Banks' Trust in the EU Macroprudential Regulation

Matias Huhtilainen¹

Business School, University of Eastern Finland, Finland matias.huhtilainen@uef.fi
https://orcid.org/0000-0001-8191-0388

Received: 26 July 2018 / Revised: 19 June 2019 / Accepted: 16 August 2019 / Published online: 29 October 2019

ABSTRACT

Prior studies suggest that regulatory uncertainty is potentially detrimental to the wider economic performance, to the effectiveness of regulatory measures and to the objective of harmonized rules and a level playing field across jurisdictions. This paper discusses on the applicability of banks' perceived *trust* as a method to evaluate the quality of the EU macroprudential regulation. Accordingly, the regulatory credibility, as opposed to regulatory uncertainty, is assumed to indicate consistent, predictable and solid regulatory and institutional environment. This paper argues that the perception of trust and the regulatory credibility are interrelated so that one cannot exist without the other. For the purpose of this study, a representative survey was conducted with Finnish banks and conglomerates. Although the respondents expressed, overall, slight trust in the ability of the renewed EU macroprudential regime to accomplish its intended objectives, definitive and direct conclusions are avoided. This is due to the several limitations of the survey and as such, the results are merely to provide context for the paper.

JEL Classification: G280; G210; K220

Keywords: CRD IV, Banking Union, Macroprudential Regulation, Systemic Stability, Trust

1. INTRODUCTION

Prior studies emphasize the fundamental interdependence between mutual *trust* and cooperative behavior among economic agents, particularly under uncertainty and asymmetric information. The necessity of mutual trust is distinctly evident in complex and interlinked networks such as the interbank money markets, where institutions establish social collateral in order to maintain trustworthiness and hence, market liquidity. Likewise, the erosion of mutual trust has a reciprocal potential to induce severe systemic stress as witnessed during the financial crisis. (Schumacher, 2017; Bülbül, 2013; Dia, 2011)

Indeed, the market turmoil was initially amplified by the increasing uncertainty on market and counterparty risks, which forced banks to become defensive and, in consequence, hoard liquidity in a precautionary manner. In response to the disappearance of liquidity and the prospect of not meeting the equity requirements, banks engaged in fire sales, which lead to a self-enforcing

Corresponding Author: University of Eastern Finland, Yliopistokatu 2, 80100 Joensuu, Finland. Tel: +358 50 526 9940

downward spiral of asset prices. The decline in asset prices generated indirect mark-to-market losses in other banks with homogenous balance sheets. (Aldasoro et al., 2016; Berrospide, 2013)

Two years after the collapse of Lehman Brothers, the Basel Committee on Banking Supervision published a revised Basel accord to restore market confidence and address regulatory shortcomings exposed by the crisis. Since Basel III rules are mere minimum requirements applied to internationally active banks, the EU implemented the accord into legislation through the so-called Single Rulebook for banking (*Capital Requirements Directive* 2013/36/EU and the *Capital Requirements Regulation* (EU) No 575/2013). Together with harmonized regulation, the EU is progressing towards the banking union, a holistic structural reform for centralized, common macroprudential oversight within the eurozone banking system. The first two elements of the infrastructure, the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM), are in place and fully operational. Effectively, the European Central Bank is responsible for the direct supervision of the largest and most significant institutions as well as the overall functioning of the SSM. Meanwhile, the national supervisory authorities are in charge of the banking supervision in countries participating in the SSM. (Howarth and Quaglia 2013; do Carmo, 2018)

This study analyzes Finnish banks' perceived trust in the EU macroprudential regulation. The broad objective is to discuss on the applicability of *trust* as a method to evaluate regulatory quality. In accordance with Lange and Gouldson (2010), the supervisees' trust is assumed to reflect the perceived legitimacy and credibility of the surrounding legal and institutional framework. Theoretical justification for this approach is derived from Guiso et al. (2004), Calderón et al. (2001) and La Porta et al. (1997) who, among others, suggest that societal trust is positively associated with quality governance and regulation, economic growth and financial development. The discussion on the notion of trust in the context of this paper will be extended in the next chapter. The subsequent chapters three and four introduce and analyze a survey conducted with Finnish banks and conglomerates. The last chapter concludes the paper, addresses certain research limitations and highlights topics for future research.

