

The impact of shareholders on management remuneration_4

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Improved financing conditions reduce companies' toxic emissions_6

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The inflation conundrum_14

Barry Eichengreen

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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: the striving for 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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Libra could prove to be a disruptive force for the financial system



Jan Pieter Krahnén
Director, SAFE

Back in 2003, a student of Harvard University launched a website called Facemash which used the photos and personal information of his peers: that student's name was Mark Zuckerberg, and, as it transpired, he had hacked the data rather than asking everyone for permission to use it. Only a few days later, the university urged Zuckerberg to take down the website; he continued to work on his idea and, only some months later, his new website was online. Facebook launched in 2004 and is, today, the largest social network worldwide; with more than two billion users currently, it has revolutionized the way people communicate online.

This June, Facebook announced a major new development: a Blockchain-based currency, Libra, to be launched in 2020. Over fifteen years on from the inception of the original Facebook platform, it could have the potential to revolutionize another aspect of our lives – financial services, to which Facebook is aiming to give people easy access worldwide. The potential

market is huge, with current estimates putting the number of people without fundamental participation in the financial system in the hundreds of millions. This is a harmful and inefficient state of affairs inasmuch as it keeps people dependent on informal providers for transactions or loans, making these services risky and expensive to access and impeding development and growth.

With Libra and a smartphone, it is possible to send money to virtually anyone at low or zero cost. Moreover, Facebook promises that, in contrast to cryptocurrencies like Bitcoin, Libra will not be volatile, but rather have intrinsic value as it will be backed by a reserve of assets such as bank deposits and government securities. Facebook has teamed up with other tech and finance companies, including Uber, Spotify, and Paypal, to found the Libra Association which will govern the new currency.

So what might this all mean for banks and the financial system? Firstly, if Libra is a success, it will represent a huge threat to established lenders. Payments are information, and this is key in the relationship to the customer. Libra thus threatens the entire banking model as we know it today. Secondly, the currency might serve as the basis for a new banking system, with savings deposits and lending within the Libra system. A new process of credit creation could emerge, with potentially massive

implications for the operation of financial institutions, for competition in financial markets, and for financial supervision. Third, it is an open question how democratically legitimized monetary policy could work in a world of private money such as Libra, outside the control of central banks. At the U.S. Federal Reserve's annual symposium, Mark Carney, Governor of the Bank of England, recently laid out a proposal for a global digital currency which could replace the dollar as the world's reserve of choice. This shows that supervisors and central banks are more than aware of the transformation to come.

This is a long list of open issues, research questions in essence, which analyze the disruption following technological changes that we could not have imagined a few years ago. What seems clear is that this change can hardly be halted: even if Libra were to be stopped, another digital currency might emerge – or something functionally equivalent. All financial players and institutions have to deal with that, and it will be a huge challenge for them (as it is for us).

We at SAFE have founded a task group on these issues drawing together scholars from finance and law. It is just the beginning, but we will strive to find some of the answers to the multitude of questions Libra raises.

Kind regards,
Jan Pieter Krahnén

The impact of shareholders on management remuneration



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What impact does shareholder involvement on remuneration packages for management board members have? In a new study, we examine the effects of say-on-pay-legislation empirically. We present quantitative data that allow us to gauge the pertinent effects of the German legislative reform of 2009. We find that it is essential to take a closer look at the contractual set-up for the remuneration schemes and their structure. Further, we find that the supervisory board is responsive to say-on-pay votes when it comes to the design of remuneration packages for new additions to the management board.

Shareholder involvement in remuneration decisions has evolved as the standard treatment that regulators choose to apply across jurisdictions in efforts to cure perceived deficits in executive pay, and the latest example of this tendency can be found in Articles 9a and 9b of the revised European Shareholder Rights Directive of 2017. However, the relative uniformity in the general approach should not

disguise the considerable variation in the respective institutional arrangements (see, for example, Thomas and Van der Elst 2015). While some jurisdictions opt for mandatory shareholder agreement, others leave shareholder involvement to managerial discretion. Moreover, in some cases, the shareholder vote is binding; in others, it is only consultative with varying degrees of soft coercion.

This paper presents quantitative data that allows us to analyze the effects of the German legislative experiment that originates with the 2009 amendments to the Stock Corporation Act of 1965. The amendments were part of a broader reform package that was created purportedly as a reaction to the financial crisis of 2007/2008. Yet, in an act of political overreaching, it brought about new rules for all German stock corporations despite a lack of resilient evidence of pervasive deficits. Across industries, the legislative intervention sought to enhance incentives for managers to pursue sustainable growth strategies. To achieve this goal, the main changes were directed towards the supervisory boards' broad discre-

tionary power to determine executive directors' remuneration, without withdrawing this power as such.

Relevance beyond Germany

Germany is not a unique example, but has interesting characteristics in several respects. First, Germany has opted for a voluntary, non-binding shareholder consultation that pertains only to the general remuneration scheme and attaches practically no legal sanctions to the vote. Hence, to a great extent, German corporate law relies purely on market discipline as a function of the negative cost of capital effects which poor corporate governance should entail in efficient markets once the issuer deviates from revealed shareholder preferences.

