

THE CHANGING GEOGRAPHY OF FINANCE & REGULATION IN EUROPE

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OF BANKING & FINANCE

The Changing Geography of Finance and Regulation in Europe

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for Financial Analysis



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The Changing Geography of Finance and Regulation in Europe

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Jean-Pierre Landau is a former Deputy Governor of Banque de France (2006-2011) and former Executive Director for France at International Monetary Fund and the World Bank (1989-1993). He also served as Executive Director for France at the European Bank for Reconstruction and Development, Minister Counselor at the French Embassy in London, as well as in various positions at France's Ministry of Finance. He has been a member of the Board of Directors of the Bank for International Settlements (BIS) and a member of the Financial Stability Forum. He is currently Associate Professor with the Department of Economics at Sciences Po - Paris.

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PREFACE

The Florence School of Banking and Finance at the European University Institute's Robert Schuman Centre of Advanced Studies and the Brevan Howard Centre at Imperial College London, in cooperation with BAFFI CAREFIN at Bocconi University, organised on 27 April 2017 a conference entitled 'The Changing Geography of Finance and Regulation in Europe'.

The event was held at the European University Institute campus in Florence, Italy. The conference is a high-level debate convened every year since 2011 at the EUJ's Villa Schifanoia, on the hills of Florence. It gathers a limited group of leading economists, lawyers, political scientists and policy-makers to review selected contemporary challenges related to Europe's economic and financial governance.

This year's discussion focused on the rapid evolution of the geography of finance, particularly taking into account the sudden shifts in the regulatory framework caused by the profound changes which are currently happening in the sector.

In fact, the advent of innovative technologies, collectively known as FinTech, is revolutionising the *modus operandi* of the global financial infrastructure. The introduction of novel elements such as cryptocurrencies, big data, block-chain and the proliferation of distributed ledgers are only a few illustrations of a wider financial technology industry build-up, which has already had an impact on several different activities in banking and finance. FinTech is now offering advantages in terms of speed, ease of access and simplicity. However, despite these benefits, the quick disruption of traditional practices and the decentralisation of the sector have also created an environment where new risks could arise.

Yet, technological changes are not the sole factors causing transformations in the geography of finance, which are also forced by shifts in political priorities. ‘Brexit’, i.e. the decision of the United Kingdom to leave the European Union following the referendum in June 2016, is now unsettling the continent’s economic and financial landscape, due also to a general uncertainty of what form the exit will ultimately take and what will be its long-term consequences.

Furthermore, the different regulatory approaches taken by individual countries, either in response to these shifts or caused by internal evaluations, have encouraged individual actors to relocate to jurisdictions where the most favourable regulatory framework are in place, resulting in even deeper changes in the geography of financial regulation.

Today, regulators must respond to those challenges in order to turn them into opportunities. The conference was precisely conveyed with the aim to foster the discussion on how the regulatory framework should be adapting to these changes. With this goal, the conference was divided in three panel discussions, focusing respectively on the new world of Fin-Tech, on regulatory arbitrage across jurisdictions and on Brexit as a case study for changes in the geography of finance and regulation. Discussants and conference participants engaged actively in the debate, which was guided by the following leading questions: how regulation should respond to digital transformation and innovation? Is regulatory arbitrage and the reliance on more decentralised regulatory regimes a possible solution or is the top-down central model resilient enough to sustain these changes? What will be the impact of Brexit on regulation?

The event follows a 2016 conference entitled ‘Filling the Gaps in Governance: The Case of Europe’, a 2015 conference entitled ‘The New Financial Architecture in the Eurozone’, a 2014 conference entitled ‘Bearing the Losses from Bank and Sovereign Default in the Eurozone’, a 2013 conference ‘Political, Fiscal and Banking Union in the Eurozone’, a 2012 conference, ‘Governance for the Eurozone: Integration or Disintegration, and that of 2011, ‘Life in the Eurozone With or Without Sovereign Default.’

As with all the previous conferences, the debate after each panel and was lively and thoughtful. We prefer not to take a stance here on any of the issues but simply provide in this book the contributions by individual speakers and let the reader draw his or her own conclusions.

Executive Summary

THE CHANGING GEOGRAPHY OF FINANCE AND REGULATION IN EUROPE

Pierre Schlosser & Agnieszka Smoleńska

Entering the heart of the matter and opening the Fintech session, **Franklin Allen** explained that in the past the geography of finance was very clear: there was a transaction and where the transaction originated was also where the settlement would be registered. With the advent of cloud-computing however, it is questionable where locations of transactions are, which rules should apply and who is the responsible regulator. Strict separations between markets and institutions divided firmly by functional and jurisdictional lines become obsolete. This is only one of the examples of the ways in which Fintech will revolutionize the financial services industry and how it will increase the level of uncertainty.

Eva Micheler focussed her remarks on the nexus between technology and the current financial infrastructure, insisting on the fact that the full effects of the transition from paper-based settlement to computer-based settlement systems still need to be understood. This is the case, in particular of the chain of intermediaries, where custodians remain at liberty to appoint sub-custodians notwithstanding information losses that this entails. Eva Micheler concluded by underscoring that technology should help to reduce transaction risk but should also contribute to reducing holding risk. **Andrei Kirilenko** stressed that technologies are penetrating financial markets at a rapid pace and flagged in particular the high interest in Fintech of Venture Capital. Expecting structural changes to unfold following this disruption, he wondered whether one should assume, going forward, that banks are becoming utilities. He also brought up the issue

of the future of human capital in those financial services that are most routinized. The rationale of the reasoning is that ‘computers are better than humans at doing repetitive optimization actions.’ Algorithms are the best solutions to perform those functions. Speaking from the perspective of a practitioner, **Stuart Hoegner** presented a case study on bitcoin trading and illustrated the extent of the damage that cyber security intrusions can represent.

Departing from the above topics, **Jean-Pierre Landau’s** keynote speech focussed on the positive role that public debt can play in an environment where there is a shortage of safe assets. While debates on who should be issuing the safe asset are likely to be raging for some time, it should be recognised in principle that safe assets have a key role to play in supporting financial stability. A problem that currently affects Europe is that there is no safe financial cross-border intermediation meaning that ‘all cross-border flows are risky’. Therefore, there is scope for a higher supply of safe assets, a market that Mr Landau suggests could be animated and liquefied by the ECB. A possible alternative could be to develop a private safe asset in the form of a plain vanilla Asset Backed Security whose design would be conditional on diversification.

The remaining two sessions focussed on the shockwaves that the changing physical geography will send through the EU’s regulatory landscape, both in the context of broader considerations of regulatory arbitrage across jurisdictions as well as the specific case of UK withdrawal from the EU. The common thread to those two topics was that there can be no common market without common rules since harmonization though common rules as well as prevention of harmful regulatory arbitrage have been the driving force behind much of EU financial regulation. Brexit will mark a reversal of this process – repartitioning the market previously integrated to some extent under the common system.

Notwithstanding risks of increased competition between the EU and the UK following Brexit, emphasised by the chair **Mitu Gulati** of the session “Regulatory Arbitrage across Jurisdictions”, its panellists, somewhat provocatively, gave evidence of that which will not change following Brexit, begging the question to what extent – in the specific context of banking and finance – Brexit can be considered a case of “everything having to change so that nothing changes?”

Despite its bad press, “regulatory arbitrage” is a complex matter – choices are after all made not only by market actors but also by authorities themselves. Even if driven by different objectives, both are fallible. **Lachlan Burn** discussed positive sides to regulatory arbitrage, including that of competition between systems, where EU passporting system can be considered as encouraging arbitrage – even as EU legislation makes explicit provisions for withdrawal of authorisations for financial institutions which have opted for the legal system of a particular Member State for the purpose of evading stricter controls elsewhere. **Yannis Manuelides** emphasized the prominent role played by English law and its courts in international finance, likening it to an international public utility. Preference for common law is driven by its principles of party autonomy in contract, as well as legal certainty combined with flexibility in particular commercial cases. Banks are unlikely to abandon common law even after UK leaves the EU - though it remains to be seen under which law EU institutions or ESM will choose when issuing financial instruments in the future. **Jeromin Zettelmeyer** investigated the causes of regulatory arbitrage in the EU in terms of a lack of adequate financial integration. Brexit will enhance this problem by increasing systemic risk and raising the cost of capital across the EU. While some steps have been taken towards cutting the sovereign debt-bank loop, which is ultimately at fault for the walls between Member States, factors hindering further integration include: differences in strength of bank balance sheets (especially levels of non-performing loans), continuing home bias, as well as prevailing asymmetries between safety nets and regulation of wholesale markets. In the context of broader EU economic recovery, addressing these underlying stumbling blocks to financial integration, a key question to be posed concerns possibilities to create safe debt in the EU.

The second key controversy raised in the discussion of whether regulatory arbitrage necessarily leads to a race to the bottom or not was picked up by in the next session, this time specifically dedicated to **Brexit** in the broad sense: its impact on regulation and the economy, future relations with the EU, as well as the negotiation’s political context. **Simon Gleeson** offered a forward-looking approach to the impact of Brexit on the changing landscape of finance, coupling its ground-shaking effects with global trends in finance – rise of automation as well as mobility and high frequency of financial markets. Brexit is unlikely to halt the scale of capital movements we witness today, while capturing financial activity

through regulation becomes ever more challenging in the context of complex, global institutions. The key question which we must ask therefore is not *where* to regulate, but *what* to regulate. **David Miles** offered an interpretation which emphasised Brexit as a choice resulting from a complex cost-benefit analysis. In the context of the assessments of economic impact of Brexit he pointed to the fact that many of the short-term projections overestimated the immediate negative impact of the referendum result, even as the final scale of the costs of UK's withdrawal remains uncertain. The impact on the banking sector is likely to be different than for other industries, where bulk of UK's financial exports are destined for third countries. **Jonathan Faull** raised the issue of the future "docking" mechanism, which would allow the UK and EU to work together: this requires not only an equivalence mechanism, but also a system for resolving inevitable differences. **Brigid Laffan** provided a political perspective on Brexit, including on the priorities of both sides of the negotiations as red lines crystalize. The EU should focus on its own cohesion and survival in this respect – EU membership must matter, regardless of the final shape of the deep and special relationship with the UK.

The lively discussion followed, raising many a contentious issue, such as the incidental nature of many issues related to Brexit negotiations, as well as its broader context - the impact on Northern Ireland and distributional consequences. It is not the geography of finance only after all that will shift with Brexit: there are many underlying tectonic movements at play, while the future remains uncertain.

PART I

The New World of FinTech

EXPLAINING THE INFRASTRUCTURE UNDERPINNING SECURITIES MARKETS: MARKET FAILURE AND THE ROLE OF TECHNOLOGY

Eva Micheler¹

1. Introduction

In this paper I am going to develop explanations for the distinctive characteristics of the infrastructure underpinning securities markets. I am going to advance the thesis that this infrastructure is the product of market failure. This market failure has resulted in investors/issuers paying too high a price for the services underpinning securities markets. The government is subsidising this by providing retail investors with tax breaks that make it attractive for them to invest pension savings in securities markets rather than save for retirement in other ways. The paper will conclude by pointing towards options available to the government for intervention.

The infrastructure underpinning financial markets is important. It affects us individually as pension investors. It is also important from a macro-economic perspective. Financial markets and their infrastructure underpin capitalism – the fundamental idea which our society is built on. In this system it is the role of investors to provide finance to issuers. Financial markets support this by providing an exit route for investors. They supply issuers with open-ended equity finance, termed debt finance

¹ I am grateful for comments to Jason Roderick Donaldson, the participants of the Second Workshop on Intermediated Securities held at LSE on 25 March 2016 and the participants of the Bank of England/LSE Financial Markets Infrastructure workshop held at LSE on 9 May 2017. The paper can be downloaded from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2941643.

or something in between and, at the same time, enable investors to flexibly determine their own time horizon.

The financial markets infrastructure also supplies plumbing. Payment systems transfer money. Custodians ‘look after’ assets. They keep records of who owns what. They organise lending and that opens up an additional source of income for investors. It also enables borrowers of securities to obtain finance.²

In addition the infrastructure supports the provisions of pensions. With good reasons governments have retreated from providing state pensions and are instead encouraging the private provision of pensions. They, however, continue to fund this by granting workers tax breaks that make it attractive for them to invest their pension savings in financial assets.

All of this is good and worth having. This paper is written firmly on the basis that capitalism and securities markets are beneficial. The criticism is that the current infrastructure is too expensive and risk prone. It is possible that this has happened because the incumbent providers of that infrastructure have disabled market forces.

Infrastructure-related cost is a longstanding problem troubling securities markets. The cost of settlement was lamented in the Lamfalussy report in 2001.³ This triggered the Giovannini process and informed the work of the Legal Certainty Group. Most recently Benos, Garratt and Gurrola-Perez have analysed the economics of distributed ledger technology and also referred to the cost associated with securities settlement.⁴ There are estimates that the revenue from settlement, custody and collateral management amounts to 13 % of the total trade value chains (from execution to settlement). That is a high price for the processing of trans-

2 Joanna Benjamin, ‘The law and regulation of custody securities: cutting the Gordian knot’, (2014) 9 (3) *Capital Markets Law Journal*, 327; Philipp Paech, ‘Securities, intermediation and the blockchain - an inevitable choice between liquidity and legal certainty?’ (2016) 21 (4) *Uniform Law Review* 612.

3 http://ec.europa.eu/internal_market/securities/docs/lamfalussy/wisemen/final-report-wise-men_en.pdf.

4 Evangelos Benos, Rod Garratt and Pedro Gurrola-Perez, ‘The economics of distributed ledger technologies for securities settlement’, Bank of England Working Paper Series (18 August 2017) page 5.

actions. In addition to the cost associated with the process spanning from execution to settlement there is cost associate with holding securities. Benos, Garratt and Gurrola-Perez mention the cost of reconciliations and other compliance processes that need to be carried out in custody chains.⁵ These are reflected in the fees that investors pay for the holding of assets. Adding to this visible service charge custody chains have an effect on assets and their value that has been analysed from a legal perspective elsewhere and that will be further examined in this paper.⁶

In the remaining sections of this paper I am going to develop a first attempt at an explanation of why the current infrastructure has emerged. I will start out by briefly describing the characteristics of this infrastructure (section 2). I will then analyse four recent examples where these characteristics have affected the value of assets (section 3). Section 4 will explain the perspective of the providers of the current infrastructure. In section 5 the perspective of investors will be analysed. The problems analysed in this paper only arise because investors permit custodians to outsource custody and accept that they bear the risk associated with sub-custodians. There are alternatives. UK securities can be held directly. At an international level custody chains do not need to be as long as they currently are. It will be shown that there are good reasons to assume that there is a market failure and that behavioural patterns can explain that investors do not appreciate the implications of the current framework and are also not able to put in place a more cost effective contractual framework that better suits their financial interests. The role of technology will be addressed in section 6. The paper will conclude by pointing towards options available to the government.

2. Characteristics of the current infrastructure

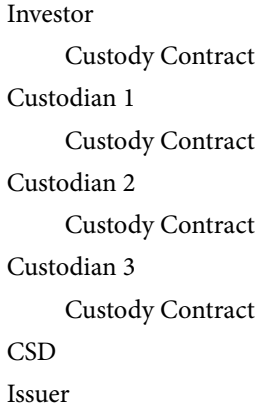
At a positive level the current infrastructure is characterised by complexity. This has been explained in more detail elsewhere.⁷ For this paper a quick summary of the points made there will be helpful.

5 Evangelos Benos, Rod Garratt and Pedro Gurrola-Perez, 'The economics of distributed ledger technologies for securities settlement', Bank of England Working Paper Series (18 August 2017) page 6.

6 Eva Micheler, Custody Chains and Asset Values [2015] Cambridge Law Journal 505, also available on <http://eprints.lse.ac.uk/62609/>.

7 Micheler, above.

The current infrastructure for transferring and holding securities operates on the basis of custody chains. There are frequently several custodians inserted between issuers and investors. Only one of these has an immediate connection with the investor.



The effect of this structure is that investors are exposed to a number of risks. By having accepted this form of holdings the terms offered by the issuer are reduced by the terms that operate between the custodians that form part of the chain. Investors do not receive the benefit of the full terms associated with the instrument they have bought.

A custody chain can make it impossible for investors to sue an issuer for reasons of mis-selling.⁸ Investors are hindered from exercising voting rights and including rights to object to the company being delisted.⁹ The rights of investors are affected by charges that are contained in contracts between custodians.¹⁰ They are also affected by securities financing transactions such as lending and repos that are organised by sub-custodians.¹¹ Their interests are diluted by shortfalls that may occur at the level of sub-custodians.¹² The accountability for negligent services is undermined by a custody chain.¹³ Custodians are fully liable for the negli-

8 *Secure Capital SA v Credit Suisse AG* [2015] EWHC 388 (Comm) 25 Feb 2015.

9 *Eckerle v Wickeder* [2013] EWHC 68 (Ch), [2014] Ch 196.

10 Micheler, above; pages 519-521.

11 Micheler, above; pages 521-523.

12 Micheler, above; pages 523-525.

13 Micheler, above; pages 525-528.

gence of their own staff. For the negligence of sub-custodians they are only liable if they have not adequately selected the sub-custodian or not adequately overseen his performance. There is no liability for sub-custodians further down the line.

The risk emanating from this holding structure falls on investors who are deemed to have accepted this risk. This is because they give permission to their custodians to delegate custody.¹⁴ They also allow their custodians to:

- instruct sub-custodians ‘upon such terms as may be customary’
- ‘from time to time, determine the terms and conditions of the arrangement’ with sub-custodians

In addition a custodian is not liable for the acts or omissions of the staff of a sub-custodian in the same way as it is liable for its own staff. When custody is outsourced, the custodian is only liable for having inappropriately selected or inadequately supervised a sub-custodian.¹⁵ Examples of terms limiting liability for sub-custody can be found in the standard terms of Euroclear and Clearstream Banking Luxembourg (CBL). Euroclear is ‘not liable for the acts or omissions of ... any ... sub-custodian’.¹⁶ CBL also excludes liability for the ‘acts or omissions of ... any of CBL’s ... Sub-custodians’.¹⁷

3. Implications of current outsourcing arrangements for asset values

The effect of the investors giving extensive permission for the outsourcing to their custodians is a reduction of the rights of investors. Their rights are reduced in a way that has an effect on the value of assets. They are also

14 Micheler, above; pages 509-511.

15 In the UK, the new CASS rules on shortfalls specify that a firm does not need to make good a shortfall when it concludes that another person is responsible (CASS 6.6.54(3) R FCA). The firm must take all reasonable steps to resolve the situation without undue delay with the other person. It must also consider whether it would be appropriate to notify the affected clients (CASS 6.6.54(3) FCA).

16 Euroclear Terms and Conditions, art. 12(d); see also art. 17: For securities that are mutilated, lost, stolen or destroyed Euroclear has no obligation to but can “elect” to obtain reissuance. If instructed by a participant they will obtain reissuance, but only “to the extent practicable”; see also CBL Terms and Conditions, art. 48.

17 CBL Terms and Conditions, art. 48, sentence 5.

saddled with custody risk which accumulates as the chain grows longer. Both points have been set out more fully elsewhere.¹⁸ For this paper it suffices to refer to four recent examples where custody chains have reduced the value of securities.

1. 2008: When Bear Stearns was restructured an excess of 28% of shares compared to the shares issued by the company was discovered.¹⁹
2. 2017: Dole Foods was reorganised. There were 36,793,758 shares issued. 49,164,415 shareholders registered facially valid claims.²⁰ Excess of 33.6%.

In both of these cases we can observe that the excess arose on a self-reported basis. This amplifies the importance of the result. The issuers made a public announcement and invited investors to come forward and identify themselves. Assuming that not all investors can be reached by/will respond to such an announcement, one would expect the result to be that not all issued shares are claimed by investors. Instead a shortfall of securities revealed itself.