2. LITERATURE REVIEW

Benoit et al. (2017) provide a comprehensive review on the literature on financial stability, sources of systemic risk, policy objectives and macroprudential regulation. Studies on macroprudential regulation typically focus on assessing the effectiveness of specific instruments², identification of systemically important financial institutions, development of reliable and accurate measures of systemic risk and the efficient allocation of supervisory and resolution responsibilities. Meanwhile, they conclude that the empirical impact of macroprudential rules has been a less investigated field. This is partly because many of the macroprudential tools are fairly novel and the consequent lack of data has prevented the more comprehensive policy assessments.

This paper aims to build a case for trust-based approach to (macroprudential) policy evaluations. In order to do so, we follow Doney and Cannon (1997) who suggest that trust follows *credibility*. Credibility, on the other hand, is the "expectancy that the word or written statement of the institution can be relied on and that promises will be kept" (van Esterik-Plasmeijer and van Raaij, 2017). Consequently, we shall define credibility in the context of this paper as an inverse measure of regulatory uncertainty. That is, the inconsistency and unpredictability of the regulatory environment on one hand and the uncertainty regarding the authorities' actual

² Namely, capital conservation, systemic risk and countercyclical capital buffers, additional capital charges for systemically important financial institutions, a binding maximum loan-to-value ratio (LTV), short and long-term liquidity buffers and leverage constraints (non-risk based Leverage Ratio introduced by Basel III).

capability to accomplish the desired regulatory objectives on the other. Regulatory uncertainty has at least three important implications.

First, uncertainty has the potential to create a deadweight loss, as the evidence suggest that banks react to regulatory uncertainty by reducing their activity in the concerned market environment (Ndou et al., 2017; Gissler et al., 2016; Bordo et al., 2016). Consequently, the decreased credit supply may deteriorate the wider economic performance by limiting agents' access to finance. Indeed, the European Commission (2016) has urged that the post-financial crisis regulatory reform should not come with the price of economic stagnation, but should take into account banks' continuing role as the key source of funding for businesses and households.

Secondly, uncertainty may add to the attractiveness of transferring funds and operations to more predictable and stable, but less strictly regulated jurisdictions. However, as the contagion risk remains unaffected within the interconnected banking network, this type of regulatory arbitrage could effectively undercut the attempts to limit systemic risk taking. Although the findings by Houston et al. (2012) support the notion that bank capital does indeed flow to jurisdictions with lax regulation, they also find that without a strong *institutional* environment, the lighter regulation *per se* is not enough to encourage substantial capital flows. As pointed out by Wilson and Veuger (2017), firms need to determine what actions the regulator expects them to take. In other words, firms face information costs and the more ambiguous the regulatory environment, more costly the compliance efforts will likely to be. Indeed, regulatory expectations are not trivial in practice, and strong, credible institutional environment may provide safety, which explicitly attracts firms.

Lastly, credibility may increase the effectiveness – that is, the likelihood of a desired outcome – of regulatory measures. With closest resemblance to this paper, Clark and Jokung (2015) studied the relationship between regulatory credibility and systemic stability. In the study, they associated credibility with timely interventions with non-random (as well as lower) costs as opposed to uncertain and unpredictable regulatory actions. The results suggest that the potential for volatility reduction diminishes when i) intervention costs are random and/or ii) the timing of the intervention is imperfect. Secondly, they show that the potential gain from financial regulation is greater in financial systems, which are inherently more volatile. This is because banks in a more volatile environment tend to adjust their balance sheets in anticipation of intervention. Indeed, they postulate that banks' perception of the regulatory regime drives their expectations of the future and the consequent decision-making. In other words, strong institutions and effective governance drive banking sector development since the inherent predictability allows banks to plan and implement long-term strategies. (Hook Law and Azman-Saini, 2012)

3. METHODOLOGY AND DATA

The theoretical framework of this study is based on the following hypotheses:

- 1. Perceived trust and regulatory credibility are interrelated. The one cannot exist without the other.
- 2. Credibility is an inverse measure of regulatory uncertainty, which manifests itself in three forms: either the rules are inadequate, the rules and authoritative actions are ambiguous, unpredictable and inconsistent or the authorities are incapable of accomplishing the regulatory objectives.
- 3. Regulatory uncertainty is potentially detrimental to wider economic performance, to the objective of harmonized rules and a level playing field across jurisdictions, and to the effectiveness and adequacy of regulatory measures.

