

Loss Aversion, Habit Formation, and the Term Structures of Equity and Interest Rates _4

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Would the Primary Law of the European Union Support a Eurozone Exit? _10

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Macroprudential Policies in Europe: A Work in Progress _14

Erkki Liikanen

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Editors:

Dr. Muriel Büsser
Bettina Stark-Watzinger
Prof. Dr. Wolfgang König

Contact:

info@safe-frankfurt.de
www.safe-frankfurt.de

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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: 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



Nicola Fuchs-Schündeln

Coordinator,
Promotion of Young Researchers

The promotion of young researchers is a central objective of SAFE. To date, 28 postdoctoral researchers, among them 5 junior professors and 8 postdocs hired by SAFE, as well as about 50 research assistants are participating in SAFE research projects. For many research assistants, this work serves as a basis for their doctorate.

The promotion of junior researchers in SAFE is done in close cooperation with the Graduate School of Economics, Finance, and Management (GSEFM), an alliance between Goethe University Frankfurt, Johannes Gutenberg University Mainz, and Technische Universität Darmstadt. GSEFM offers several Ph.D. programs that feature a premier Anglo-Saxon research-oriented structure with a unique focus on research on institutions. Second year Ph.D. students of GSEFM can apply for SAFE scholarships that allow them to get first insights into the project work. Third and fourth year Ph.D. students can apply for a part-time position as research assistant in one of the research projects.

The majority of the junior researchers in SAFE comes from abroad. Their experience and knowledge gained in different countries with different institutional setups enrich the research and policy work in SAFE and contribute to a diverse,

open and innovative climate. The various contacts they bring into the project work add to our unique international network.

As SAFE benefits enormously from these international contacts, it encourages young scholars to reach out to the international academic community by offering funds for travel to project partners abroad or for presenting their work at internationally recognized conferences. In addition, as it has proven difficult for younger researchers to successfully apply for third party funding, SAFE provides them with the possibility to internally apply for funding for innovative research projects. Besides giving incentives to develop original research ideas, this scheme aims to help younger scholars to gain experience in writing funding proposals.

In order for Ph.D. students to also benefit from its international network, SAFE requires guest researchers who form part of the SAFE visitors program to give Ph.D. seminars and mini courses and, thus, to contribute to the quality and internationalization of the GSEFM program. Besides GSEFM, SAFE also collaborates with the Goethe Graduate Academy, which offers a wide range of training, e.g. on project management, career coaching and German for international doctoral students, as well as workshops to improve writing, investigation and presentation skills.

In this issue of the SAFE newsletter you will find two summaries of recent publications by SAFE junior professors. Enjoy!

Yours sincerely,
Nicola Fuchs-Schündeln

Loss Aversion, Habit Formation, and the Term Structures of Equity and Interest Rates



Giuliano Curatola
Goethe University & SAFE

The term structure of equity and interest rates are fundamental quantities in economics because they shed light on the investors' perception of the temporal distribution of risk. Empirical evidence suggests that the term structure of interest rates is upward-sloping, that is, long-term interest rates are usually higher than short-term interest rates. In contrast, van Binsbergen et al. (2012) have noted that the term structure of equity – the relationship between expected returns, Sharpe ratios, and volatilities of dividend strips (i.e. assets that pay dividends on the stock index up to some maturity T and nothing thereafter) and their maturity – is downward-sloping.

Existing asset pricing models have problems explaining this opposed behavior of the two term structures. Indeed, as shown by Lettau and Wachter (2011), the key economic mechanism that generates the upward-sloping term structure of interest rates, namely the fact that investors require higher compensation for holding

long-horizon assets, also tends to generate an upward-sloping term structure of equity.

In this work, I use the behavioral concept of loss aversion (Kahneman and Tversky, 1979) to explain the observed behavior of the two term structures. Agents in my economy evaluate consumption relative to a time-varying reference level and bear the risk that consumption falls below their reference level when economic conditions deteriorate. Finally, agents differ in their reference level of consumption.

Main findings

I find that a model with heterogeneous agents and loss aversion in consumption offers an explanation for the opposed behavior of the two term structures. The term structure of interest rates depends on the relation between macroeconomic shocks and the relative consumption (i.e. the difference between consumption and the reference level). A negative macroeconomic shock decreases relative consumption, makes agents more reluctant to invest in the market and, thus, causes asset prices to decline. As a result, bond prices are positively correlated to

macroeconomic shocks and earn a positive risk premium. Because this effect is more pronounced for long-term bonds, the term structure of interest rates is upward-sloping. In this way, the model reproduces the upward-sloping term structure of interest rates.

In addition, agents use dividend strips to hedge against the risk of consumption losses. Long-horizon strips have larger expected pay-offs than short-horizon strips and, thus, represent better investment opportunities against the risk of consumption losses. As a result, loss averse agents are willing to pay more to hold long-horizon assets, generating the observed downward-sloping term structure of equity.

The valuation of equity strips is affected by the cross-sectional distribution of wealth across agents. “High-reference agents”, who are especially afraid of consumption losses, are willing to pay more to hold long-horizon strips than “low-reference agents”. As a result, a downward-sloping term structure of equity is produced when the wealth is more concentrated in the hands of high-reference agents.

Traditional models of habit formation have difficulties to explain term structure of equity because they do not allow consumption to fall below the reference level. However, when consumption losses are possible, the term structure of equity becomes downward-sloping be-

cause long-horizon assets are a better investment opportunity to hedge against the risk of consumption losses. Moreover, the effect of consumption losses on the term structure of equity is more pronounced when high-reference agents do not have sufficient wealth to make the prob-

ability of consumption losses negligible or when consumption losses are more severe (i.e. when the degree of loss aversion is high).

Besides the implication for the term structures of equity and interest rates, I also study the effect of loss aversion and heterogeneity in the reference level of consumption on the empirical properties of stock returns. The model generates a high equity premium, a low risk-free rate and a high volatility of stock returns consistent with the empirical data. Finally, the model also reproduces the counter-cyclical behavior of stock returns and stock return volatility.

multiple asset framework will pose an additional question: are agents loss averse over single assets or over portfolios of assets? The answer to this question is not trivial and will have important implications for asset prices. This idea is left for future research.