Second, direct shareholder involvement in remuneration decisions represents a legal transplant which runs counter to the German tradition vesting the right to determine executive remuneration with shareholder – and labor – representatives on the supervisory board (two-tier system). Finally, looking at

Germany is also rewarding insofar as the rather concentrated ownership structure of its firms (see Weber, 2009) allows for an assessment of whether a formal say on the pay regime is nothing but a superfluous substitute for the influence a large shareholder usually has at hand through informal channels.

Despite our close attention to German firms' specific corporate governance characteristics, our findings extend well beyond the German context inasmuch as many firms around the world have similar organizational and ownership structures – such as a two-tier system and dominant shareholders, for instance.

In our study, we analyze a dataset of 1,682 executive remuneration packages of 415 board members at 34 firms included in the main German stock market index (DAX) for the years 2009 to 2017. The remuneration packages are very detailed, making comparisons across companies and over time quite difficult. Hence, we focus on the three main pillars of the remuneration

packages: fixed pay, variable remuneration, and pension benefits. The composition of our company base traces very closely the structure of the German economy with five financial firms, five car manufacturers and suppliers, as well as nine pharmaceutical companies (including chemicals as well as medicine technology companies). The remaining firms are mainly other manufacturing companies. Our data sample comprises information on management remuneration, corporate performance, and general company characteristics, such as size and industry to which the companies belong.

Limiting ourselves to one jurisdiction allows us to proxy some of its characteristics in more detail. We pay particular attention to the link between say on the impact of pay on executive remuneration as well as firm performance measures. The specificity of our data is that it distinguishes between several features in board members' remuneration packages and accounts for executives' tenure, allowing us to significantly

extend and challenge more general findings in similar research on Germany which show that say-on-pay has an effect on directors' remuneration if lagged over the years following the vote.

Rather rigid contractual framework for the remuneration

First, we observe that the remuneration packages of management board members of Germany's DAX30-firms are closely linked to key performance measures such as return-on-assets and size. Second, our findings suggest that it is essential to take a closer look at the contractual set-up for the remuneration schemes and their structure. When we only consider the remuneration packages of all board members, the hypothesis being that remuneration is decreased if shareholder support for remuneration schemes is low in say-on-pay votes finds only weak support, if any at all. This is not surprising given the rather rigid contractual framework for the remuneration of management board members.

However, we find that the supervisory board is responsive to say-on-pay votes when it comes to the design of remuneration packages

for new additions to the board, i.e. within the binding restrictions of contract law, it reacts as envisioned by policymakers. Our results are driven by the rather few say-on-pay votes in corporate Germany in which pronounced discontent was registered – only where disapproval is voiced do supervisory boards have reason to change remuneration packages. They leave matters unaffected where shareholders show rather strong support for the proposed schemes, as is the case in most of the observations in our dataset.

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"The supervisory board is responsive to say-on-pay votes when it comes to the design of remuneration packages for new additions to the board."

Improved financing conditions reduce companies' toxic emissions



Martin R. Götz
Goethe University & SAFE

tion activities. Further, I find that companies under greater regulatory scrutiny are particularly disposed to implement measures as it helps them to regain compliance with environmental regulation.

A deteriorating environment has severely detrimental effects on standards of living and economic outcomes such as health, labor force participation, and income (see among others Isen et al., 2017). As such, understanding what drives corporate emissions-related behavior can provide help in devising policies to curb pollution. In my paper, I focus on the role of finance in shaping corporate emissions and examine how a reduction in the cost of financing debt affects emissions and investment in emission reduction activities. Specifically, I exploit heterogeneity of the exposure of U.S. public companies to a shock to long-term debt financing and examine how it affects corporations' emissions of toxic chemicals.

Theory provides conflicting views whether a reduction in financing costs affects toxic emissions: on the one hand, lower financing costs

may increase investment and production which, without changes in the production process, leads to more emissions. Moreover, investments to reduce pollution and save energy tend to be large and offer little cost-savings potential, rendering them suboptimal as investments. Companies may also choose to not change potentially harmful behavior if they expect that the probability of detection is low. Fines due to the violation of environmental laws, on the other hand, can be hefty and monetary penalties because of non-compliance with regulation reduce corporate value (Karpoff et al., 2005); this encourages companies to invest in pollution control. Furthermore, investors may pressure businesses to reduce toxic emissions due to their preference for a cleaner environment.

Identifying the causal link running from lower financing costs to emissions is empirically challenging and the direction may, for instance, be the reverse: heavy polluters may be more likely to violate environmental regulation and hence face monetary penalties, worsening their financial condition.

The impact of unconventional monetary policy

Empirical research finds that non-financial companies with a dependence on long-term debt benefit from negative supply shocks to long-term government debt: a reduction in the supply of government bonds with a specific maturity shifts the focus of investors on corporate bonds with a similar maturity due to (partial) segmentation and limits to arbitrage in debt markets (Greenwood et al., 2010). Rates for long-term debt then fall, which lowers financing costs for long-term debt instruments.