The data originates from a survey conducted with Finnish credit institutions, commercial, cooperative and savings banks in 2016. The Finnish institutions were selected effectively because the original survey was in Finnish. Nevertheless, the single rulebook and the banking union

framework apply to Finnish institutions as well since Finland is a member of the EU and the eurozone. The respondents included business area directors, risk officers and in one case, a chief executive officer.

The survey consists of three thematic parts. First, the respondents were asked to examine macroprudential regulation from a perspective that was a bit more general but still within the context of trust and regulatory credibility. In the next section, the respondents were presented with statements considering banks' trust in the applicability of the new liquidity buffers. Finally, the survey addressed the newly formed regulatory bodies, their policy objectives and the respondents' trust in the supervisors' capabilities to accomplish the said objectives.

However, the survey admittedly suffers from two distinctive and severe limitations. First, despite being representative of the Finnish banking sector in terms of aggregate balance sheet value and market capitalization, the small N³ (= 6) restricts the interpretation of results. Effectively, the paper only reports descriptive statistics including the median, mode and range of the numerical values assigned to the answers. The corresponding analysis is strictly qualitative while direct conclusions are avoided. Whenever possible, the results are discussed together with the findings from previous studies. Secondly, respondents' answers shall not be considered an accurate and objective reflection of the banks' actual strategical behavior. Quite the contrary, the answers are suggested to reflect personal, subjective views on the issues presented in the survey. Hence, the survey merely provides a context for this study. These limitations will be revisited again in the last chapter.

4. RESULTS

According to prior studies, banks anticipate the direction where the regulatory environment is likely to evolve in the future. If the uncertainty is high, banks might mitigate their exposures in the respective jurisdiction. In this regard, the survey considered the relationship between future expectations and behavioral adjustments from two perspectives. Respondents were asked to evaluate whether banks have economic incentives i) to anticipate changes in regulation *and* ii) to estimate systemic risks in addition to their bank-specific risks. Thirdly, the survey presented a statement according to which, in a broad sense, the risk level of European banks has decreased under the renewed regulatory environment. Effectively, the results presented in Table 1 provide some support for the hypothesis that banks do have economic incentives to predict future changes in the regulatory environment. Likewise, the responses are somewhat suggestive of banks being incited to assess systemic risks *in addition* to their bank-specific risks. However, due to the one distinctive anomaly among respondents, a cautious interpretation of results is even more warranted.

Lastly, the respondents were somewhat in favor of the view that the overall risks among European banks have decreased under the current regulatory framework. This result is rather noteworthy since the European Central Bank concluded in its report (2016) that the euro area banks were moving away from investment banking, wholesale lending and lending in higher-risk sectors towards more retail-oriented businesses, as the renewed regulation has made riskier business activities more costly.

³ The actual number of respondents is seven (7), but for an unknown reason one respondent did not answer on those questions that were included in this study.

Table 1Respondents were presented with the following statements. Answers were coded as 1 = "Fully disagree" ... 5 = "Fully agree".

| | | Compared to the pre-financial crisis era, the risk level of European banks on average has decreased under the renewed regulation | Banks have an economic incentive to assess how regulation will evolve in the future | Banks do not have an economic incentive to assess systemic risks in addition to the risks strictly related to their balance sheets |
|---------|---------|--|---|--|
| N | Valid | 6 | 6 | 6 |
| N | Missing | 1 | 1 | 1 |
| Median | | 4 | 4 | 1 |
| Mode | | 4 | 4 | 1 |
| Range | | 1 | 2 | 3 |
| Minimum | | 3 | 3 | 1 |
| Maximum | | 4 | 5 | 4 |

The second part of the first thematic section addressed issues regarding banks' compliance efforts. According to Wilson and Veuger (2017), firms bear information costs from determining what actions the regulator expects them to take; the more ambiguous the regulatory environment, more costly the compliance efforts will likely to be. The other critical aspect is related to the unequal recourse and competence level among banks. Preferably, compliance costs would be neutral to firm-specific attributes. If, for instance, small banks, relative to larger ones, face larger regulatory burden due to the *economies of scale*, it could provoke mistrust in the legitimacy and credibility of the regulatory regime. Consistent with Dahl et al. (2016) and Elliehausen and Lowrey (2000), the results depicted in Table 2 show that the respondents were particularly unanimous on their view that compliance is a major competitive factor and that larger banks enjoy a competitive advantage in compliance, hence supporting the hypothesis on economies of scale. Secondly, the result implicates that the compliance costs may promote concentration of markets through levered entry barrier on one hand and the increased attractiveness of bank mergers on the other. This is noteworthy since one of the European Systemic Risk Board's objectives is to mitigate direct and indirect exposure concentrations. The ESRB will be revisited briefly.

