatically trigger termination, thereby unleashing claims and counterclaims of the parties to a series of contracts. During the financial crisis it was rational for creditors to close out positions and require more collateral,<sup>58</sup> highlighting the potential for moral hazard within a network of economically interdependent contracts. Under these circumstances, debtors might be tempted to hold back in honouring their obligations and retain favourable contracts. Private contracting has attempted to stave off opportunistic behaviour by introducing netting clauses into derivatives contracts employed in shadow banking transactions. Close-out netting clauses operate as automatic bankruptcy termination clauses and set off the resulting mass of claims resulting from the terminated derivatives contracts.<sup>59</sup>

Close-out netting clauses are intended to prohibit cherry-picking by debtors where a party to series of derivatives contracts is defaulting.<sup>60</sup> They

54 *Kress*, supra N. 53, Harv. J. on Legis. 48 (2011), 49 (57).

55 *Kress*, supra N. 53, Harv. J. on Legis. 48 (2011), 49 (58).

56 *Levitin*, supra N. 3, Geo. L. J. 99 (2011), 435 (455 et seq.).

57 Cf. *Bernasconi/Potok/Morton*, General introduction: legal nature interest in indirectly held securities and resulting conflict of laws analysis, in: Potok (ed.), Cross-border collateral: Legal Risk and the Conflict of Laws (2002), p. 8 et seq.; *Benjamin/Yates*, The Law of Global Custody – Legal Risk Management in Securities Investment and Collateral (2<sup>nd</sup> ed. 2002), 51 et seq.; and the articles in: *Vauplane* (ed.), 20 ans de dematerialisation de titres en France – Bilan et perspectives nationaux et internationaux (2005).

58 *Lubben*, The Bankruptcy Code Without Safe Harbours, Am. Bkrptcy. L. J. 84 (2010), 123 (129 et seq.).

59 *Lubben*, supra N. 58, Am. Bkrptcy. L. J. 84 (2010), 123 (130).

60 *Lubben*, supra N. 58, Am. Bkrptcy. L. J. 84 (2010), 123 (129).

bring about a wash-out of open claims without relegating settlement of derivatives contracts to a bankruptcy proceeding.<sup>61</sup> Moreover, close-out netting clauses establish priority over bankruptcy proceedings. Traditional bankruptcy lawyers view this incidence of private ordering and organising the market for shadow banking with some scepticism. Unsecured creditors might attack these stipulations to avoid bankruptcy proceedings, thus diminishing the assets to be distributed to creditors in a less favourable position. The Derivatives Industry defends close-out netting clauses by pointing out to the benefits to the entire financial system.<sup>62</sup> By establishing a standardised wash-out system, close-out netting reduces over-the-counter credit exposure substantially.<sup>63</sup> Participants in the derivatives trade may therefore engage in greater volumes of transactions because close-netting dispenses from the need to request additional collateral or pursue a less risky trading strategy. The Derivatives Industry insists that close-out netting insulates from adverse market changes.<sup>64</sup> The close-out mechanism is based on a delicate trade-off between the freedom of contract in an insolvency setting,<sup>65</sup> the interests of an industry in large trading volumes and regulatory concerns about the leverage ratio in banking and non-banking financial institutions. In its Settlement Finality Directive the European Union (EU) has sanctioned netting mechanisms practiced by credit institutions and investment firms.<sup>66</sup> Under art. 3 of the Directive, transfer orders and netting shall be legally enforceable, prevailing over insolvency proceedings of a participant and third party claims. This scheme has been extended to cover netting provisions under financial collateral arrangements in order to exempt them, *inter alia*, from mandatory insolvency law<sup>67</sup> and to clarify private international law issues.<sup>68</sup>

61 *Mengle*, The Importance of Close-Out Netting, ISDA Research Notes – Number 1, 2010, 1(2).

62 *Mengle*, supra N. 61 at p. 1.

63 *Mengle*, supra N. 61 at p. 1.

64 *Mengle*, supra N. 61 at p. 1.

65 For a survey over national netting legislations: *Wood*, Set-off and Netting, Derivatives, Clearing Systems (2<sup>nd</sup> ed. 2007), 132 et seq.

66 Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality and securities settlement systems, O.J. L 166/45 of 11 June 1998.

67 Directive 2002/47/EC of the European Parliament and of the Council of 6 June 2002 on financial collateral arrangements, O.J. L 168/43 of 27 June 2002. Both, the Settlement Finality Directive and the Financial Collateral Directive are currently under review to accommodate the modernisation of trading techniques: cf. Commission of the European Communities, Brussels 17 March 2008, Proposal for a Directive of the European Parliament and of the Council amending Directives 98/26/EC and 2002/47/EC.