To isolate the causal effect of the financing conditions of corporations on toxic emissions, I use the announcement of the Maturity Extension Program (MEP) of the Federal Reserve (Fed) as a surprise shock to financial markets and long-term debt financing costs. As part of the Quantitative Easing programs, on 21 September 2011, the Fed announced its intention to buy long-term U.S. Treasury securities and sell an equivalent amount of short-term U.S. government debt to flatten the yield curve and stimulate the economy. It focused on buying Treasury securities with a remaining maturity of more than six

Does the cost of capital shape the pollution behavior of corporate organizations? Theory provides conflicting views and empirically identifying a causal link is difficult for several reasons. To overcome this challenge, I exploit the surprise event of the Federal Reserve's Maturity Extension Program, an unconventional monetary policy shock in the United States which reduced financing expenses for businesses. I find that a reduction in a company's cost of debt *ceteris paribus* reduces toxic emissions and boosts investments in capital-intensive reduc-

years, which affects the rates for long-term debt especially. My results show that the MEP announcement was followed by (a) a flattening of the yield curve, (b) a decrease in long-term corporate spreads, and (c) an increase in the issuance of long-term public debt by U.S. corporations. Moreover, these changes took place after the announcement of the MEP, indicating that the MEP was a surprise event to the market and especially to firms that finance themselves more with long-term debt.

Less toxic emissions

Next, I examine whether this shock to corporate financing also affected the toxic emissions of corporations. To analyze this, I use micro-level data of the Environmental Protection Agency regarding the release of toxic emissions and

pollution reduction investments. Examining these granular data on the release of toxic chemicals, I find strong and robust evidence that firms with a greater dependence on long-term debt reduce toxic emissions more after the announcement of MEP (see figure). Moreover, there is no evidence that firms with a greater dependence on long-term debt differ in the release of toxic emissions before the MEP. Following the MEP, however, firms reduce their emissions. This finding is robust with respect to several other influences and econometric specifications.

Further, I examine the investment behavior of companies to understand how they reduce toxic emissions. Information on reported pollution reduction investments show that businesses with a greater long-term debt depen-

dence increase their investment in activities to decrease toxic emissions following the MEP.

To further assess whether cheaper financing conditions affect a company's pollution reduction behavior, I examine if the capital-intensity of the measures also plays a role. To this end, I first classify reported pollution reduction activities by their level of capital-intensity and then examine if the reduction in financing costs has a different effect on capital-intensive and other reduction investments. Indeed, I find that lower financing costs boost a company's investment in capital-intensive pollution reduction activities. This is consistent with the idea that a reduction in financing costs allows businesses to invest in more expensive, capital-intensive emission reduction activities. This then reduces toxic emissions.

The benefits of capital-intensive emission reduction activities

Why do companies invest in more expensive pollution reduction measures when they could also invest in cheaper options? Earlier work finds that monetary penalties due to the violation of environmental regulation reduce corporate value. Examining the ability of capital-intensive pollution reduction activities to ensure compliance with environmental regulation, I find that it is these large-scale investments above all which help businesses to regain environmental compliance. Moreover, I find that companies

which have violated environmental regulations in the past are more likely to implement emission reduction activities when financing conditions improve. This points to a potential value-enhancing effect of pollution reduction techniques as their implementation helps firms to make sure that they comply with environmental regulations.

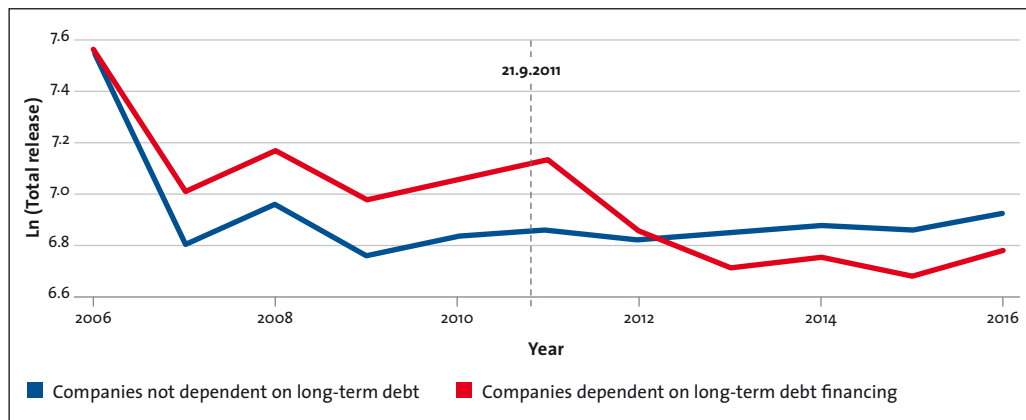
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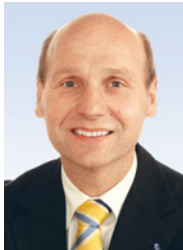
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<https://www.safe-frankfurt.de/toxic-emissions>



Average annual toxic emissions in the U.S.: Companies not dependent on long-term debt did not differ in their emissions following the MEP announcement in 2011. Those dependent on long-term debt financing show a clear reduction.

“How to bring more transparency into a company’s business model”



Bernd Skiera
Goethe University
& SAFE

What is the role of customer relations in the success of companies?