Table 2Respondents were presented with the following statements. Answers were coded as 1 = "Fully disagree" ... 5 = "Fully agree".

| | | Large and established banks have a competitive advantage in compliance | Our profitability is at large due to the compliance costs | Compliance is and will be a major competitive factor in banking |
|---------|---------|--|---|---|
| N | Valid | 6 | 6 | 6 |
| N | Missing | 1 | 1 | 1 |
| Median | | 4 | 3,5 | 4 |
| Mode | | 4 | 4 | 4 |
| Range | | 1 | 2 | 0 |
| Minimum | | 4 | 2 | 4 |
| Maximum | | 5 | 4 | 4 |

The survey proceeded to the second thematic part, which considered a more focused aspect of the post-financial crisis macroprudential regulation. Namely, the liquidity risk. As briefly discussed in the first chapter, the financial crisis initially started as a liquidity shock. The freezing of the interbank market was sustained by asymmetric information on counterparty risks. In anticipation of market disorders, banks decided to hoard cash and other liquid assets, which stirred up further the erosion of inter-organizational trust among banks (Heider et al., 2015; Gale and Yorulmazer, 2013; Rad, 2017).

The Basel Committee on Banking Supervision reacted by introducing two capital buffers to the revised accord: Liquidity Coverage Ratio, a short-term (30 days) liquidity protection against sudden and severe shocks, and a longer-term (one year) Net Stable Funding Ratio to secure a sustainable and healthy maturity structure between banks' assets and liabilities. The liquidity rules are intended to reduce private information so that banks may anticipate sufficient and appropriate liquidity risk management from their counterparties. The desired increase in confidence should lead to a more resilient interbank market capable of withstanding times of severe stress. Under this hypothesis, the survey asked the Finnish banks and conglomerates to assess their trust in the new liquidity measures. The Table 3 below shows that the respondents were neutral to slightly confident in terms of liquidity buffers providing the protection as intended by the regulation.

Table 3 Respondents were presented with the following statements. Answers were coded as 1 = "Fully disagree" ... 5 = "Fully agree".

| | | Liquidity Coverage Ratio is sufficient enough to secure banks' liquidity position during a severe short-term liquidity crisis | We trust Net Stable Funding Ratio to secure banks' sustainable long-term maturity structure of assets and liabilities | |
|---------|---------|---|---|--|
| N | Valid | 6 | 6 | |
| N | Missing | 1 | 1 | |
| Median | | 4 | 4 | |
| Mode | | 4 | 4 | |
| Range | | 1 | 3 | |
| Minimum | | 3 | 1 | |
| Maximum | | 4 | 4 | |

The last section of the survey was devoted to the common mechanisms for banking supervision and resolution, the key pillars of the banking union. The responsibility for effective and consistent oversight of the eurozone banking system is granted for the Single Supervisory Mechanism (SSM). Under the SSM, the European Central Bank directly supervises some 120 significant institutions (SIs) while the less significant institutions (LSIs) have remained under the supervision of national competent authorities. The SSM is accompanied by the European System of Financial Supervision (ESFS), which consists of the European Systemic Risk Board and the European Supervisory Authorities⁴. While the ESAs together with national authorities are responsible for microprudential supervision, the ESRB is in charge of preventing and mitigating systemic risks within the EU borders (The EC, 2017). The ESRB (2013) has identified five intermediate objectives that are relevant to ensuring systemic stability:

⁴ Namely, the European Banking Authority, the European Securities and Markets Authority and the European Insurance and Occupational Pensions Authority.

- 1. Mitigate and prevent excessive credit growth and leverage.
- 2. Mitigate and prevent excessive maturity mismatch and market illiquidity.
- 3. Limit direct and indirect exposure concentrations.
- 4. Limit the systemic impact of misaligned incentives with a view to reducing moral hazard.
- 5. Strengthen the resilience of financial infrastructures.

As evident in Table 4, the survey considered only the first four intermediate objectives. Accordingly, the respondents were asked to assess their trust in the European Systemic Risk Board's capability to achieve the four targets. Although results did not provide clear unanimity, the respondents nevertheless expressed slight trust across the objectives.