Shortfalls are not a phenomenon limited to the US market. The FCA fined Bank of NY Mellon and Barclays Bank in 2015 because they failed to keep sufficient assets for their customers.²¹ Barclays Bank was fined in 2014 because they had not adequately restricted the rights of third party sub-custodians which exposed client assets to the risk of being used by sub-custodians without the clients' agreement.²²

18 Micheler, above; pages 515-519.

19 Commission Staff Working Document Impact Assessment accompanying the document 'Proposal for a Regulation of the European Parliament and of the Council on improving securities settlement in the European Union and on Central Securities Depositories (CSDs) and amending Directive 98/26/EC /* SWD/2012/0022' - COD 2012/0029 para 8.9. Annex 9.

20 In Re Dole Food Company, Inc Stockholder Litigation Consolidated C.A. No. 8703-VCL Memorandum Opinion of the Court of Chancery of the State of Delaware February 15, 2017 available from <http://courts.delaware.gov/Opinions/Download.aspx?id=252690>.

21 FCA Final Notice, The Bank of New York Mellon London Branch (122467) The Bank of New York Mellon International Limited (183100) 15 April 2015, paras. [4.8] - [4.10] and [2.3].

22 FCA Final Notice, Barclays Bank PLC (122702) 23 September 2014, para. [4.11].

3. 2013: Eckerle – no remedy for the loss of value caused by a delisting.²³
4. 2015: Secure Capital – litigation on the question of standing.²⁴

4. Explaining the infrastructure from the perspective of custodians

To understand why this complex structure has emerged it is useful to remember that complexity suits custodians. Custody chains enable each of the custodians to operate a relatively simple regime. This saves each custodian's cost. But these savings do not add up to benefit investors.²⁵ On the contrary the savings of the custodians are passed on to investors as cost. At the beginning of the paper I mentioned that custody chains reduce the liability exposure of custodians. I made the point that for in house custody custodians are liable for the full range of custody services provide for by their staff. For delegated activity they contractually limit their liability to overseeing their immediate sub-custodian and thereby benefit from a reduction in liability exposure. For the individual custodians this is attractive and a benefit associated with the existing infrastructure. Investors experience the reduction of liability as an increase in risk.

Complexity also hinders competition. This infrastructure is held together by a web of bilateral contracts that custodians have set up between them. Neil Flingstein has put forward a theory that explains markets from a political-cultural perspective.²⁶ He writes that the social structures of markets are best viewed as an attempt to mitigate the effects of competition between firms. The main goal of firms is to ensure their own long-term survival. To this end they strive to be internally efficient. They also act politically by creating relationships and networks with other firms and customers. Market participants such as custodians operate with a view to reducing their exposure to competition with other firms.

23 *Eckerle v Wickeder* [2013] EWHC 68 (Ch), [2014] Ch 196.

24 *Secure Capital SA v Credit Suisse AG* [2015] EWHC 388 (Comm) 25 Feb 2015.

25 For more detail on this see Micheler, above pages 508 and 531-532.

26 Neil Flingstein, 'Markets as Politics – A Political-Cultural Approach to Market Institutions', (1996) 61 (4) *American Sociological Review*, 656-673 at page 657.

It is easy to understand why custodians would benefit from operating in a complex environment that makes it difficult for customers to view and therefore compare services provided and the income generated by the participating firms. What is more difficult to explain is the perspective of investors.

5. Explaining the infrastructure from the perspective of investors

Why do investors accept this? Intermediation and outsourcing are common in many industries. In construction, main contractors operate on the basis of sub-contractors to whom they outsource elements of the project. In manufacturing, products are assembled with parts that are sometimes sourced through long and complicated supply chains. In both examples, however, the main contractor/vendor of the final product assumes full liability for the contributions made by the members of the chain.

In custody chains this is different. The terms referred to above have an - compared to other industries - unusual effect. Investors not only provide custodians with permission to use sub-custodians. They also agree to be affected by risk that operates at sub-custody level. This is unusual. The vendor of a product would not normally have a contractual right to reject liability because a defect was caused by a part supplied by a sub-contractor.

Also alternatives exist. UK domestic securities can be held directly with the CSD. For international securities economies of scale may explain why some intermediation exists. In the Eckerle case, for example, the custody chain consisted of:

Mr Eckerle
Postbank
Clearstream Banking Luxembourg
Bank of NY Mellon
Crest (Euroclear)

Mr Eckerle held his shares through Postbank. It may not be economical for Postbank to have a direct link with Crest. Economies of scale may therefore explain why Postbank uses Clearstream. What scale does not explain, however, is the presence of BoNY Mellon. Does Clearstream Banking Luxembourg really not have enough UK connected business to pay for a direct link with Crest?

In the Secure Capital case the chain consisted of:

Secure Capital
RBS Global Banking (Luxembourg) SA
Clearstream Banking Luxembourg
Bank of New York Mellon

The bond was a bespoke re-insurance product. Secure Capital held all units. Access to a trading facility was presumably not important. The amount of money invested was substantial. It would have been possible for the investor to be issued with one paper certificate which they could have kept with one custodian.

Market for lemons

Neoclassical economics assumes rational actors. Resources are allocated through price. In this world asset prices reflect all risk associated with an asset. They reflect issuer risk and also custody risk.

We all know that actors are not rational, but the neoclassical perspective can nevertheless provide us with an explanation for the current infrastructure.

This infrastructure is not only complex, it is also opaque. Investors do not know who the sub-custodians are. They do not know how many there are. They do not know the terms that they are affected by. They cannot evaluate the infrastructure risk that affects their investment.²⁷

Under such circumstances a market for lemons emerges. This is a type of market failure. Because they are unable to evaluate the infrastructure

²⁷ Micheler, above, pages 509-511 and Eva Micheler and Luke von der Heyde, 'Holding, clearing and settling securities through blockchain/distributed ledger technology: creating an efficient system by empowering investors', *Journal of International Banking and Financial Law* (2016) 11 JIBFL 652 at 656.

risk for individual assets rational investors assume a ‘worst case’ risk discount. In this framework investors are aware of infrastructure risk, care about it and protect themselves. The mechanism through which they look after their interests is price.

From the perspective of this framework there is no need to worry about investors. There is nevertheless a problem. Infrastructure risk reduces the price that rational investors pay for assets. That has a knock-on effect on issuers for whom the cost of borrowing increases accordingly. Resources are allocated inefficiently. Issuers pay too much for plumbing. They subsidise an inefficient infrastructure.

The classical remedy is transparency/disclosure. To be able to adequately price infrastructure risk rational investors need to know who the sub-custodians are and on what terms securities are held in sub-custody. Once transparency is established resources are allocated efficiently and issuers no longer have to swallow the cost associated with the infrastructure.

Imbalances of bargaining power

Even in an economy with rational actors market friction can occur. One example of market friction is an imbalance in bargaining power. Such an imbalance can be found here.

According to a survey published by the Department for Business Innovation and Skills in January 2016, there are 6 types of investors (two individual and four institutional²⁸):

1. Individual equity investors
2. Individual equity investors with an association to an interest group such as ShareSoc and UKSA
3. Pension funds
4. Insurance companies
5. Open-ended and closed funds offered to both retail and institutional investors
6. Charities, sovereign wealth funds and foundations.

28 Department for Business Innovation and Skills, Exploring the Intermediated Shareholding Model, BIS Research Paper 261, available from <https://www.gov.uk/government/publications/shareholding-the-role-of-intermediaries>, for individual investors see pages 27- 37; institutional investors are listed on page 86.

The bargaining power of individual equity investors is limited.

For institutional investors it is worth pointing out that these are not necessarily ultimate investors. For funds, including pension funds, the ultimate investors are pensioners and savers. They delegate the administration of their assets to trustees or asset managers. They authorise these service providers to appoint custodian and accept custody terms at which point they connect to custody chains and accept the inherent erosion of their rights. The bargaining power of these investors is limited in the same way as the power of individual equity investors.

To restore efficient allocation of resources the law can help overcome imbalances in bargaining power. Rules that require custodians to ask for the signature of retail investors to be able to engage in lending arrangements are an example of such an intervention. I have pointed out elsewhere that even where a retail investor has not explicitly approved such transactions, the opacity of the chain and the terms used to authorise delegation make it possible for sub-custodians to use retail securities for lending.²⁹ The delegation terms referred to above facilitate the erosion of legal requirements such as the requirement for a signature. The investor's main custodian, having authority to delegate and on terms as they think fit, only needs to adequately oversee the one custodian they appoint as a sub-custodian. There is no requirement for the investor's custodian to oversee that any arrangements that operate below their immediate sub-custodian are in compliance with legal requirements.

Agency problems

Retail investors who buy funds not only have limited bargaining power, they are also exposed to an agency problem. Their connection to the custody chain is established and managed by asset managers who, in the case of pension funds, will have been appointed by trustees. It has been pointed out that this structure incorporates multiple agency conflicts.³⁰ These affect investors as well as issuing companies. Pension trustees and asset managers are positioned to analyse and predict the effect of terms

29 Micheler, above; pages 521-523.

30 Alicia Davis Evans, 'A requiem for the retail investor?' (2009) 95 Virginia Law Review 1105; Kathryn Judge, 'Intermediary Influence', (2015) The University of Chicago Law Review 573; Ronald J Gilson and Jeffrey N Gordon, 'The agency cost of agency capitalism: Activist Investors and the Revaluation of Governance Rights' (2013) 113 Columbia Law Review 863.

of custody contracts in circumstances where their economic effect does not concern them individually but is rather borne by investors. In addition back office is often only an afterthought. It is possible that the agents acting for investors focus their attention on the terms that set out investment decisions and that custody contracts do not receive a sufficient amount of scrutiny.

Tax

It is also worth remembering that investment strategies of both individual equity investors and fund based pension investors are also informed by taxation. The government subsidises pension investments through tax breaks. When all qualifying investments instantly produce a return of 20% or more in tax savings, investors would be forgiven for placing less of a focus on investment return and fees. This would have to be tested empirically, but it is possible that government subsidies have the unintended effect of discouraging investors to oversee the financial market infrastructure.

Behavioural explanations

It would be wrong to end the analysis here. Actors are not rational and there are several behavioural factors that may help to explain why the current infrastructure has emerged.

In a world of bounded rationality investors are affected by certain biases. Some of these may operate here.

Careful consideration and evaluation of custody terms takes time. Human actors are time poor and tend to prioritise short term problems and suffer from a bias of underestimating the likelihood of long term risks factors materialising. This also applies to those investors who, in principle, are able to appreciate the effect contractual terms have on their investment.

Perhaps retail investors accept the currently prevailing outsourcing arrangements because they habitually do not invest the time required to evaluate the risk associated with current market infrastructure? The BIS study provides some empirical evidence pointing towards the conclusion that the investment chain and its effect is poorly understood.

There are also limitations on the cognitive ability of human actors to anticipate problems. It is impossible to anticipate all future events that a contract will have to absorb. In addition the human mind has limited analytical power. Investors or their lawyers are unable to fully appreciate all problems that will arise when terms that allow for a sub-custody arrangements are applied in those future events that are foreseeable. Legal like all human analysis is limited by past experience. We suffer from a bias that assumes that the future will be like the past. It is possible that lawyers who advised investors on custody terms before *Eckerle* and *Secure Capital* may not have placed sufficient weight on the question of enforcement. This may help to explain why even investors who are rich in time and resources would not have been aware of the effects highlighted by these two cases.

Market failure

A lot more can be and needs to be said about the causes for the current infrastructure.³¹ On the basis of this paper the preliminary conclusion is that it is possible that the infrastructure is the product of a market failure. Behavioural considerations may explain that investors are unaware of nature and scale of custody risk. We can also conclude that even if they were aware of them, direct and indirect retail investors do not necessarily have the bargaining power to protect themselves through contract law.

6. The role of technology

I have suggested elsewhere that technology may help to overcome the problems currently troubling the infrastructure for securities markets.³² I continue to believe that computer scientists are able to develop and deliver solutions that connect investors better with issuers while at the same time ensuring that investors are unaffected by the terms prevailing in sub-custody arrangements.³³ One example would be to colour/electronically earmark securities to associate them with individual investors or to identify them as securities that must not be subject to lending or charges by sub-custodians. It would seem that this can be done with standard database technology.

31 The custody industry is also highly concentrated and interconnected. On this, see for example: Nikolaus Hautsch, Julia Schaumburg and Melanie Schiele, 'Financial Network Systemic Risk Contributions' (2015) 19(2) *Review of Finance* 685.

32 Micheler, above.

33 Philipp Paech has explored the regulatory reasons that will make it difficult for financial markets to adopt blockchain/distributed ledger technology.

To predict the impact of new technology it is worth looking back at the effect that technological changes have had in the past. A recent example is computerisation in the UK. In many areas of our lives computers have provided us with better direct connections. A little more than ten years ago the author of this paper used a highly intermediated postal network (not to mention the intermediated structure that operated to develop the film and print the pictures) to send photographs of her children to family members abroad. Now she posts on social media and grandma can and does immediately send her likes and comments.

Yet for securities the arrival of direct and electronic links has coincided with intermediation. Easy direct connections have created a web of intermediaries. By providing better links intermediation has become easier and the providers of the infrastructure for financial markets have used the technology to organise the services that they provide. This is not a result that those setting up the computerised settlement system would necessarily have predicted.

With blockchain/DTL technology a new method for maintaining securities registers has become available. The technology has been said to make it possible for trading, clearing and settlement to merge into one real time process that does not involve relationships with multiple intermediaries. There is no need for separate trading, clearing and settlement venues. There is no exposure to the risk of any one central provider failing. Buyer and seller can interact directly with each other. They can exchange securities and cash directly and in real time. The cost of securities settlement could be reduced as a result.³⁴

In terms of user interface not much needs to change. Investors would access their portfolio like they are now electronically or through paper statements. But while at present they receive part of an asset kept by an intermediary who is connected to another intermediary who is connected to yet another intermediary, what they could see in a distributed ledger/blockchain environment would be the master record. The same could become true on the money side. At present investors view a balance of an account held by a bank. In the future their view could be of a master record of money held at the central bank.

³⁴ Evangelos Benos, Rod Garratt and Pedro Gurrola-Perez, 'The economics of distributed ledger technologies for securities settlement'.

Luke von der Heyde and I have said elsewhere that the providers of the incumbent market infrastructure will struggle to fund such a development.³⁵ They are limited by the boundaries of their current business model.³⁶

Moreover it is worth observing that a blockchained distributed ledger can also be operated on an intermediated basis. Bitcoin is an example.³⁷ The main Bitcoin blockchain has yet to be hacked. Nevertheless bitcoins have been lost and stolen. The vulnerable point are the private keys. These are necessary for users to send bitcoins to other users. Like passwords these need to be kept safe and can become the subject of a hack.

In addition not all bitcoin holders download the main bitcoin blockchain to their computer. For users that are not interested in becoming nodes, wallet providers have emerged. These providers connect individuals to the main software. There are two options: hosted and non-hosted wallets. The holder of a non-hosted wallet stores her private key: on a computer that is connected to the internet (hot storage and perhaps not the safest option), on a computer that is not connected to the internet (safer but a backup is recommended) or perhaps even on a piece of paper that she keeps in a vault or under her mattress (cold storage and the safest option?). A hosted wallet is an intermediated option where the client does not have access to their private key. At a functional level hosted wallets operate in a way that is similar to intermediated securities. A wallet provider promises to hold private keys for users. It is then, of course, possible for wallet providers to make too many promises to customers and not to have enough private keys. This is what happened in the insolvency of Mt Gox where wallet holders discovered a shortfall of bitcoin (or better private keys). There is no evidence of wallet chains in the bitcoin environment.

35 Eva Micheler and Luke von der Heyde, 'Holding, clearing and settling securities through blockchain/distributed ledger technology: creating an efficient system by empowering investors', *Journal of International Banking and Financial Law* (2016) 11 JIBFL 652.

36 Evangelos Benos, Rod Garratt and Pedro Gurrola-Perez, 'The economics of distributed ledger technologies for securities settlement.

37 For a more detailed analysis of this see Eva Micheler and Luke von der Heyde, 'Holding, clearing and settling securities through blockchain/distributed ledger technology: creating an efficient system by empowering investors', *Journal of International Banking and Financial Law* (2016) 11 JIBFL 652.

Against this background it is possible to predict that a blockchained distributed ledger environment will not necessarily lead to less intermediation.

7. Pointers towards a solution

A situation where investors are exposed to infrastructure risk that they are unaware of is unappealing. The current arrangements prevent the ultimate bearers of the risk inherent in the infrastructure from effectively overseeing this infrastructure. This creates moral hazard for the service providers. It has led to a situation where service levels are so poor that shortfalls of 30% come to light in the restructuring of blue chip companies listed in the United States.

The complexity of the infrastructure also prevents competition. Governments need to consider if and how to intervene. This is particularly true in circumstances where the government subsidises investments in financial markets.

The solution to the problems analysed in this paper is remarkably simple. To avoid the diluting effect of custody chains investors can reject certain delegation clauses and opt to hold assets directly. This can be done for the domestic UK market without a change of the current framework. Custodians sometimes point out that direct holdings are more costly. This argument had significant force when securities were held through negotiable paper certificates. Individual holdings required a manual sorting process. It has less force in an electronic environment. Is it possible that a chain of accounts maintained by several service providers, who all have a cost base, need to comply with regulation and pay their shareholders, can be provided at a lower cost than one electronic account maintained by one provider?

Disclosure of who the sub-custodians are and on what terms they operate will help investors who are rich in time and resources and who have the bargaining power to operate a strategy that is rational if only in a bounded way. It will put the ball in the court of pension trustees and asset managers who in light of the relatively recent case are well advised to take a closer look at the custody contracts they accept on behalf of investors.

Disclosure, however, does not assist investors who are time and resource poor nor those with limited bargaining power. Rules that limit the contractual freedom of custodians would help from this perspective. This strategy has been applied in relation to AIF and UCITS where in certain circumstances custodians bear the risk associated with outsourcing custody. I do not have space here to say more about this. I have shown elsewhere that the current rules have been drafted in a way that gives them limited effect.³⁸ It may be worth revisiting these.

At present the law does not limit the ability of custodians to seek authority for out-sourcing.³⁹ This has created a situation where any provision - including those that are required by law to have a signature - that is contained in the investor's custody contract can be eroded by delegation. Perhaps we need to limit the ability of custodians to outsource at their convenience? Perhaps we need to give up on the idea that custody chains supply property rights? Maybe computerisation has made delegation so easy and lending has made it so attractive that property rights in intermediated securities no longer exist?

Regulators could also intervene at an operational level requiring computer systems in custody chains to operate on the basis of an earmarking facility. Earmarking of client assets along the custody chain should certainly be part of any new technological solution.

One important point needs to be made from the perspective of policy making. Policy makers tend to consult with market participants through an open tender process. They invite all to contribute. This works well for the custody industry. They are well funded and organised. They can research and articulate their points with a high degree of sophistication. This makes it possible for service providers to be over-represented in policy making processes. The phenomenon of intermediary influence has been observed across a number of areas of the financial services industry.⁴⁰ One example is worth mentioning here. The Legal Certainty Group, which assisted the European Commission in developing legislation for intermediated securities, had a significant number of representatives

38 Micheler, above; pages 528-530.

39 Micheler, above; pages 512-513.

40 Kathryn Judge, 'Intermediary Influence,' (2015) *The University of Chicago Law Review* 573.

from custodians/law firms advising the custody industry. They also had independent experts including academics. It did not have any member, however, that was associated with a shareholder association or an association of pension fund trustees.⁴¹ Perhaps regulators need to adopt a more proactive approach on consultation and reach out beyond the custody industry, the legal profession and academia to facilitate contributions from individuals who are closer to the retail perspective.