68 See art. 9 (1) of the Directive 2002/47/EC:

*“Any question with respect to any of the matters ... arising in relation to book entry securities collateral shall be governed by the law of the country in which the relevant*

In 1993, the Basel Committee on Banking Supervision considered the accounting and capital adequacy implications of netting practices.<sup>69</sup> For the purposes of calculating capital requirements bilateral netting clauses will only be recognised if the banks obtain a substantial reduction of their counterparty risk.<sup>70</sup> Conversely, the Committee proposed an agreed formula in multilateral netting agreements whereby the losses of the clearing house from the default of its members be allocated to other members so that the members' respective exposure could easily be ascertained.<sup>71</sup> If the clearing house determined that more collateral be supplied, then the loss to be allocated would be the residual loss (i.e. the replacement loss less the value of the collateral).<sup>72</sup> To become operative, the Basel Netting Standards insist that the netting agreement is legally enforceable.<sup>73</sup> The US Securities and Exchange Commission has reiterated the Basel standards for close-out netting procedures, but insists on disclosure of information to be filed as soon as netting commences.<sup>74</sup> The issue of close-out agreements and their recognition for accounting and capital adequacy has since resurfaced in the regulatory framework laid down by the Basel III rules.<sup>75</sup>

### *b) Conglomerate Banking and Cash Pool Management<sup>76</sup>*

Conglomerates with the cash management systems are difficult to reconcile with the traditional stereotypes of shadow banking. But the break-

*account is maintained. The reference to the law a country is a reference to its domestic law, disregarding any rule under which, in deciding the relevant question, reference should be made to the law of another country.*<sup>66</sup>

69 Basel Committee on Banking Supervision, The Supervisory Recognition of Netting for Capital Adequacy Purposes – Consultative Proposal (April 1993); see also *id.*, Interpretation of the Capital Accord for the Multilateral Netting of Forward Value Foreign Exchange Transactions.

70 Cf. Basel Committee on Banking Supervision, International Convergence of Capital Measurement and Capital Standards – A Revised Framework – Updated November 2005 (Bank for International Settlements 2005).

71 *Ibid.*

72 *Ibid.*

73 *Ibid.*

74 US Securities and Exchange Commission, Release No. 34-56069; File No. SR-OCC-2006-19, Order Granting Approval of a Proposed Rule Change Relating to Close-out Netting Procedures, 13 July 2007.

75 See Standard & Poor's, Global Credit Portal – Ratings Direct, The Basel III Leverage Ratio Is A Raw Measure, But Could Supplement Risk-Based Capital Metrics (15 April 2010) (available at: [www.standard&poors.com/ratingsdirect](http://www.standard&poors.com/ratingsdirect)).

76 This section is based on German law, but – as the collapse of the Lehman group reveals – the conclusions will be of general importance.

down of the Lehman financial conglomerate revealed that international cash pooling systems present specific risks for foreign subsidiaries and their creditors.<sup>77</sup> In the interest of efficient liquidity planning conglomerate have come to establishment cash management systems which are to establish offsetting mechanisms for claims and counterclaims of subsidiaries and calibrate cash flows within the group.<sup>78</sup> Cash management introduces bilateral and multi-lateral netting systems without the involvement of a traditional bank. Specific financial holding companies or the financial department of the parent company assume the role of an intermediary who collects funds and supplies subsidiaries in need with fresh liquidity.<sup>79</sup> It is obvious that internal conglomerate financing mechanisms can be offered at cost lower than from traditional banking sources. There is no need to offer collateral. Conglomerate cash management systems save on the profit margins which external banks would require for supplying credit. Moreover, gains from interest will accrue to the lending subsidiary or conglomerate entity.<sup>80</sup>

Basically, cash pooling is a computerised accounting process without any physical movement of liquidity. Legally, cash pooling techniques which collect and redistribute liquidity rely on a chain of loan agreements where the lending subsidiary acquires a claim for repayment against the borrowing co-subsidiary.<sup>81</sup> This appears to be a rather artificial consideration, but it is of crucial importance for the well-being of the subsidiaries and their clients. Cash management systems offer a specific temptation for the holding company to deplete the funds of their subsidiaries without any meaningful counterclaim.<sup>82</sup> This predicament translates rapidly into a problem of company law in jurisdictions which rely on capital minimum requirement rules

77 See *supra*, sub II.1.

78 *Beyer*, *Zentrale Konzernfinanzierung, Cash Management und Kapitalerhaltung*, in: *Festschrift für Marcus Lutter* (2000), 1011 (1012 et seq.).