Put simply, customers are the most important capital companies and banks have because they generate sales. Of course, good employees are important as they improve products and processes, but if customers are not willing to pay, no amount of employee dedication is of any help. So reporting should focus on customer transactions. In accounting, though, it is less

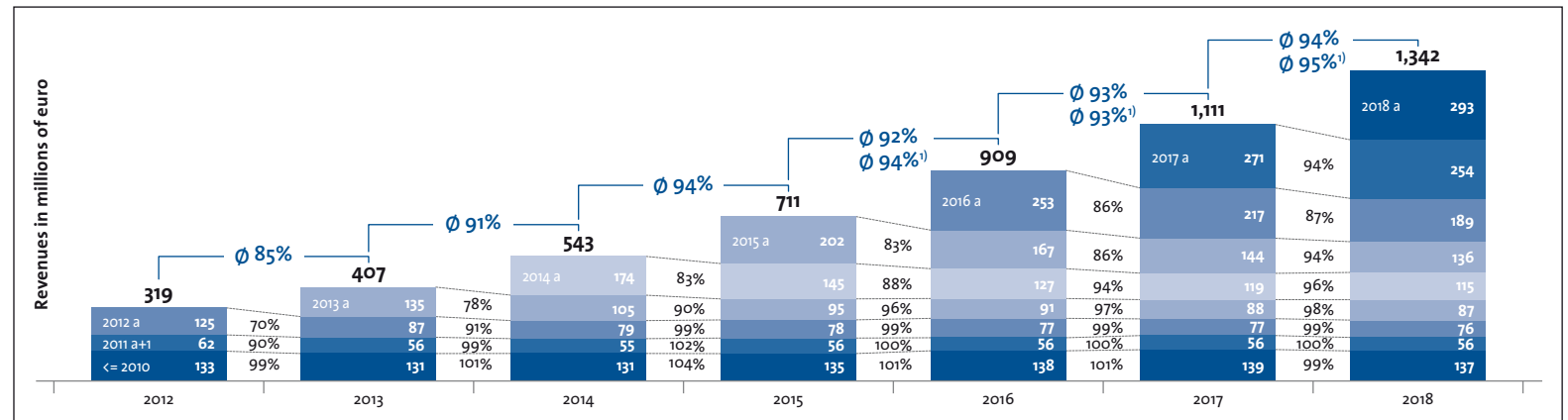
common to look at customers than it is to examine periods, and I think that this approach misses an opportunity. A period is a billing unit, but it is the customer who puts the money on the table, hopefully from period to period. Companies should look much more closely at sales to customers over time, and since companies usually have many customers, it is useful to look at customer cohorts – groups of customers who came to the company in a certain period. In contrast to banks, online

retailers have already recognized the potential of such cohort analyses much more fully (see figure).

To what extent can these kinds of analyses help companies?

Firstly, a company has to invest to win customers; then, these investments flow back to the company throughout the time that the customer stays with the company. A key indicator

In this interview, Bernd Skiera talks about the importance of customer metrics for companies. A professor at Goethe University since 1999, Skiera holds the chair of Electronic Commerce. His focus of research is on online marketing, marketing analytics and innovations in the financial sector.



Customer loyalty analysis: Customer cohorts between 2012 and 2018 of the online retailer ZooPlus. Each year is broken down into revenues deriving from customer cohorts (each year from 2011 to 2018 and one cohort for all customers acquired before 2010). The figure also shows how the revenues of the specific cohorts develop from year to year. For example, revenues in 2017 of the customers acquired in 2017 were 271 and dropped slightly to 254 (94%) in 2018.

for this analysis is customer loyalty, which is measured by the retention rate: how high is the probability that a customer from the previous period will still be a customer in this period? On this basis, the company can forecast what will happen to the customer in the future and how much money it will earn with the customer, i.e. determine key figures such as the customer lifetime value, and so make better decisions. As an example, you might look at a specific type of marketing campaign such as acquiring customers via price comparison pages. It could be that, initially, the customers acquired in this way order a lot, but are so price-sensitive that hardly any orders are placed in subsequent periods. Such low loyalty is then reflected in low customer lifetime values.

How can investors use these figures?

If they know how a company's customer base is developing, investors can make better decisions. What does the business model look like? How high are the investments of a company in a new customer? How long does it take to get these investments back? What has happened to the customers that the company acquired three years ago up to today? The answers enable investors to see developments over time and to make a better forecast of how the company will develop. This is highly relevant, particularly in the case of an initial public offering.

Which metrics should companies analyze?

There are two key metrics for measuring loyalty: in addition to the retention rate already mentioned, there is also the churn rate; it puts the number of customers lost in relation to the total number of customers. Additionally, the revenue retention rate allows interesting conclusions, not only in the number of customers examined, but also the development of the revenue of the respective customers. If a customer cohort with 100 customers generates 100 instances of revenue in the previous period and 80 customers are still active this year and generate 90 instances of revenue, then the customer retention rate is 80 percent and the revenue retention rate 90 percent.

Companies often shy away from publishing this kind of metric. Why is that?

This approach leads to more transparency with regard to a company's business model. Often, the argument is that more transparency does not help me, but the competitors. Yet in a study, we examined whether companies which create more transparency suffer from stronger competition (Bayer et al., 2017), and our results show that the profits of these companies do not suffer – and that uncertainty among investors and analysts is reduced. However, there is this reluctance to make actions more transparent;

in the U.S., investors are already much more sensitive to these key customer metrics than we are.

Can these findings be transferred to the financial sector?

Financial service providers, especially banks, have not yet sufficiently analyzed their customer data. In some cases, however, their hands are tied. Let's take investment companies: if the fund makes a distribution to its customers every year, one would assume that the fund also knows them; this is not the case, though. Usually, funds only know at which bank their customers are, and then pay the distribution to this bank, which passes the disbursements on to the customers of the fund. The lack of information is because anonymity and data protection are very important in the process associated with the distribution and that the parties involved work according to the "need to know" principle. Only the data necessary for the performance of the task – in this case, the disbursement – is passed on. In this sphere, it can therefore be hard to determine the loyalty of individual customers.

