

## Bank Response to Higher Capital Requirements \_4

Reint Gropp • Thomas Mosk • Steven Ongena • Carlo Wix

## To Clear or Not to Clear:

## The Demand for Central Clearing \_6

Mario Bellia • Roberto Panzica • Lorian Pelizzon • Tuomas Peltonen

## Monetary Policy and Prudential Supervision – From Functional Separation to a Holistic Approach? \_10

Matthias Goldmann

## IMPRINT

### **Publisher:**

Prof. Dr. Wolfgang König • Executive Board  
Research Center SAFE  
House of Finance • Goethe University  
Theodor-W.-Adorno-Platz 3  
60323 Frankfurt am Main • Germany

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### **Design:**

Novensis Communication GmbH  
Bad Homburg

1<sup>st</sup> Edition

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Frankfurt am Main

Printed in Germany

## About SAFE

The Research Center SAFE – “Sustainable Architecture for Finance in Europe” – is a cooperation of the Center for Financial Studies and Goethe University Frankfurt. It is funded by the LOEWE initiative of the State of Hessen (Landes-Offensive zur Entwicklung wissenschaftlich-ökonomischer Exzellenz). SAFE brings together more than 40 professors and just as many junior researchers who are all dedicated to conducting research in support of a sustainable financial architecture. The Center has two main pillars: excellent research on all important topics related to finance; and policy advice, including the dissemination of relevant research findings to European decision makers from the realms of politics, regulation and administration.

In order to promote a fruitful exchange with interested parties from politics, academia, business and the media, SAFE issues a newsletter on a quarterly basis. This aims to provide an overview of the Center’s ongoing research and policy activities. The SAFE Newsletter succeeds the House of Finance Newsletter, which was published between 2009 and 2012.

SAFE is based at Goethe University’s House of Finance, however extends beyond by drawing on scholars from other parts of Goethe University as well as from fellow research institutions. The Center builds on the reputation of the House of Finance institutions, serving as an interdisciplinary think tank on the issue of finance.

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## Editorial



Tobias Tröger

Program Director “Corporate Governance and Corporate Finance”

Since the start of SAFE, it has been an important aspiration of our Center to approach its topic from an interdisciplinary perspective, integrating scholars from finance, economics and law. However, as everyone who ever engaged in interdisciplinary research knows, such an endeavor does not come without obstacles: Different disciplines have different methodologies, are separated by diverging modes of reasoning, research topics etc., and, not least, vary in their culture of publishing results. The latter observation requires extra efforts in finding outlets for scholarly results that propel careers in both disciplines.

Against this background, it is a great success – and a major challenge – that two SAFE researchers were recently awarded funding by the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) to establish a Center for Advanced Studies (“Kolleg-Forscherguppe”) on the topic “Foundations of Law and Finance”. The Center, headed by SAFE professors Rainer Haselmann and myself, will bring together financial economists, lawyers and political scientists not only from SAFE and Goethe University but also many fellows from leading academic institutions around the globe who will join us in Frankfurt for longer research visits.

The group will investigate the impact of the institutional and regulatory framework on financial market decisions and outcomes. By focusing on the interdependence of law, economics and politics in this area, we will measure and evaluate the effects of legislative proposals and changes on the real economy. Also, we aim to not only work together across disciplines but also to develop truly integrated scholarly methods.

The work program of the Center focusses on four core areas: 1) Pricing of law – To what extent do markets adjust prices in reaction to changes in law? What does their reaction imply for market participants, regulators etc.? 2) Impact assessment of legislative intervention in corporate governance and corporate finance. 3) Impact assessment of financial regulation. 4) Political economy of regulation. While the first area addresses the fundamental question in law and finance, the second and third area specifically assess the micro- and macroeconomic consequences of law and regulation. The fourth area has the goal of expanding the law and finance literature and paying close attention to the political forces that trigger and shape specific legislative projects.

We are very excited to engage in this highly innovative endeavor and are confident to fruitfully synthesize the rich knowledge pools of our respective fields in this interdisciplinary collaboration. A huge part of the success has to be granted to SAFE and the House of Finance – not least for providing an academic environment in which economists and lawyers work next door to each other and, thus, casually exchange ideas and develop concepts that can become the starting point for more consolidated, cutting-edge initiatives.

Yours sincerely,  
Tobias Tröger

# Bank Response to Higher Capital Requirements



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Basel III, which will become fully effective in 2019, significantly increases capital requirements for banks. However, at this point, the economic implications of such higher capital requirements are still unclear. In this paper we exploit a capital exercise of the European Banking Authority (EBA) as quasi-natural experiment to investigate the effects of an increase of regulatory capital ratios on banks' balance sheet adjustments and the transmission of this effect to firms across Europe. Our findings suggest that the EBA capital exercise was an effective policy instrument to improve capitalization of the largest European banks. However, we also find that banks increase their capital ratios by reducing their risk-weighted assets and not by raising their levels of equity. Banks reduce lending to corporate and retail customers, resulting in lower asset, investment and sales growth for firms that obtain a larger share of their bank credit from the treated banks.

Banks can, in principle, increase their regulatory capital ratios in two different ways: They can either increase their levels of regulatory capital (the numerator of the capital ratio) or they can shrink their risk-weighted assets (the denominator of the capital ratio). While raising capital is generally considered "good deleveraging" by regulators, shrinking assets has potentially adverse effects on the supply of credit to the real economy if many banks simultaneously engage in cutting lending. How banks adjust their balance sheets in response to higher capital requirements is an empirical question of crucial importance for understanding the real implications of the higher capital requirements recently imposed under Basel III.

The most important challenge in studying the effect of capital requirements is to find exogenous variation in capital requirements. Yet capital requirements tend to vary little over time, and when they do change, they change for all banks in a given economic area at the same time, leaving no cross-sectional variation to exploit. We address this empirical challenge by exploiting the 2011 EBA capital exercise as a

quasi-natural experiment. The capital exercise required a subset of European banks to reach and maintain a 9% core tier 1 capital ratio by the end of June 2012. We exploit the country-specific selection rule of the EBA capital exercise, based on bank size, and compare EBA banks subject to the higher capital requirements (treatment group) with similar European banks not subject to higher requirements (control group).