79 *Münchener Kommentar zum Bürgerlichen Gesetzbuch (-Berger)* (5th ed. 2008), Vor § 488, ¶ 31; see *Kütting/Rösinger/Mojadadr*, *Notwendigkeit eines Cash- und Liquiditätsmanagements*, *Der Betrieb* (DB), 12/2010, 625 (628 et seq.), classifying cash and liquidity management systems as instruments for averting critical situations for an enterprise.

80 *Theisen*, in: *Lutter* (ed.), *Holding-Handbuch, Recht – Management – Steuern* (4th ed. 2004), § 11 ¶ 32 et seq.; *Münchener Kommentar (-Berger)* (5th ed. 2008), Vor § 488, ¶ 32. In calculating interest the holding company has to be mindful of avoiding a hidden distribution of gains: *Podewils*, *Risiken verdeckter Gewinnausschüttungen bei Darlehensgewährung und „Cash Management“ im Konzernverbund*, *GmbHHR* 15/2009, 803 (805 et seq.).

81 *Hommelhoff*, in: *Lutter/Hommelhoff, GmbH-Gesetz – Kommentar* (11th ed. 2009), § 30 ¶ 37 et seq.

82 See: *Arens*, *Untreue des Gesellschafters bei der Errichtung eines Cash-Pools*, *GmbHHR* 17/2010, 905 (906 et seq.), analysing, *inter alia*, German jurisprudence.

to police the investment policies of corporate management.<sup>83</sup> If, under daily cash management practices a subsidiary will be temporarily brought under its statutory minimum capital, the shareholders are under a duty to fill up the capital. In the computerised world of cash management this is primarily a consideration of ex post importance, as these problems will only materialise in an insolvency setting. In the past the German Supreme has expressly recognised a shareholder duty to inject additional funds if cash management contravenes statutory minimum capital requirements.<sup>84</sup>

In 2008, the German legislator intervened by amending the law on limited liability companies (*GmbH-Gesetz*). Handing out a loan to a co-subsi-dary under a liquidity management scheme is lawful as long as the lender acquires a valid counter-claim. To establish the 'validity' of the counter-claim accounting rules are controlling.<sup>85</sup> If, under accounting rules, the counter-claim can be recognised, then there will no breach of the statutory minimum capital requirement. It could be argued that a valid counter-claim serves as collateral for the borrowing subsidiary.<sup>86</sup> But as soon as conglomerate cash management transactions turn international, the liquidity of subsidiaries and their customers cannot be adequately protected by company law rules on minimum capital. The managers of a conglomerate cash management system will be faced with diverging rules of capital maintenance and accounting. National laws incentivise them to adopt conflicting business strategies in the vicinity of insolvency. The validity of a counterclaim under accounting and company laws is of little value to a lending foreign subsidiary if the borrowing parent company or co-subsi-daries operate under insolvency and private international law regimes which do not assure comity for concurrent bankruptcy proceedings in several jurisdictions. In any event, it will be imperative to clarify the standards for risk management strategies, permanent liquidity controls<sup>87</sup> and transparency for those customers who deal with international conglomerates.

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83 Cf. *Benecke*, Die Prinzipien der Kapitalaufbringung und ihre Umgehung – Rechtsentwicklung und Perspektiven, *Zeitschrift für Wirtschaftsrecht* 31 (2010), 105 et seq.; *Liebscher*, in: *Fleischer/Goette* (eds.), *Münchener Kommentar zum Gesetz betreffend die Gesellschaften mit beschränkter Haftung – GmbHG*, Vol. 1 (§§ 1 – 34) (2010), § 13 Anh. ¶ 370 et seq.

84 Federal German Supreme Court (Bundesgerichtshof (BGH), judgment of 16 January 2006, BGHZ 166, 8.

85 *Liebscher*, in: *Fleischer/Goette* (eds.), supra N. 83, § 13 Anh. ¶ 395 et seq.

86 See the assessment by *Altmeyden*, in: *Altmeyden/Roth* (eds.), *Gesetz betreffend die Gesellschaften mit beschränkter Haftung (GmbHG) – Kommentar* (6th ed. 2009), § 30 ¶ 99.

87 Cf. *Kollrus*, Cash Pooling – Strategien zur Vermeidung der Haftungsgefahren, *Monatsschrift für Deutsches Recht (MDR)* 2011, 208 (210).