My thinking on this is not yet fully developed but let me conclude by saying that it may be worth rethinking this area at a more fundamental level. Perhaps custodians by participating in lending markets are becoming increasingly similar to banks? Perhaps we have reached a point in time where client asset rules no longer suffice to ensure financial stability in the sector?

41 <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=1444>.

AN INTRODUCTION TO FINTECH

Andrei Kirilenko

Introduction

Digital technologies have fundamentally changed such service industries as communication, travel, hospitality, entertainment, and retail trade. The financial service industry is next. For a long time, customers used to be loyal to traditional financial institutions because they thought that bigger institutions were safer. However, the soundness of traditional providers of financial services has been questioned after the global financial crisis. The crisis began in the US subprime mortgage market in 2007, then turned into a full-blown global banking crisis in 2008 and 2009, and was followed by a massive regulatory overhaul of the global financial system during 2010-2012 that continued into 2016.

While dealing with the crisis and its regulatory aftermath, financial institutions of all shapes and colors, but especially massive global banks were too busy trying to survive and failed to internalize three paradigm-changing digital technologies. These three digital technologies—cloud computing, mobile phones, and blockchain—were all released during 2006-2008 and made it possible for a swarm of tiny companies to offer modern, cost-effective, and secure solutions across the whole spectrum of financial services, including opening and managing accounts, obtaining loans, facilitating payments and transfers, trading securities, and getting investment advice, to name a few.

Financial services built on new technologies from scratch ended up being way slicker, faster and cheaper, yet often more reliable and secure than those offered by the incumbent financial institutions. Technology investors smelled a new opportunity and channeled loads of funds and

“mentoring” advice into hundreds of Fintech startups in the hope that one of them will become the next Google, Amazon or Facebook of finance. London emerged as the Fintech capital of the world because it was the first to really put the global financial crisis behind and get down to business of serving customers using new technologies.

Algorithmic Trading and Cloud Computing

In the modern trading environment, a trading strategy is typically executed by one or several algorithms. Such algorithms are responsible for the initiation of trading instructions, communication with one or more trading platforms, the processing of market data, and the confirmation of trades.

Cloud computing was first offered to the public by Amazon in 2006. Cloud computing allows for the use of computing power and memory capacity on demand via access to remote servers. Cloud computing service has dramatically lowered the barriers of entry into algorithmic trading and made it much more democratic and competitive. Prior to the availability of cloud computing, development and operation of algorithmic trading strategies required significant spending on the acquisition and maintenance of computing power and memory capacity. With cloud computing, small teams of quantitative traders could focus on the development of strategies and only use computing power and memory capacity when needed. The use of open source programming languages like Python and the widespread availability of historical market data at very low prices further lowered barriers to entry into algorithmic trading.

Using cloud computing, a number of companies, including Quantopian, Quantsketch, and Quantconnect are offering open API platforms for the design and use of algorithmic trading strategies. For a small fee or a possibility of revenue sharing, these platforms provide a wide range of financial and non-financial data, block of code, a back testing engine, risk management layers, and some optimal execution solutions. With this an individual or a small team can start a quant fund from scratch right away.

At the same time, technology that supersedes human abilities often brings unintended consequences, and algorithmic trading is no exception. While technology has advanced tremendously over the last decade,

human cognitive abilities have been largely unchanged over the last several millennia. Thus, due to the very success of technological advances in trading, humans have been pushed to the periphery of a much faster, larger, and more complex trading environment.

Originally, algorithmic trading came with the promise of using faster and cheaper technologies to drastically lower execution costs and improve price discovery for fundamental market participants. For small infrequent investors who want to buy or sell one hundred shares of a stock or a couple of futures contracts, this promise seems to have been realized – they can trade at narrower bid-ask spreads, greater market depth, and prices that can be discovered around the clock. For everyone else, market quality has become an ongoing concern. High frequency and low latency traders take advantage of anyone trying to trade in size. Liquidity is being fragmented into divergent pools operating under different matching protocols. And flash events rattle major markets on a regular basis.

These concerns have been met with a wide range of proposed policy and regulatory responses: do nothing; impose additional safeguards; change the rules regarding who can be a designated intermediary and what responsibilities this designation entails; force all trading on exchanges to occur at fixed discrete intervals of time; or, instead of tinkering with market structure just introduce a tax on financial transactions.

In fact, all of these regulatory and policy proposals are addressing the only the symptoms of a much deeper problem – the fact that global financial regulatory framework has become antiquated and obsolete in the face of rapid technological advances that drastically reduced costs to intermediation, but have not correspondingly increased or distributed the benefits of greater immediacy.

What's needed is Financial Regulation 2.0 – a set of cyber-centric regulatory principles that promote transparency, enable the creation of additional risk safeguards, and encourage the implementation of risk management processes and workflows that allow human knowledge to complement the computational abilities of machines, especially as the use of machines in trading has become so widespread.

Mobile money and digital payments

Digital communication makes it possible for an e-mail to reach any address on the Internet within seconds and at no cost. A question then arises as to why it takes several days and costs tens of dollars, euros or pounds to send electronic payments, which presumably go over the same networks as e-mail and text messages.

This is the area where a number of commercial solutions and protocols have already been offered and some of them have succeeded. Examples of the latter include Alibaba (groups payment platform), ApplePay (contactless mobile payments), Google Wallet (peer-to-peer payments), M-Pesa (mobile money transfer), Stripe (an app to accept payments) and others.

Payment solutions that offer a much faster speed at a much lower cost could have major effects at both micro and macro levels. Remittances may both increase and respond faster at times of stress. Small and medium enterprises may be able to receive payments much faster from large clients, which would result in fewer emergency credit solutions and outright bankruptcies. Fiscal performance may improve as well.

At the same time, incumbent financial institutions are concerned as they notice that within mobile and digital solutions offered by the Fintech challenges, it is the challengers who create the customer experience and collect customer data. Meanwhile, established institutions operating are stuck with paying for operating the “pipes” and shouldering the regulatory burden, while dealing with much-compressed fees.

Furthermore, application of digital technologies to payments may enable malicious behavior at a much higher speed and of a much larger scope. Data breaches that result in stolen identities and unauthorized access to accounts happen very fast and take days if not months to mitigate, nearly always at a loss. Optimal solutions on speed versus protection would need to involve the customers, providers of services, and regulatory authorities.

Cryptocurrencies and Distributed Ledger Technology

Distributed ledger technology also known as blockchain enables the creation and sharing of a chain of records that are so well protected by cryptographic technology that they cannot be altered. This technology is open to anyone to use, based on proven cryptographic principles, easily implementable and truly global. It has the potential to be applied in a multitude of ways including clearing and settlement, recordkeeping, market design, trade finance, borrowing and lending to name a few.

A blockchain is really a computer: a finite-state machine. Currently, it is not a very good computer. It is very slow – it takes minutes to complete a change of state. It is not exact – the change of state is probabilistic. It is also very expensive – it uses a lot of power to complete a change of state. Yet, it is a truly global computer that does not reside in any particular physical or virtual machine. And – crucially – it allows anonymous users to share their private computing power and memory capacity for a reward.

Many such computers currently exist: Bitcoin, Ethereum, and Ripple, to name a few. Reminiscent of the earliest computers, such as ENIAC (Electronic Numerical Integrator and Computer), they are not very good finite-state machines; they are more like calculators than computers. The biggest problem with ENIAC was that it was not designed to store both data and program in memory, so any additional operation had to start with reloading the original data along with the execution code.

In contrast, a blockchain relies on the brilliant concept of object-oriented programming. The main premise of object-oriented programming is that both data and execution code are stored together in the same place, which is called an object. For example, an object in Bitcoin or Ethereum blockchain consists of data (user profile) and code (commands to send and receive payments). And – most importantly – objects have IDs, but once they are created, what's inside them can be kept completely anonymous and immutable – a black box. Originally this was done to reduce the number of bugs in the code, so an object could not be mistakenly altered by a sloppy programmer.

But what engineers have created to keep the code reliable had been rediscovered after the global financial crisis in a much more general incarnation – trust. One of the definitions of trust is a “firm belief in the reliability, truth, or ability of someone or something”. This is exactly what financial institutions have lost after asking to be rescued with hundreds of billions of taxpayers’ money, but what objected-oriented programming provides by its very design.

Here is how it works. Once an object is defined, it is only allowed to do things that are defined by its communication interface – messages that it can send to or receive from other objects. For Bitcoin or Ethereum blockchains, messages are transactions. Transactions involve the exchange of “value” quantified in cryptotokens or cryptocurrencies like, for example, Bitcoin. Transactions then become available for “mining.” Mining involves solving a crypto “hash” puzzle – a Sudoku-type exercise that’s very difficult to complete (that’s why it takes minutes), but easy to check. Thousands of competitive miners use “gigahashes” of computing effort to brute-force their way through these puzzles in the expectation of getting valuable rewards. Mining a single transaction is typically not rewarding enough, so each miner composes several transactions into a block and then mines that block.

As miners compete, often several of them arrive at a solution at about the same time. When that happens, there is a need to achieve consensus among the miners about who exactly mined the last block and, thus, who gets to keep the reward. This consensus protocol is also what makes the change of state probabilistic – the state of a blockchain gets modified as another block is “sealed” and attached to the chain, but which miner’s solution to the crypto hash puzzle – and, thus, which transactions end up being included in the next block – is not known in advance. This is why blockchain is a probabilistic finite-state machine.

This is how the trust in a blockchain comes from its native object-oriented architecture. Users inside objects can remain anonymous; they do not need to know or “trust” each other. Transactions between them only execute if it is confirmed that the users possess the funds that they claim they do. There is no need for “trusted” gatekeepers, validators or reconcilers. The processing of transactions and the validation of blocks is outsourced to a distributed network of fiercely competitive miners, who

hack their way through crypto hash puzzles to chain blocks together for a reward, which they receive in the form of crypto tokens – irrespective of the identities of the users.

To sum up, a blockchain is a quite trustworthy, but not a very good, computer. ENIAC was also not a very good computer in 1946; yet we know how fundamentally computers have changed the world since. So, the question is: Does blockchain have the potential to fundamentally change computer-based economic interactions by connecting buyers and sellers of computing resources?

There are still major issues that need to be resolved for the blockchain to really become a mature, scalable technology. For example, operation of public, fully open blockchain requires a significant amount of energy being spent by computers conducting certain brute force calculations that are supposed to make an attack on the blockchain impossibly costly. However, all this energy is effectively being wasted. Solutions to this problem include changing the governance protocol of a blockchain from fully public to permissioned. This reduces the possibility of an attack on the blockchain, but, at the same time, introduces other IT architecture and governance issues.

Furthermore, cryptocurrencies, which are an integral part of blockchain technology, have attracted additional attention. There have been a number of privately issued digital monies, most well known of which is Bitcoin. Central banks and regulators around the world have also been laying the groundwork for the issuance of central-bank issued digital currencies. Various technologies are rapidly changing what is considered valuable in the digital space and what regulators might support.

Fintech in a Broader Context

The rise of Fintech manifests a structural shift in the financial services industry. It is driven by a confluence of several factors. The first factor is the availability of paradigm-changing digital technologies right at the time when financial institutions were in survival mode after the global financial crisis. Cloud computing, mobile phones and the blockchain are designed as digitally-native technologies with the Moore's Law built in from the very start.

The second factor is the growing dissatisfaction of customers with the experience they get from the providers of financial services compared to they experience provided by technology firms. Financial services built on new technologies from scratch ended up being way slicker, faster and cheaper, yet often more reliable and secure than those offered by the incumbent financial institutions (think of your life before and after the smartphone).

The third factor is the availability of ample financing for Fintech companies in a zero-interest-rate environment by investors seeking both the return and risk properties of technology start-ups in the financial services industry. Over the last several years, technology investors have channeled billions of dollars and loads of valuable advice into hundreds of Fintech startups in the hope that one of them will become the Google, Amazon or Facebook of finance. London emerged as the Fintech capital of the world because it was the first to really put the global financial crisis behind and get down to business. And then Brexit happened.

The outcome of the Brexit referendum also takes us back to the financial crisis. The financial crisis, which was preceded by political denial and followed by taxpayer bailouts, led to a worldwide rollback of liberal free-market policies. These policies were replaced by global economic interventionism and national political populism. In the UK the main such populist gesture was the political decision to hold a referendum on whether Britain should continue to remain in or leave the European Union (EU), which gave rise to Brexit.

Irrespective of how they voted in the Brexit referendum though, pretty much everyone in the UK, Europe and the rest of the world has been living through the digital revolution. Past industrial revolutions relied on mathematical thinking, linguistic interpretation and logical reasoning. The digital revolution we are living through right now relies on computational thinking, digital representation and algorithmic reasoning.

Yet, the dominant majority of people who currently work in the UK financial services industry were not educated in these skills when they went to universities. It was not through any fault of their own. They paid for and received training that allowed them to conduct financial services tasks that have been in the firm purview of human operators for hundreds

of years. However, over the last decade, these tasks became essentially data processing operations, which increased the economic value of digital technologies. At first, digital technologies provided human support functions (think of an Excel spreadsheet), but over the last decade digital technologies, for which data processing tasks are native have become better and cheaper processors of information required to make financial decisions than the humans.

This is not a trend that's likely to reverse. To stay competitive, humans operating in the financial services sector must prove their superior economic value with respect to managing data flows and conducting data processing tasks. To do that humans will need to be educated quite differently than they are now. Meanwhile, paraphrasing Georg Lichtenberg, the witty experimental physicist from 18th century, we cannot say whether Fintech and Brexit will change how many people will be working in the UK financial services sector; what we can say is that those people must change if they are to persevere through Fintech and Brexit.

Keynote Speech

DEBT AS MONEY: IMPLICATIONS FOR FINANCIAL STABILITY

Jean-Pierre Landau

We live in a period when the economic and political discourse is dominated by debt. The financial crisis was caused by an accumulation of debt. The current regime of low growth is frequently attributed to some debt overhang and the unwinding of a 'debt super cycle'. Debt fuels anxiety and erodes confidence. Debt also amplifies existing concerns on fairness and income distribution. Political compromises on fiscal adjustments become more difficult to reach and, overall, the willingness to repay debts diminishes as the amounts accumulate.

It is easy to forget, in such an environment, the role that public debt plays in developed financial systems. Government bonds are backed by the power to tax and, therefore, are uniquely placed to park and transfer wealth from one period (or one generation) to another. They fulfill an essential function as the ultimate riskless asset. In addition, the debt markets of advanced economies are the most liquid in the world and, for the short end of the curve, treasury bills act as very close substitutes to money. Only some government bonds of advanced economies jointly possess these two characteristics: safety and liquidity.

The safety and liquidity attributes of sovereign debt are increasingly emphasized in academic and market literature. In parallel, a policy debate on the debt regimes is developing, with many policymakers promoting state contingent – easy to restructure – debt. Those two debates are disconnected from each other. Although this is not infrequent, it may lead to difficulties down the road. The purpose of this paper is to try and connect

the two debates, illustrate the tradeoffs, and draw some preliminary conclusions regarding the policy implications.

The functions of public debt

The primary function of sovereign debt is to help financing the government. Public budgets are not always in a balance, nor should they be. It makes sense to let the budget fluctuate with the economic cycle as part of the so-called automatic stabilizer effect. This introduces a cyclical element into the dynamics of public debt, which, in principle, ultimately cancels out. Debt may also exhibit an increasing trend beyond the cycle. This may be virtuous, if debt efficiently serves as tool for inter-generational transfer. Debt may also increase as a result of shocks, as happened in most advanced economies following the financial crisis. Debt to GDP ratios have risen significantly, fueling concerns about debt sustainability.

It is also important to look at public debt from the point of view of its holders. Public debt in most advanced economies is perceived as liquid and safe - a concept that will be further refined later. As such, it can serve both as a medium of exchange and a store of value. It plays a crucial role in the financial system in helping to provide and allocate liquidity, thereby eliminating financial frictions.

Public debt underpins and supports a great number of transactions between financial intermediaries. Short-term debt is almost a perfect substitute to cash and banks' reserves held by the central bank. Both short and long-term public debt serve as collaterals in money markets (repos) and derivatives transactions. A repo is a 'debt on debt'. Public debt 'is vital to the functioning of the financial system, analogous to the function of money in the real economy' (Coeuré). Because it is essential to transactions between financial intermediaries, the need – and demand – for public debt structurally grows as financial intermediation shifts from banks to the non-bank sector.

Safe public debt also serves as a reliable store of value. By holding public debt, economic agents can protect themselves against economic and financial shocks. Debt allows to safely transfer value across periods and generations. It also eliminates financial frictions linked to liquidity. Agents are liquidity-constrained to the extent that they cannot pledge their future

income in order to obtain money at the present time. Public debt alleviates this constraint: ‘increased government borrowing can benefit [them], insofar as they effectively receive a highly liquid asset, government debt, in exchange for giving the government an increased claim on their future income [...] A higher public debt, insofar as it implies a higher proportion of liquid assets in private sector wealth, increases the flexibility of the private sector in responding to variations in both income and spending opportunities, and so can increase economic efficiency.’ (Woodford)

So, inside and outside the financial system, public debt carries two main attributes of money: its ability to serve as a medium of exchange and a store of value. There is an element of ‘moneyness’ in (safe) public debt. It is especially true for short-term debt but also exists for longer maturities (through collateralization). Government debt is the money used inside the financial system to underpin or effect transactions. And, just as money, it serves to all economic agents to safely park their wealth.

Consequently, there is a ‘demand for debt’ akin to the demand for money. That demand is independent of the needs of the borrower or the intrinsic characteristics of debt, as long as it can be considered safe. In particular, short term safe instruments appear to carry a money premium (sometimes called a convenience yield) that lowers their yield: ‘That premium stems from their liquid, short term and safe nature – their money-like attributes.’ (Del Negro et al.)

While debt is instrumental in allocating liquidity and capital, it is not the purpose nor the function of debt to share and distribute risk. There is an inherent contradiction in the concept of ‘risky’ debt. It is in the nature of debt, as opposed to equity, that its nominal payoff should be stable and predictable. Obviously, there is always the possibility that the borrower is unable to meet its obligations and defaults (i.e. the credit risk). There is also the possibility that higher-than-expected inflation might reduce the real value of the stream of cash flows associated to debt. Those risks cannot be eliminated: to some extent, all debt is risky by nature. The question is: should it be risky by design? Should the structure of debt contracts make it ex-ante easier, or more difficult, to restructure of default according to circumstances? In that case, there would be an element of equity embedded into debt instruments. Would it be desirable from a financial stability point of view? This is the question at the center of this paper.

Should debt be designed as risky?

There is a long history of international efforts to create risky – state contingent – sovereign debt instruments and associated procedures. That approach has inspired the ill-fated Sovereign Debt Reduction Mechanism (SDRM) and the generalization of Collective Action Clauses (CACs) in sovereign debt. It also partially drives the current G20 agenda, as well as IMF work on debt sustainability. It offers numerous advantages.