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The full article was published in the Journal of Economic Dynamics & Control, Vol. 53 (2015), pp. 103-122, and is available at: <http://www.sciencedirect.com/science/article/pii/S0165188915000287>

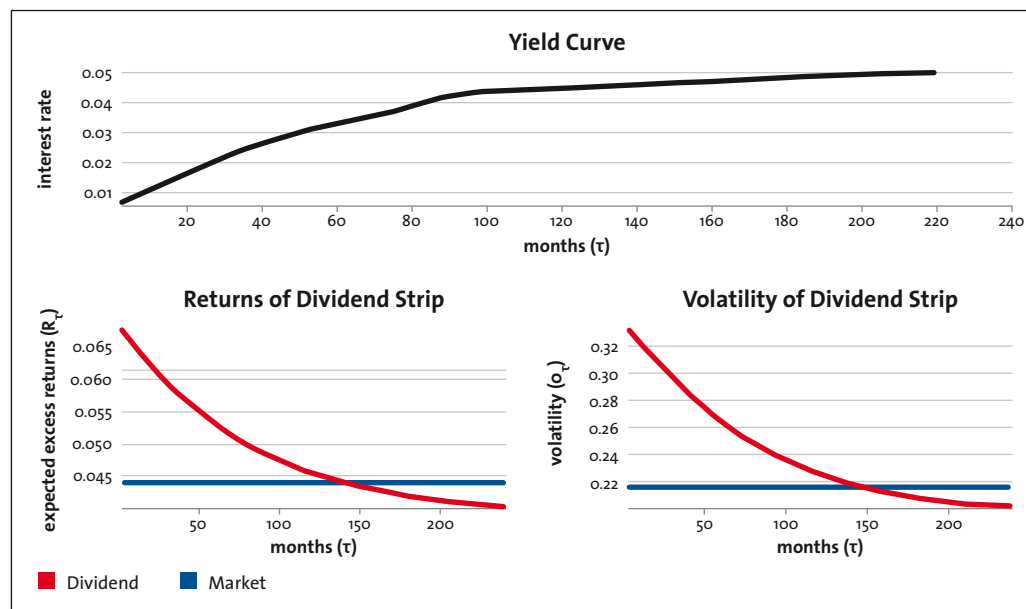


Figure 1: The model-implied term structure of interest rates (upper panel), the model-implied expected excess returns of dividend strips (lower-left panel) and the model-implied volatility of dividend strips plotted against maturity (τ) expressed in months (lower-right panel)

Conclusions and implications for future research

To sum up, these results show that introducing consumption losses into standard consumption-based asset pricing models allows for more flexibility in matching the empirically observed properties of asset returns. An interesting extension for future research would be to add multiple assets in the current framework and study the implications of consumption losses for the cross-section of stock returns and the value premium puzzle. However, modelling loss aversion in a

Going Public: How Stock Market Participation Changes Firm Innovation Behavior



Simone Wies
Goethe University & SAFE

The process of bringing new products and services to the market is of high strategic relevance to firms. Considering its importance, firms have a strong incentive to invest in innovation. However, the high costs, the uncertain payoffs, and the difficulty of adequately measuring returns to innovation create challenges for firms.

This applies in particular to publicly listed firms that are prone to suffer from agency conflicts and in which managers are exposed to stock market incentives (Lerner et al. 2011). While such firms enjoy improved access to financial capital, their strategic choices are constrained because they have to meet short-term stock market expectations and disclosure requests. This tension translates into opposing impacts on firm innovation. On the one hand, improved financing from going public should encourage innovation. On the other hand, disclosure requirements and short-term stock market incentives may have a detrimental effect on innovation.



Christine Moorman
Duke University

Our paper offers a unique view of how this tension translates into firm innovation strategies. Examining more than 40,000 product introductions from 1980 to 2011 in a sample of consumer packaged goods (CPG) firms that go public compared to a benchmark sample of firms that remain private, we study the effect of stock market listing on new product introductions.

Going public increases innovation level but reduces innovation riskiness

We predict and find that going public increases the innovation levels of firms but reduces their innovation riskiness. Specifically, after going public, firms introduce a larger number of innovations and a larger variety of each innovation (i.e., different flavors, package sizes, etc.). At the same time, firms introduce fewer breakthrough innovations and fewer innovations into product categories in which they do not have experience.

Our paper offers important contributions to existing literature and practice. First, new product introductions are a more valid measure of firm innovation. R&D expenditures are not deterministically related to product introduc-

tion level or timing, and accounting rules make R&D expenditures a noisy measure of innovation. Likewise, patents are an unreliable indicator of innovation given that many patents are not exploited commercially and firms do not patent all innovations. Indeed, the firms in our sample patent only 8.7% of new products. Contributing to this noisy measure, employees often file marginal patents unlikely to produce innovations or file bundled claims as separate patents to receive company rewards. Given these challenges, examining new product introductions should allow stronger inferences about the effect of going public on firm innovation.

Second, using new product introductions offers an opportunity to examine an array of different dimensions of risk important to firm innovation strategy, including whether the innovation has breakthrough product features or whether it reflects the firm's market entry into new product categories. The latter allows us to examine the going-public effect on both product and market forms of innovation and not only on qualities of the offering as denoted in a patent. We also examine the tendency for publicly listed firms to

minimize risk by offering variations of the same product – a strategy known as SKU (stock-keeping unit) proliferation in the CPG industry.

Third, studying firms in the CPG sector offers broader insights into a sector of considerable economic significance and one in which innovation plays an important role. Previous work has focused on industries, in general, or on firms in the technology sector – a sector that has more volatile and herd-like demand fluctua-

tions, fragmented competitive environments, and contentious intellectual property conditions. Firms in the CPG sector face different regimes to appropriate value from innovations that may influence their innovation strategies. Fourth, we utilize the quasi-experimental IPO context to study stock market effects. Together with numerous tests to rule out selection concerns, reverse causality, and competing firm dynamics, this allows us to observe a shift in innovation associated with being a public firm.