## 4. Regulatory Policy Issues

### a) *Basel III and Shadow Banking*

The Basel III Capital Framework presents an international effort to establish generally recognised standards of capital regulation after the financial crisis. Basel capital regulation on banks started in 1988 by focusing on credit risk, requiring eight percent as minimum level of capital to be held against the sum of all risk-weighted assets.<sup>88</sup> The Basel II framework expanded on banks' duties to maintain a minimum level of capital by adding operational risk. At the same time, banks were authorised to use their internal risk rating systems and approaches to assess credit and operational risk.<sup>89</sup> Unfortunately, this approach was deficient. The financial crisis highlighted that the Basel framework had failed to integrate microprudential and macroprudential thinking into capital requirement analysis<sup>90</sup> and that risk provisioning had largely ignored the need for countercyclical financing strategies.<sup>91</sup> Basel III now introduces a combination of tighter capital ratios, stricter criteria for the quality of capital, extended risk coverage and macroprudential regulation. Furthermore, the Basel Committee on Banking Supervision is currently studying how to require banks to capitalise their exposure to central counterparties.<sup>92</sup> The predominant form of going-concern capital will have to be common shares and retained earnings.<sup>93</sup> Innovative hybrid capital instruments which Basel II had allowed to constitute up to 15 percent of the going-concern capital will have to be phased. In enhancing risk coverage the Basel III rules raise capital requirement for the trading book and complex securitisation exposures.<sup>94</sup> This includes measures to raise the capital buffers

88 See speech by Deputy General Manager (Bank for International Settlements) *Hannoun*, The Basel III Capital Framework: a decisive breakthrough, BoJ-BIS High Level Seminar on Financial Regulatory Reform: Implications for Asia and the Pacific, Hong Kong 22 November 2010.

89 *Hannoun*, supra N. 88.

90 See speech by the Chairman of the Basel Committee on Banking Supervision (President of the Nederlandsche Bank), *Wellink*, FSI High Level Meeting on 'The Emerging Framework to Strengthen Banking Regulation and Financial Stability' for Africa, Cape Town, 27 January 2011.

91 Cf. Basel Committee on Banking Supervision, Calibrating regulatory minimum capital requirements and capital buffers: a top-down approach (Bank for International Settlements October 2010).

92 Basel Committee on Banking Supervision, Consultative Document, Capitalisation of bank exposures to central counterparties (Bank for International Settlements December 2010).

93 Basel Committee on Banking Supervision, Basel III: A global regulatory framework for resilient banks and banking systems (Bank for International Settlements December 2010)

94 *Ibid.*

backing counterparty credit exposures arising from derivatives, repurchase agreements and securities financing.<sup>95</sup> In order to expand risk provisioning strategies, risk-based capital requirements will be supplemented by a leverage ratio. In addition to the leverage criteria Basel III has moved to dampen procyclicality by promoting countercyclical buffers.<sup>96</sup> However, countercyclical buffers as such do not reduce the high degree of interconnectedness between banks of systemic importance. During the financial crisis, banks of systemic importance had become rapidly 'infected' by financial problems of their counterparts. The Basel Committee on Banking Supervision is currently studying how to reduce the externalities occurring in the network of banks of systemic importance.<sup>97</sup> The Committee has expressed its preference for a combination of capital incentives to use central counterparties,<sup>98</sup> higher capital requirements for trading and derivatives activities and securitisations and structured investment vehicles.<sup>99</sup> Liquidity margins will be introduced to reduce excessive reliance on short-term, inter-bank funding for the benefit of longer dated assets.<sup>100</sup>

The Financial Stability Group and the Basel Committee on Banking Supervision appointed a study group to assess the macroeconomic effects of the Basel III framework.<sup>101</sup> This macroeconomic effects assessment group found that a one percentage point increase in capital ratios over eight years would amount to a reduction of growth of less than 0.02 percent.<sup>102</sup> The assessment group admits that the pressure to adapt will not be spread evenly in the banking industry. In fact, international banks will be better prepared to master the transition period than smaller financial institutions.<sup>103</sup> At the end, the report

95 Cf. Banking Committee on Banking Supervision, Guidance for national authorities operating the countercyclical capital buffer (Bank for International Settlements December 2010).

96 *Ibid.*

97 Cf. *Drehmann/Tarashev*, Measuring the systemic importance of interconnected banks, Bank for International Settlements Working Paper No. 342 (March 2011).