Does the financial supervision authority use this kind of data?

Astonishingly, the Bundesbank or the European Central Bank have relatively little information which allow statements about the loyalty of bank

customers. Regulators could learn a lot about banks from this kind of data. How has business developed? How sustainable is it when banks win many new customers? Do customers churn? Are those old or new customers? However, the Bundesbank or the ECB have little information on the length of time customers spend in retail banking or the likelihood of them migrating. This may have to do with the fact that customer loyalty is quite high in some business areas. In the case of current accounts, the probability of termination is less than 10 percent per year, and this is connected to the fact that a change entails high costs; the situation is different with installment loans.

One thing is clear: even minor changes in customer loyalty are relevant and a kind of compound interest rate effect occurs, i.e. if I lose one percentage point per year, that is not much at first; after some years, however, the number of customers lost will have mounted to a point where it is difficult to correct. The effects of a decline in customer loyalty thus only become painfully noticeable in the future. This logic is still underdeveloped in the financial world.

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The German financial system has lost consistency



Reinhard H. Schmidt
Goethe University & SAFE

membership in supervisory boards and strong personal ties between all stakeholders; it was a consistent system of well-adjusted complementary elements. After Reunification, a hybrid system has emerged in which, on the one hand, public savings banks and cooperative banks maintain their role as lenders while, on the other, large private banks have withdrawn from their former role in financing and corporate governance. In my view, shifting the focus to shareholder value has occurred at the expense of consistency.

The financial crisis of 2007 once again confirmed the importance of a sound financial system for the development and growth of national economies. However, it is not clear what exactly a sound financial system implies how to discern whether it is sound or not and on what criteria it can be judged to be it is improving or deteriorating.

In the 2000s, politicians and journalists believed that more market-oriented systems are better

than bank-based financial systems. In my view, both types can be judged as being more or less good, depending on whether the system is consistent or not. A consistent financial system is one whose main elements work well together and thus reinforce each other in their positive aspects but weaken the impact of negative features (Hackethal et al., 2005). In the light of this measure, I investigate whether the German financial system has improved or deteriorated in quality during the past 20 years.

In the old system, banks were the most important element in the financial sector and their total assets substantially exceeded stock-market capitalization. All banks lent heavily to companies, with households largely investing their savings in banks. Moreover, the large German banks had developed close relations, known as house bank relations, with the large companies; and these house banks behaved more like partners, allowing firms to pursue long-term strategies. The leading role of banks was reflected in the fact that corporate finance were largely provided in the form of long-term bank loans. Consequently, all influential players

in the governance of large corporations had a common interest in the long-term development of “their” companies. Accordingly, the mandate given to the executives was not to maximize the shareholder value but to maintain corporate profitability and growth in the long run (Kotz and Schmidt, 2016).

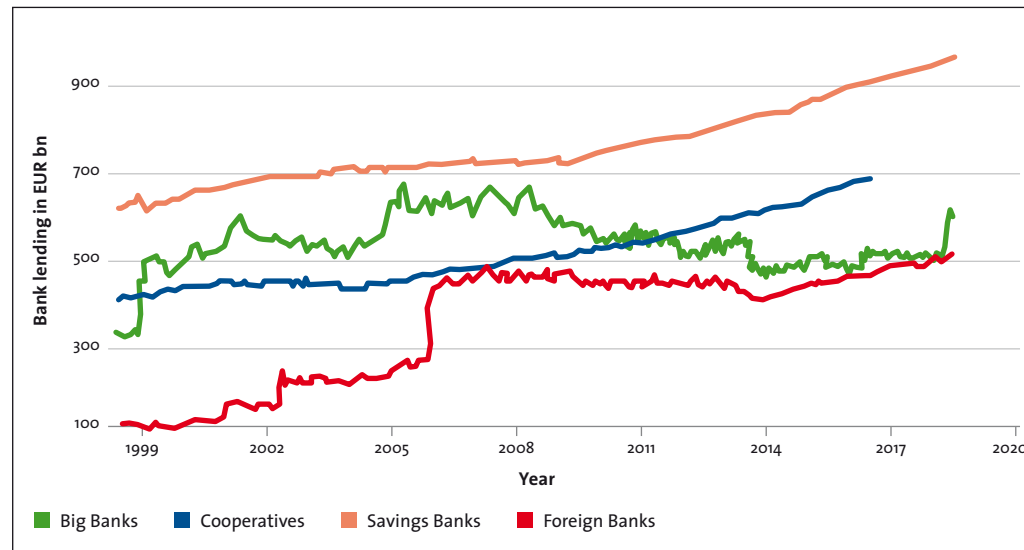
All elements – the dominance of the banks within the financial sector, the paramount role of bank lending, and corporate governance with its stakeholder orientation – worked well together. Put another way, 20 years ago, the German system was indeed consistent with well-adjusted complementary elements.

Declining interest margins

In the meantime, changes have taken place that have eliminated its former consistency. European integration, increasing globalization, and developments in the field of information and communication technology are often-cited external drivers. Above all, there were influential internal impulses such as the ambition to transform Deutsche Bank into a leading international investment bank.