## Banks reduce risk-weighted assets

We document that capital exercise banks raised their core tier 1 capital ratios by 1.9 percentage points (pp) more compared to banks not subject to the higher capital requirements (control group). Capital exercise banks achieved this by reducing their levels of risk-weighted assets (RWA) by 16 pp. The control group is crucial for uncovering this finding: Capital exercise banks increased their levels of core tier 1 capital by 19% over our sample period, but the control group raised their levels of core tier 1 capital by the same magnitude (see figure).

We then study the effects of higher capital requirements on the composition of banks' balance

sheets. Risk-weighted assets for credit risk – the most important component of RWA – are calculated by multiplying each of a bank’s exposures with asset class specific risk weights. As a result, some asset classes require less bank capital than others. A sudden increase in capital requirements could therefore change the capital allocation of banks from “capital intensive” to

“capital light” activities, which require less regulatory capital. To study the effect of the capital exercise on the composition of banks’ balance sheets, we hand-collect information about banks’ exposures to different asset classes from the banks’ pillar 3 disclosure reports. We find that treated banks mainly reduced their exposures to corporate and retail borrowers. The

results suggest that banks are reluctant to issue new equity to increase their capital ratios when required to do so by regulators.

#### Adverse effects on the real economy

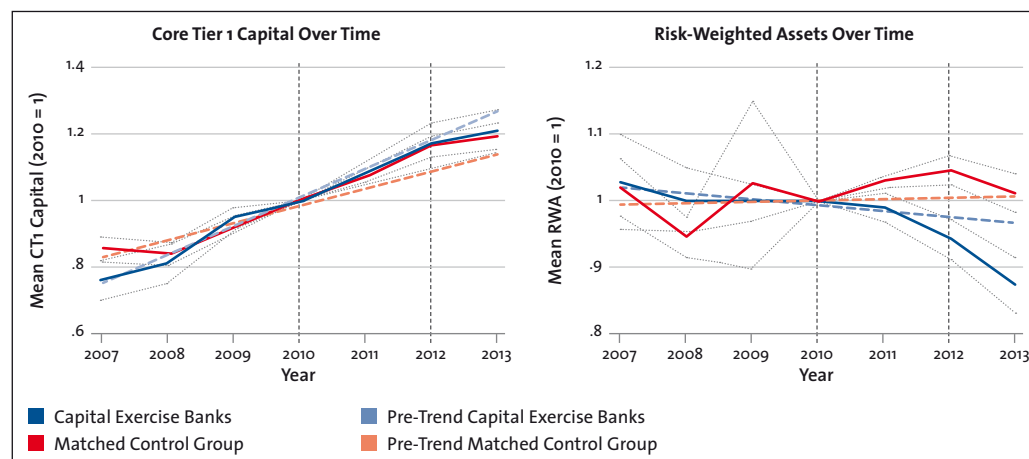
Finally, we study whether the reduction in lending by capital exercise banks had a real effect on firms. Simply observing a reduction in outstanding customer loans on banks’ balance sheets is not sufficient to conclude that the supply of credit by capital exercise banks contracted, since this might very well just reflect a reduction in credit demand by firms borrowing from capital exercise banks. Moreover, even if we observe a contraction in credit by capital exercise banks, other competing banks may have picked up the slack, resulting in no adverse real effects. In order to disentangle credit supply from credit demand, we use syndicated loan data and exploit the presence of multiple bank-firm relationships to control for credit demand. Specifically, we employ a modified version of the Khwaja and Mian (2008) estimator, which estimates the change in outstanding syndicated loans of a bank to country-industry firm clusters.

We show that capital exercise banks reduced their credit supply of syndicated loans by 17 pp relative to banks in the control group. Further, we find that firms with an initial high share of loans from capital exercise banks exhibited 4 pp lower asset growth, 6 pp lower investment growth, and 5 pp lower sales growth than firms less reliant on funding from capital exercise banks, meaning that firms which are more reliant on credit supplied by capital exercise banks exhibit lower asset, investment, and sales growth than firms less reliant on capital exercise banks. This result is driven by unlisted firms which are less likely to substitute a credit reduction with other sources of funding.

#### References

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*The paper is conditionally accepted for publication in the Review of Financial Studies and available as SAFE Working Paper No. 156 at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2877771](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2877771)*



**Bank response to higher capital requirements.** The figure shows the evolution of the mean of core tier 1 (CT1) capital (left panel) and risk-weighted assets (right panel) over time for both 48 capital exercise banks in the treatment group (solid blue line) and 76 banks in the matched control group (solid red line). The two dashed vertical lines in each panel mark 2010 and 2012, the years immediately before and after the capital exercise. The dashed red and blue lines indicate the extrapolated pre-treatment and the dotted lines indicated the 95% confidence intervals.

# To Clear or Not to Clear: The Demand for Central Clearing



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The recent financial crisis exposed a number of systemic weaknesses in the market for over-the-counter (OTC) derivative securities. In response, the G20 Leaders initiated a fundamental overhaul of OTC derivatives markets, rendering the involvement of a central counterparty (CCP) mandatory for most OTC derivatives' trades. In this paper, we analyze the incentives for different types of market participants to centrally clear (or not) OTC derivative contracts. Our results demonstrate that the large majority of the transactions cleared are between CCP clearing members while there is almost no evidence of clearance of transactions by non-clearing members. Moreover, we find that the decision to clear is also related to net exposure to the CCP, the characteristics of the contract and the counterparty credit risk (CCR).

The U.S. Congress signed the Dodd-Frank Wall Street Reform and Consumer Protection Act (DFA) into law in July 2010, and the European

Parliament and the Council of Ministers agreed on the European Market Infrastructure Regulation (EMIR) in August 2012. While the credit default swap (CDS) indices must be cleared under the Markets in Financial Instruments Directive (MiFID) regulation since then, a rule for single name CDS reference entities has not yet been finalized. Therefore, the decision to clear single name CDS is still voluntary to date.