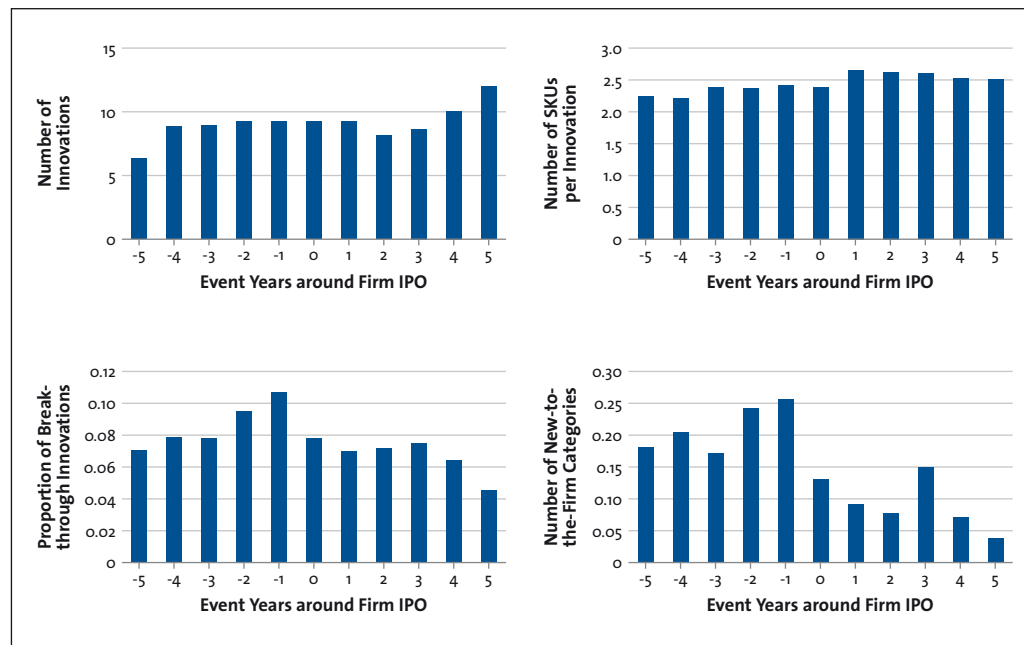


Figure 1: Unconditional innovation outcomes around firm IPO: effects on the number of innovations, on the number of stock-keeping units per innovation, on the proportion of breakthrough innovations and on the number of new-to-the firm categories

We add to the generalizability of the going-public effect not only by studying firms in the CPG sector, but also by studying firms across a longer time series – up to 30 years before and after the IPO. This prolonged observation period ensures that our results reflect a stock market regime shift and not only short-term dynamics around the IPO.

How to continue introducing breakthrough innovations

The net effect of an increase in the level of innovations and a decrease in the riskiness of those innovations after going public may have important consequences for the long-run performance of publicly listed firms. This is because breakthrough innovations generate considerably larger stock returns than incremental innovations. As Tellis, Prabhu, and Chandy (2009) observe, capital availability is not sufficient to ensure returns on innovation. Instead, firm performance is conditional on managers making the right kinds of innovation investments.

Finally, given these results, we attempt to understand if firms can defy the going-public effect and continue to introduce breakthrough innovations after going public. We identify a set of industry factors that shifts the publicly listed firm’s calculus away from stock market incentives and toward product-market incentives. We find that industry factors associated with a

strong focus on appropriability and sales growth weaken the negative effect of going public on firm breakthrough innovation. Taken together, our results suggest that the stock market not only absorbs information, but also generates an incentive structure that impacts managerial decision-making regarding innovation. Thereby, it calls into question to which extent the economic institutions (i.e., the stock markets) in place to encourage investments into innovation projects can and do indeed fulfill this role.

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The full article is forthcoming in Journal of Marketing Research and is available at:

<http://journals.ama.org/doi/abs/10.1509/jmr.13.0289>

Interview:

“Well Designed Guarantees and Flexibility can Increase the Propensity to Invest in Defined Contribution Retirement Products”



Raimond Maurer
Goethe University & SAFE

Raimond Maurer holds the chair of investment, portfolio management and pension finance at Goethe University Frankfurt. He earned his habilitation, dissertation, and diploma in business administration from Mannheim University and has various experiences in policy and industry consulting (e.g., for the World Bank, European Central Bank, FED, Ministry of Social Affairs Baden Württemberg). He holds the degree of an honorary doctor from the University of St. Petersburg.

Which research questions are you currently focusing on?

A large part of my current work is on retirement income security. Given that, all over the world,

state organized retirement security systems are complemented by privately funded schemes, we focus on two key questions: what can be done to improve public pension systems and what are appropriate privately funded products? From the perspective of the individual investor, we are also interested in the optimal mix of these two schemes.

A key challenge in this respect is to incentivize people to make provisions for retirement. A recent publication of yours looks at a relatively new product that proves to be quite successful in this endeavor.

Many people are hesitant to invest in defined contribution retirement products – even if they know of their importance – because of the complexity of the matter and the risks behind equity investments. For fear of making mistakes, too many households do nothing. A way to address this problem is to give people more confidence in these products by providing appropriate guarantees. You can think of, for instance, a money-back return guarantee, such as downside asset protection from capital market shocks, in the accumulation phase, as well as, in the decumulation phase,

lifelong income guarantees, such as longevity risk protection. These are the key features of the investment linked retirement products, which our paper analyzes (Horneff et al. 2015).

What are your findings?

We investigate, by means of a realistically calibrated life cycle consumption and portfolio choice model, how households can benefit from an addition of the above mentioned guarantees. We look at a retirement product that provides an appropriate balance between well-designed return and income guarantees and sufficient upside potential, based on a diversified mutual-fund style equity portfolio. It foresees an initial investment as well as further annual contributions. In addition to the guarantees, investors are allowed to withdraw parts of their assets during the entire accumulation phase. Most people will not use this flexibility which, of course, comes (like the guarantees) at a certain price. But it serves like an insurance against unforeseen income shocks, such as unemployment, when it helps to satisfy consumption needs. This feature thus makes it easier for people to commit to such a long-term retirement

product. After retirement, investors are free to use the accumulated money as they like. They can take out everything at once or only a fraction. Or they can convert the entire sum or a fraction into a lifelong income stream.