After Reunification in 1990, large American investment banks entered the German market. Consequently, the German banks struggled with declining interest and profit margins. The rather cooperative relations between banks and banking groups were increasingly replaced by stiff competition. The big banks tried to become more similar to their foreign competitors, that is, they adopted the goal of shareholder value maximization. Maintaining privileged relations with individual companies does not fit into this kind of business model. Moreover, the ties that enabled them to get internal information and influence corporate decisions were no longer as important as they used to be. Conversely, why should companies continue to finance themselves predominantly through loans from big banks, if they can no longer count on them as their house bank? Finally, why should other actors grant them a central role in corporate governance knowing that they have lost their genuine interest in fulfilling it to the common good?

As a result, the survivors among the big banks in Germany are no longer the most important lenders to big companies. They have withdrawn from their central role in the corporate governance of large public corporations and gave up their leadership within the financial sector. In response to that, public savings banks and



Lending to non-banks by banking group: The big banks are no longer the dominant players in lending. Instead, the public savings banks and the cooperative banks have occupied their former role in corporate financing. Data: Deutsche Bundesbank, “non-banks” include both companies and private households.

cooperative banks have taken on the crucial role as lenders (see figure).

A loss of consistency

To some extent, the strategy of Germany’s last big bank seemed to make sense from a strategic point of view. However, for the German financial system as a whole, the fact that the close relations between large companies and the financial sector were dissolved, boils down to this: a loss of consistency – even though the three-pillar

structure has been preserved (Kotz and Schmidt, 2016). The role of large banks has changed and is now less dominant compared to 20 years ago.

The financial crisis has demonstrated the vulnerability of the new German system and thereby provided indirect evidence for my hypothesis. It can, of course, be argued that a system which was previously consistent and resistant to reforms must end to make way for progress, yet this view does not seem plausible to me,

not least because I have no idea of what a new and better financial system should look like. A few years ago, one might have thought that a capital-market-based system would be better anyway. However, this assessment has never been really convincing because there is neither theoretical nor empirical evidence to suggest that market-based financial systems are superior. Now, after the great financial crisis, its plausibility is even lower because the core elements of the American financial system – the textbook case of a capital-market-based system – caused the crisis.

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<https://safe-frankfurt.de/financial-system>

News

Benoît Cœuré: market-based inflation expectations may be too pessimistic



At a SAFE Policy Lecture in July, Benoît Cœuré, Member of the Executive Board of the European Central Bank (ECB), talked about the role of inflation expectations in the conduct of monetary policy. Cœuré explained that the falling market-based inflation expectations do not necessarily reflect concerns about the credibility of the ECB's monetary policy: According to him, it is a global phenomenon and, further, survey-based inflation expectations are closer to the ECB's definition of price stability. He also said that many households are not aware of central banks' inflation aims. Yet their expectations may be better than professional forecasts as households have a good understanding of changes in the trend of current inflation, Cœuré said. In his opinion, policymakers should not focus too narrowly on signals from the financial markets.

Ludger Schuknecht: A risk map for fiscal-financial vulnerabilities



For Ludger Schuknecht, Deputy Secretary-General at the Organisation for Economic Cooperation and Development, there is too little knowledge about transmission and elasticities of fiscal financial risks. Since the Financial Crisis, buffers have been built up, especially in the financial sector; at the same time, however, fiscal buffers have declined. At a SAFE Policy Lecture in July, he warned that risks may be underestimated and that in a severe crisis of global scale, the buffers may not be sufficient. Schuknecht presented a "risk map" for fiscal-financial vulnerabilities with five transmission channels, such as effects of asset prices and financing costs or indirect effects via the real economy.

Public debt management: Hedging against interest rate risks



What does efficient public debt management look like and should it include derivative financial products? At a SAFE event in May, researchers and representatives from politics and institutions involved in the area came together to debate these questions. Thomas Schäfer, State Minister for Finance in Hessen, underlined the importance to ensure the solvency of the state at all times: according to him, a strategy should be evaluated ex-ante and the portfolio assessed as a whole, saying that "the overall strategy is more important than individual instruments." Tammo Diemer, Managing Director of the German Finance Agency, emphasized the conflict of objectives between cost-effective financing and planning security. In addition

to costs and planning security, he explained that the federal government must also see that all relevant maturities in the issuance calendar are used sufficiently to keep them liquid. Alfons Weichenrieder, Professor of Public Finance at Goethe University suggested smoothing out both the tax burden and government expenditure over time, while Christian Schlag, Professor of Derivatives and Financial Engineering at Goethe University, emphasized that the right methodological approach is necessary to assess a strategy ex-ante, i.e. at the time of the decision. In order to do that, various scenarios with all conceivable interest rate paths would have to be simulated, he said, recommending that the decision for a particular strategy should be more accessible to the public and thus verifiable.

Awards for SAFE researchers

The quality of research at SAFE has been underlined as two publications won awards for best papers. Together with her co-authors, Loriana Pelizzon, Program Director of the Systemic Risk Lab at SAFE, received the Plato MI3 Award at the 2019 CEPR-Imperial-Plato Market Innovator Conference on Market Structure in June for their paper "Paying for Market

Liquidity: Competition and Incentives". Further, Satchit Sagade and Christian Westheide won the FESE De la Vega Prize with their paper "Quasi-dark trading: the effects of banning dark pools in a world of many alternatives". Sagade is an Assistant Professor at SAFE and Westheide is a Research Affiliate of SAFE.