This pending process enables us to investigate the question of why some sovereign CDS transactions currently eligible for central clearing are cleared while others are not. In particular, we analyze three main drivers for the decision to clear: 1) the liquidity and riskiness of the reference entity; 2) the credit risk of the counterparty; and 3) the clearing member's portfolio net exposure to the CCP. For our analysis, we use European trade repository data on single-name sovereign CDS transactions ruled by the EMIR which include all derivatives transactions by EU financial institutions in 2016. Our analysis focuses on the most-traded European sovereign CDS contracts: those from Italy (IT), France (FR), and Germany (GE). The choice of the CDS con-

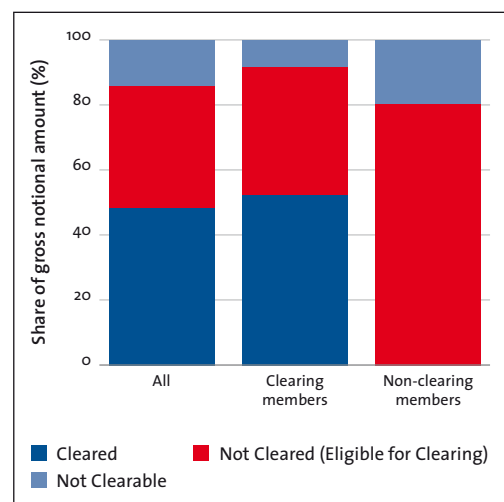
tracts is not made only due to the trading activity but also to reflect differences in risk characteristics of the underlying reference entities. We concentrate on sovereign CDS contracts because they are the contracts mostly traded by European institutions and therefore well represented in our database (see Abad et al., 2016).

## Non-clearing members rarely clear

In our sample, about 48% of the notional amount traded in 2016 was cleared, 42% was not cleared despite being eligible for central clearing and 9% was not clearable because the contracts did not satisfy certain CCP clearing criteria. For clearing members, who are subject to capital requirements which are reduced if they clear the contracts, the fraction of cleared contracts was 53% while the fraction of non-eligible contracts was 8%. With respect to non-clearing members, there is almost no evidence of clearance of transactions in our dataset, independently of whether they are subject to capital requirements or not (see figure).

The reluctance of non-clearing members to clear might be due to two main reasons: First,

capital requirements charged for the default funds for central clearing as well as the costs for becoming a clearing member might be too high. Second, the indirect clearance might be



**Clearing of sovereign CDS contracts by counterparty type.** The figure shows the share of gross notional amount of single-name sovereign CDS contracts written on Italy, Germany and France as a reference entity in 2016. The first bar includes all contracts traded in our sample, the second bar includes only the contracts where both counterparties are clearing members, while the third bar includes the contracts where one of the two counterparties is a clearing member.

costlier for them than the benefit they receive from the reduction of the capital requirement charge.

Focusing on contracts that are eligible for clearing, we investigate the factors that drive clearing members' decision to clear. We model the incentives to clear a contract (or not) based on the characteristics of the contract that affect both the margin setting by CCPs and CCR capital requirements. In principle, more risk could encourage clearing in order to reduce CCR capital requirements while, on the other side, more risk causes larger margins and therefore higher costs. Also, it has to be considered that counterparties must agree on the decision to clear. Therefore, not only the characteristics of the contract are relevant for the decision to clear in terms of margin costs, but also the individual incentives of the traders related to their portfolio exposures to the CCP matters.

### National differences

Our analysis leads to two major findings. First, we find that both capital costs and margin costs are relevant for the decision to clear, with some

differences among the three sovereign CDS contracts: For the Italian sovereign CDS, the counterparty credit risk exposure is more relevant than the margin costs in the decision to clear, while for the German sovereign CDS contracts margin costs are the most important aspect. For the French sovereign CDS contracts it is difficult to disentangle which of the two main drivers prevails.

Second, we find that when a net seller of a specific sovereign CDS buys an additional contract, its propensity to clear increases. When the trade reduces the counterparty's outstanding net positions to the CCP, the probability of clearing the trade is higher. This finding is robust across reference entities, indicating that portfolio positions with the CCP also matter with respect to the decision to clear single contracts. Finally, we find that CCR is an important incentive to clear a contract. Both the seller and the buyer manage counterparty exposures strategically and choose to clear when the counterparty is riskier. This means that the benefit in the reduction of CCR capital requirements provides strong incentives for clearance to clearing members.

### Policy implications

Our study has several potential policy implications. First, it shows that the indirect clearing of non-clearing members, independently of whether they are subject to capital requirements or not, is very low. Thus, regulators should further investigate reasons for this to better understand the cost factors and other potential obstacles for client clearing. Second, our results show that factors impacting the incentives for central clearing are not the same for all analyzed CDS reference entities. Finally, our analysis shows that the decision to clear is also related to net exposure to the CCP, in addition to the characteristics of the contract and CCR.

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*This paper has been published as Working ESRB Working Paper 62/2017 and as SAFE Working Paper No. 193 and is available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3116261](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3116261)*



# Newly Founded Firms: Initial Financing Matters



Uwe Walz  
Goethe University & SAFE

It is often claimed that one of the main barriers to the development of young firms is the lack of financing. However, there is rather little empirical research of such firms. In this interview, Uwe Walz, Professor of Management and Microeconomics at Goethe University and Director of SAFE, elaborates on the dynamics of financing of newly founded firms and on the effect of shocks on their financing and investment behavior. Uwe Walz' research mainly focuses on private equity, entrepreneurial finance and contract theory as well as on the industrial organization of financial markets.