What amount of their savings should households invest in this kind of product?

We look at the optimal asset allocation in a portfolio of stocks, bonds and investment-linked annuities. Naturally, for every individual, the optimal allocation will depend on the factors wealth, level and risk of labor income, age, and the overall economic situation on capital markets (interest rates, volatility). To give you an example: a 40-year-old single woman without children, average earner with high school degree, with moderate risk aversion, who has an initial wealth of 120,000 USD should optimally invest about 30% of her savings in such a retirement product and the rest in a combination of liquid stocks and bonds. This share should be increased as she comes nearer to retirement.

At the age of 65, she would take out parts of her accumulated assets and convert the rest into a

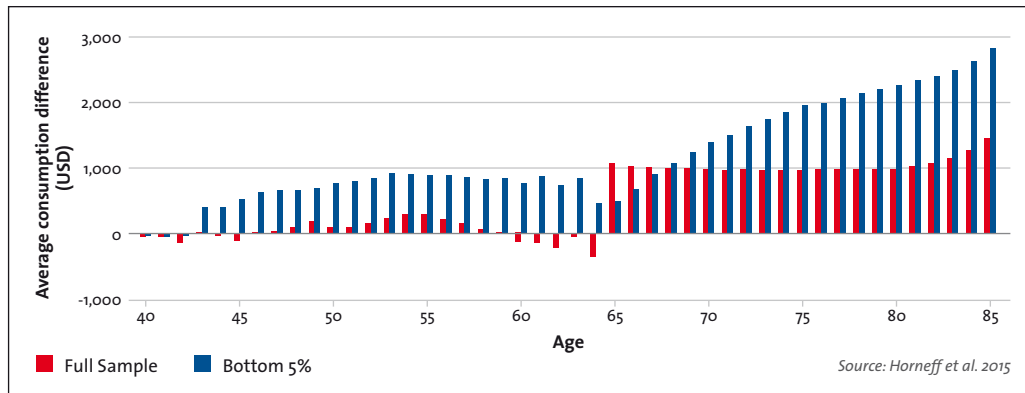


Figure 1: Differences in average consumption in a world with access to investment-linked retirement products with income and money-back return guarantees compared to a world without such retirement products

lifelong annuity. In an alternative setting, we allow to convert parts of the accumulated retirement assets into a longevity income annuity that would start paying out only at the age of 85. This feature increases her income at a time when she has probably spent most or all of her other savings and she is definitely no longer able to work. We find that this kind of hedging against living longer than the average population is quite cheap because it uses the possibility of risk pooling.

Is it possible to estimate the benefits for policyholders of these products?

We analyze the welfare gains of individuals over their life cycle with and without this product assuming average labor income risk and inter-

est rate risk. Figure 1 displays the differences in consumption opportunities between these two scenarios. The grey bars show the consumption gains over the life cycle for the full sample. As you can see, in the accumulation phase, the gains are moderate, but after retirement they become quite considerable. The black bars show the consumption benefits to those households who, without this product, would have been among the bottom 5% when looking at consumption opportunities. These are the people which get hit by phases of unemployment, stock market crashes and other misfortunes you may think of. As the figure shows, these especially unfortunate people would benefit enormously from the provided income and return guarantees. Again, the relative consumption gains

are greatest after retirement. As an overall result, we can say that investment-linked retirement products with income and money-back return guarantees increase the lifetime welfare of an individual by around 6.5%.

Given the beneficial effects of these products, should there be policy measures which incentivize households to invest in them?

There is a current policy reform in the U.S. that, in fact, aims to incentivize individuals who have accumulated assets in individual retirement accounts (401(k) plans) to buy longevity income annuities. In Germany, we have the so called “Riester” products that also provide a money-back guarantee in the accumulation phase and some flexibility after retirement allowing to take out 30% of assets as a lump sum. Also, they were the first to offer longevity income annuities from the age of 85, being a sort of pioneer in this area. However, in contrast to the U.S., there is a lot of too detailed regulation around this topic in Germany, hindering the industry to offer the degree of flexibility that makes retirement products especially attractive to young people. Importantly, return and income guarantees of retirement products should not be too high. Defined contribution plans with too high guarantees mutate, in fact, into defined benefit plans, and we know this can be very expensive.

Selected Publications by Raimond Maurer

Horneff, V., Maurer, R., Mitchell, O. S., Rogalla, R. (2015)
 “Optimal Life Cycle Portfolio Choice with Variable Annuities Offering Liquidity and Investment Downside Protection”,
 forthcoming in *Insurance: Mathematics and Economics*.

Horneff, V., Kaschütze, B., Maurer, R., Rogalla, R. (2014)
 “Welfare Implications of Product Choice Regulation during the Payout Phase of Funded Pensions”,
Journal of Pension Economics and Finance, Vol. 13, Issue 3, pp. 272-296.

Hubener, A., Maurer, R., Rogalla, R. (2014)
 “Optimal Portfolio Choice with Annuities and Life Insurance for Retired Couples”,
Review of Finance, Vol. 18, Issue 1, pp. 147-188.

Maurer, R., Mitchell, O. S., Rogalla, R., Kartashov, V. (2013)
 “Lifecycle Portfolio Choice With Systematic Longevity Risk and Variable Investment-linked Deferred Annuities”,
Journal of Risk and Insurance, Vol 80, Issue 3, pp. 649-676.

Chai, J., Horneff, W. J., Maurer, R., Mitchell, O. S. (2011)
 “Optimal Portfolio Choice over the Life-Cycle with Flexible Work, Endogenous Retirement, and Lifetime Payouts”,
Review of Finance, Vol. 15, Issue 4, pp. 875-907.

Horneff, W. J., Maurer, R., Rogalla, R. (2010)
 “Dynamic Portfolio Choice with Deferred Annuities”,
Journal of Banking and Finance, Vol 34, Issue 11, pp. 2652-2664.

Would the Primary Law of the European Union Support a Eurozone Exit?