1. It fosters market discipline. In the ideal model of efficient financial markets, it is desirable that risk is permanently reflected in the price of debt and the interest rate. Risk premia make it more (or less) costly to issue new debt and create incentives for the Sovereign to adjust if necessary. A debt regime that allows for easy default also imposes burden sharing on imprudent lenders.
2. It avoids moral hazard. To the extent that it comes from (explicit or implicit) guarantees given by a credible third parties, safety creates asymmetric incentives: the beneficiary Sovereign has no incentive to ensure fiscal soundness and sustainability. Those considerations of moral hazard are central to the debate on the treatment of Sovereign debt in the Euro area.
3. Only, if debt is risky can the independence of monetary policy be assured in all circumstances. Over the last decades, all advanced (and most emerging) economies have adopted a monetary regime based on the independence of central banks. This regime relies on the ability of central banks to control effectively inflation and, more significantly, on the perception that they will be able to do so in all circumstances. Such ‘monetary dominance’ implies that fiscal policy can always be adjusted to meet the government’s inter-temporal budget constraints, whatever action the central bank may have to take. With moderate levels of debt, there is no doubt that fiscal authority will meet that constraint. When public debt reaches high levels there is more uncertainty. First, high primary surpluses are needed, which may prove difficult or even impossible to achieve. Second, any monetary tightening, in the form of higher interest rates, will aggravate the debt service burden and make it less likely that the budget constraint will be met (the so-called ‘unpleasant monetary arithmetic’). At

very high debt levels, there is no ‘state of the world’ where both the budget constraint and the objective of price stability can be satisfied simultaneously. Long-run inconsistencies between monetary and fiscal constraints will result in either inflation or sovereign default. So, if a default is excluded, ‘fiscal dominance’ on monetary policy becomes a real possibility. The existence of such a dilemma might be sufficient to trigger expectations of future inflation which, in turn, could translate into higher inflation today.

4. Finally, sovereign default acts as an insurance against shocks because, under pre-defined conditions, it engineers a transfer of resources from the lenders to the sovereign debtor. GDP index-linked bonds are specifically designed for that purpose, as an instrument to share the economic risk between resident tax payers and foreign investors.

It should be noted, however, that alternative mechanisms for countries to insure against economic or financial contingencies do exist. One of them consists in accumulating buffers in the form of assets that can be liquidated and drawn upon in case of adverse shocks. When debt is held by non-residents, foreign exchange reserves play specifically that role. There is one striking difference between advanced and emerging economies: while advanced economies do not hold much of foreign reserves, all emerging economies keep accumulating them. This behavior contributes to increasing the demand for safe debt issued by advanced countries. By acting this way, countries ‘reveal’ their preferences and those are indicative of the subjective costs associated by borrowers with debt default.

Should debt be designed as safe?

It is difficult to make a case for debt to be safe when it is considered only as a funding instrument. The case becomes much stronger when debt is viewed as a financial asset and a store of value, for which there is a specific – and growing – demand.

The evidence for a growing trend for the demand of safe debt comes from three sources.

First, the evolution of regulatory requirements since the financial crisis. Banks are now required to hold 'high quality' assets to meet their liquidity ratios. New rules also demand that most derivatives contracts be cleared and settled through CCPs, which would likely increase the demand for collateral, especially in times of stress.

Second, contemporary events illustrate the inflexibility of the demand for safe assets. US authorities implemented in 2016 a reform of money market funds (MMF) whose central piece was the compulsory introduction of a floating net asset value (NAV) for 'prime funds'. Holders of shares in those funds became exposed to possible nominal losses. After the reform was enacted, those funds registered an outflow of 1 trillion US dollars. Placements were mostly redeployed towards funds that still guaranteed full redemption value.

Finally, an important body of recent research documents strong regular patterns in the demand for safe assets (both privately and publicly issued) over several decades. According to Gorton et al. (2012), 'the share of safe assets in the U.S. economy, including both U.S. Treasury debt and privately-created near-riskless debt has remained constant as a percentage of all U.S. assets since 1952.' Krishnamurthy and Vissing-Jorgensen (2012) demonstrate an inverse relationship between privately and publicly issued safe debt with private debt expanding or retreating as if to offset the movements in public debt.

Looking forward, a good rule of thumb to predict the demand for safe assets would incorporate three components:

- a constant share of safe assets in overall financial portfolios over the very long run;
- a trend increase in the ratio of financial wealth to GDP;
- cyclical or temporary fluctuations in the demand for safe assets depending on risk aversion - with possible 'jumps' triggered, for instance, by regulatory changes.

Together, those demand dynamics require a supply of safe assets that would be growing (in % of GDP) and sufficiently 'elastic' to meet temporary surges or decreases in the use of safe assets in the financial system.

How would the economy adjust if the evolution of safe public debt does not parallel the need and demand for safe assets, therefore creating a 'shortage'? From a financial stability perspective, several potential dangers and dilemmas would arise.

The first relates to the prevalence of risky public debt in the financial system. Risky debt carries uncertainty on its future payoff and higher risk premia, being therefore more costly to issue. More importantly, however, uncertainty creates the possibility of multiple equilibriums. In times of trouble, sovereigns – like financial institutions – can be either illiquid, insolvent, or both. In many cases, the distinction is blurred. There is a substantial endogeneity in the way markets assess sovereign risk. For instance, the sole perception of insolvency can create insolvency, because it leads to an increase in risk premia and, ultimately, to unsustainable interest rate levels. When uncertainty is high, sovereigns also face liquidity shortages, as expiring debt may be difficult to roll over. They can only issue new debt at constantly higher interest rates. In turn, higher interest rates create doubts on solvency, triggering a spiral of increasing interest rates and illiquidity. The interaction of credit and liquidity risk creates powerful feedback loops that may destabilize the financial system.

A shortage of safe assets may also be conducive to overall financial fragility as it would encourage the (ultimately unsafe) production of (perceived) safe assets by the private sector. The search for safe 'parking spaces' may lead to an unrestricted demand for assets whose value is perceived as protected, hence fueling bubbles and creating financial fragility. The abovementioned inverse relationship between the production of public and private safe assets validates this assumption. The 2008-2009 financial crisis is widely attributed to misguided attempts by private financial intermediaries to manufacture risk free assets through the structuration and securitization of housing loans.

There is a deep logic in this process, which may lead to a repetition of crises in the future, albeit in different forms. The economy 'demands' safe assets, because it also 'demands' maturity and risk transformation. With an abundance of safe assets, that transformation can be achieved with minimum fragility. If there is shortage, the system will adjust and produce less safe short term assets, at the price of an increased fragility. Greenwood et al. (2016) have proposed to use that complementarity

between private and public safe assets as a tool for financial stability interventions: by issuing public safe assets that would crowd out private ones, the government could enhance the robustness of financial intermediation when necessary.

Finally, a shortage could prompt central banks to step in and produce – or facilitate the production of – safe assets. For instance, the purchase of private bonds or mortgage-backed securities (MBS) from the private sector amount to swapping a safe asset (Banks' reserves) for a risky one, thereby increasing the net supply of the former. In the Euro area, the so called Target II balances (which are held by National Central Banks at the ECB and used to settle payments between them) usually expand in times of uncertainty. This occurs because private financial intermediaries are using their accounts at the central banks – rather than private bilateral ones – to settle cross border transactions. By offering an elastic supply of safe payment instruments, the Target II system immunizes cross border payment flows from episodes of risk aversion. Central banks may also want, by guaranteeing the liquidity of Sovereign bond markets, to eliminate roll over risks and increase the perceived safety of public debt.

While most of those interventions remain somehow contentious, they will likely remain debated in the future as central banks consider the exit from Quantitative Easing and the future size and shape of their balance sheets.

What makes debt 'safe'?

There are many definitions of safe assets. Significantly, market practitioners tend to have different views from professional economists. In short, safety can be seen as 'relative' or 'absolute'. In the first case, there is a continuum of mutually-substitutable assets, with increasing level of risk and spreads adjusting to changes in fundamentals and risk perceptions. Most market participants would take such a view and show some skepticism toward the concept of a pure 'safe' asset. They also take an optimistic vision of the equilibrium mechanism, where relative prices of assets would adjust so as to satisfy the equally relative aspiration to safety.

Economists tend to take another view, where safety is ‘absolute.’ An asset (or debt) is either safe or risky. Safe assets are not substitutes to any other category. Imbalances between supply and demand trigger adjustments in other markets (i.e. assets and good). An ‘asset shortage’ therefore has direct macroeconomic consequences.

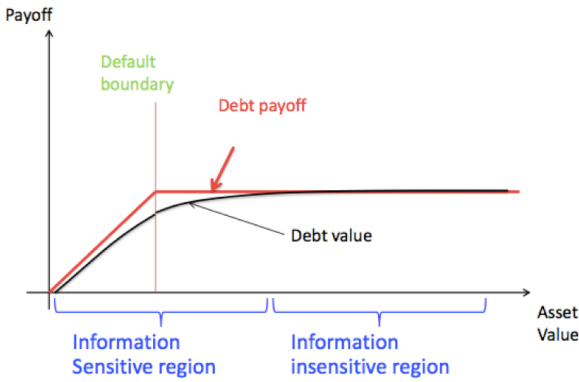
The validity of each approach may depend on the overall environment. In tranquil times, the relative view may be valid. In periods of increased financial frictions, there is a ‘flight to quality’: asset substitutability diminishes, arbitrage is constrained and safety becomes more absolute. Consequently, the distinction between safe and unsafe assets becomes starker.

Among economists themselves, there is a plurality of definitions. The most appropriate when looking at financial stability implications has been developed by Dang et al. (2009). For a safe asset to provide a reliable store of value, its value (and payoffs) must remain the same in all (or most) states of the world. A safe asset is therefore ‘information insensitive.’ Its value does not change in reaction to ‘news’ about the economy or the issuer’s solvency

Debt is especially suited to meet that requirement of information insensitivity, as its payoff is predictable and fully determined in most states of the world. The following graph is reproduced from Holmstrom (2012). It shows the payoff of a debt instrument in relation with the intrinsic value of the underlying claim or asset. Most of the states of the world are in the ‘information insensitive’ region: the lender is certain to get paid back whatever happens to the economy and the borrower. On the left of the ‘default boundary’, however, debt becomes ‘information sensitive’: since the value of the underlying asset is too low, the borrower may default and any information becomes extremely relevant.

Dang et al. (2009) and Holmstrom (2015) emphasize one major benefit of information insensitivity for the working of money and debt markets. Information insensitivity is conducive to greater trade and liquidity.

Debt and information sensitivity



When a security (debt) is information insensitive, there is no need or incentive for the buyer to incur the costs of price discovery. All episodes of illiquidity in debt and money markets have been brought by surges in information asymmetry: when one side of the trade knows more than the other about the underlying value of the security, exchanges come to a halt. The standard response to those liquidity freezes is to increase transparency and reestablish information symmetry. Dang et al. demonstrate that there is another way: eliminating any need for information by exchanging securities that are information insensitive. This is why ‘ignorance is bliss.’ Both the buyer and seller possess the same (zero) degree of information relative to the underlying value. There is no information asymmetry.

Safety, coordination of beliefs, and commitment

As developed in previous sections, financial market participants and intermediaries hold (sovereign) debt for the same reasons and motives that they hold money: as a store of liquid value. Just as for money, ‘backing’ is not essential when the decision to hold debt is made. Money is not held because it is backed by any tangible or in tangible assets or by flows of income. Each participant in the economy believes that money will be accepted as a medium of exchange in the future. The same is true for debt as long as it is considered as safe. To some extent, safe assets

of those we decide should be safe. 'Admittedly, the definition is partly self-referential. In the end, assets are just as safe as they are expected to be and as a consequence they are prone to abrupt shifts in confidence' (Coeuré).

While safety results from a coordination of beliefs (in addition to fundamentals), it becomes fragile when that coordination breaks down. Even a solvent borrower may be stricken by coordination failures, for instance if some lenders start to have doubts and trigger a 'run on the debt'. Solvency is therefore not 'absolute.' It can be seen as depending on three parameters: the intrinsic creditworthiness of the borrower, the state of the economy, and the coordination of beliefs. Because of possible multiple equilibriums, the interaction between those three parameters is essential.

Commitments are very important: a credible commitment to pay back debt in full has positive effects on financial stability, because it reduces the probability of coordination failures. Looking at the graph above, a credible commitment can be seen as reducing the region of information sensitivity by shifting to the left the boundary between the information sensitive and insensitive regions. It makes debt safe in a greater number of states of the world and, overall, less information sensitive.

There is, obviously, a trade off. While the region where debt is information sensitive becomes smaller, inside that region the value of debt moves very strongly with any new information. The slope of the payoff curve gets steeper. In fact, it may be that, once the frontier has been reached, debt will lose all its value in the eyes of investors. Strong commitments unavoidably come with the tail risk of occasional disruptive shocks, if they are ultimately breached. In fact, one can think of several examples of fixed exchange rate regimes that collapse, creating huge damages to the economy. Commitment should certainly not be seen as a substitute to fiscal soundness but, rather, as an instrument to maximize the benefits of good fiscal policies and protecting them from exogenous financial shocks.

Authorities can signal their commitments through their actions (in this case through fiscal policies) but also, through their willingness to accept (or not) a binding legal framework. Commitment depends (par-

tially) on institutions and debt structure. Legal regimes that make it easy to restructure or forgive debt, send a message of weak commitment.

Sustainability, therefore, is partly endogenous to the debt regime implemented by the authorities. ‘Safety is, in other words, is an outcome of an institutional and legal framework.’ (Coeuré). Obviously, the credibility of fiscal consolidation is crucial when debt is high. However other policies, such as the legal treatment of debt and the willingness to repay, will determine how the fundamentals of debt interact with financial markets to produce – or not – a sustainable and stable equilibrium. In other words, the structure of debt matters. It is a legitimate policy objective to aim at a debt structure that would favor a stable coordination of beliefs through commitment.

If investors are living into a ‘binary’ world, where assets are either safe or unsafe, then the debt structure should mirror that distinction and create a clear division between safe and unsafe debt. It should also minimize the disruptions that would occur when debt suddenly loses its safe status as a result of a deterioration of fundamentals or a collapse in the coordination of beliefs. Altogether, governments should aim at institutions and debt structures that would (1) make default extremely hard to trigger, but (2) once triggered make it very easy to implement. Current international efforts may go in the opposite direction as they seek to make debt more state contingent, while leaving unchanged the existing complexity in implementing cross border defaults. If successful, those efforts would potentially limit the amount of safe assets available in the future.

The ‘Triffin dilemma’ on public debt

Safe debt is issued by governments. Unless there is overfunding of government needs, the net issuance of debt closely matches government deficits. If liquidity needs are high, an important stock of debt is needed. But, over time, the stock of public debt – the supply of safe assets – only grows if the issuer’s underlying fiscal position deteriorates. The resulting tension is described as a ‘Triffin dilemma’: to meet increasing demand for safe debt, sovereigns have to run constant deficits. Their solvency deteriorates and the safety of the debt can ultimately be compromised. Fiscal consolidation will further restrict the net supply of such assets. There is

no evading this dilemma as long as safety exclusively depends on scarcity.

A strong commitment, backed by an appropriate debt regime, helps to relax, if not eliminate the Triffin dilemma. This happens because, with strong and credible commitment, a larger share of the existing debt stock may be considered as safe. Put differently, it is possible to issue a greater amount of safe debt for the same amount of total debt, without compromising the sovereign's solvency.

Debt and the international monetary system

Debt is central to the workings of the international monetary and financial system. While equity flows have been important, it is difficult to imagine any progress in financial integration that would not mainly be based on debt (Obstfeld, 2015). Existing debt regimes have important consequences because they determine the conditions for the issuance of global safe assets.

There is, first, a question of stability. In a truly global financial system, domestic and foreign assets should be perfect substitutes for all asset classes. This is obviously not the case. Since only a few countries can issue safe debt and assets, cross-border portfolio flows, especially between different currencies, mainly involve risky securities. This is a major difference from domestic flows, where safe debt can be exchanged or serve as collateral. It is also one reason why, in aggregate, cross-border flows are more volatile than domestic ones.

Another question relates to the symmetry of the system. If one or a few countries have a monopoly in the issuance of safe debt, they have a dominant influence on overall financial conditions. In periods of tension, a flight to quality naturally generates capital flows from the risky 'periphery' to the safe 'center', exacerbating local liquidity problems and balance-of-payments difficulties (Brunnermeier et al. 2016). This has been apparent both globally – with outflows from Emerging Economies – and inside the euro area. During the euro crisis, the so-called principle of private sector involvements (PSI) was decided in October 2010. It explicitly made government debt state contingent, and a large chunk of (peripheral) government debt instantly lost its status as a safe asset.

Indeed, there is a close relationship between the global discussion and the debate taking place inside the euro area on debt structure, especially on PSI and the regulatory treatment of sovereign debt held by banks. The tensions between the core and the periphery in the Eurozone largely mirror those that periodically appear in the international monetary system. Both at the regional and global level, it is hard to see how a more stable, resilient and symmetric monetary system could emerge from a situation where only a couple of countries would issue debt that is considered as safe.

For the euro area, in the framework of the Capital Market Union (CMU) it should be a primary objective to create safe debt instruments that allow robust cross border financial intermediation. Such debt instruments should be backed by a geographically diversified portfolio of claims. They could be both public (i.e. the European Safe Bonds discussed earlier) and private. A failure to construct a truly euro-wide safe asset would burden the single capital market with a permanent threat of disruption and instability

Finally, there is a close relationship between debt and international liquidity provision. Safe government debt is the asset in which much of foreign exchange reserves are invested. Thus the public component of 'global liquidity' is mainly comprised of debt. A diversification of foreign exchange reserves would necessitate that more countries issue safe and liquid debt.

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PART II

Regulatory Arbitrage Across Jurisdictions

ENGLISH LAW AND JURISDICTION POST BREXIT

Yannis Manuelides¹

Introduction

Throughout the United Kingdom's 44-year membership of the Communities and Union established by the European treaties, many sectors of the UK's economy have prospered. Few have flourished more than the legal profession and legal institutions of England and Wales, one of the UK's three legal jurisdictions². According to evidence presented to the House of Commons Justice Committee "the UK's legal services sector contributes £25.7 billion to the UK economy, generates £3.3 billion in annual export revenue and employs some 370,000 people"³. A survey by Portland Legal Disputes on judgements issued by the English commercial court in the 12 months to the end of March 2016 shows that 66% of the total number of litigants were foreign nationals, 19.8 % of whom were from continental Europe.⁴

- 1 I want to thank the European University Institute (EUI), the Brevan Howard Centre at Imperial College and BAFFI CAREFIN at Bocconi University and in particular Franklin Allen, Elena Carletti, Joanna Gray and Mitu Gulati for inviting me to participate in the conference entitled "The Changing Geography of Finance and Regulation in Europe" hosted at the EUI in Florence on Thursday, the 27th of April 2017. Some points made in this paper were presented at the conference. I acknowledge the helpful discussions with Karen Birch, Lachlan Burn, Kate Dew, Richard Farnhill, Richard Fentiman, Sarah Garvey, Simon Gleeson, Mitu Gulati, Jason Rix and Philip Wood and beg their forgiveness for not understanding them fully or accurately. The views set out in this paper are strictly personal and do not represent the views of Allen & Overy LLP.
- 2 References to "English law" and "English courts" should be understood to be references to "law of England and Wales" and all courts of England and Wales.
- 3 *Implications of Brexit for the justice system*, House of Commons Justice Committee, HC 750, 22 March 2017, page 19, copy <https://publications.parliament.uk/pa/cm201617/cmselect/cmjust/750/750.pdf>.
- 4 A summary of Portland Legal Disputes' findings can be found: [https://portland-communications.com/pdf/Portland's%208th%20Commercial%20Courts%20report%20\(2016\).pdf](https://portland-communications.com/pdf/Portland's%208th%20Commercial%20Courts%20report%20(2016).pdf).