Table 4Respondents were presented with a statement: "We trust that the following ESRB's target will be achieved". Answers were coded as 1 = "Fully disagree" ... 5 = "Fully agree".

| | | Successful in mitigating and preventing excessive credit growth and leverage | Successful in mitigating and preventing excessive maturity mismatch and market illiquidity | Successful in limiting direct and indirect exposure concentration | Successful in limiting the systemic impact of misaligned incentives with a view to reducing moral hazard |
|---------|---------|---|---|--|--|
| N | Valid | 6 | 6 | 6 | 6 |
| | Missing | 1 | 1 | 1 | 1 |
| Median | | 4 | 4 | 3,5 | 3,5 |
| Mode | | 4 | 4 | 3ª | 4 |
| Range | | 2 | 2 | 1 | 2 |
| Minimum | | 3 | 2 | 3 | 2 |
| Maximum | | 5 | 4 | 4 | 4 |

^a Multiple modes exist. The smallest value is shown.

The second pillar of the banking union was established due to the absence of harmonized and consistent policy framework for restructuring banks that are failing or likely to fail. A common approach for bank resolution was deemed necessary for the mitigation of contagion risks in case of a bank failure. Indeed, the very objective of the banking union as a whole is to manage and segregate financial instability in a manner, which will protect the broader economy. In order to achieve this target, the *Single Resolution Mechanism Regulation* (Regulation (EU) No 806/2014) entered into force on August 2014 and has been applicable since January 2016. The SRM is a cooperative body, which hosts national resolution authorities and the Single Resolution Board, an independent EU agency and the central resolution authority for banks considered significant and/or under the direct supervision of the ECB. Further, the SRB is in charge of the Single Resolution Fund, which acts as the source of last resort of emergency capital in order to abolish the need for taxpayer money in case of failures. The fund is financed by institutions themselves and may be used only to the extent that is required to ensure the effective use of the resolution tools. (Brandt and Wohlfahrt, 2018)

The survey presented three statements in regards to the bank resolution pillar. First, the survey investigated banks' general perception on whether severe systemic distress is possible to predict beforehand. Secondly, the banks were asked twice to assess their trust in the SRM's ability to resolve a failing institution in a manner, which will not endanger systemic stability. The resolution tools as well as the conditions under which the resolution regime steps in are specified in *Bank Recovery and Resolution Directive* (2014/59/EU). Namely, the normal national insolvency proceedings are deemed insufficient or no plausible supervisory or market-based measure exists to resolve the failing or likely failing bank within a reasonable timeframe. If the preconditions

are met, the resolution will be carried out in four primary ways: through the sale of business, the transfer of assets, liabilities and/or shares to controlled temporary entity ("bridge bank"), the transfer of assets to an asset management vehicle (asset separation) or by applying a bail-in tool. The bail-in tool is effectively a measure to recapitalize the bank in resolution or to provide capital for the bridge institution. During bail-in, equity and debt are wrote down or converted in order to place the burden on shareholders and creditors. (SRB, 2018)

The last table below shows that the respondents expressed fairly strong trust in the possibility to identify in advance those indicators that predict systemic distress. On the contrary, the respondents expressed lack of confidence in the ability of the SRM to wind down a globally significant financial institution (G-SIFI) without compromising systemic stability. Somewhat reasonably though, the responses exhibited stronger trust in adequate resolution of the other significant financial institutions (O-SIFI).

Table 5Respondents were presented with the following statements. Answers were coded as 1 = "Fully disagree" ... 5 = "Fully agree".

| | | We trust authorities to be capable of identifying in advance those factors that endanger systemic stability | We trust authorities to be capable of resolving Globally Systemically Important Institutions without endangering systemic stability | We trust authorities to be capable of resolving Other Systemically Important Institutions without endangering systemic stability |
|---------|---------|--|---|--|
| NI | Valid | 6 | 6 | 6 |
| N | Missing | 1 | 1 | 1 |
| Median | | 4 | 2 | 4 |
| Mode | | 4 | 2 | 4 |
| Range | | 1 | 1 | 1 |
| Minimum | | 4 | 2 | 3 |
| Maximum | | 5 | 3 | 4 |

The respondents were informed that "authorities" refer to the SRM, which includes both national authorities and the Single Resolution Board.