Helmut Siekmann
Goethe University & SAFE

The Treaty of Maastricht imposed the strict obligation on the European Union (EU) to establish an economic and monetary union. The single currency was to become the legal tender in all Member States, unless an exemption was explicitly granted in the primary law of the EU. An exit from the eurozone, which is now frequently being discussed as one possible scenario which may help distressed member states to cope with their financial problems, is not provided for in the treaties.

The European Monetary Union (EMU) is an integral part of the EU and each Member State is obliged to introduce the euro. Exit from the eurozone, or the introduction of a parallel currency, both of which are being discussed quite frequently by economists, politicians and the media, are legally not possible and economically questionable.

Exit or withdrawal from the euro

While the Treaty of Lisbon provides for an exit from the EU – this can be done by simple notification of the European Council (Article 50(1) and (2) sentence 1 TEU) – an exit solely from the eurozone is not foreseen. The EMU does not form a separate legal entity, which could be exited without, at the same time, withdrawing from the EU as a whole. Member states which have not introduced the common currency have been granted an exemption by primary law. When they do introduce the euro, this exemption is revoked, as was the case for Greece by Council Decision 2000/427/EC.

It is legally not possible to reverse the revocation of an exemption, not even in the case of fraud or misrepresentation. The acts obliging all member states to introduce the euro were clearly designed to be complete, unconditional, and irrevocable. Otherwise, this would have left the door open for speculative pressure. All details were meticulously regulated. A way back was not contemplated and would have been contrary to the principle dominating the formation of the EU: an always closer integration and not

a way back and forth (Article 1 TEU). Since these specific, conclusive rules exist, neither the general rules of the law of nations, nor the special rules on the termination of treaties can be used to substantiate a claim for withdrawal from the eurozone. This holds, in particular, for the Vienna Convention on the Law of Treaties, signed 23 May 1969 entering into force 27 January 1980.

Introduction of a parallel currency

It has also been proposed that a distressed Member State, such as Greece, could maintain the euro, but introduce a second (new) currency, parallel to the euro. It is highly questionable whether such a measure could mitigate the financial problems of the country, as all financial claims would still be denominated in euro. National legislation to change this would probably be void by breaching national and international civil rights statutes. Intricate problems of international private law and of constitutional rights protecting property and contracts would have to be solved.

In any case, such a measure would be illegal from the point of view of the primary law of

the Union. Euro banknotes are the only legal tender within the Member States whose currency is the euro, Article 128(1), sentence 3 TFEU. Also, the secondary law categorically forbids a currency other than the euro, Article 2 sentence 1 Council Regulation (EC) No. 974/98. The sovereignty in monetary affairs of the euro Member States has been transferred to the Union. A statute trying to introduce, for example, a new drachma as legal tender would be void, with the result that nobody would have to accept it. For this reason, the action would also be useless from an economic point of view.

Neither the organs of the EU nor the Member States can legally grant an exemption or a waiver to these rules. If a new currency in substitution of the euro, or parallel to it, is introduced, in deviation from these rules, there will be severe consequences. All claims denominated in euro will remain in euro, regardless of the legal system by which they have been set up and regardless of national legislation. As long as the country remains in the EU, it has forfeited this part of its sovereignty.

Consequences of an illegal exit from the euro-zone

In case a new currency were introduced despite the contradicting rules of EU law, this would result in serious and hard to calculate problems, above all for the debt denominated in euro. It is already highly questionable, whether such debt would automatically be transformed into debt denominated in the new currency, especially as the old currency will continue to exist. The national government may, however, try to change the denomination of the existing debt by a unilateral administrative or legislative act. This act would have to be judged as void since the Member State whose currency is the euro does not have competences in monetary affairs any more. As its withdrawal from the Monetary Union or the introduction of a new (parallel) currency are illegal, the EU continues to command the exclusive competence in all monetary affairs.

In general, it can be assumed that EU law is the *lex monetariae* governing obligations originating in a Member State. A change of the currency would at least be ineffective in view of the objective to reduce the burden of debt. This result

is independent of whether the law of the redenominating country or a foreign law is governing the underlying contracts. For example, it would be irrelevant whether a bond has been issued pursuant to the law of the United Kingdom or of Greece in case the Hellenic Republic would introduce a new currency. The fact according to which law the obligation has come into existence may only be used as a criterion for

determining the *lex monetariae* in situations of uncertainty about the applicable currency. This uncertainty is, however, not given in a case when a government by sovereign act changes the denomination referred to in a contract to another currency, e.g., from euro to “new drachma”.

The full article is available at: <http://safe-frankfurt.de/eurozone-exit>

Selected Policy Center Publications

Böcking, H.-J., Gros, M., Worret, D. (2015)
“Stellungnahme zu den DCGK-Änderungsvorschlägen der Regierungs-Kommission Deutscher Corporate Governance Kodex”,
Policy Letter 38, SAFE Policy Center.

Thiemann, M., Birk, M. (2015)
“The Regulation of Repo Markets: Incorporating Public Interest through a Stronger Role of Civil Society”,
White Paper 25, SAFE Policy Center.

Weichenrieder, A. (Ed.) (2015)
“Austerity and Growth – Concepts for Europe”,
SAFE Policy Letter Collection No. 1, 2015.

Weichenrieder, A. (2015)
“PPPs: Umgehung von Defizitregeln oder höhere Effizienz im Staatssektor?”,
Policy Letter 36, SAFE Policy Center.

Weichenrieder, A. (2015)
“Greece: Threatening Recovery”,
Policy Letter 37, SAFE Policy Center.

Why Europe Performs Worse than the U.S.



In a SAFE Policy Center Lecture on 25 March, Lorenzo Bini Smaghi, Chairman of the Board of Société Générale and former board member of the European Central Bank (ECB), addressed the question of why the recovery after the financial crisis has slowed down in the Eurozone compared to the United States. He outlined that real GDP per capita developed very similarly in both areas between 2007 and 2011 but diverged afterwards: while growing in the U.S., it is slightly decreasing in the Eurozone.