98 See Basel Committee on Banking Supervision, Consultative Document, Capitalisation of bank exposures to central counterparties (Bank for International Settlements December 2010).

99 Basel Committee on Banking Supervision, Global regulatory framework for resilient banks, *supra* N. 93.

100 *Ibid.*

101 See Bank for International Settlements, Press Release of 17 December 2010, Final report on the assessment of the macroeconomic impact of the transition to stronger capital and liquidity requirements, available at: <http://www.bis.org/press/p101217.htm>.

102 Macroeconomic Assessment Group established by the Financial Stability Board and the Basel Committee on Banking Supervision, Final Report – Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements (Bank of International Settlements December 2010).

103 See the speech by the Secretary-General to the Basel Committee on Banking Supervision *Walter*, Basel III and Financial Stability, at the 5<sup>th</sup> Biennial Conference on Risk



of the assessment group adds a caveat. It invites further studies, *inter alia*, on the of role bank and non-bank credit channels in supporting macroeconomic activities.<sup>104</sup> This remark might also be read as an acknowledgment of the competitive race between traditional banks and shadow banks in the field of offering innovative financial products where non-banks enjoy comparative advantage.<sup>105</sup>

### *b) US Law*

In reaction to the financial crisis, the US Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010,<sup>106</sup> but not did specifically address the problem of shadow banks.<sup>107</sup> Instead, the Act takes an indirect regulatory approach by exploiting the economics of banking. Traditional banks will have to observe tighter capital and liquidity requirements.<sup>108</sup> Issuers of asset-backed securities have to retain at least five percent of the credit risk associated with the securitised assets.<sup>109</sup> Under the so-called Volcker rule there are restraints on insured depository institutions and their affiliates to engage in proprietary trading and investing in hedge funds and private equity funds.<sup>110</sup> But in imposing these restraints on traditional banks, the legislators sought to get hold of the shadow banking industry as well: As shadow banks are dependent on credits and liquidity lines from the regulated sector they are likely to be ‘infected’ by tightened capital and liquidity and transparency standards for the ‘traditionalists’.<sup>111</sup> There is some awareness, however, that shadow banking activities deserve continued monitoring.<sup>112</sup>

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Management and Supervision, Financial Stability Institute, Bank for International Settlements, Basel 3/4 November 2010, available at: <http://www.bis.org/speeches/sp101109a.htm>.

104 *Ibid.*

105 See supra, sub I.1., II.1.

106 111<sup>th</sup> Congress H.R. 4173. For a survey see: *Douglas*, Summary of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Enacted on July 21, 2010, 1874 PLI/Corp 63 (65 et seq.) (2011).

107 Cf. regulating shadow banking activities: *Gorton/Metrick*, Shadow Banking, supra N. 4; and *Tarullo*, Comments on “Regulating the Shadow Banking System”, Brookings Panel on Economic Activity, Washington, D.C., 17 September 2010.

108 See sec. 112 et seq., 331 et seq., 601 et seq. of the Dodd-Frank Act.

109 See sec. 941 et seq. of the Dodd-Frank Act.

110 See sec. 619 et seq. of the Dodd-Frank Act.

111 *Dudley*, Basel and the Wider Financial Stability Agenda, 1874 PLI/Corp 305 (318) (8 March 2011). Cf. *Johnson*, supra N. 52, U. Colo. L. Rev. 82 (2011), 167 (174).

112 *Tarullo*, supra N. 107.

c) *EU Law*

At the time of this writing, there is no EU policy initiative specifically directed at shadow banks and regulatory efforts do not go as far as the US Dodd-Frank Act.<sup>113</sup> In view of the interconnectedness between the traditional and shadow banking institutions the directive on certain regulatory aspects of securitisation<sup>114</sup> and the proposals for directives on capital requirements for assets held by banks and for complex re-securitisations<sup>115</sup> and on alternative investment fund managers (hedge funds and private equity)<sup>116</sup> might eventually affect non-financial institutions as well. With respect to standardised over-the-counter derivative contracts the European Commission has proposed a regulation which would introduce an obligation to clear through central counterparties.<sup>117</sup>

### III Whither Shadow Banks?

The regulatory technique of the Basel III framework is of great interest to those who favour tighter controls of shadow banking activities. Basel III does not take a functional approach towards banking activities. Instead, the harmonisation of international standards is predicated upon the qualification of a financial institution as a bank. Capital requirements and the duty to maintain countercyclical buffers are intended to operate as incentives or

113 *Müllbert/Wilhelm*, Reforms of EU Banking and Securities Regulation after the Financial Crisis, B.F.L.R. 26 (2011), 187 (188 et seq.).