5. CONCLUSIONS

This paper discussed on the applicability of banks' perceived trust as a method to evaluate the quality of the EU macroprudential regulation. The rationale behind this approach was based on the hypothesis that supervisees' perceived trust reflect the credibility of the regulatory environment. Further, this study treated *credibility* as an inverse measure of regulatory uncertainty, which prior studies have found to be potentially detrimental to the wider economic performance, to the objective of harmonized rules and a level playing field across jurisdictions, and to the effectiveness and adequacy of regulatory measures. In other words, mutual trust between the supervisees and regulatory bodies promotes a perception of partnership and aligned interests, thus potentially increasing the effectiveness of regulatory measures.

The context of this study was based on a survey conducted with Finnish banks and conglomerates. The survey captured several interesting and in some cases, fairly consistent findings. First, banks viewed compliance as a major competitive factor. Moreover, the respondents supported the hypothesis on economies of scale, that is, the larger banks were perceived to enjoy a competitive advantage in compliance. Thirdly, the answers suggested that future changes in the regulatory environment are not trivial. Quite the contrary, the respondents implicated that banks do have economic incentives to anticipate and predict how the regulatory and institutional

environment will evolve in the future. The next section addressed the new post-financial crisis capital requirements regarding banks' short-term liquidity and the long-term funding sources, but did not capture anything distinctive in terms of perceived trust in the objectives the said capital buffers are committed to accomplish. For the rest of the survey, the respondents expressed trust in the possibility to identify in advance those indicators that predict systemic distress. In addition, the respondents were neutral to slightly confident in the European Systemic Risk Board's ability to accomplish its intermediate objectives. However, as a clear exception, the respondents did not express trust in the resolution regime's ability to wind down a globally systemically important institution without provoking systemic stress.

It is noted that this study admittedly suffered from research limitations stemming from the small sample size, respondents' subjectivity and the rather imprecise measurement of the non-quantified concept of trust. In consequence, this study avoided any definitive conclusions about the relationship between respondents' estimation of their perceived trust and the corresponding quality of the EU macroprudential regulation. Future research is needed to establish a more robust, quantified measure of trust. Secondly, since trust research primarily consists of qualitative studies, additional econometric modelling is required to provide better understanding on the factors that affect banks' trust and, ideally, to test whether perceived trust is associated with the effectiveness of regulatory measures on one hand and the increased systemic resiliency on the other.

References

- Aldasoro I., Delli Gatti D., Faia E. (2016) Bank Networks: Contagion, Systemic Risk and Prudential Policy, *BIS Working Paper* No 597. Available at SSRN: https://ssrn.com/abstract=2888082
- Benoit S., Colliard J-E., Hurlin C., Pérignon C. (2017) Where the Risks Lie: A Survey on Systemic Risk, *Review of Finance* Vol 21 Issue 1, pp. 109–152.
- Berrospide J.M. (2013) Bank Liquidity Hoarding and the Financial Crisis: An Empirical Evaluation, *FEDS Working Paper* No 2013-03. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2207754
- Bordo M.D., Duca J.V., Koch C. (2016) Economic Policy Uncertainty and the Credit Channel: Aggregate and Bank Level U.S. Evidence over Several Decades, *Journal of Financial Stability* Vol 26, pp. 90–106.
- Brandt F., Wohlfahrt M. (2018) A Common Backstop to the Single Resolution Fund, *Journal of Economic Policy Reform.* DOI: 10.1080/17487870.2018.1482745
- Bülbül D. (2013) Determinants of Trust in Banking Networks, *Journal of Economic Behavior & Organization* Vol 85, pp. 236–248.
- do Carmo R. (2018) The Single Supervisory Mechanism in the Context of a European Banking Union under Construction: Bridging the Euro Debt Crisis with Defences Designed for the Future, *EU Law Journal* Vol 4 No 1, pp. 67–77.
- Clark E., Jokung O. (2015) The Role of Regulatory Credibility in Effective Bank Regulation, *Journal of Banking & Finance* Vol 50, pp. 506–513.
- Dahl D., Meyer A.P., Clark Neely M. (2016) Scale Matters: Community Banks and Compliance Costs. St. Louis: Federal Reserve Bank of St. Louis. Retrieved 23.07.2018 from https://www.stlouisfed.org/~/media/Publications/Regional-Economist/2016/July/scale_matters.pdf
- Dia E. (2011) Uncertainty, Trust, and the Regulation of the Banking Industry, *International Review of Economics* Vol 58 No 2, pp. 213–228.
- Doney P.M., Cannon J.P. (1997) An Examination of the Nature of Trust in Buyer-Seller Relationships, *Journal of Marketing* Vol 61 No 2, pp. 35–51.
- Elliehausen G., Lowrey B.R. (2000) The Costs of Implementing Regulatory Changes: The Truth in Savings Act, *Journal of Financial Services Research* Vol 17 Issue 2, pp. 165–179.
- The European Central Bank (2016). Recent Trends in Euro Area Banks' Business Models and Implications for Banking Sector Stability. Retrieved 17.6.2019 from https://www.ecb.europa.eu/pub/pdf/other/sfcfinancialstabilityreview201605.en.pdf
- The European Commission (2017). Report from the Commission to the European Parliament and the Council on the Single Supervisory Mechanism established pursuant to Regulation (EU) No 1024/2013. Brussels. Retrieved 20.07.2018 from https://ec.europa.eu/info/sites/info/files/171011-ssm-review-report_en.pdf
- The European Commission (2016). Frequently Asked Questions: Capital Requirements (CRR/CRD IV) and Resolution Framework (BRRD/SRM) Amendments. MEMO/16/3840. Brussels.