Most of the cases before the courts relate to what could broadly be described as finance matters.⁵ The CityUK, in its submissions to the House of Commons Justice Committee, quotes Mr Justice Blair saying that “of the cases commenced during 2015 ... 69.26% were claims particularly in the fields of banking, finance, commodities, shipping, maritime disputes and insurance and reinsurance”. More broadly, legal work (including non-litigious work) on financial services “between 2009 and the first half of 2015 ... accounted for 43% of the total value of deals on which the top 50 UK ‘City’ law firms advised” according to the Law Society of England and Wales.⁶

The figures show both a prosperous domestic industry and the important role that English commercial law and the English courts play internationally, particularly in the area of finance. The English legal system is not, of course, the only system of law which serves as an international utility. It shares this role with New York’s legal system. The laws and courts of other financial centres also act as non-domestic utilities. A number of these systems also provide the appropriate framework for international arbitration, which, as a private alternative to public dispute resolution, acts as another important international utility.

The UK’s decision to leave the European Union has brought to the fore discussions on the future of English law and courts. Will it follow the fortunes of the financial services sector in the City of London? Will its client base move or be lured elsewhere? Crucially, will reasons emerge for which clients will have to stop using English law, especially in finance transactions? Will banks and corporates have to start replacing the English governing law and jurisdiction clauses in their bonds and loans?

The competition for dispute resolution, already vigorous with the rise of the various international arbitration centres, has further increased with Germany⁷ and the Netherlands⁸ offering English language hearings

5 “Finance matters” is used here as a shorthand for “finance and related commercial matters”, including banking, finance, commodities, shipping and insurance.

6 *Implications of Brexit for the justice system*, House of Commons Justice Committee, *ibid*, page 16.

7 See Lexis Nexis summary: <http://blogs.lexisnexis.co.uk/dr/english-courts-abroad-germany-waits-to-move-forward/>.

8 See Netherlands Commercial Court announcement: <https://netherlands-commercial-court.com/>.

in their courts. France will also offer the adjudication of contractual disputes of English law governed contracts in its courts with “credible judges who know the common law”.⁹

In addition to the understandable commercial competition from other European Union centres (and, indeed, New York, Singapore and Hong Kong) to get part of London’s financial and legal work, the debate on the future of English law and courts will undoubtedly be influenced by the wider debate and outcome regarding the role of European law and of the CJEU in the UK post-Brexit. On this, the Prime Minister, Theresa May, was very categorical: “[w]e will take back control of our laws and bring an end to the jurisdiction of the European Court of Justice in Britain. ... we will not have truly left the European Union if we are not in control of our own laws”.¹⁰ The statement emphasises a perceived nexus between a sovereign state, its laws and its courts, a debate that is arguably at the heart of Brexit. However, by doing so it exposed English commercial law and courts to charges of national preference: if the UK will not accept the European Union’s laws and courts, why should European Union entities accept English law and courts?¹¹

The retreat to some kind of legal nationalism and the commercial competition for legal work risk clouding the understanding of the features which have made English law and courts an international utility, especially in finance matters. These features deserve to be understood. Brexit should not be used as a pretext for the introduction of regulatory barriers which would make the choice of English law and courts less desirable for international commercial parties. It would be most unfortunate if uncertainties were introduced into a system which has evolved and operates as an international public utility and facilitates a large proportion of our finance transactions. This, of course, does not mean that other legal systems should not seek to compete for the work. Such competition, however, should not rely on barriers or prohibitive directives,

9 Financial Times “Paris turns to English law to lure City business”, 19 May 2017: <https://www.ft.com/content/113f6c78-3bdd-11e7-821a-6027b8a20f23>.

10 Theresa May MP, Speech on The Government’s negotiation objectives for exiting the EU, 17 January 2017: <https://www.gov.uk/government/speeches/the-governments-negotiating-objectives-for-exiting-the-eu-pm-speech>.

11 It is to be noted however that the manifesto of the Conservative Party has failed to make any references to the CJEU, something interpreted by some as a tacit acknowledgment that the CJEU will continue to play some role post Brexit.

but rather on open competition which promotes commercial life and the rule of law. If a discussion on what makes English law attractive to commercial parties can contribute to such open competition, then this discussion will be very welcome.

Two points are in order at this stage. First, most - if not all - of the statements made in the part of this paper on the features that make English law attractive, may appear as mere assertions with no detailed supporting evidence. I have not been able to find much that is directly relevant on the subject, other than the discussions on the freedom of contract by P.S. Atiyah,¹² his and R.S. Summers' comparative study of Anglo-American Law¹³ and the jurisprudential discussions on the common law, legal reasoning and legal systems by H.L.A. Hart¹⁴ and A.W.B. Simpson.¹⁵ Some of my statements may, therefore, run the risk of being dismissed as unsupported pontifications. My plea is that, even if these statements are so dismissed, a better understanding of English law and its role in international commerce and finance is required and indeed overdue.

The second charge I face is that the statements in this paper are simply a marketing exercise by yet another English lawyer fearing for the future of his profession. I can only point out that I am an Amsterdam-born Greek of parents hailing from the Ottoman Empire, that my first foreign language was French, that I qualified and worked in France as a lawyer for several years before settling in London and that fairly recently, I woke up to discover that I was not a cosmopolitan, but a citizen without a country. I can also point out that at the age of 60, working at a firm with such wide and deep European and, indeed, global presence, my own commercial interests are hard to define, but they are certainly not as intimately tied with the future of the narrowly construed English profession. Ultimately, I can only beg the reader to consider the points I make about English law at face value.

12 P.S. Atiyah, *The Rise and Fall of Freedom of Contract*, Oxford 1985 and *An Introduction to the Law of Contract*, Oxford 1989.

13 P.S. Atiyah and R.S. Summers, *Form and Substance in Anglo-American Law*, Oxford 1987.

14 H.L.A. Hart, *The Concept of Law*, Oxford 1961.

15 A.W.B. Simpson, "The Common Law and Legal Theory" in A.W.B. Simpson, (ed), *Oxford Essays in Jurisprudence* (Second Series) (1973), 77-99.

The rest of this paper considers (a) some of the likely consequences of a Brexit on the recognition in the EU of English law as a valid choice of law and of English court judgements and the possible mitigating steps which can be taken and (b) a discussion of the features which give English law its enduring appeal and make it so important for modern commerce and finance.

Immediate consequences of Brexit for English law and jurisdiction

The immediate consequences of Brexit for English law and jurisdiction clauses has been widely discussed and commented upon. Given the wealth of existing detailed material, I will just summarise the points made in the notes and reports referred to in the footnote¹⁶.

“Brexit”, we were told, “means Brexit”,¹⁷ which in turn means that we still have to discuss all the particulars and the details. For our purposes, the discussion on possible outcomes is thankfully limited. The most benign Brexit outcome for contracts with English law and jurisdiction clauses would result in the current EU Regulations on governing law

16 *Implications of Brexit for the justice system*, House of Common’s Justice Committee, *ibid*.

Brexit: justice for families, individuals and businesses?, House of Lords European Union Committee, 17th Report of Session 2016-17 - published 20 March 2017 - HL Paper 134 <https://publications.parliament.uk/pa/ld201617/ldselect/ldcom/134/13402.htm> and <https://publications.parliament.uk/pa/ld201617/ldselect/ldcom/134/134.pdf>.

Allen & Overy, “English governing law clauses – should commercial parties change their approach?”, <http://www.allenoverly.com/Brexit-Law/brexit-law-the-way-ahead-macro/Pages/English-governing-law-clauses-should-commercial-parties-change-their-approach.aspx> and “English jurisdiction clauses – should commercial parties change their approach?”, <http://www.allenoverly.com/Brexit-Law/brexit-law-the-way-ahead-macro/Pages/English-jurisdiction-clauses-should-commercial-parties-change-their-approach.aspx> and a more detailed transcript of a presentation during a call http://www.allenoverly.com/Brexit-Law/Documents/Misc/AO_BrexitLaw_Client_call_2-English-law.pdf.

Clifford Chance, “Brexit and jurisdiction clauses: choice of English law following the EU referendum”, https://www.cliffordchance.com/briefings/2016/06/brexit_and_jurisdictionclausespost-referendu.html.

17 Prime Minister’s Theresa May’s famous statement and a discussion of it by Mark Marcell in BBC News <http://www.bbc.com/news/uk-politics-36782922>.

(Rome I¹⁸ and Rome II¹⁹) and jurisdiction (Brussels I Regulation recast²⁰ (the “Recast”) remaining in place (or being replaced by equivalent mutually agreed provisions). In such a case, Brexit would obviously make little difference to commercial parties who still wanted to choose English law and jurisdiction for their contracts.

If, in a different Brexit outcome, these EU Regulations were not to remain in place as between the UK and EU member states, the position would be somewhat different, but not materially so, at least in most cases. English governing law clauses would continue to be recognised by the courts of EU member states as a result of Rome I. This Regulation respects the contracting parties’ autonomy to select their own governing law provision, whether it is that of another EU member state or any third jurisdiction such as England or New York. On the UK side, the principle of party autonomy, which existed in English law even before Rome I, would continue to apply and so English courts would recognise the contracting parties’ choice of law. So commercial parties can continue to choose the governing law that they believe to be the most appropriate for their circumstances and commercial arrangements.

Matters become slightly more complex with jurisdiction clauses. Commercial parties are interested not only in choosing the rule-book (the governing law) but also the field and the referee for their game (the jurisdiction that will hear and adjudicate any dispute between them). This matters for two reasons. First, different dispute resolution fora have different procedural rules, timelines to adjudication, capacity to issue interim rulings, specialist judges etc. But choice of jurisdiction and an appropriate judgement from the chosen dispute resolution forum are a Pyrrhic victory if the jurisdiction clause is not respected or the judgement can be re-opened or eventually re-litigated by the courts of another

18 *Regulation No 593/2008 of 17 June 2008 on the law applicable to contractual obligations (Rome I)* OJ L 177/6, 4 July 2008: <http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:32008R0593>.

19 *Regulation No 864/2007 of the European Parliament and the Council of 11 July 2007 on the law applicable to non-contractual obligations (Rome II)* OJ L 199/40, 31 July 2007: <http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32007R0864>. Rome II permits parties to choose in their contracts the law that will govern non-contractual obligations arising between them.

20 *Regulation 1215/2012 of 12 December 2012 on jurisdiction and the recognition and enforcement of judgements in civil and commercial matters*, OJ L 351, 20 December 2012: <http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32012R1215>

jurisdiction when it comes to recognition and enforcement particularly if either step requires substantive re-evaluation of the merits of the dispute or is simply procedurally difficult and lengthy. Recognition and enforcement of judgements coming out of the contracting parties' chosen forum is just as important as recognition of their choice of forum and governing law.

The Recast is the latest iteration of an effort which seeks to require member states to respect jurisdiction clauses in favour of other member states and to ensure that recognition and enforcement of judgements obtained in another European Union country happen as automatically as reasonably possible. So how will a prospective litigant ensure that their English jurisdiction clause is respected and how will a victorious litigant in the English courts ensure that their English London-court judgement is recognised and enforced in the court of a European Union member state in a post-Brexit, non-Recast world?

The answer depends on the actions that the United Kingdom itself may take to mitigate the loss of the Recast. There are several non-mutually exclusive options that also depend on whether the jurisdiction clause is "exclusive" (specifies one forum only) or "asymmetric" (specifies one forum only for some parties and, for the benefit of other parties, the option of other fora as well), or "mutually non-exclusive" (specifying a forum but allowing all parties the option of alternative fora).

The UK can choose unilaterally to ratify the Hague Convention,²¹ a convention to which the European Union has acceded on behalf of its members (other than Denmark). EU member state courts must 'suspend or dismiss' proceedings before them in breach of an exclusive jurisdiction clause in favour of another Hague Convention contracting state and enforce related judgements. English exclusive jurisdiction clauses would therefore be respected and judgements will be enforced in EU member states (other than Denmark) under the Hague Convention (albeit subject to one potential wrinkle if all parties are dominated in a member state).

Recognition of both exclusive and non-exclusive clauses and enforcement of related judgement may be facilitated if the UK accedes to the

21 *Convention on Choice of Court Agreements*, signed in Hague, The Netherlands, on 30 June 2005: <https://www.hcch.net/en/instruments/conventions/full-text/?cid=98>.

Lugano Convention²², whose members include all of the EU member states (including Denmark) as well as Iceland, Norway and Switzerland. However, accession to the Lugano Convention depends on the agreement of the existing members.

Courts of EU member states may also recognise English jurisdiction clauses either by giving the Recast a “reflexive effect”, i.e. treat the Recast rules as applying to “third state” (i.e. non EU member state) jurisdiction clauses, or by applying their national rules which, on the whole, recognise non-domestic court jurisdiction clauses.

Finally, enforcement, absent either accession to the Hague or the Lugano Conventions, will still be possible in most EU member states following each such EU member state’s rules for the enforcement of judgements from “third states”, an approach already followed for the enforcement of other “third state” judgements such as one from New York.

In short, in most cases, respect for jurisdiction clauses and recognition and enforcement of judgements in a post-Brexit, non-Recast (and non-Hague, non-Lugano) world will still be possible in the majority of cases, albeit that enforcement may require more time and cost more money. The important point is that it can be done and this will be done in much the same way as applies to judgements from other major commercial centres outside the EU, like New York or Singapore.²³

It is important to add that certainty in relation to jurisdiction clauses and recognition and enforcement of judgements is of extreme importance not only for commercial matters but also for the affairs of individuals. If Brexit occurs without a successor to the Recast, commercial parties may well be prepared to put up with the extra time and cost to have their judgements recognised and enforced. Matters will, however, be very different for the vast majority of private individuals whose lives will be adversely affected without some sort of equivalent successor regime.²⁴

22 *Convention on jurisdiction and the recognition and enforcement of judgements in civil and commercial matters*, signed in Lugano, Italy, on 30 October 2007: <http://ec.europa.eu/world/agreements/downloadFile.do?fullText=yes&treatyTransId=13041>.

23 As noted above, this is a technical matter and details are important. The references given earlier provide further details for those interested.

24 See *Brexit: justice for families, individuals and businesses?*, House of Lords European Union Committee, *ibid*, where the point is made vividly and persuasively.

Given the statements in support of those Europeans (including British nationals) who, relying on the promise of a common working area for all, built their lives and careers in countries other than their own, it would be very unfortunate if at, or following, Brexit some type of successor to the Recast were not put in place.

Institutional response post-Brexit

Brexit is a deeply political choice and can only be perceived as the United Kingdom's profound disagreement with the course that its treaty partners and geographical neighbours have set for themselves. It is therefore inevitable that the EU institutions will react and will want to be seen to react in a political way towards the United Kingdom. The reaction may vary from a decision to avoid English law and/or jurisdiction for their own borrowings, to not allowing English law debt instruments to be used for central bank collateral, to other regulatory restrictions having (directly or indirectly) an adverse impact on the inclusion of English law and jurisdiction clauses by parties wishing to do business with, or in, the European Union. Although the political reaction is understandable, it is hoped that this reaction will be tempered by the recognition that both law and courts are international public utilities for international commercial matters with an inevitable geographical seat, in existence to facilitate cross-border trade rather than as the instruments of power of an adverse sovereign.

The enduring appeal of English law and courts

The concern that Brexit may adversely affect London as a legal hub, raises a number of interesting questions about English law and the English courts. Why do non-UK commercial parties choose it? Why do they choose and trust English courts to adjudicate their disputes? Is there some quality in either the law or the courts that makes them appealing, or are they both the beneficiaries of something much less interesting and more accidental?

It is both understandable and entirely unsurprising that English law would expand and develop in the globalised world of the 19th century. At the time, the British Empire was co-extensive with a substantial part of that globalised world, accounted for over half of global trade, and gold-convertible sterling was the overwhelming currency of trade and,

hence, the reserve currency of necessity. If one traded with London entities, or had to clear large payments, one had to go through London. English law and courts at the time were, therefore, widely used for international commercial transactions as there were few real options. They became an international public utility because one was needed to service the trade and capital flows of the Empire and the globalised world.

Subsequently, however, the Empire went into decline and was ultimately dismantled, sterling lost its place to the dollar as the reserve currency and Britain, once a mighty creditor nation, had to ask the IMF to come to its rescue in 1976.²⁵ Why is it, then, that English law and courts continued to be widely used by non-UK commercial parties and evolved to be the modern international public utility they are?

Part of the enduring success of English law and courts is due to “first-mover advantage”. Having assumed a leading role in the 19th century, the English legal system succeeded in preserving it, greatly assisted by the enduring ties of the commercial community established by the Empire and by the fact that the decline of British fortunes was mitigated by the successor global leader being another English speaking country with a judicial tradition originating in England.

Still, today’s consumers of English law and courts do not choose them because of history. These consumers, principally non-UK commercial parties, make their choice on grounds of self-interest. When they are asked to justify their choice, their answer is likely to include one or more of the following: the law is predictable and certain, will give effect to the contractual bargain struck by the parties and is flexible and commercial; litigation is unlikely to result in a surprise, will not take forever, the process is clear and will encourage commercial settlement; and everything is conducted in the commercial *lingua franca* of the day.

There is much to be said about the English rules of civil procedure and the process followed by the courts. Much progress has been made since that 19th-century foggy November day where, in Lincoln’s Inn Hall

25 For some headline numbers on trade and the use of the pound in the 19th century and a summary on the history of the decline of the pound as a reserve currency and its replacement by the dollar see “*Taking a pounding*” in *The Economist* 3 October 2015, a summary article with references to academic papers: <http://www.economist.com/node/21669969>.

at the very heart of the fog, sat the Lord High Chancellor in his High Court of Chancery and *Jarndyce v. Jarndyce* droned on²⁶. Indeed, civil procedure has been much modernised and continues to be reviewed and streamlined. Even though its importance for the administration of justice cannot be overstated, I do not propose to discuss it much further here, focusing instead on the law itself.

So what evidence is there that English law is predictable and certain, that it will give effect to the contractual bargain struck by the parties, that it is flexible and commercial? The uninitiated (which includes a student of the common law as well as accomplished lawyers with no knowledge of the common law) will desperately try to find these alleged virtues by pouring over books on contract law. However systematic the presentation, every aspect of the law quickly degenerates into a narrative of cases and a discussion of the way these have been decided.²⁷ Law students struggling to come to terms with the myriads of cases in search of something solid and certain will look at the elegant prose and clarity of thought of the French and Swiss Civil Codes²⁸ and bemoan their fate.

And yet it is exactly this apparently chaotic accumulation of cases, argued and re-argued, ordered and re-ordered, woven in narratives done and undone which provides one of the pillars of English commercial law. To understand better how this is done, it may be helpful to have a look at the types of rules which legal systems deploy.

Legal systems, and indeed most sets of rules, always face a key dilemma: should rules be drafted as broad substantive principles whose enforcement always allows the court/adjudicator discretion in determining how they apply to the facts, or should rules be more formal to give users more direct guidance and remove discretion from the court/adjudicator when seeking to determine compliance?

This distinction whilst slightly artificial reflects a point which is easy to recognise by example, best taken by reference to a game with simple rules. In a ball game, a substantive rule can be “playing in a way which

26 May I commend Charles Dickens’ *Bleak House*, if not for its criticism of the English judicial system, then for its many other virtues.

27 See for example the, so called, “practitioners’ book” *Chitty on Contracts*, Chitty, Joseph, and H. G. Beale, London: Sweet & Maxwell, 2008.