According to Bini Smaghi, it was not the austerity measures that have hindered growth in the Eurozone. He mentioned four alternative explanations: 1) In the U.S., banks started lending again to the non-financial corporate sector a few years after the crisis, so that a credit crunch could be avoided. In contrast, bank lending is still very low in the euro area. 2) Interest rates for ten-year bond yields in the U.S. have been below the nominal GDP growth rate since 2011 which made deleveraging much easier. In the euro area – except for Germany – the opposite occurred. 3) Whereas the U.S. Fed introduced quantitative easing (QE) in 2008, the QE program of the ECB started just recently. 4) Some countries in the euro area need structural reforms to make them competitive again.

Global Shifts End Growth Period



Kiyohiko G. Nishimura, Professor of Economics at the University of Tokyo and former Deputy Governor of the Bank of Japan, argued in a SAFE Policy Lecture on 6 March that the massive monetary easing programs that are in place have not succeeded in bringing developed economies back

to pre-crisis growth rates. In his opinion, the low growth is caused by three simultaneous global shifts:

- The first one is the persistent fallout from the “great property bubbles” and financial crises in developed economies. Huge capital losses and severe balance-sheet adjustments have caused persistently weaker demand; the efficiency of financial intermediation has been badly damaged, possibly for an extended period of time.
- Secondly, information and communication technologies have had a negative impact on employment in developed and emerging economies. Traditional medium-skilled jobs are being replaced by technologies. Therefore, more workers are employed in low-paid, temporary jobs, leading to lower consumption in this group.
- Thirdly, the excessive optimism for economic growth caused by baby booms and medical advances has come to an end. This optimism, which was coupled with financial innovations enabling easy credit, caused vast credit expansion and thus property bubbles. So, in Nishimura’s view, it is of utmost importance to avoid asset price bubbles. Further, he insisted that policy makers should adjust to the decreasing effectiveness of conventional monetary policy tools.

Second International Conference on Sovereign Bond Markets



On 10 and 11 March, SAFE, together with the Center for Financial Research at Waseda University (Japan), the Stern Salomon Center for the Study of Financial Institutions (NYU/U.S.) and the ECB, co-sponsored the Second International Conference on Sovereign Bond Markets. The conference held in Frankfurt and co-organized by SAFE Program Director Lorian Pelizzon was the second of three conferences and dealt with the topic “Determinants of Sovereign Bonds Yields and the Effectiveness of Central Bank Intervention”.

The keynote lecture was held by Raghuram Rajan, Governor of the Reserve Bank of India, who discussed the determinants of sovereign debt sustainability. The two-day event was organized in five academic sessions focusing on “Repo markets and sovereign bonds”, “Drivers of euro area sovereign bond spreads”, “Impact of non-standard measures on sovereign bond markets”, “Drivers of liquidity in sovereign bond markets” and “Modelling yield curve dynamics”. A policy panel discussed the impact of central banks’ non-standard-measures on sovereign bond markets.

The objective of the conference series is to provide academics, practitioners and policy makers with an opportunity to discuss both the causes and implications of recent events in sovereign bond markets and to suggest fruitful directions for future research. The first conference on “Liquidity, Credit Risk and the Effectiveness of Central Bank Intervention” took place in Tokyo in 2014, the third will be in New York in 2016.

SAFE Workshop on “Say-on-Pay”

On 6 March, the SAFE workshop “Say-on-Pay” brought together distinguished scholars from both law and finance to discuss shareholder involvement in compensation decisions – the patent remedy that regulators choose to apply across jurisdictions when they aim to cure perceived deficits in executive pay. The latest add-on to this already impressive track record can be found in arts. 9a and 9b of the European legislature’s proposal for a revised Shareholder Rights Directive. However, this relative uniformity in the general approach should not disguise the considerable variation in the respective institutional arrangements. At least in part, the observed differences can be traced to disagreement on say-on-pay’s merits in general and its adequate design in particular. The workshop’s participants, discussing topics such as “agency versus hold-up: on the impact of binding say-on-pay on shareholder value” and “outsourcing shareholder voting to proxy advisory firms”, came from the universities of Mannheim, Marburg, Milan, Navarra, Tilburg, Zurich and SAFE/Goethe University. Ricardo Correa, Chief Economist of the Board of Governors of the Federal Reserve System, presented a paper on “Say on Pay Laws, Executive Compensation, CEO Pay Slice, and Firm Value Around the World”. The workshop was organized by the SAFE professors Brigitte Haar, Tobias Tröger and Uwe Walz.

Selected Publications

Andres, C., Doumet, M., Fernau, E., Theissen, E. (2015)
 “The Lintner Model Revisited: Dividends Versus Total Payouts”,
 Journal of Banking and Finance, Vol. 55, pp. 56-69.

Baghestanian, S., Walker, T. B. (2015)
 “Anchoring in Experimental Asset Markets”,
 forthcoming in Journal of Economic Behavior and Organization.

Behn, M., Haselmann, R., Wachtel, P. (2015)
 “Pro-Cyclical Capital Regulation and Lending”,
 forthcoming in The Journal of Finance.

Bressan, S., Pace, N., Pelizzon, L. (2015)
 “Health Status and Portfolio Choice: Is their Relationship Economically Relevant?”,
 International Review of Financial Analysis, Vol. 32, pp. 109-122.

Clapham, B., Zimmermann, K. (2015)
 “Price Discovery and Convergence in Fragmented Securities Markets”,
 forthcoming in the 32nd International Conference of the French Finance Association, Cergy, France.

Gal, J., Wandt, M. (2014)
 “Europäisierung und Transnationalisierung im Versicherungsrecht”,
 in 100 Jahre Rechtswissenschaft in Frankfurt – Erfahrungen, Herausforderungen, Erwartungen, pp. 629-654.

Haar, B. (2015)
 “§§ 9, 10 KAGB”,
 forthcoming in Moritz, J., Klebeck, U. (Eds.), Frankfurter Kommentar zum Kapitalanlagegesetz Band 1: KAGB (Kapitalanlagegesetzbuch).

Langenbacher, K. (2015)
 “50 Jahre Aktiengesetz – Aktien- und Kapitalmarktrecht”,
 forthcoming in Zeitschrift für Unternehmens- und Gesellschaftsrecht (ZGR).