**Despite the fact that young firms are considered to be important for the dynamics and development of the overall economy very little is known about their financing structure. In two recent studies you investigate the financing dynamics and financial constraints of newly founded firms. What does their initial financing structure look like?**

The question of whether newly founded firms often face financing gaps is a frequently discussed issue in politics. However, because of the lack of data there is only little empirical research on this topic. One has to bear in mind that the fast-growing start-ups, that usually attract much attention in the public and academic debate, are only a very small minority of the group of newly founded firms. By examining a sample of 2,620 French firms, founded in the years 2004 to 2006, we aim to contribute to filling this gap. As opposed to start-up companies, which usually emerge from the digital industries and grow quite fast, we focus on companies mainly from the manufacturing sector, which grow much more slowly. To the best of our knowledge our sample, which stems from the ALTARES data-

base, is quite representative for the overall French population of newly founded firms in this period and in these industries. We found a clear-cut picture of the initial financing structure of these newly founded firms: They rely to an astonishing extent on external financing sources that include trade credit from their suppliers as well as formal bank credit. In the first year, more than a quarter of their funds, on average, come from bank lending (see figure). The amount of bank credit we found speaks against the often-claimed difficulty of young entrepreneurial firms to access formal bank loans.

**To what extent is the future financing structure of those firms determined by the initial financing pattern?**

This question is highly relevant because, if the initial financing pattern is persistent and has an impact on the development of the company, then, obviously, initial financing matters a lot. If initial financing converges in the medium term to a unique equilibrium, however, then the starting point is much less of importance. Our empirical analysis comes to mixed results on this

question: We find, on the one hand, huge differences across firms in the first place which, however, slowly but surely tend to converge such that firms with a lower initial level of debt accumulate more debt over time whereas firms which are initially more leveraged accumulate less debt. On the other hand, we find that the dispersion of financing structures becomes even greater over time. Since our data display patterns of hysteresis in this latter sense, for example in the aftermath of temporary firm-specific shocks, we conclude that those shocks have permanent effects and cause the dispersion of financing structures.

**Financing is usually considered a major factor for growth of young companies. Have you found evidence for this hypothesis?**

We find in our 2016 SAFE working paper that initial share capital has a significant positive effect on the growth both of total assets and of sales, meaning that firms which initially finance with equity seem to grow significantly faster than their debt-financed counterparts. These effects are identical for firms with low



and high profitability, which implies that access to equity financing is crucial for all newly founded firms in order to steepen their growth path.

However, we find opposite effects for these two types of firms in the debt financing case: For highly profitable firms, debt financing has a significant negative effect, meaning that highly profitable firms which are initially mainly financed by debt grow more slowly while the opposite is true for firms with low profitability. A possible explanation is that low profitability firms are potentially more financially constrained in the first years so that access to external financing might alleviate the negative growth effect that stems from a lack of capital.

**Your sample period includes the years of the financial crisis 2008/2009. As newly founded firms are likely to be affected by shocks, how did they react on the crisis in terms of financing decisions?**

We show in our 2017 SAFE working paper that the financial crisis reduced overall debt financing as well as the different types of specific sources of debt, such as long-term debt as well as trade-credit financing. The crisis also imposed a shock on the investments of newly founded firms.

Interestingly, we found that it was more the demand shock (resulting from the shock on the firms' product market) than a lack of credit supply which led them to reduce investments and bank lending. Of course, there was also a supply shock because banks reduced lending overall. However, according to our data on French newly founded firms, the demand shock was significantly stronger.

**Did the financial crisis affect all newly founded firms to the same extent?**

Interestingly, the financially constrained firms in our sample were affected to a smaller degree than financially non-constrained firms. This holds for all different financing sources. With respect to the effect of the crisis on investment decisions we do not find any differences between financially and non-financially constrained firms; the financial crisis reduced the investment levels of all companies in our sample. Both findings suggest that the demand channel seems to have played a bigger role than the supply shock.

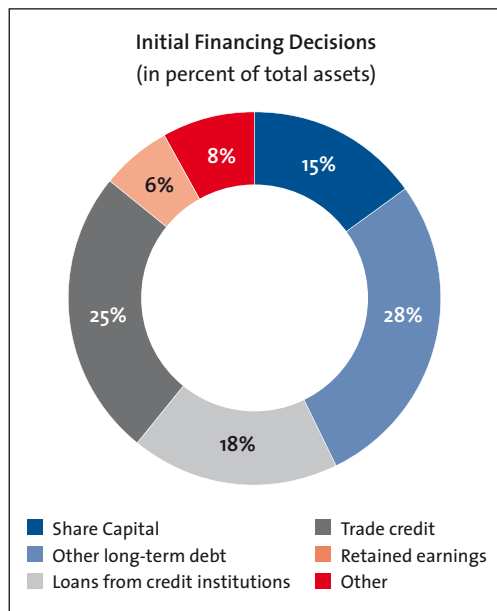
**The financial crisis was a special environment for newly founded firms. Do financial constraints matter in general?**

We find that financially constrained firms use less external debt financing than their counterparts, which clearly shows their limited access to this form of financing. They can also rely less on trade credit. When it comes to repayment of debt, it turns out that financially constrained firms repay less than their non-financially constrained counterparts. Regarding investments we find that financially constrained firms invest less than non-financially constrained firms. This leads us to the conclusion that financial constraints stemming from informational asymmetries are an impediment for growth for young companies.

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**Hirsch, J. and U. Walz** (2017), "Financial Constraints, Newly Founded Firms and the Financial Crisis", SAFE Working Paper No. 191.

**Hirsch, J. and U. Walz** (2016), "The Financing Dynamics of Newly Founded Firms", SAFE Working Paper No. 153.



**Initial financing decisions of newly founded firms:** The figure presents the summary statistics (mean) for the initial financing decisions for all 2,620 firms of the sample in the first year after foundation (only retained earnings are reported in the second year after foundation). Source: Hirsch and Walz, 2016.