28 No doubt other codes are just as clear and elegantly written.

risks injury to another player is prohibited". Another substantive rule can set the penalties for breach of such dangerous playing, providing a range of consequences, depending on the gravity of the breach. These rules allow (and indeed, in the absence of any other rules, require the referee to use) wide discretion in determining (a) whether a particular way of playing does risk such injury and (b) the penalty for such play. Because each such determination will be unique, their justice and fairness will very much depend on the powers and abilities of that particular referee. The acceptability of the verdict by the players concerned, as well as by the fans, will in turn depend on the ability of players and fans to recognise the justice done. There will, no doubt, be extreme cases where the determination of the breach and the penalty imposed will be appropriate and will be accepted as such. The challenge, however, lies with the not-so-obvious cases - the difficult and challenging ones which will always be the overwhelming majority of cases. It is not difficult to see that, in difficult cases, for the decision to be both appropriate and acceptable, the referee must be capable of achieving very high standards indeed, a sort of legal Hercules performing at a standard which most common mortals are unlikely to be capable of meeting. But even if the referee is such a Hercules and his decision is perfectly defensible from some absolute standpoint, it must be comprehensible and acceptable to the players and, perhaps at a different level, also to the fans. Without such minimal comprehension and acceptance, the high standards applied by our Hercules cannot help the players adjust their game so that it remains interesting, competitive and within the bounds of the rules. Lack of comprehension and hence acceptance also drives away the fans, as rules which are not understood by them are no rules at all and the very notion of a game without rules is no game at all.

To ensure that the game is both interesting and comprehensible for players, an ordinary referee and fans, some guidance on how to comply and administer the rule must exist. This guidance can be given by a series of formal rules on how the substantive rule is to be applied. One such formal rule can specify, for example, the level of leg-to-ground angle over which there will be a breach of the substantive rule. The more such rules are introduced, the more the circumstances of engagement are formally described, the more they are capable of giving guidance to players and referees alike, the more the game will be capable of being played interestingly and the more the game will be administered in a way that

players and fans alike recognise as fair and appropriate.

English common law is nothing else than the cumulative build-up, from the bottom up, of these formal rules which together define the few substantive rules. A substantive rule of contract is that there has to be an offer and an acceptance. There will be many factual circumstances where determining whether an offer has been made and whether it has been accepted can be easily done by reference to the ordinary meaning of the words. There will be, however, instances (and the contract law books are full of them) where the concepts are stretched to breaking point. How the courts deal with these cases, how their reasoning binds them together in a narrative that seeks to explain all and to distinguish everything, is the wonder of the English common law. This cumulative build-up will be re-examined again when another unusual set of facts presents itself to the courts and the narrative will be rebuilt to address that as well.

The common law addresses the challenge of assembling into unifying narratives the many separate decisions on matters with real or apparent similarities by relying on two overriding principles of process. The first such principle is that of precedent and *stare decisis*. Briefly this means that consistency of decisions is required and previously decided cases must bind courts of subsequent jurisdiction (courts of equal or lower ranking, though not ones of higher ranking). What binds a court of subsequent jurisdiction is the core of the decision, the *ratio decidendi*, of the previous case. This *ratio* must be separated from what was just “talk”, *obiter dicta* in the earlier decision. The interpretation is invariably done by the court of later jurisdiction (at the behest, and with the assistance of, counsel) as it tries to establish the correct set of rules applicable to the facts before it. Such a re-telling results in the ever increasing focus of the *ratio*, the discarding a “*mere obiter*” of reasoning previously accepted as part of the core of the *ratio*, allowing for a new narrative to emerge out of the family of related cases cited to the court for its decision. Over many years this quest for the pragmatic has resulted in a very tightly knit and densely textured narrative of judicial opinion. On-going work continues at the edges of this narrative as the commercial world develops. Occasionally, major work is done at the centre when higher courts weave in new threads which accentuate certain aspects of the narrative and hide others away. What is fascinating about this evolving narrative is that,

even when codifications of it are attempted²⁹, it never ceases to be something which emerges from the living reality of the commercial people who bring their cases to the courts for adjudication.

The second overriding principle by which English common law abides is one by which all legal systems (or sets of rules) abide if they are to be and be recognised as such. This is the modest but fundamental principle of legality which requires that legal “rules must satisfy certain conditions: they must be intelligible and within the capacity of most to obey, and ... must not be retrospective”.³⁰ The legality principle is the necessary ingredient of the legal system (or of the set of rules) that permits users to have certainty on what will be considered a breach of the rules, what the sanctions will be and, hence, how one is able to comply with the rules.

Contract law, as developed by the English courts, eschews substantive principles which give wide discretion to the courts to determine the case before them. This is not to say that contract law evolves unaffected by substantive principles. But on the whole, these principles either emerge over some time from the tight narrative of case law or are grafted onto the body of the common law from the outside following the prevailing moral or political attitudes, or simply the current political balance of power.

Nowadays, the courts believe that they have neither the authority nor the jurisdiction to propose any such principles and, on the whole, have studiously sought to point out that they are not the source of them. The source is Parliament and the grafting is done through statutes. If, for instance, contract law (being mostly developed by disputes between commercial parties) produces results which are inappropriate for consumers in an age of mass consumption, standard form contracts, unequal bargaining power etc., then Parliament will intervene and will fix the “mischief”.³¹ The “mischief” is almost invariably fixed by adding to and/or replacing part of the closely knit texture of the common law with extremely detailed laws which aim to blend into the existing dense

29 See Andrews, Neil, *Contract Rules – Decoding English Law*, Intersentia, 2016.

30 H.L.A. Hart, *The Concept of Law*, Oxford 1961, page 202.

31 As for example with the *Trade Descriptions Act 1968*, the *Unfair Contract Terms Act 1977* and the *Consumer Credit Act 1974*.

narrative without holes or discontinuities.³² Even when the “mischief” is motivated by prevailing moral principle (as for example the *Debt Relief (Developing Countries) Act 2010*³³ which aimed to limit excessive amounts creditors could otherwise legally claim from highly indebted poor debtor countries), the overall approach to the principle is cautious rather than triumphantly declaratory and the drafting is detailed and aimed to enhance certainty through clarity.³⁴

There are, of course, exceptions where judges do seek to intervene, but these are few and are always taught as exceptions or curious incidents. The judgements of Lord Denning, a senior judge who had the tendency to push the boundaries beyond what was always called for, were read in my day at University as such examples. He was expressly criticised by his colleagues as in the case of *Magor and St Mellons RDC v Newport Corpn* [1952] AC 189 where Viscount Simonds said of his proposal “[i]t appears to me to be a naked usurpation of the legislative function under the thin disguise of interpretation”.

The avoidance and, indeed, suspicion of substantive principle by English common law is best illustrated in its approach to the role of “good faith” in commercial contracts. A principle of “good faith” can be found in the UNIDROIT Principles of International Commercial Contracts³⁵, many civil law (continental European law) systems and, indeed, the USA.³⁶ The principle of good faith in such systems (or in some places of

32 Even these elaborate and detailed statutes do not always succeed in replicating the sufficient certainty density.

33 The *Debt Relief (Developing Countries) Act 2010* can be found at <http://www.legislation.gov.uk/ukpga/2010/22/section/1#section-1-6>.

34 Intervention by Parliament on such matters is not a recent matter. Acts of Parliament protecting employees were introduced as early as 1831 and wagers ceased to have the enforcement protection of contract law in 1845 (P.S. Atiyah, *An Introduction to the Law of Contract*, Oxford 1989, page 14).

35 See Article 1.7 (Good Faith And Fair Dealing).

36 Why the US is the only common law system which uses “high principle” is an interesting topic. This may have to do with the country’s independence from Britain which required the grounding of its legitimacy on overriding principles which henceforth became part of the US system of laws, a system which requires not just the positing of consistent decisions, but the high principled perspective of a Herculean judge to take its justice seriously. Of course other factors are likely to have been important in the path of US law towards more principle and codification, such as the relative non-availability of law reports and the consequent need to rely on learned summaries such as Blackstone’s Commentaries.

reasonableness and fairness) is sometimes used to demonstrate pre-contractual liability and is used to as a tool for interpreting the intention of the parties. The UNIDROIT Principles require that “each party must act in accordance with good faith and fair dealing” and that “the parties may not exclude or limit this duty”. In the eyes of an English lawyer the principle seems to give too much of a discretion to the court in interpreting the actions of the parties and the terms of the contract. At the same the mandatory nature of it limits party autonomy. The reaction of a leading English judge to this principle is characteristic:

“In many civil law systems, and perhaps in most legal systems outside the common law world, the law of obligations recognises and enforces an overriding principle that in making and carrying out contracts parties should act in good faith. This does not simply mean that they should not deceive each other, a principle which any legal system must recognise; its effect is perhaps most aptly conveyed by such metaphorical colloquialisms as “playing fair”, “coming clean” or “putting one’s cards face upwards on the table”. It is in essence a principle of fair and open dealing. ... *English law has, characteristically, committed itself to no such overriding principle but has developed piecemeal solutions in response to demonstrated problems of unfairness*” [emphasis added].³⁷

The approach could not be more different from that of Unidroit and civil law systems. English law and courts approach issues of good faith in a detailed manner and develop piecemeal solutions fitting the facts. It is not for the English courts and law to wield overriding principles without reference to the specifics or to import easily principles within the four corners of the parties’ contract. It is this difference of stance which provides the certainty that characterises English law and courts. Their message to the commercial parties is simple: “you can agree what you want and we will not seek to override it. This does not mean there are no red lines; there are. But these red lines are not many and you know what they are: either a statute has set them or we have decided on them in the past. Moreover, they are specific enough for you to see where and how we draw them”.

37 Lord Bingham in *Interfoto Picture Library Limited v. Stiletto Visual Programmes Limited*, [1987] EWCA Civ 6.

The dislike of broad substantive principle is also something that distinguishes English law from US law. In their book, P.S. Atiyah and R.S. Summers note that the big difference between US and English law is that the former has allowed the rules to become more substantive whereas the latter keeps the rules as formal as possible.³⁸ Examples are provided on the calculation of damages and on the doctrine of consideration. The most telling example, however, is the different approach to exemption clauses in standard form contracts. Courts in the US looked beyond the formal aspects of the formation of a standard form contract and “rightly concluded that many [such] clauses are not read, understood, or in any real sense agreed to by consumers”. US courts therefore “rejected [these clauses] on various grounds such as unconscionability or for reasons of public policy”. English courts, on the other hand “floundered about the problem for many years unwilling to enforce ... [and] also unable to depart from the formal effect of apparent agreement” only to be “rescued” by the Unfair Contract Terms Act (UCTA). What is interesting is the prediction of the authors (in 1987) that, even where the UCTA gives English courts broad and unfettered discretion “it is likely that, after a few more cases have been decided under it, lawyers will be able to predict how the discretion will be exercised in most circumstances”.³⁹

Of course, the English courts do make what, for them, are substantive leaps. But it is important to note how focused and restricted in scale and scope these leaps are. Here is how a senior Law Lord puts it, distinguishing the “appropriate cases” when it is “proper for the courts to go in adapting or adding to existing law” from the inappropriate ones:

“Whatever views may have prevailed in the last century, I think that it is now widely recognised that it is proper for the courts in appropriate cases to develop or adapt existing rules of the common law to meet new conditions. I say in appropriate cases because I think we ought to recognise a difference between cases where we are dealing with “lawyer’s law” and cases where we are dealing with matters which directly affect the lives and interests of large sections of the community and which raise issues which are the subject of public controversy and on which laymen are as

38 See generally P.S. Atiyah and R.S. Summers, *Form and Substance in Anglo-American Law*, Oxford 1987. The examples cited in this paragraph are on pages 84 and following.

39 *Ibid.*, page 85.

well able to decide as are lawyers. On such matters it is not for the courts to proceed on their view of public policy for that would be to encroach on the province of Parliament.”⁴⁰

This legal soul-searching over the proper boundaries between the judgements of the United Kingdom’s Supreme Court and its Parliament concerned the reversal of a presumption held by courts that when a husband contributes to the household he does so with the intention of providing a gift to his wife - hardly a legal cliff-hanger!

Courts are reluctant to step into the province of law-making which they consider to be the realm of Parliament; the courts’ own legislative forays are limited and confined to “lawyer’s law” cases as above. But how do courts approach contracts?

Given the freedom commercial parties have they will usually prepare contracts which are sufficiently detailed. For complex matters they will seek the assistance of the first layer of the legal system’s “officials”, solicitors and barristers. But human communication is notoriously plagued by challenges such as situation novelty, term ambiguity and incompleteness of provision. Contracts whose terms are in dispute are likely to reach the courts where the second layer of the legal system’s “officials”, the judges, will take over and seek to resolve them. Certainly, they comply with the principle of legality and are guided by counsel in considering the relevant precedents. But how do they fill the obvious gaps and resolve the misunderstandings whose presence brought the dispute before them in the first place? How do English courts determine the disputed terms of the contract?

The current law of contract was developed during the heyday of the British Empire. It made two assumptions about human interaction which were characteristic of the age and of a powerful, open to trade creditor nation. The first is the assumption that adult humans (and corporations) are presumed to be autonomous and independent. Contract was an expression of the parties’ free will. If the parties have made a choice, evidenced in an agreement which otherwise satisfied the requirements for a valid contract, it was not for the law to rewrite the terms of the contract and to change the bargain. Human (or party) autonomy was, and

40 Lord Reid in *Pettitt v Pettitt* [1970] AC 777 at 794–795.

is on the whole, not to be interfered with in commercial contracts. If the contract was not clear then all the court had to seek was the intention of the parties in entering such contract, so as to insert into it the necessary provisions which the parties would have inserted if they had considered the matter so as to give effect to their intentions.

It was not just the end of Empire and the decline of the ideology of classical liberalism which put paid to the theory of the “parties’ intentions”. As the law became more and more certain a certain standardisation and even statutory codification was possible. This in turn allowed the courts to free themselves from narratives which depended on the “parties’ intentions”.⁴¹ Standard-form contracts further undermined the notion that the parties’ specific intentions had much to do in shaping the particular “agreement” reached when buying a train ticket for the 4:50 from Paddington.

“Parties’ intentions” finally completely evaporated when the courts dealt with the most extreme cases of contract failure, frustration. Frustration is by definition something to which the parties not only would not have addressed their minds at the time they concluded the contract, but could not have done so. In a landmark case the court noted that “the true action of the Court ... consists in applying an objective rule of the law of contract to the contractual obligations that the parties have imposed upon themselves.” Instead of seeking to discern the intention of the actual parties to the contract the court must seek to see what “the fair and reasonable man” whose “spokesman ... is and must be the Court itself” intended.⁴²

The standard of the “reasonable man”⁴³ has not been used to allow wide discretion in the way courts interpret contracts. Their usual restrained attitude remains intact. The reasonable person whose spokesman the court becomes is someone operating in the specific commercial context within which the contract and the dispute relating to it arose. The standards of fairness and reasonableness are all applied by reference to that specific commercial context and are connected to and bolstered by other decisions concerning the same type of disputes within that context.

41 See P S Atiyah, *An Introduction to the Law of Contract*, Oxford 1989, page 15.

42 All quotes from the judgement of Lord Radcliffe in *Davis Contractors v Fareham Urban DC* [1956] UKHL 3.

43 One assumes also woman.

By turning objective the courts have not allowed themselves more discretion than before. Instead they have made their approach to contractual interpretation transparent, thereby further enabling commercial parties to craft their contracts with greater certainty as to the way they will be interpreted.

If the first assumption is that adult humans (and corporations) are presumed to be autonomous and independent, the second one, which follows from it, is that they should therefore be bound to their contracts and be liable for the consequences. Healthy commerce cannot exist without certainty of performance, whether of the commercial contract or for any related finance arrangement. The presumption that agreements must be performed and that debts have to be paid flows, not only from the need to protect commerce and finance, but also from the belief that contracts are entered into by autonomous actors to be performed who should properly be held to their promises. As a result, English contract law is sometimes said to have a pro-creditor bias, a not inaccurate description if “creditor” is understood to include not only the certain-amount claimant, but also the commercial party who has performed its side of the contractual bargain.⁴⁴

The importance of this “pro-creditor bias” cannot be overemphasised. Modern financial markets, with their need for matching positions and back-to-back arrangements and other settlements and clearances, cannot develop and function smoothly without an underpinning and unequivocal obligation for payment of debts, in full and on time. English law recognises and enforces these claims subject only to rights of set-off and onerous provisions on the debtor known as penalties. Set-off rights can, however, be contractually excluded, other than set-off in the context of the debtor’s insolvency, and the courts have provided sufficient guidance on what types of provisions are onerous and will be set aside as offending the public policy limits of adequate creditor compensation. Commercial parties are hence empowered to set their contract terms with very considerable certainty from the outset as to how their contract will be understood and enforced by the courts.

44 This use of “pro-creditor bias” should be distinguished from the use of the same term to describe the manner in which insolvencies proceed, where again English law is said to have a “pro-creditor bias” simply because it allows the creditors, rather than the debtors to lead the insolvency process.

Clarity and predictability for the commercial parties comes, therefore, through the certainty brought by the dense narrative of case law, well-woven together by the judges and the other “officials” of the legal system in a formal way of “objective” contractual interpretation which eschews substantive principle and discretion.

The discussion so far must have made evident that the role of the “officials” of the legal system are central to the way the commercial law evolves, is interpreted and is enforced. In fact, it can be argued that the English common law itself is so inextricably tied with the acts performed by its “officials” in administering it, so as to be very difficult to talk about the one without the other. Indeed, it may be appropriate, at this stage, to quote extensively from one of the few texts [I have found] which addresses the peculiar creature comprised of these officials and their practices, English common law:

“[I]t seems to me that the common law system is properly located as a customary system of law in this sense, that it consists of a body of practices observed and ideas received by a caste of lawyers, these ideas being used by them as providing guidance in what is conceived to be the rational determination of disputes litigated before them, or by them on behalf of clients, and in other contexts. These ideas and practices exist only in the sense that they are accepted and acted upon within the legal profession, just as customary practices may be said to exist within a group in the sense that they are observed, accepted as appropriate forms of behaviour, and transmitted both by example and precept as membership of the group changes. The ideas and practices which comprise the common law are customary in that their status is thought to be dependent upon conformity with the past, and they are traditional in the sense that they are transmitted through time as a received body of knowledge and learning. Now such a view of the common law does not require us to identify theoretical propositions of the common law – putative formulations of these ideas and practices – with the common law, any more that we would identify statements of the customs observed within a group with the practices which constitute the customs. ... Formulations of the common law are to be conceived of as similar to grammarians’ rules, which both describe linguistic practices and attempt to systematize and order them; such rules serve as guides to proper

practice since the proper practice is in part the normal practice; such formulations are inherently corrigible, for it is always possible that they may be improved upon, or require modification as what they describe changes.⁴⁵

The analogy with linguistic practice is illuminating and indeed can be taken a step further. A language exists, lives and evolves within, and thanks to, the use its linguistic community makes of it. Anyone who assumes some responsibility for ordering, systematising and being critical of the way the language is the written and spoken assumes the position of an “official” in that community. Some “officials” will be more central depending on the degree to which the users of the language have organised themselves and have accepted specific practices and accorded to institutions special roles. So, where there are dictionaries and grammar books, these institutions and the persons who run them are likely to be accepted as more central officials in making formulations about the language and its use. The more organised the linguistic group the more likely it is to have such institutions and officials. The more systematic it is, the more likely it is that these institutions and officials will operate in a close and mutually supportive role.⁴⁶

No wonder, then, that when it comes to English common law, it takes time for the hapless law student to master the narrative, to understand why certain turns were taken and others avoided, why the weave is denser here and more colourful there. A bottoms-up system built by practical exigencies and not because of some “grand plan”, a system which avoids wide substantive legal principles, which restricts with its specificity wide judicial discretion is not easy to comprehend without the “officials” of the legal system. Indeed, it may be impossible to understand it very well without being oneself socialised in the system as one of the “officials”.

Here are some characteristics of the English legal system which are often ignored when discussing the common law, its evolution and determination. Barristers and solicitors who have obtained a University law

45 A.W.B. Simpson, “The Common Law and Legal Theory” in A.W.B. Simpson, (ed), *Oxford Essays in Jurisprudence* (Second Series) (1973), page 94.