Selected Publications

Branger, N., Konermann, P. and C. Schlag (2019)

“Optimists and Pessimists in (In-) Complete Markets”,
forthcoming in Journal of Financial and Quantitative Analysis.

Langenbucher, K. (2019)

“Interdisziplinäre Forschung im Unternehmensrecht – auf dem Weg zu einer cognitive corporate governance?”,
forthcoming in Zeitschrift für Unternehmens- und Gesellschaftsrecht.

Lausen, J. (2019)

“Regulating Initial Coin Offerings? A Taxonomy of Crypto-Assets”,
in: Proceedings of the 27th European Conference on Information Systems (ECIS 2019); Stockholm-Uppsala, Sweden.

Haliassos, M., Jansson, T. and Y. Karabulut

(2019)
“Financial Literacy Externalities”,
forthcoming in the Review of Financial Studies.

Nöh, L. (2019)

“Increasing Public Debt and the Role of Central Bank Independence for Debt Maturities”,
forthcoming in European Economic Review,
Vol. 119, pp. 179-198.

Inderst, R. and J. Montez (2019)

“Buyer power and mutual dependency in a model of negotiations”,
RAND Journal of Economics, RAND Corporation,
Vol. 50, Issue 1, pp. 29-56.

Baghestanian, S., Gortner, P. and

J. van der Weele (2019)

“Peer Effects and Risk Sharing in Experimental Asset Markets”,
forthcoming in European Economic Review.

Caporin, M., Corazzini, L. and M. Costola (2019)

“Measuring the Behavioural Component of the S&P 500 and its Relationship to Financial Stress and Aggregated Earnings Surprises”,
British Journal of Management, Vol. 30, Issue 3,
pp. 712-729.

Recent SAFE Working Papers

Massenot, B. and G. Nghiem (2019)

“Depressed Demand and Supply”,
SAFE Working Paper No. 257.

Schlag, C. and K. Zeng (2019)

“Horizontal Industry Relationships and Return Predictability”,
SAFE Working Paper No. 256.

Dalla Fontana, S., Holz auf der Heide, M., Pelizzon, L. and M. Scheicher (2019)

“The Anatomy of the Euro Area Interest Rate Swap Market”,
SAFE Working Paper No. 255.

Götz, M. (2019)

“Financing Conditions and Toxic Emissions”,
SAFE Working Paper No. 254.

Johann, T., Putnins, T., Sagade, S. and C. Westheide (2019)

“Quasi-Dark Trading: The Effects of Banning Dark Pools in a World of Many Alternatives”,
SAFE Working Paper No. 253.

Branger, N., Konermann, P. and C. Schlag (2019)

“Optimists and Pessimists in (In-) Complete Markets”,
SAFE Working Paper No.252.

Li, W. and C. Wilde (2019)

“Belief Formation and Belief Updating under Ambiguity: Evidence from Experiments”,
SAFE Working Paper No. 251.

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

The inflation conundrum



Barry Eichengreen
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Frankfurt 2019

just 1.5 percent in March. If 2 percent inflation is healthy, then current inflation is anemic.

Appropriately, central banks are contemplating new strategies for getting inflation up to target. The Federal Reserve is contemplating replacing its inflation target with a price-level target that would allow inflation to rise above 2 percent to make up for earlier undershoots. The ECB has announced a series of two-year loans to banks, and the Bank of Japan recently put an explicit timeframe on its forward guidance. These measures are all indications that central banks continue to struggle with inadequate inflation.

Talk to investors, however, and you will hear more concern about the black swan of excessive inflation. It is tempting to dismiss these fears, since investors have been warning of an inflationary explosion for years, and they have been consistently wrong. And while central banks may struggle to bring low inflation up, given the difficulty of cutting interest rates below zero, they face no such obstacle when raising rates in order to damp down excessive inflation.

The most pressing problem currently facing advanced-country central banks is inadequate inflation. The March 2019 projections of the European Central Bank (ECB) anticipate core inflation of just 1.1 percent this year and the Bank of Japan forecasts core inflation of barely 1 percent through the end of 2020; the U.S. is doing somewhat better by this metric but, even there, core inflation rose by

But indulge the question. Under what conditions is the risk of an inflationary explosion greatest?

Recent history points to two sets of circumstances. The first is when monetary policy makers do not understand the costs of inflation: Just because one era's central bankers have been prudent stewards of price stability is no guarantee that their successors will maintain the tradition. My Berkeley colleagues David and Christina Romer have documented how there was a deterioration in monetary policy in the United States in the 1960s, when new theories and actors became ascendant. The personalities that President Donald Trump has floated as nominees to the Federal Reserve do not exactly display a deep understanding of the inflation process or its relationship to monetary policy.

Relatedly, inflation has a tendency to run out of control when politicians pressure the central bank to keep interest rates lower than warranted by economic conditions. Lyndon Johnson pressured Federal Reserve Chairman William

McChesney Martin to keep rates low in the 1960s; Richard Nixon cajoled and threatened Arthur Burns to do likewise in the 1970s; and Paul Volcker has recounted how Ronald Reagan and his chief of staff James Baker engaged in similar arm-twisting in 1984. So the pressure President Trump has been applying to the Fed is not unprecedented.