Lipatov, V., Weichenrieder, A. (2015)
 “Welfare and Labor Supply Implications of Tax Competition for Mobile Labor”,
 forthcoming in Social Choice and Welfare.

Niedrig, T., Gründl, H. (2015)
 “The Effects of Contingent Convertible (CoCo) Bonds on Insurers’ Capital Requirements under Solvency II”,
 forthcoming in The Geneva Papers on Risk and Insurance: Issues and Practice.

Tröger, T. (2015)
 “Vertragsrechtliche Fragen negativer Zinsen auf Einlagen”,
 Neue Juristische Wochenschrift (NJW), 68. Jahrgang 2015, pp. 657-661.

Vogel, E., Ludwig, A., Börsch-Supan, A. (2015)
 “Aging and Pension Reform: Extending the Retirement Age and Human Capital Formation”,
 forthcoming in Journal of Pension Economics and Finance.

Recent SAFE Working Papers

No. 99 Grupp, M., Rauch, C., Ueber, M., Walz, U.
 “The Influence of Leveraged Buyouts on Target Firms’ Competitors”

No. 98 Niedrig, T., Gründl, H.
 “The Effects of Contingent Convertible (CoCo) Bonds on Insurers’ Capital Requirements Under Solvency II”

No. 97 Niedrig, T.
 “Optimal Asset Allocation for Interconnected Life Insurers in the Low Interest Rate Environment Under Solvency Regulation”

No. 96 Binder, J.-H.
 “Banking Union and the Governance of Credit Institutions – A Legal Perspective”

No. 95 Pelizzon, L., Subrahmanyam, M. G., Tomio, D., Uno, J.
 “Sovereign Credit Risk, Liquidity, and ECB Intervention: Deus Ex Machina?”

No. 94 Lambert, C., Noth, F., Schüwer, U.
 “How Do Banks React to Catastrophic Events? Evidence from Hurricane Katrina”

No. 93 Hebus, S., Zimmermann, T.
 “Revisiting the Narrative Approach of Estimating Tax Multipliers”

No. 92 Hambel, C., Kraft, H., Schwartz, E. S.
 “Optimal Carbon Abatement in a Stochastic Equilibrium Model with Climate Change”

No. 91 Hüser, A.-C.
 “Too Interconnected to Fail: A Survey of the Interbank Networks Literature”

No. 90 Topal, P.
 “Fiscal Stimulus and Labor Market Flexibility”

No. 89 Braun, J., Weichenrieder, A. J.
 “Does Exchange of Information between Tax Authorities Influence Multinationals’ Use of Tax Havens?”

No. 88 Faia, E., Weder di Mauro, B.
 “Cross-Border Resolution of Global Banks”

No. 87 Aldasoro, I., Delli Gatti, D., Faia, E.
 “Bank Networks: Contagion, Systemic Risk and Prudential Policy”

No. 86 Brugiavini, A., Cavapozzi, D., Padula, M., Pettinicchi, Y.
 “Financial Education, Literacy and Investment Attitudes”

No. 85 Kraft, H., Munk, C., Wagner, S.
 “Housing Habits and Their Implications for Life-Cycle Consumption and Investment”

No. 84 Maurer, R., Mitchell, O. S., Rogalla, R., Schimetschek, T.
 “Will They Take the Money and Work? An Empirical Analysis of People’s Willingness to Delay Claiming Social Security Benefits for a Lump Sum”

Macroprudential Policies in Europe: A Work in Progress



Erkki Liikanen
Governor of the
Bank of Finland

In November last year, the European Central Bank (ECB) took over the responsibility of supervising banks in the euro area. It is less well known that, at the same time, the ECB became the ultimate macroprudential decision maker in the European banking union. More specifically, the ECB can apply higher requirements for specific macroprudential tools than proposed by the designated national macroprudential authorities if it deems that the suggested national measures are inadequate.

In contrast to the single monetary policy, macroprudential policy in the banking union is a joint responsibility of different authorities. The main responsibility for macroprudential policy lies with the national authorities. They are best positioned to detect country-specific systemic risks and to take the appropriate measures to address them.

The role of the ECB in macroprudential policy is to enhance national policies and to reduce the inaction bias inherent in taking unpopular and intrusive national actions. The ECB will help to identify potential financial stability risks and foster a coordinated stance for macroprudential policies among the euro area Member States. The European Systemic Risk Board (ESRB) in turn monitors the development of EU-wide cross-border and cross-sectional systemic risks and provides guidance and recommendations to the national authorities.

A necessary precondition for successful macroprudential policies – both at the national level and for the banking union as a whole –

is the availability of sufficient macroprudential tools. Importantly, the Capital Requirements Regulation and Directive (CRR/CRD IV) provide the ECB and the national authorities with a common minimum set of macroprudential tools for the banking sector. These include, for example, countercyclical capital buffer requirements, capital surcharges for systemically important institutions and minimum risk weights for real estate exposures.

However, I would argue that in most euro area countries the national toolkit should be strengthened. For example, in many countries the tools for containing excesses in housing markets and for building resilience against the realization of housing-related risks are not strong enough. We should also develop new tools to address systemic risks potentially developing in the so-called shadow banking sector.

The availability of strong national macroprudential toolkits and the courage to use the tools are of utmost importance in the current

environment of very low interest rates. While the ECB's current monetary policy measures are necessary to achieve its primary objective of maintaining price stability and to ensure that inflation does not remain too low for too long, I am aware that the current monetary policy measures may have unintended side effects on the financial system.

The ECB's governing council closely monitors the potential risks to euro area financial stability, including those related to excessive risk taking. Currently, these risks are contained; but, should they begin to get out of hand, macroprudential policy would be best suited to address them.

It is clear that there is much work to be done in order to make the European financial system safer. Evaluating the sufficiency of the toolkits of both national authorities and the ECB, as well as learning how to use the new tools most effectively, is a work in progress that needs to be continued. But I strongly believe that we are taking important steps in the right direction.