# Monetary Policy and Prudential Supervision – From Functional Separation to a Holistic Approach?



Matthias Goldmann  
Goethe University & SAFE

When prudential supervision was put in the hands of the European Central Bank (ECB), it was the political understanding that the ECB should follow a policy of meticulous separation between monetary policy and financial supervision. However, an overly strict separation might jeopardize the effective management of systemic crises. Even during normal times, it might generate risks for both financial stability and price stability. As a consequence, the prevalent model of “functional separation” – central banking and financial supervision in separate entities – has been questioned, and calls for a more holistic approach have increased. From a legal perspective, such a holistic approach would be in conformity with the current legal framework of the Economic and Monetary Union (EMU). Although the realization of a holistic approach might intensify doubts relating to the democratic legitimacy of the European System of Central Banks, the independence of the ECB should not be given up.

Today, hardly anyone would doubt that monetary policy and the stability of financial institutions are highly interrelated. In fact, the trade-offs between inflation-targeting monetary policy and stability-orientated prudential supervision might have a positive or negative influence on one another. Monetary policy determines the supply of money to banks and their refinancing conditions, thereby setting the frame for the supply of credit. The amount of credit has an impact upon financial stability. Conversely, prudential supervision has an impact on the transmission of monetary policy as it affects the capacity of banks to create money through lending.

During the decades preceding the financial crisis, the theory and practice of central banking frequently disregarded the tradeoffs between monetary policy and financial stability and favored an institutional model that assigned central banking and financial supervision to separate entities. This approach owes its popularity and spread across the world to the historical experience that independent central banks were eventually able to control the high levels

of inflation coinciding with the economic recession of the 1970s and early 1980s.

## Legality of a holistic approach

The preferability of a holistic approach, which unites the diverging policy objectives and reopens questions of institutional design, is a question for economists that will ultimately be decided by central bankers. The salient legal issues are whether a holistic approach to monetary policy would be in conformity with the current legal framework of the EMU, and whether monetary considerations are legitimate within the framework for prudential supervision, should the Single Supervisory Mechanism (SSM) wish to opt for a holistic approach in that respect as well. Both questions are to be answered in the affirmative. Both the monetary policy mandate and the supervisory powers of the ECB are drafted in a relatively abstract, open manner, leaving the ECB sufficient scope for holistic approaches. The ECB can take due account of its monetary policy within the scope of its supervisory functions (or to take due account of supervisory concerns within the frame of its monetary policy) as long as such influence remains proportionate to

the supervisory (or monetary) policy objective. It thus turns out that the legal framework of the EMU is rather neutral if it comes to the choice between strict functional separation and more holistic approaches and does not necessarily subscribe to the premises of the theory of functional separation.

A holistic approach, where monetary policy decisions pay due regard to financial stability concerns, and where supervisory decisions account for monetary policy effects, would even not necessarily require rebuilding the institutional setup and unifying supervision and monetary policy in one institution. It would suffice to ensure consistency between monetary policy and financial supervision to render both effective. Hence, the holistic approach mostly concerns the way in which institutions exercise their respective mandates. It could even be implemented under a separation model if the central bank and the supervisory authority coordinate their decisions.

### **Democratizing an independent ECB**

The realization that the ECB's monetary policy and the SSM might follow a holistic approach

raises the question whether the ECB enjoys sufficient democratic legitimacy for that purpose. Article 130 of the Treaty on the Functioning of the European Union (TFEU) ensures the independence of the ECB, which is justified by the functional necessity to protect monetary policy from time inconsistencies. The allocation of supervisory powers to the ECB increases its democratic deficit as financial supervision has enormous distributional consequences. The adoption of a holistic approach to monetary policy and financial supervision would intensify the problem. While one cannot say that the holistic approach would favor financial stability over price stability, or vice versa, as it works in both directions, it is yet unclear how the ECB would balance financial and price stability in a specific situation, should it ever adopt a holistic approach. As necessary as one might deem a holistic approach for the effective fulfilment of the ECB's two principal functions, it increases the ECB's discretionary powers – those for which democratic legitimacy is most needed.

In light of these difficulties, some take a radical step and call into question the value of the ECB's

independence. However, to the author's knowledge, new solutions for the time inconsistency problem that would make an independent central bank superfluous are unavailable. Moreover, the independence of the European institutions – the Commission, the Court of Justice of the European Union, and the ECB – is of great importance for European integration. Instead of stripping the ECB of its independence, the democratic control over it should be strengthened. This might be achieved by increasing the ECB's output legitimacy through more transparency, such as the publication of its assessments of the legal situation in cases where the legality of ECB acts is in question. Further, the parliamentary scrutiny of the ECB might be enhanced, as the restriction of its accountability towards the European Parliament is difficult to justify in view of the close links between monetary policy and supervision. And ultimately, to strengthen the ECB's electoral accountability, one might give the European Parliament the right to appoint the members of the ECB's Executive Board in a single, comprehensive vote.

*The full text is available as SAFE Policy Letter No. 63 at: <http://safe-frankfurt.de/holistic-approach>*

### **Selected Policy Center Publications**

**Wahrenburg, M.** (2017)

“Provisioning Policies for Non-performing Loans: How to Best Ensure a ‘Clean Balance Sheet’?”, White Paper No. 51, SAFE Policy Center.

**Gal, J. and H. Gründl** (2017)

“The Recalibration of the European System of Financial Supervision in Regard of the Insurance Sector: From Dreary to Dreamy or Vice Versa?”, Policy Letter No. 60, SAFE Policy Center.

**Berdin, E.** (2017)

“Systemic Risk in Insurance: Towards a New Approach”, Policy Letter No. 62, SAFE Policy Center.

**Weichenrieder, A.** (2018)

“Digitalization and Taxation: Beware Ad hoc Measures”, Policy Letter No. 64, SAFE Policy Center

# News

## Deputy Prime Minister of Singapore Pleads for a New Economic Policy



Social inequality is known as the downside of globalization. How more “inclusive growth” can be achieved was outlined by Tharman Shanmugaratnam, Deputy Prime Minister of Singapore, in a Policy Lecture on 5 December 2017, hosted by SAFE, Center for Financial Studies and Deutsche Bundesbank. Tharman called for “a new spirit of activism in the role of government.” Leaving things to the market was no sustainable strategy, nor was collectivism or permanent redistribution. “We need a spirit of regeneration, a new strategy”, Tharman claimed. In particular in the creation of new and viable jobs, social mobility and integration governments should take a new activism. It should be made easier for employees of slow growing sectors to change into future-oriented sectors. Thereby, lifelong learning was taking a key role. “Partnerships among educational institutions and companies could provide a major contribution for preparing people for new requirements of working life,” Tharman stated.