46 “Languages are dialects with an army and a navy” goes an old quip. I would add that after the army and the navy those countries with languages seek to establish institutions which describe and otherwise comment on the linguistic process and introduce some degree of canonical (i.e. subject to rules) language.

degree become fully qualified after a further year of quasi-academic training and a further one or two years of vocational training working as apprentices (“pupils” and “trainees” respectively) for more senior lawyers. A legal career is indeed also open to non-law University graduates at the cost of a further year of training. Vocational training almost never ceases after that. Litigators, especially, will spend a lot of time reading case law and learning and understanding the current narrative into which this is woven. Barristers who excel may be asked, after many years of practice, to become judges and adjudicate disputes. Judicial selection is made mostly out of the 1,600-strong most senior layer of barristers, the so-called Queen’s Counsel, though recently solicitors (who are also eligible to become Queen’s Counsel) are also selected. Their number is large enough to allow healthy competition but small enough to allow for a proper assessment amongst them for the most suitable. These experienced practitioners staff the highest segment of the small judicial body.

Barristers are organised into collegiate associations, the Inns of Court, which bind their sense of community and help with their socialisation as “officials” of the legal system. Historically, pupil barristers famously had to attend a minimum of 12 formal dinners at their Inn of Court, a practice which today has been broadened by other means of training and socialisation.

Solicitors are trained and socialised within the firms that hire them. City law firms, who do the bulk of the contract work with which this paper is concerned, will often seek to agree common practices when major developments require it⁴⁷ and will establish standing committees and associations together with industry members to consider standards for contracts and industry best-practice matters,⁴⁸ or discuss legal risks and uncertainties and propose solutions.⁴⁹

Solicitors may involve senior barristers whenever an issue of legal uncertainty arises, particularly in novel circumstances that challenge the sense of existing contract terms. These consultations and the role of barristers in advocating on behalf of litigants in disputes are very impor-

47 As for instance they did to agree a common approach to address contractual changes required by the dematerialisation of debt securities.

48 For instance the *Loan Market Association* <http://www.lma.eu.com/> or the *International Capital Market Association* <https://www.icmagroup.org/>.

49 For instance the *Financial Markets Law Committee* <http://www.fmlc.org/>.

tant because they form a vital link between the active world of financial markets and the legal system “officials”, some of whom may in the future consider new issues coming out of these markets, but from the position of a judge.

Interestingly, law as an academic discipline is very different from that in continental Europe. For practicing lawyers, post-graduate studies are rare, not really encouraged and, in some fields, viewed with benign indifference. The higher academic part of the discipline, which on the Continent is pursued by practitioners with higher academic degrees and dissertations, is pursued in England by a career in certain practices, mostly as a barrister but, more recently, as a solicitor as well⁵⁰.

The selection and make-up of the judiciary is another area where the difference with continental Europe is vast. Judges in England come from the ranks of the practitioners, mostly barristers and a few solicitors, whereas on the Continent judges are career civil servants mostly starting right out of University with no practical experience of the commercial disputes they will be called upon to adjudicate.

The organisation of the courts hearing commercial matters enhances the unity of the “officials” serving the administration of the justice system. There is only one court hierarchy in England and Wales, with clear levels and with the highest ranks all sitting in London. This has to be contrasted with the systems of some continental countries which may have separate court hierarchies and decentralised systems. The difference highlights again the importance that the principles of precedent and *stare decisis* play in the English legal system. Without a unified court hierarchy application of these principles would be either meaningless or just chaotic. By contrast, systems where precedent plays less of a binding role and is indeed always subject to the rule book, do not require a fully unified court system.

The emphasis on the vocational training and the socialisation of its practitioners, the importance of the continuum between industry practice, legal commercial practice, advocacy and adjudication, and the unitary and clearly set out court hierarchy, underscores the importance of the social organisation of the officials for the functioning of the legal

50 I understand that this is the case mostly with certain types of Intellectual Property practices.

system. Ultimately, this body of similarly trained persons, operating together in functional unity, ensures that the common law delivers on its certainty and predictability and becomes itself the collective narrator of the common law narrative.

Describing the legal system's officials as the collective narrator of the common law narrative suggests that it is impossible to distinguish between the law itself and the manner in which it is administered and delivered by the officials. To see whether this is so, let us revisit quickly the elements of the commercial common law on which we have focused. The principles of precedent and *stare decisis* are principles which are best understood in practice by the actions of the system's officials, without whose presence the narrative of the common law and its telling and retelling of what is *ratio* and what is *obiter* would not be possible. The emphasis of the incremental development of the law through narrow, mostly formal rules that enhance finality (and through finality, predictability and certainty) would not be possible without the system's officials. The siren songs of quasi-legislative steps and of grand principle are ignored thanks to the steadfast position of the officials. The unique way to interpret contracts is itself a practice developed and perfected (and still much debated) by the officials.

Why do any of these things matter? Certainty and predictability of contract law is crucial for commercial and financial markets. Both markets need certainty so that they can price choices in contracts and outcomes of contracts. The greater the certainty, the more accurate the pricing. The more accurate the pricing and the outcome, the more complex the system of transactions that can be assembled.

Party autonomy provides almost infinite flexibility. Parties can design their contractual bargains as they wish. Flexibility in design, matched with certainty and predictability of choices and outcomes, makes the establishment of complex arrangements possible on a contractual basis and not necessarily through the medium of an organised firm. Indeed, English common law is suitable to document everything from the free-wheeling, *ad hoc* and always unique arrangements of the souk to those of organised markets where parties enter and care only about matter traded, price, and quantity, with contract and regulation taking away even counterparty risk.

Conclusion

Having a utility such as the one provided by the English legal system, law and courts, serving the international commercial and financial matters is no small thing. No doubt other utilities exist and have their own advantages and merits.

Brexit, still subject to a number of rollercoasters till it fully plays out, will mark the political and economic life of the UK for a long time. The upheaval caused by Brexit inevitably raises the question of the future of the English legal system as an international utility. Seeking to explain what are the system's special features and why it is important for commercial and financial matters is one of the important debates in which the English system officials, the users of the system as well as the officials of competitor systems must engage. Limiting its use by regulatory fiat would be short-sighted and potentially prejudicial to the international commercial and financial world. Believing that it can or should be partly copied or otherwise easily emulated, runs the risk of not doing full justice to genuine efforts to modernise and upgrade other legal systems. Let us hope that the debate will be intense but fruitful and that the outcome will be a better understanding of the function and importance of judicial systems both for the running of commerce and finance and for the promotion of the rule of law.

REGULATORY ARBITRAGE: SOME THOUGHTS

Lachlan Burn

“This is where firms take advantage of loopholes in regulatory systems to avoid certain types of regulation. This can be achieved by conducting business, creating products and services in certain locations that are outside the purview of regulators.”

Financial Times Lexicon

“Regulatory arbitrage is a practice whereby firms capitalize on loopholes in regulatory systems in order to circumvent unfavorable regulation. Arbitrage opportunities may be accomplished by a variety of tactics, including restructuring transactions, financial engineering and geographic relocation. Regulatory arbitrage is difficult to prevent entirely, but its prevalence can be limited by closing the most obvious loopholes and thus increasing the costs associated of circumventing the regulation.”

Investopedia

1 Introduction

These attempts at definition are interesting, for several reasons. First, they both indicate that there is something faintly distasteful – indeed wrong – about regulatory arbitrage. It seeks to “avoid” or “circumvent” regulation. The definitions might avoid being pejorative in tone if they allowed that avoidance is sometimes caused by regulation being unfair or unjust in its application, or even just inappropriate; but that implication is difficult to find. The notion that both definitions seek to convey is that the person engaging in regulatory arbitrage is doing something that ought not to be done. It is something that needs to be “prevented”.

Secondly, they both imply that there are two actors involved in the process, one legitimately trying to regulate and the other illegitimately trying to avoid or circumvent.

And, thirdly, there is a suggestion that the intention is to avoid regulation whereas, as I will suggest later, there are forms of regulatory arbitrage that involve transactional shift from a less appropriate regime to another, more appropriate regime, often within the “purview” of the same regulator.

In many respects, though, both definitions accurately describe one form of regulatory arbitrage. Regulated entities often resent regulation and seek to avoid it in the ways suggested, in order to maximise profit for themselves – and, sometimes, their clients. I have little to say about such practices, except to note that loopholes that allow them to occur are defects in regulatory structure and it is incumbent on regulators to close them down. And I might add that where such practices are lawful it is important to avoid demonising those that engage in them. Civilized societies are dependent on the rule of law. The rule of law depends on certainty as to what is, and what is not, lawful. Those that engage in lawful practices should not be pilloried for failing to observe morality or the “spirit” of the law because that leads to mob rule and the law of the jungle. “Avoidance” is not the same as “evasion” and to elide the two is to threaten the fabric of the rule of law and the society that depends on it.

The definitions are, however, too limited in scope and omit other aspects of regulatory arbitrage that are, to me, more interesting and (I believe) worthy of discussion. For example, is regulatory arbitrage wrong where the law or regulation in question expressly permits (or even encourages) it? What if the regulation that is avoided is simply inappropriate – or even unjust or unfair? Should market participants be able to choose between jurisdictions within which, or from which, to transact business where the law is unclear and one jurisdiction interprets it more sensibly than another? Is arbitrage something that is engaged in solely by those conducting business – or do regulators and states themselves encourage it by competing with each other? And, finally, are there occasions where the same regulation needs to be interpreted differently in two jurisdictions, because of differing market conditions?

I will try to look briefly at some of these questions, with some illustrations, and I will end with some thoughts on some of the factors that make regulatory arbitrage an unavoidable feature of a global market place.

2 Types of regulatory arbitrage

2.1 *Regulatory inspired arbitrage*

Regulatory arbitrage is on occasion built into regulation. Take, for example, the EU regime that regulates financial markets – the Markets in Financial Instruments Directive¹ (MiFID). The fundamental concept that underlies the regime is that of the passport. Firms are authorised and regulated in one EEA jurisdiction but are able to operate in every other EEA country. Of course, this is only possible because the body of regulation that permits it is uniform across the EEA, so that it should not (and in theory does not) matter where a firm is established or regulated². One size fits all. But the point here is that firms have choice of where to establish and be regulated. That choice is influenced by a number of factors, of which perhaps the most important is the desire of the EU to develop a single market. Separate markets, with different authorisation requirements and regulation for those operating in them, are inevitably less efficient and more costly than a single market. Financial markets fund the real economy and are fundamental to economic growth, jobs and prosperity, so it is in the interest of states and their regulators that the markets should be as cost effective and efficient as possible. This leads inevitably to the concept of the passport and the prospect of regulatory arbitrage that it opens up.

Choice is also important (and, I believe, necessary) due to other factors, which result in some EEA jurisdictions being better suited as the “home” of many financial institutions than others. In theory, it would be possible for there to be a financial centre in each EEA Member State, and for the financial institutions to be evenly spread throughout the EEA. In practice, that is not what works best. Financial markets benefit

1 Directive 2004/39/EC.

2 This is expressly recognised in Recital 46 to the new MiFID (Directive 2014/65/EU) which requires a Member State to withdraw authorisation from firms that have chosen that State to evade the stricter standards in force in another State where they intend to conduct business.

from “clumping” – from the firms that operate in them being physically proximate to one another. This is partly due to human factors – human beings working in the same lines of business seem to congregate together and operate better when in large groupings. Think of Silicon Valley. Relatively dull factors such as infrastructure (power stations to run the necessary computers, transport and living accommodation for staff, support services such as accountants and lawyers and so on) also contribute to choice of location for a business.

Choice of location for regulatory purposes is also partly influenced by favourable (or unfavourable) perceptions of the expertise of the relevant regulators. Some national regulators have more experience at regulating financial markets than others and firms naturally choose those that are more skilled over those that are less experienced. And politics also comes into play. It is no secret that some EEA jurisdictions look upon finance with a more jaundiced eye than others and it should be no surprise that firms avoid them if they can.

Interestingly, if regulatory arbitrage were something that regulated entities indulged in in a predatory way, one would think that choice of jurisdiction for authorisation would lead to gravitational pull towards the most relaxed and least powerful financial centre. The Machiavels in charge of the firms would locate themselves where they could out-smart the regulator and (perhaps) indulge in regulatory capture by becoming so important to their home jurisdiction that they can dictate the rules. But that is not what has happened. Rather the reverse. Some of the more strictly regulated jurisdictions appear to be the most attractive to regulated firms.

This point may benefit from a couple of illustrations. Take, for example, the authorisation regime under the Markets in Financial Instruments Directive. I suspect that most people would accept that the UK is one of the world’s leading financial centres, but for those who doubt, perhaps a few facts might demonstrate the point. According to The CityUK³ the UK is the third largest banking centre globally, playing host to 250 non-UK banks (more than any other financial centre) and providing 17% of international bank lending in 2016. Assets under management in the UK amounted to £6.8 trillion in the same year, of which about a third

3 “Key Facts about the UK as an International Financial Centre”, November 2016.

was managed for non-UK clients. The UK accounted for roughly a third of foreign currency trading and hosted the largest insurance industry in Europe and the third largest in the world. And so on.

Who regulates all this? The UK's Financial Conduct Authority. Do they represent the lowest common denominator? Views may differ, but as one who deals with FCA regulation on a daily basis, I think not. Rather the contrary. When there was a risk that hybrid bank capital instruments might be sold to retail investors, it was the FCA that stepped in and introduced a ban on sales, using its market intervention powers. The product governance regime that is being introduced under MiFID II, to ensure that securities are better targeted at appropriate investors, is based on a regime introduced in relation to retail structured products by the FCA several years ago. In 2006, the FCA carried out a review of the retail markets in the UK and implemented tough new requirements for independent financial advisers – so tough, indeed, that the resulting drop out from that sector led to an advisory “gap”, leaving anyone without significant funds to invest without anyone to advise them⁴.

Are these the actions of a weak, market friendly regulator? Clearly not. Did market participants head for the UK's airports in search of “lighter touch” regulation because of the tough approach of the regulator? Again, clearly not.

The UK's listing regime provides another useful example. Any company seeking admission to the EU's regulated markets has to comply with various directives and regulations. Prior to admission, a prospectus must be produced, complying with the prospectus directive. Following admission, annual and semi-annual reports must be produced, in accordance with the transparency directive. And so on. But the UK has its own “gold plated” regime, that sits alongside the EU's. Companies seeking a listing of their shares on the UK's regulated market have a choice between the EU's regime (a “standard” listing) and the UK's own “premium” listing regime, which takes the EU's requirements and adds to them. The additions mainly relate to extra corporate governance requirements. One would think that companies seeking an easy regulatory life would go for a standard listing. But very many don't.

4 See the Final Report of the Financial Advice Market Review, a joint FCA and HM Treasury paper of March 2016.

Why would regulated entities not seek the lowest possible level of regulation? Given that, in many cases, avoidance is possible, is the failure to avoid evidence of corporate masochism? Or is there a more rational explanation? I suspect the latter. Markets comprise buyers and sellers, issuers and investors, those who have funds to invest and those that need to use those funds. Not surprisingly, investors care about the safety of their investments and therefore take regulation very seriously. Issuers and intermediaries that operate under lax regulatory regimes will be less attractive than those that comply with sensible, more rigorous rules. It is therefore hardly surprising that those who need to attract investment are prepared to submit to higher levels of regulation.

The disclosure regime for new issues of securities provides another example of “built in” arbitrage of this sort. Again, there is a passport. Once the prospectus is approved in the home state, it can be used in all other states for admission to the regulated market or for a public offer. Again, one might think that the choice of approval jurisdiction that is given to issuers of many non-equity securities would lead to a flight to the lowest common denominator. The laxest, least experienced, approving authority would attract all the business. But, again, this is not what has happened. As we shall see, there is arbitrage – in the sense of issuers and their advisers switching from time to time between authorities – but the main approving authorities are the handful of main financial centres, none of which could be described as the bottom of the pile, in terms of regulatory rigour. Issuers and firms advising them are not searching for soft touch regulators. Rather, they look for regulators that have experience and knowledge and capacity to handle the prospectus approval process expeditiously. If it were otherwise, there are many regulators in the EU who might provide a better option. Firms operating in new issue markets much prefer to deal with regulators that are experienced and understand how markets work. A great deal of time can be spent dealing with inexperienced regulators, often with no guarantee of a successful resulting transaction – or, indeed, of greater investor protection as a result.

In conclusion, it is, in my view, wrong to assume that arbitrage inspired by regulation will always result in a “race to the bottom”. If that were the case, the UK would not host one of the leading global financial markets; and those listing international bonds in the EU would not focus on a mere handful of possible locations, but would seek out the laxest

regulator among the 28 member states. But this is not to say that, where market forces allow, the race will end up near the bottom. Sometimes regulation may be so misguided (in the view of the market) that there is no option but to avoid it. And, if investors accept that avoidance and will still buy, then the market will continue to prosper in spite of the reduction in regulation.

2.2 The human factor

Having said that, regulators (and, indeed, markets) are populated by humans; and humans sometimes make poor judgements. So, even though all authorities charged with approving prospectuses in the EEA operate under the same set of rules, not all of them use the same judgements in applying the rules. From time to time regulatory enthusiasm can wax or wane. And if as it waxes it becomes, from a market perspective, excessive then it can result in regulatory arbitrage. Market participants who have the ability to do so will move to another regulator.

This is less easy to do in relation to MiFID authorisation – although, of course, new market entrants may avoid draconian jurisdictions and, over time and if things get bad enough, established firms may decide to move their business elsewhere. But in relation to regulatory matters such as new issue prospectus approval, it does happen from time to time. Every so often, those charged with reading and approving prospectuses become over-enthusiastic. Comments on drafts increase in volume and decrease in relevance. Costs increase, as the process consumes more advisory time, and frustrations mount. Eventually the pressure causes a move to another regulator. But this is not caused by a desire to avoid regulation; rather it is a result of a desire for better, more proportionate, regulation.

2.3 Regulatory over-reach

Sometimes regulators can over-reach themselves. This can take several forms. One form consists of gold plating. A minimum EU standard is implemented by a state, which then adds to it. This is not always bad. For example, as mentioned earlier, in the United Kingdom equity issuers have a choice of listing under a “gold plated” regime – premium listing – which subjects them to corporate governance and other requirements that are additional to the EU-wide listing requirements. And many issuers choose to use this regime, presumably because it attracts more investors. However, where the additional regulation is simply piling Pelion on Ossa, it

can amount to regulatory over-reach with more cost to firms than benefit to market users and can lead to avoidance by firms.

Another form of over-reach is where a market wide regulatory decision is taken inappropriately. An example of this arguably relates to convertible bonds, where the European-wide regulator, ESMA,⁵ interpreted the EU prospectus disclosure requirements as requiring a working capital statement, on the basis that convertible bonds are close to equity (for which such a statement is required). The argument against this treatment included the fact that wholesale investors regarded convertible bonds as debt, not equity; that, even if this was wrong, a working capital statement would be out of date and therefore useless by the time the bonds were converted into shares; and that wholesale investors (at whom such bonds were targeted) did not require such a statement. These (and other) arguments were rejected, with the result that convertible bonds are now largely issued without admission to a regulated market and to wholesale investors only, so that no prospectus at all is required. And, indeed, none is produced – which neatly illustrates the weakness of the regulatory case, given that wholesale investors have ample commercial strength to require whatever disclosure they want and appear happy to receive none.

Another developing example of regulatory over-reach may be the new EU regimes regulating retail packaged product disclosure and product governance. It is too early to say what effect these may have on markets but early indications are that they may result in non-equity investments being limited to wholesale investors, with retail investors only having access through managed funds or discretionary management. A move of target investor base from retail to wholesale, to take advantage of the different, less burdensome, regulatory regime applying to the latter, is an example of regulatory arbitrage. If it occurs, it will be as a result (unfortunately) of well-intentioned consumer protection regulation having unintended consequences. Indeed, the consequences (if they occur) will defeat one of the declared objectives of the current EU Commission which, through its Capital Markets Union initiative, has recognised the need to provide a wider range of investment opportunities to retail investors.