Events

June

Monday, 1 st 6.00 pm – 7.30 pm	CFS Lecture Bank der Zukunft – Wie Digital Natives die Finanzbranche verändern Speaker: Stefan Krause, Deutsche Bank
Tuesday, 2 nd 2.15 pm – 3.45 pm	Frankfurt Seminar in Macroeconomics – joint with SAFE Investment and Black Swans: Rational Disappointment Based on Almost Objective Beliefs Speaker: Christos Koulovatianos, University of Luxembourg
Tuesday, 2 nd 4.15 pm – 5.30 pm	Finance Seminar – joint with SAFE Speaker: Erwan Morellec, Ecole Polytechnique Federale de Lausanne
Monday, 8 th 5.00 pm	EFL Jour Fixe Cryptocurrencies – Usage and User Intentions Speaker: Martin Haferkorn, EFL
Tuesday, 9 th 4.15 pm – 5.30 pm	Finance Seminar – joint with SAFE Speaker: Stephan Siegel, University of Washington
Tuesday, 9 th 2.15 pm – 3.45 pm	Frankfurt Seminar in Macroeconomics – joint with SAFE Screening as a Unified Theory of Delinquency, Renegotiation, and Bankruptcy Speaker: Igor Livshits, University of Western Ontario
Tuesday, 9 th	SAFE and CFS Lecture Speaker: Jim Yong Kim, President of the World Bank
Wednesday, 10 th 6.00 pm	SAFE Policy Center Panel Discussion Speaker: Thomas Mosk, SAFE, and Joris Luyendijk, The Guardian
Thursday, 11 th – Friday, 12 th 6.00 pm	Karel's Club– Executive Networks Limits of Insurability Speaker: Karel van Hulle, Goethe University
Tuesday, 16 th 2.15 pm – 3.45 pm	Frankfurt Seminar in Macroeconomics – joint with SAFE Speaker: Charles Noussair, Tilburg University
Tuesday, 16 th 4.15 pm – 5.30 pm	Finance Seminar – joint with SAFE Speaker: Hendrik Hakenes, University of Bonn

Tuesday, 16 th 5.00 pm – 6.30 pm	CFS Lecture Less significant institutions: Wie direkt wird die indirekte Aufsicht der EZB? Speaker: Joachim Wuermeling, Verband der Sparda Banken e.V.
June, Friday, 19 th – July, Friday, 17 th	GBS Open Course Management of Non-Financial Risks Speaker: Thomas Kaiser, Goethe University and KPMG
June, Friday, 19 th – July, Friday, 17 th	GBS Open Course Bank's Risk Governance and Regulation Speaker: Wolfgang Hartmann, FIRM
Tuesday, 23 rd 2.15 pm – 3.45 pm	Frankfurt Seminar in Macroeconomics – joint with SAFE Speaker: Michaela Pagel, Columbia University
Tuesday, 23 rd 4.15 pm – 5.30 pm	Finance Seminar – joint with SAFE Speaker: Antje Berndt, NC State University
Wednesday, 24 th	37th Symposium of the Institut für bankhistorische Forschung e.V. Debt – Economic, Political and Moral Consequences organized jointly with Deutsche Bundesbank and SAFE
Tuesday, 30 th 2.15 pm – 3.45 pm	Frankfurt Seminar in Macroeconomics – joint with SAFE Speaker: Konstantin Milbradt, Northwestern University
Tuesday, 30 th 4.15 pm – 5.30 pm	Finance Seminar – joint with SAFE Johannes Stroebel, NYU Stern
Tuesday, 30 th 5.00 pm – 7.00 pm	CFS Lecture (book presentation) Reputational Risk Management in Financial Institutions Speaker: Thomas Kaiser, Goethe University and KPMG, and Petra Merl, UniCredit Bank AG

July

Wednesday, 1 st 12.00 pm – 1.00 pm	IMFS Working Lunch Speaker: Tobias Adrian, Federal Reserve Bank of New York
Monday, 6 th 5.00 pm	EFL Jour Fixe A New Approach to Measure a Firms' Profit-at-Risk – From Losing Visibility in Organic Search Results Speaker: Bernd Skiera, Goethe University

Tuesday, 7 th 2.15 pm – 3.45 pm	Frankfurt Seminar in Macroeconomics – joint with SAFE Speaker: Alexander Monge-Naranjo, St. Louis Fed
Tuesday, 7 th 4.15 pm – 5.30 pm	Finance Seminar – joint with SAFE Speaker: Ivo Welch, UCLA Anderson School of Management
Wednesday, 8 th 12.15 pm – 1.45 pm	SAFE Policy Center Lecture Long-Term Fiscal Sustainability in Advanced Economies Speaker: Alan J. Auerbach, Burch Center for Tax Policy and Public Finance
Tuesday, 14 th 2.15 pm – 3.45 pm	Frankfurt Seminar in Macroeconomics – joint with SAFE Speaker: Georg Duernecker, University of Mannheim
Tuesday, 14 th 4.15 pm – 5.30 pm	Finance Seminar – joint with SAFE Speaker: Olivier Lledo, University of Zurich
Friday, 17 th	CFS Conference The Industrial Organization of Securities and Derivatives Markets: High Frequency Trading

September

Monday, 7 th – Friday, 18 th	ILF Summer School Law of Banking and Capital Markets
Tuesday, 8 th – Wednesday, 9 th	4th Conference on Global Insurance Supervision (GIS) Insurance Globally Under Pressure? organized by ICIR and EIOPA
Thursday, 10 th – Friday, 11 th	SAFE Conference Behavioral Aspects of Macroeconomics and Finance
Friday, 11 th – Saturday, 12 th	European Conference on Household Finance organized by SAFE
Wednesday, 23 rd – Friday, 25 th 9.00 am – 6.00 pm	GBS Training Course The Basics of Financial Risk Management Speaker: Björn Imbierowicz, Goethe Business School
Thursday, 24 th 12.00 pm – 5.45 pm	Deutsche Bank Prize – Award Ceremony and CFS Symposium
Thursday, 24 th – Saturday, 26 th	CFS Conference Frankfurt-Shanghai Research Forum
Tuesday, 29 th	SAFE Asset Pricing Workshop

Please note that for some events registration is compulsory.



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