## Agustín Carstens: Cryptocurrencies Might Become a Threat to Financial Stability



In a Policy Lecture on 6 February, jointly organized by SAFE, CFS and Deutsche Bundesbank, Agustín Carstens, General Manager of the Bank for International Settlements (BIS), spoke about the role of central banks in the digital age. In the first major public speech in his new role at the BIS the former Governor of the Mexican central bank elaborated on the “meteoric rise” of digital currencies. Cryptocurrency technology has the potential to reshape global finance. The market capitalization of cryptocurrencies rose by more than 1,500 % in 2017. However, its future role crucially depends on the question of how it will be regulated. According to Carstens, cryptocurrencies could become a threat to financial stability without adequate policy interventions and regulation. He described the soaring price of bitcoin, the most widely known cryptocurrency, as a mixture of “a bubble, a Ponzi scheme and an environmental disaster” that can have adverse effects on public trust in central banks. Despite the extensive list of possible drawbacks, Carstens also highlighted the potential of new financial technologies, including cryptocurrencies.

## Nicola Fuchs-Schündeln Receives Leibniz Prize



Nicola Fuchs-Schündeln, Professor of Macroeconomics and Development at Goethe University and Principal Investigator in SAFE, has been awarded the most prestigious research prize in Germany, the Gottfried Wilhelm Leibniz-Prize 2018, worth EUR 2.5 million. Fuchs-Schündeln is recognized for her methodological innovations and continuous development of the field of economics. Her research introduces microeconomic questions and methods into macroeconomics. She focuses on the behavior of private households with respect to consumption, savings and labor supply, as well as on the formation of individual preferences, e.g. in relation to availability of employment, which were previously regarded as being exogenously determined. Fuchs-Schündeln used the German reunification as a “natural experiment” to study the behavior of two populations with different economic and political experiences. Her work has been published i.a. in the American Economic Review, the Quarterly Journal of Economics, and Science.

## Frankfurt Conference on Financial Market Policy 2017



Defining the appropriate level of mutualization for the European Monetary Union (EMU) is one of the key issues on the current policy agenda. Against this background, the SAFE Policy Center held its 5th Frankfurt Conference on Financial Market Policy entitled “EMU: How Much Federalism?” on 27 October 2017 at Goethe University Frankfurt. The three panels dealt with the topics “Common monetary policy without risk-sharing?”, “Banking Union – what type of backstop?”, and “Euroland – how much mutualization?” Peter Praet, Member of the Executive Board of the European Central Bank and Chairman of the SAFE Policy Council, gave a keynote on the evolution of federalism in the EU. He called for further integration in Europe, not only in times of crises but also during times of economic recovery to counteract renationalization threats. Thereby, the completion of the Banking Union and the creation of a European Capital Markets Union should be considered as key priorities. Praet conceded that the implementation process and the length of the transition period were major challenges.

## SAFE Juniors Awarded TFI Research Grant

SAFE junior researchers have been awarded two out of eight research grants by the Think Forward Initiative (TFI) research challenge. Tobin Hanspal (SAFE) and Claes Bäckman (Lund University) will examine social links developed in multi-level marketing schemes and possible effects on the finances of individuals. Nathanael Vellekoop (SAFE) and Olga Goldfayn (Goethe University) will investigate how much variance in personality traits explain access to and use of credit. The Think Forward Initiative brings together a range of experts to find out how and why we make financial choices.

# Selected Publications

**Ahmadi, I., Skiera, B., Lambrecht, A. and F. Heubrandner** (2017)  
 “Time Preferences and the Pricing of Complementary Durables and Consumables”,  
 International Journal of Research in Marketing, Vol. 34, Issue 3, pp. 813-828.

**Alexander, B., Fuchs-Schündeln, N. and D. Lagakos** (2018)  
 “How Do Hours Worked Vary with Income? Cross-Country Evidence and Implications”,  
 American Economic Review, Vol. 108, Issue 1, pp. 170-199.

**Andersen, S., Hanspal, T. and K. Meisner Nielsen** (2018)  
 “Once Bitten, Twice Shy: The Power of Personal Experiences in Risk Taking”,  
 forthcoming in the Journal of Financial Economics.

**Caporin, M., Costola, M., Jannin, G. and B. Maillet** (2017)  
 “On the (Ab)use of Omega?”,  
 Journal of Empirical Finance, Vol 46, pp. 11-33.

**Clapham, B., Gomber, P., Haferkorn, M., Jentsch, P. and S. Panz** (2017)  
 “Ensuring Market Integrity and Stability: Circuit Breakers on International Trading Venues”,  
 Journal of Trading, Vol. 12, Issue 1, pp. 42-54.

**Grüning, P.** (2018)  
 “Heterogeneity in the Internationalization of R&D: Implications for Anomalies in Finance and Macroeconomics”,  
 forthcoming in Finance Research Letters.

**Janze, C. and I. Gvozdevskiy** (2017)  
 “What Drives the Competition of Cryptocurrency Exchanges? Examining the Role of the Market and Community”,  
 Proceedings of the 38<sup>th</sup> International Conference on Information Systems (ICIS 2017), Seoul, Korea.

**Keppo, J. and J. Korte** (2017)  
 “Risk Targeting and Policy Illusions – Evidence from the Announcement of the Volcker Rule”,  
 forthcoming in Management Science.

**Langenbucher, K.** (2017)  
 “Economic Transplants. On Lawmaking for Corporations and Capital Markets”,  
 Cambridge University Press, Cambridge.