114 Directive 2009/111/EC of the European Parliament and of the Council of 16 September 2009 amending Directives 2006/48/EC, 2006/49/EC and 2007/64/EC as regards banks affiliated to central institutions, certain own funds items, large exposures, supervisory arrangements and crisis management, O.J. L302/97 of 17 November 2009.

115 Commission of the European Communities, Proposal for Directive of the European Parliament and of the Council amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and re-securitisations and the supervisory review of remuneration policies, Brussels 13 July 2009 (COM(2009) 362 final).

116 Commission of the European Communities, Proposal for a Directive of the European Parliament and of the Council on Alternative Investment Fund Managers and amending Directives 2004/39/EC and 2009/.../EC, Brussels 30 April 2009 (COM(2009) 207 final); European Commission Press Release, European Commission statement at the occasion of the European Parliament vote on the directive on hedge funds and private equity, Brussels 11 November 2010 (MEMO/10/573).

117 European Commission, Proposal for a Regulation of the European Parliament and the Council on OTC derivatives, central counterparties and trade repositories, Brussels COM(2010) 484/5; *Müllbert/Wilhelm* supra N. 113, B.F.L.R. 26 (2011), 187 (221 et seq.); for a sceptical assessment of centralising counterparties: *Braithwaite*, The Inherent Limits of 'Legal Devices': Lessons for the Public Sector's Central Counterparty Prescription for OTC Derivatives Market, Eur. Bus. Org. L. Rev. (EBOR) 12 (2011), 87 et seq.

disincentives with respect to certain financing and risk strategies perceived to be fatal during the financial crisis. Similar approaches have been chosen by US and EU legislators.

Neither the Basel Committee on Banking Supervision nor legislators on both sides of the Atlantic proscribe certain financing transactions. Instead, the microeconomics of traditional banking and macroprudential repercussions are addressed. Traditional banks have either to reserve more capital and liquidity, insist on more collateral or give up a risky transaction. Anecdotal evidence suggests that traditional banks may have a point when they argue that too much regulation creates incentives to migrate to the shadow banking sector. But this ignores the economic interdependence between traditional banking. The economics of banking might well ‘infect’ shadow banks with the more cautious approach imposed on traditional banks. Admittedly, this appears to be regulatory policy by coincidence, unable to transcend its inherent limitations and to come to terms with regulatory arbitrage.

It is difficult to see how the microeconomics of shadow banking can be properly addressed by simply extrapolating the microeconomics of traditional banking and their macroprudential extensions. What is warranted is a policy approach informed by empirical findings on the economics of the transactions and the network effects of intermediation. Considerations about minimum capital and liquidity requirements are unhelpful in chains of contracts where the collateral is substituted by contractual stipulations and representations of the intermediaries. Penalising traditional banks for participating in the network of shadow banking may reduce risks for the financial system, but it does not explain the comparative advantage of certain non-banking activities.<sup>118</sup> Instead, regulators should identify the functions of shadow banking where private ordering is inefficient, thereby creating externalities.<sup>119</sup>

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118 Cf. *Pozsar/Adrian/Ashcraft/Boesky*, supra N. 27.

119 See the sobering assessment by *Wyman*, State of the Financial Services Industry, supra N. 20, at p. 9: “Given the tendency of financial institutions to manage their risks by partially placing them in the shadow banking sector, there is also a strong possibility that the interconnectedness of between the two systems will increase as the new rules create even greater incentives for regulatory arbitrage. Short of any reduction in the actual risks, and contrary to the instincts of vote-seeking politicians, the best way to avoid another bubble may be to loosen the regulatory vice on the banks.”

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## „БАНКЕ ИЗ СЕНКЕ“ ИЗМЕЂУ ИНОВАЦИЈЕ И РЕГУЛАЦИЈЕ

### Резиме

Минимализација трошкова је усмерила традиционалне банке ка активностима „банака из сенке“ са високим степеном коришћења туђе капиталала. „Банке из сенке“ појављују на мрежи уговора који су правно независни, али економски међусобно повезани. Тренутна регулаторна дискусија најчешће „банке из сенке“ због чега што не интернализују своје трошкове. Овај рад приказује моделе приватног уговарања и дематеријализације у сектору „банака из сенке“. У том погледу се процењује регулаторна политика у складу са Базелом III, као и у праву САД и ЕУ.

**Кључне речи:** „банке из сенке“, секьюријизација, правно уређење банака.