The observant reader will notice that these examples are all drawn from the United States. If this implies that the risk of inflation is greatest in the U.S., then this is precisely my point. In November, there is to be turnover on the board of the ECB. In general, we can be confident that whoever is appointed to the board of the ECB, will be qualified: The ECB's independence is enshrined in an international treaty and cannot be undermined by any one minister or national government, Luigi Di Maio's recent criticisms notwithstanding. ECB governance and decision-making are not perfect. But they are relatively impervious to political influence. They offer assurance that, if there is a major explosion of inflation anywhere, it will not be in Europe.

Events

September

- 19 September
12.00 am – 1.30 pm **SAFE Policy Panel Discussion**
Speaker: Klaus Regling, Benoît Cœuré, Jan Pieter Krahn
- 24 September **LawFin, SAFE, ECGI Symposium
An Academic Life in Law and Finance –
Commemorating Brigitte Haar**
- 24 September **CFS Conference
5. Konferenz für Finanztechnologie**
9.00 am – 5.30 pm
- 25 September **SAFE Workshop
6th SAFE Asset Pricing Workshop**
- 25 September **Finance Brown Bag Seminar**
2.00 – 3.00 pm
Speaker: Nora Laurinaityte, Goethe University
- 27 September **ILF Conference
Recht und Wirklichkeit im digitalen China**
10.00 am – 4.45 pm

October

- 7 – 8 October **SAFE Workshop
4th Household Finance Workshop**
- 9 October **Finance Seminar – Joint with SAFE**
12.00 am – 1.15 pm
Speaker: Jose-Luis Peydro, Universitat Pompeu Fabra
- 11 October **ILF Colloquium
Vertrauensschutz im digitalen Zeitalter**
- 15 October **Finance Seminar – Joint with SAFE**
12.00 am – 1.15 pm
Speaker: Steven Ongena, University of Zurich
- 15 October **Frankfurt Macro Seminar – Joint with SAFE**
2.15 – 3.45 pm
Speaker: Cyrill Monnet, University of Bern

- 16 October **Finance Brown Bag Seminar**
2.00 – 3.00 pm
Speaker: Thierry Foucault, HEC Paris
- 17 October **ILF Guest Lecture**
Speaker: David Donald, Chinese University of Hong Kong
- 21 October **ILF Tagung**
- 22 October **Finance Seminar – Joint with SAFE**
12.00 am – 1.15 pm
Speaker: Christian Wagner, WU Vienna University of Economics and Business
- 22 October **Frankfurt Macro Seminar – Joint with SAFE
Rational Illiquidity and Excess Sensitivity:
Theory and Evidence from Income Tax With-
holding and Refunds**
2.15 – 3.45 pm
Speaker: Matthew Shapiro, University of Michigan
- 29 October **Frankfurt Macro Seminar – Joint with SAFE**
2.15 – 3.45 pm
Speaker: Nezhir Guner, CEMFI Madrid
- 30 October **CFS Colloquium
The Termites of the State**
5.30 – 7.00 pm
Speaker: Vito Tanzi, formerly State Secretary for Economy and Finance in the Italian Government
- 31 October **ILF Lecture
Deloitte Brexit Lecture VI**

November

- 5 November **Frankfurt Macro Seminar – Joint with SAFE**
2.15 – 3.45 pm
Speaker: Antoine Bommier, ETH Zurich
- 6 November **Finance Brown Bag Seminar
The Collateral Framework of the ECB and the
Structure of Corporate Debt in the Eurozone**
2.00 – 3.00 pm
Speaker: Zorka Simon, Goethe University

- 12 November **Frankfurt Macro Seminar – Joint with SAFE**
2.15 – 3.45 pm
Speaker: Per Krusell, IIES Stockholm
- 15 November **SAFE Conference
7th Frankfurt Conference on Financial Market Policy**
- 19 November **Frankfurt Macro Seminar – Joint with SAFE
Explaining Hours Worked Across and Within
Countries**
2.15 – 3.45 pm
Speaker: Nicola Fuchs-Schündeln, Goethe University
- 20 November **Finance Brown Bag Seminar**
2.00 – 3.00 pm
Speaker: Xu Liu, Goethe University
- 22 November **CFS Presidential Lecture**
1.45 – 2.45 pm
Speaker: Olaf Scholz, Bundesminister der Finanzen
- 27 November **Finance Brown Bag Seminar**
2.00 – 3.00 pm
Speaker: Michael Ungeheuer, Aalto University
- 29 November –
4 January **GBS Open Program
Alternative Investments**
Speaker: Uwe Walz, Goethe University
- 30 November –
31 January **GBS Open Program
Derivatives and Financial Engineering**
Speaker: Julia Kapraun, Goethe University

December

- 3 December **Frankfurt Macro Seminar – Joint with SAFE**
2.15 – 3.45 pm
Speaker: Wolfgang Lemke, European Central Bank
- 10 December **Frankfurt Macro Seminar, Deutsche Bundesbank-
SAFE-Goethe University Joint Seminar**
2.15 – 3.45 pm
Speaker: Victor Rios Rull, University of Pennsylvania
- 17 December **Frankfurt Macro Seminar – Joint with SAFE**
2.15 – 3.45 pm
Speaker: Ilse Lindenlaub, Yale University



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