**Lillo, F., Pelizzon, L. and M. Schneider** (2017)  
 “Modelling Illiquidity Spillovers with Hawkes Processes: An Application to the Sovereign Bond Market”,  
 Quantitative Finance, Vol. 18, Issue 1, pp. 283-293.

## Recent SAFE Working Papers

**Pezone, V.** (2017)  
 “The Real Effects of Judicial Enforcement: Evidence from Italy”,  
 SAFE Working Paper No. 192.

**Hirsch, J. and U. Walz** (2017)  
 “Financial Constraints, Newly Founded Firms and the Financial Crisis”,  
 SAFE Working Paper No. 191.

**Horneff, V., Maurer, R. and O. S. Mitchell** (2017)  
 “How Persistent Low Expected Returns Alter Optimal Life Cycle Saving, Investment, and Retirement Behavior”,  
 SAFE Working Paper No. 190.

**Wix, C.** (2017)  
 “The Long-Run Real Effects of Banking Crises: Firm-Level Investment Dynamics and the Role of Wage Rigidity”,  
 SAFE Working Paper No. 189.

**Donadelli, M., Grüning, P., Jüppner, M. and R. Kizys** (2017)  
 “Global Temperature, R&D Expenditure, and Growth”,  
 SAFE Working Paper No. 188.

**Massenot, B. and Y. Pettinicchi** (2017)  
 “Can Firms See into the Future? Survey Evidence from Germany”,  
 SAFE Working Paper No. 187.

**Branger, N., Rodrigues, P. and C. Schlag** (2017)  
 “Level and Slope of Volatility Smiles in Long-Run Risk Models”,  
 SAFE Working Paper No. 186.

**Grüning, P.** (2017)  
 “Heterogeneity in the Internationalization of R&D: Implications for Anomalies in Finance and Macroeconomics”,  
 SAFE Working Paper No. 185.

The SAFE Working Papers can be downloaded at <http://safe-frankfurt.de/working-papers>



# Financial Plumbing most to Blame for 2008 Crisis



**Brian Barry**  
University of Chicago,  
Booth School of Business



**Christian Leuz**  
University of Chicago,  
Booth School of Business

The storm that rocked the world economy in 2008 involved many forces, hitting financial, housing and broader sectors of the economy all at once. As the world continues to reform and reflect on the lessons of that crisis, we note the broad consensus that has emerged among economists about what happened. In a recent survey we conducted, European and US economists alike emphasized the crucial role of flawed and fragile financial infrastructure in bringing the world economy to the brink.

The survey was run by the European Economic Experts Panel (which we help oversee, through Chicago Booth's Initiative on Global Markets (IGM)). We asked the panel (along with the IGM's US-based panel) to rate the importance of 12 potential factors, on a scale from 0 to 5, "in contributing to the 2008 global financial crisis" (see figure).

The factors receiving the most weight were those related specifically to the infrastructure and plumbing of the financial sector: in particular, those involving its safeguards against mis-managed risks. At the top of the list was "inadequate or flawed regulation, supervision, or both with respect to the financial sector". Underestimated risk associated with financial engineering was next, and the role of funding runs involving short-term liabilities was also rated highly as a contributing factor.

These results are especially noteworthy when contrasted with the macroeconomic factors that panelists were asked about. Although the financial sector aspects of the crisis have, of course, received great attention, many pundits have also emphasized the role that the overall macroeconomic environment played in setting the conditions for it to occur.

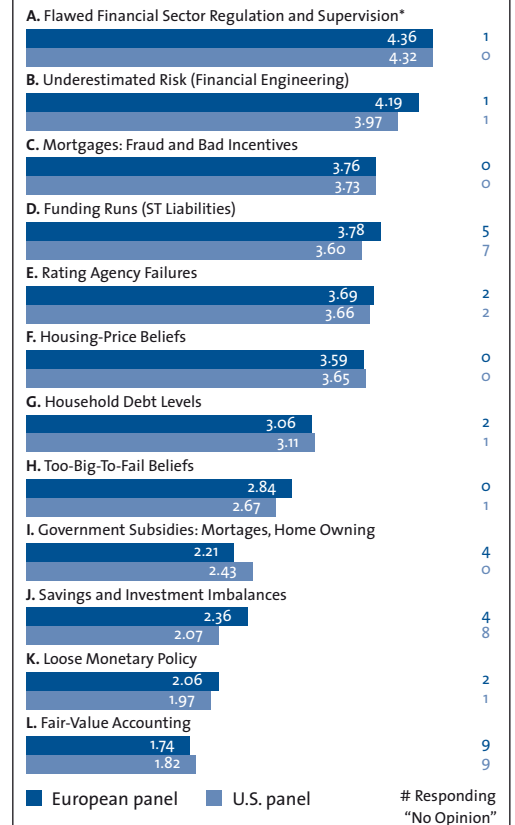
Two macroeconomic themes that often receive much attention are loose monetary policy before the crisis and a "savings glut" that distorted asset markets and the economy. Economists in both Europe and the US, however, rated these two macroeconomic factors towards the bottom. The only item that scored lower was the idea that fair-value accounting of banks' financial assets was a factor in the crisis (illustrating that the debate about mark-to-market was likely a distraction).

In the middle of the pack were factors related to the housing sector. From the onset of the crisis there has been plenty to criticize about the way mortgage and housing markets functioned in the US. The behavior of buyers, mortgage originators, rating agencies and governments have deservedly received considerable scrutiny; consistent with this, all receive roughly similar ratings as factors contributing to the crisis.

Of course, many of the forces at work in the crisis were interconnected. And future economic shocks may differ from past ones. So sound macroeconomic policies and well-functioning housing markets are clearly important. Yet if policymakers want to know what economists believe were the biggest sources of trouble a decade ago – and arguably, therefore, the most in need of reform and repair – financial sector plumbing is the place to focus.

"Please rate the importance (0 = none; 5 = highest) of each item below in contributing to the 2008 global financial crisis."

The items were presented to panelists in randomized order.