- Gale D., Yorulmazer T. (2013) Liquidity Hoarding, Theoretical Economics Vol 8 Issue 2, pp. 291–324.
- Gissler S., Oldfather J., Ruffino D. (2016) Lending on Hold: Regulatory Uncertainty and Bank Lending Standards, *Journal of Monetary Economics* Vol 81 Issue C, pp. 89–101.
- Guiso L., Sapienza P., Zingales L. (2004) The Role of Social Capital in Financial Development, *The American Economic Review* Vol 94 No 3, pp. 526–556.
- Heider F., Hoerova M., Holthausen C. (2015) Liquidity Hoarding and Interbank Market Rates: The Role of Counterparty Risk, *Journal of Financial Economics* Issue 2, pp. 336–354.
- Hook Law S., Azman-Saini W.N.W. (2012) Institutional Quality, Governance, and Financial Development, *Economics of Governance* Vol 13 Issue 3, pp. 217–236.
- Houston J.F., Lin C., Ma Y. (2012) Regulatory Arbitrage and International Bank Flows, *The Journal of Finance* Vol 67 Issue 5, pp. 1845–1895.
- Howarth D., Quaglia L. (2013) Banking on Stability: The Political Economy of New Capital Requirements in the European Union, *Journal of European Integration* Vol 35 Issue 3, pp. 333–346.
- Lange B., Gouldson A. (2010) Trust-Based Environmental Regulation, *Science of the Total Environment* Vol 408 Issue 22, pp. 5235–5243.
- La Porta R., Lopez-de-Silanes F., Shleifer A., Vishny R.W. (1997) Trust in Large Organizations, *The American Economic Review* Vol 87 No 2, pp. 333–338.
- Ndou E., Gumata N., Ncube M. (2017). Global Economic Uncertainties and Exchange Rate Shocks: Transmission Channels to the South African Economy, Cham: Springer International Publishing AG.
- Rad A. (2017) The Importance of Trust for Inter-Organizational Relationships: A Study of Interbank Market Practices in a Crisis, *Qualitative Research in Accounting & Management* Vol 14 Issue 3, pp. 282–306.
- Recommendation ESRB/2013/1 (2013). Recommendation of the European Systemic Risk Board on Intermediate Objectives and Instruments of Macro-Prudential Policy, p. 3.
- Schumacher S. (2017) Networks and Lending Conditions: Empirical Evidence from the Swiss Franc Money Markets, *Journal of Network Theory in Finance* Vol 3 No 2, pp. 69–101.
- Single Resolution Board (2018) Resolution Q&A. Retrieved 10.4.2019 from https://srb.europa.eu/en/content/resolution-qa#
- van Esterik-Plasmeijer P.W.J., van Raaij F. (2017) Banking System Trust, Bank Trust, and Bank Loyalty, *International Journal of Bank Marketing* Vol 35 Issue 1, pp. 97–111.
- Wilson K., Veuger S. (2017) Information Frictions in Uncertain Regulatory Environments: Evidence from U.S. Commercial Banks, *Oxford Bulletin of Economics and Statistics* Vol 79 Issue 2, pp. 205–233.