Source: IGM Economic Experts Panels

\* For the full text of each factor the panelists rates see: [www.igmchicago.org/igm-economic-experts-panel](http://www.igmchicago.org/igm-economic-experts-panel)

**IGM Survey October 2017.** On the European panel, 37 of 49 panelists responded, on the US panel, 37 of 42.



# Events

February		April		May	
15 Feb 9.00 am – 5.30 pm	<b>SAFE Market Microstructure Workshop</b>	6 Apr – 19 May	<b>GBS Open Program Risk Management</b> Speaker: Mark Wahrenburg, Goethe University	7 – 8 May	<b>SAFE, DFG, CEPR Conference 3<sup>rd</sup> Conference on Financial Markets and Macroeconomic Performance</b>
15 Feb 12.30 – 2.00 pm	<b>SAFE Policy Lecture Collaboration Instead of Rivalry: Thoughts on a Digital Financial Center of Europe</b> Speaker: Joachim Wuermeling, Deutsche Bundesbank	6 Apr – 2 Jun	<b>GBS Open Program Ethics in Finance</b> Speaker: Susan Spinner, CFA Society Germany	8 May 4.15 – 5.30 pm	<b>Finance Seminar – Joint with SAFE</b> Speaker: Tarek Alexander Hassan, Boston University
22 Feb 12.00 – 1.00 pm	<b>IMFS Working Lunch Central Clearing of Financial Contracts: Theory and Regulatory Implications</b> Speaker: Steven L. Schwarcz, Duke University School of Law	11 Apr 12.00 – 1.00 pm	<b>SAFE Policy Lecture</b> Speaker: Ardo Hansson, Bank of Estonia	8 May 2.15 – 3.45 pm	<b>Frankfurt Macro Seminar – Joint with SAFE</b> Speaker: Aysegul Sahin, New York Fed
28 Feb 4.15 – 5.30 pm	<b>Finance Seminar – Joint with SAFE</b> Speaker: Stavros Panageas, UCLA Anderson School of Management	17 Apr 4.15 – 5.30 pm	<b>Finance Seminar – Joint with SAFE</b> Speaker: Markus Leippold, University of Zurich	15 May 2.15 – 3.45 pm	<b>Frankfurt Macro Seminar – Joint with SAFE</b> Speaker: Todd Keister, Rutgers University
		17 Apr 2.15 – 3.45 pm	<b>Frankfurt Macro Seminar – Joint with SAFE</b> Speaker: Hélène Rey, London Business School	17 May 10.00 am – 3.00 pm	<b>ILF Conference 5<sup>th</sup> Annual Conference on the Banking Union</b>
		20 Apr – 9 Jun 6.30 pm	<b>GBS Open Program Operational &amp; Reputational Risk Management</b> Speaker: Thomas Kaiser, Goethe University	18 May – 30 Jun 4.30 – 6.00 pm	<b>GBS Open Program Applied Credit Risk Management</b> Speaker: Björn Imbierowicz, FRIC Copenhagen Business School
		20 Apr – 15 Jun 6.30 pm	<b>GBS Open Program Global Asset Allocation</b> Speaker: Raimond Maurer, Goethe University	22 May 12.15 – 1.45 pm	<b>SAFE Policy Lecture</b> Speaker: Thorsten Pötzsch, BaFin
		23 Apr	<b>SAFE Conference 5<sup>th</sup> International Conference on Sovereign Bond Markets</b>	22 May 2.15 – 3.45 pm	<b>Frankfurt Macro Seminar – Joint with SAFE</b> Speaker: Satoshi Tanaka, University of Queensland
		24 Apr 2.15 – 3.45 pm	<b>Frankfurt Macro Seminar – Joint with SAFE</b> Speaker: Luisa Lambertini, École Polytechnique Fédérale de Lausanne	23 May 12.00 – 2.00 pm	<b>SAFE Lunchtime Series Brussels Insights on Systemic Risk in the Insurance Sector</b> Keynote: Helmut Gründl, Goethe University
		24 Apr 4.15 – 5.30 pm	<b>Finance Seminar – Joint with SAFE</b> Speaker: Martin Lettau, Haas School of Business, Berkeley	28 May 5.30 – 7.00 pm	<b>CFS Presidential Lecture</b> Speaker: Harold James, Princeton University
		24 Apr 5.30 – 7.00 pm	<b>CFS Lecture</b> Speaker: Andreas Dombret, Deutsche Bundesbank	29 May 2.15 – 3.45 pm	<b>Frankfurt Macro Seminar – Joint with SAFE</b> Speaker: Eduardo Davila, New York University
		26 Apr 12.30 – 2.00 pm	<b>SAFE Policy Lecture</b> Speaker: Rosa Maria Lastra, Queen Mary University of London	29 May 10.00 am – 5.00 pm	<b>ILF Career Day</b>
		26 Apr 5.00 – 7.30 pm	<b>SAFE Policy Conference Praxis, Aufsicht und Wissenschaft im Dialog: Abwicklungsplanung</b>		
March					
2 Mar 1 pm	<b>ILF Conference DAJV Working Group Day 2018</b>				
7 Mar 2.00 pm – 3.15 pm	<b>Frankfurt Macro Seminar – Joint with SAFE</b> Speaker: Georgio Primiceri, Northwestern University				
12 – 23 Mar 5.00 pm	<b>ILF Spring School Unternehmensrecht in der Beratungspraxis</b>				
13 Mar 5.30 – 7.00 pm	<b>CFS / IBF Lecture Art as an Investment from a Historical Perspective</b> Speaker: Kim Oosterlinck, Université Libre de Bruxelles				
22 Mar 9.00 am – 5.00 pm	<b>CFS Conference Risk Culture</b>				

CFS Center for Financial Studies  
GBS Goethe Business School

IBF Institut für Bank- und Finanzgeschichte  
ICIR International Center for Insurance Regulation

ILF Institute for Law and Finance  
IMFS Institute for Monetary and Financial Stability

Please note that for some events registration is compulsory.



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