5 The European Securities and Markets Authority.

2.4 Regulatory competition

Regulatory arbitrage is sometimes the result of competition between regulators (or even states). For example it is no secret, in the context of the recent decision by the United Kingdom to leave the European Union, that several key EU states are jockeying for position in their eagerness to coax financial firms located in the UK into their arms. France, for example, has said that it would welcome refugee bankers from the soon-to-be isolated UK, offering tax breaks and proposing to build a number of new office blocks in Paris to accommodate them. It is in competition with Ireland, the Netherlands and Germany, to name but three. Some within the United Kingdom have, in turn, suggested that the UK should turn itself into a light touch, low cost, off-shore financial centre, unless the EU accommodates demands for a degree of free market access. And, of course, some countries have used tax reduction very effectively to bring firms within their fold.

No doubt firms that succumb to these blandishments will be accused of regulatory arbitrage, even though the prime movers are the states rather than themselves.

Regulatory authorities also compete with each other. Until relatively recently, the UK Listing Authority had a statutory objective to do with maintaining the competitiveness of the UK's markets. And even though this has now been removed, the UKLA is understandably concerned whenever there is a downturn in the volume of issues that it handles. It is currently consulting on whether it should set up a Multilateral Trading Facility, to sit along side the existing array of regulated and exchange regulated markets in the UK, influenced no doubt by the availability of such markets elsewhere in the EU. And under the same influence, the London Stock Exchange has recently set up its own MTF, to compete with similar markets in Luxembourg and Ireland.

Again, if the market responds by moving business to these new markets, it will be regulatory arbitrage inspired by competition between regulators rather than market participants.

2.5 *Market prestige*

Regulatory arbitrage can sometimes depend on something as simple as perception and reputation. Some markets are seen as being the places to be; others are not. A listing on London is not the same as a listing (to pick a fictitious and therefore non-contentious example) the Ruritania Exchange. Prestige counts and issuers and investors will seek it out. It is hardly surprising, therefore, that the financial intermediaries that facilitate deals base themselves in those centres. It may result in regulatory arbitrage, with some regulatory regimes profiting at the expense of others; but it is not regulatory arbitrage driven so much by the regulated as by those who are protected by regulation – the investing public.

2.6 *Law*

Rules do not exist in isolation. Even the best harmonised rulebook needs interpretation – by regulators and, ultimately, by the courts. In the EU, the ultimate legal interpretative power lies with the European Court of Justice. But, as the rules need to be interpreted in the light of individual cases, where a transaction is involved the ECJ's interpretation will rely, to an extent, on the interpretation of the nature of the transaction under its governing law. European law gives the parties to a transaction, in a wholesale context, considerable freedom to choose their own governing law. That choice will influence the economic result of the transaction and may therefore affect the way in which the harmonised EU rules apply to it. So, for example, some EU jurisdictions give their courts greater latitude to readjust the balance of contracts after they have been executed, to reflect changes in circumstances; others place greater emphasis on the contractual terms as written, to which they give effect regardless of any alleged unfairness due to such changes. Choice of law can, therefore, also be seen as a form of regulatory arbitrage, but one lacking any reprehensible desire to avoid regulation because it is based on the free choice of the parties and without intent to avoid the regulations in question.

It will be interesting to see whether the departure of the United Kingdom from the EU will lead to a reduction in the use of English law for international financial transactions. Logic and reason indicate that it should not. There is no legal restriction imposed on commercial parties as to the choice of law to govern their transactions. It is true that it will be important that the current provisions that govern choice of law and

applicable jurisdiction under EU law are replicated in some form once the UK leaves the EU. But English law governs financial transactions that have nothing to do with the EU and has done so for several centuries. With limited exceptions choice of English law and enforcement of English judgements have not given rise to any difficulties. And even in those limited cases, where enforcement of judgements might prove difficult, contractual arbitration provisions have provided an effective remedy.

There is therefore no reason why anyone should replace English governing law and jurisdiction of English courts with any other jurisdiction. However, as we have seen in recent years, humans are influenced as much by emotion as by reason and there may be moves in some quarters to change applicable law and courts. – whether to punish “perfidious Albion” for its betrayal of the European Project or whether because of a resurgent nationalism. Whether such attempts will succeed in an international market, where investors hail not just the 27 remaining EU states but from the Near East, Asia and the Americas as well, will only become apparent in the course of time. I suspect not, though. Trust in a legal system and its courts develops over long periods of time. Investors care about this sort of thing and have been made even more aware of its importance by recent sovereign restructurings, where those owning bonds subject to the issuer’s own laws fared less well than others.

Will the English courts respond to any move away from the use of English law in financial transactions – say, by changing the way they interpret contracts to suit the market better? I would say absolutely not. Judges are not business people in search of profits. English common law, though heavily based on precedent, does adapt to changes in circumstances from time to time. The law relating to interpretation of contracts in the 21st century bears little relation to that of the 17th century. But changes are incremental and designed to take account of things like changes in technology or methods of doing business in the commercial world. No judge will deliberately promote a change in order to drum up more business for the courts or to persuade market participants to continue to use English law.

3 Causes, remedies and the irredeemable

Regulatory arbitrage, therefore, has a much wider meaning than simply using differences between legal systems to avoid regulation or to make a profit. It may be interesting to move on, to look at why regulatory arbitrage (of every sort) exists and how the worst sorts might (in theory) be contained.

3.1 *Exchange control*

Perhaps the most important factor that allows regulatory arbitrage to exist is the absence (at least in the more developed economies) of exchange controls. This was a fundamental step without which the international markets and global economy that we have today could not have developed. Imagine financial markets where a company in Country A wanting funding to build a factory in Country B had to apply to its central bank for permission to borrow in Country B's currency (or, indeed, to borrow at all). How would the EU's single market work if investors had to get permission before buying securities in another jurisdiction? How could the euro exist?

The benefits of the abolition of exchange control, from an economic perspective, are well recognised (though by no means by all); but the consequences, from a regulatory perspective, are much less well understood. Put simply, if you restrict the activities of your economic actors to your own jurisdiction, you can impose on them whatever regulatory regime you wish. They can go nowhere else (at least, not without your permission). If they want to invest, they must use your currency and invest in your economy, under your rules. Conversely, when you remove the controls on the movement of money, you lose an important element of regulatory control. If you make the rules too onerous, money will simply flow elsewhere.

3.2 *Lock-down activity in a jurisdiction*

Of course, money is only one aspect of any transaction. For any deal, you need several actors – a buyer and a seller, for example. Regulators can (and do) fasten on this fact, for instance by saying that anyone wanting to do business with anyone in their jurisdiction has to do so under their rules. Think of MiFID in the EU. This is a powerful tool; but it does not make the regulator omnipotent. You can require anyone who wants to

sell a bond to someone in the EU to do so under EU rules; but you can't stop the investor boarding a plane in the EU and flying to another financial centre outside the EU, with a briefcase full of cash, to buy whatever it wants. Only exchange controls will do that.

3.3 Prevent investors from operating outside a jurisdiction

But what about imposing limits on what investors can buy? For example, many wholesale investors in the EU are regulated entities, such as pension funds. As a policy matter, it is important that they invest prudently and there are, therefore, prudential rules that apply to them as to what assets they can hold. In theory, it would be possible to curb regulatory arbitrage by requiring a substantial proportion of those assets to be bought, say, on EU markets. That would force issuers and their financial intermediaries into the EU regulatory net. And there is some force in that argument although, probably, little economic sense. It is difficult to see how EU pensioners would benefit from their funds having limited access to investment in those global companies that choose not to come to the EU's markets.

3.4 Single rule book

Another way of limiting regulatory arbitrage is to develop a single rule book, which would make it irrelevant where one transacts business, as the rules everywhere will be the same. Examples of this include the development of International Financial Reporting Standards (which, interestingly, have developed some regional differences as a result of states indulging in regulatory arbitrage); and the efforts of the EU to develop detailed harmonised rules in relation to financial markets, involving the increased use of regulations, rather than directives, to ensure that the same rules apply everywhere.

The problem with this solution, though, is that there is no universal single rule book and it is unlikely that there will be one in the foreseeable future. The nearest one gets to such a thing is the high level deliberations of IOSCO or, in relation to accounting, the efforts that resulted in the somewhat fractured International Financial Reporting Standards. And even if there were such a rule book, it would still need to be applied and interpreted in the same way everywhere, which is highly unlikely given the propensity of any two human beings to see things differently.

4 The Future?

One thing that has become very clear in the past year or so is that predicting the future is a foolish occupation. However, I will venture two thoughts as to future possibilities in this area, if only to provide a couple of ducks for the sports enthusiasts to shoot at.

The first relates to the raising of capital. At present, this activity is fairly heavily intermediated and, as a result, increasingly heavily regulated. For example, we have rules on transparency of fees, on allocation policies, on disclosure, on behaviour (a lot to do with market abuse and insider dealing) and so on. I doubt whether intermediation will survive in the new issues markets, though – at least for the better rated issuers. Rather, I suspect that technology will eventually allow such issuers to raise capital from insitutional investors directly. A finance director will send an electronic message requesting indications of interest in providing a certain amount of funding to it. Investors will respond with the amounts they are prepared to lend and the other commercial terms. The most favourable options will be sorted by technology and, after a certain amount of toing and froing between the computers of investors and the issuer, a deal will be struck and the documentation will be produced and executed between the computers. All of this will take minutes. And there will be little to worry the regulators as the arrangements are pricipal to principal. No intermediaies. No regulation of intermediaries. No need for regulatory arbitrage.

The second tentative prediction tends in the other direction. It is based on the assumption that globalisation will continue (an assumption that declarations by President Trump might make unrealistic). However, if it does survive, we will see a continuation of the current trend towards greater complexity of markets and the instruments that are traded in them; and an increase in the size of those markets and the institutions that operate in them. “Too big to fail” may become (indeed, may already be) “too big to manage” or “too difficult to understand” and therefore “too hard to supervise”. This will not (and should not) stop attempts by regulators to regulate. We will see more rules. Will they be uniform across all markets? I doubt it. The rules for bank capital have been reasonably successful at achieving uniformity on the regulatory page but uniformity of interpretation and application has been somewhat wanting. And the

indications by the new US administration that it intends to dismantle some of the recent post-crisis bank regulation does not augur well for universal rule making.

Nor, perhaps does the recent decision of the United Kingdom to leave the European Union. It remains to be seen whether that will lead to a marked divergence between UK and EU regulation or whether the desire for mutual market access will lead to some kind of continued convergence between UK and EU regimes. Again, much will depend on which of head and heart rules the other. One would think that Europe, still rebuilding after the recent financial crisis and other shocks, will pursue growth objectives to restore economies, create jobs and prepare for the next wave of shocks (not least, the looming demographic shift that will, if we are not careful, overwhelm health, welfare and old age provision; and the threat to employment from the development of artificial intelligence). If so, logic would indicate that one should leave a funding engine such as the international capital markets alone – even though they happen to be based in London.

Some sort of regulatory equivalence arrangement will need to be reached, particularly in relation to retail markets, where consumer protection is paramount and, understandably, national and EU regulators will want to rule their own patch. But wholesale markets, which are huge both in volume and in economic importance, should be left alone. After all, European companies fund themselves, and EU institutional investors buy assets, in markets as far apart as New York and Japan and do so without any EU regulatory umbrella. Why should the UK as a “third country” be any different?

But then, more emotional reactions may prevail. There are some who detest “Anglo-Saxon” financial markets and consider them to be toxic, much as some environmentalists have an absolute aversion to nuclear power. To them, the evisceration of the markets currently based in the UK would be a highly prized goal. Others believe in self-reliance. It is not safe they argue, to rely on funding from foreign markets. To them, Brexit may represent an excellent opportunity to build domestic markets.

It is far too early to predict how the debate may resolve itself. We are in a world of unknowns and not knowables and we can only hope

that intelligent people will eventually reach rational conclusions, thereby avoiding unnecessary pain and suffering.

Will uniformity increase over time? Again, I doubt it. National interests will continue to defeat attempts at global uniformity. And differences will create regulatory gaps that allow the unscrupulous (whether regulator or regulated) to take advantage. So market complexity will lead to more regulation and this will, absent regulatory uniformity, result in opportunities for arbitrage.

5 Conclusions

In conclusion, therefore, I am somewhat pessimistic about the prospect of elimination of regulatory arbitrage, in its narrow sense. Multi-jurisdictional attempts to remove abuses tend to introduce increasing regulatory complexity, which is in many ways grist to the profit-seeking arbitrageur's mill. To combat this, some regulators resort to legislative short cuts - for example, the use of overriding and all-encompassing general principles, such as requirements for firms to behave with market integrity or fairness or in the best interests of their clients - all to be judged, of course, with the benefit of hindsight viewed through the eyes of the regulator. The problem is that neither legal complexity nor legislative short cuts will eliminate the evil; and, what is for me worse, both infringe the important principle of the rule of law, by making compliance difficult and enforcement unpredictable.

I am also ambivalent about regulatory arbitrage in its wider sense. I am not at all sure that market choice of regulator or regulatory system is always a bad thing. Indeed, sometimes it is very positive, in that it gives markets flexibility without investor detriment.

And even if I thought otherwise, I do not believe that it is possible to change the way things work without restricting (or maybe even closing down) the global economy, which may, of course, happen. If it did, though, I suspect that debate about the benefits or disadvantages of regulatory arbitrage would be lost in the white noise generated by the resulting melt-down of the financial markets.

AFTER BREXIT: REBOOTING EURO AREA FINANCIAL INTEGRATION

Jeromin Zettelmeyer¹

This essay deals with the impact of Brexit on the financial stability and integration of the EU-27 – particularly on the Euro area – and its implications for EU-27 financial reform. From the perspective of the Euro area financial system, should Brexit be regarded as a threat or an opportunity? The answer is “both”, for reasons that go beyond the obvious trade-off between losing the EU’s most important financial center while benefiting from the absorption of some of its activities into the Euro area. While it is unlikely to lead to market disruptions, Brexit will be unambiguously bad on impact for the EU-27 and Euro area financial systems, in part because it will raise the costs of financial intermediation, but mainly because it will bring the weaknesses of the EU’s incomplete banking and capital market union into even sharper relief. For this reason, however, it may spur reform. Therein lies the main opportunity.

In what follows, this argument is developed in five steps. First, a brief description of the state of Euro area financial integration. Second, a summary of continuing obstacles to full financial integration, and how Brexit will likely interact with these obstacles. Third, how the ensuing problems should be addressed at both the EU-27 and Euro area levels. Fourth, why these reforms are likely to be difficult, particularly at the level of the Euro area. And fifth, how these difficulties could potentially be overcome.

1 I am grateful to Markus Brunnermeier, Gabriele Guidice, Sam Langfield and Nicolas Véron for helpful discussions on the topic of this paper.

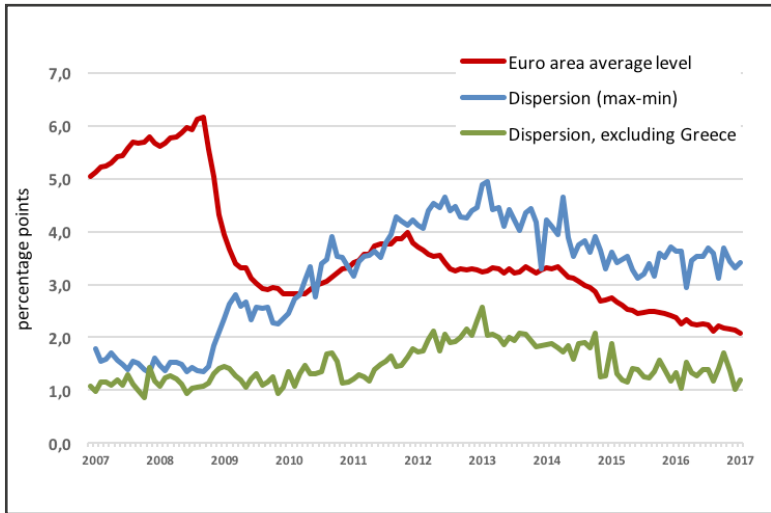
Incomplete Euro area financial integration: a tale of two charts²

In a financially perfectly integrated currency area, firms with identical firm-level creditworthiness should be able to borrow on the same terms, even when they are based in different member countries. A crude measure for the extent to which the Euro area fails to achieve perfect integration is hence the difference in average lending rates to non-financial corporates across countries, shown in Figure 1. This measure is crude in the sense that differences in average lending rates may reflect structural differences between the firm populations that relate to creditworthiness (for example, Germany having a larger share of medium and large enterprises than Portugal). However, structural differences of this type should not vary much over time. Therefore, large variations in the cross-country dispersion of average bank lending rates over time are likely to reflect country-level factors preventing full financial integration – such as sovereign risk and the strength of the banking system – rather than changes at the firm level.

Figure 1 shows that, by this measure, the Euro area was financially well integrated prior to September 2008: the dispersion of average firm borrowing rates across Euro area countries was only about 150 basis points, and just 100 basis points if Greece, the country with the highest borrowing rates, is excluded from the sample. The overall dispersion then rose sharply after the collapse of Lehmann, stabilized briefly, and then resumed its rise in early 2010. Comparing the two definitions of dispersion used in the chart (i.e. the blue with the green line) shows that this reflects mostly a “Greece effect”. If Greece is excluded from the sample, the dispersion of bank lending rates in the Euro area is basically stable until mid 2011, even though the average bank lending rate (red lines) shows wild swings. In this sense, financial integration in the Euro area held up even in crisis times. Beginning in mid-June 2011, however, when the crisis spread to Italy and Spain, dispersion rose steadily even in the definition that excludes Greece, reaching a maximum of almost 300 basis points in early 2013. By the end of the year, it has fallen back to just 200 basis points, and by mid 2015, to 100 basis points. Since then, dispersion excluding Greece has fluctuated between about 100 and 150 and is hence essentially back to pre-Lehmann levels.

2 See ECB (2017) for a much deeper and more detailed assessment of financial integration in the Euro area.

Figure 1. Average level and dispersion of bank lending to non-financial corporations



Source: ECB and author's calculations.

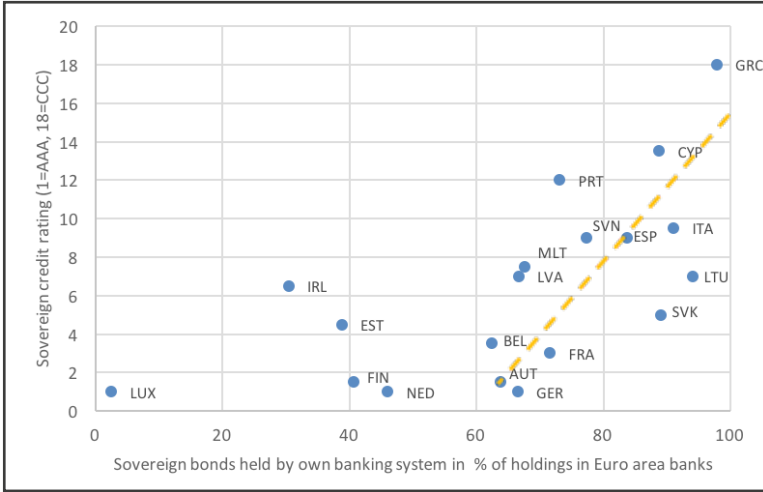
Note: Average and dispersion measures calculated for Austria, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal and Spain.

Based on Figure 1, one is tempted to conclude that “financial fragmentation” – the opposite of financial integration, and one of the hallmarks of the Euro area crisis – has been overcome for some time now. However, the chart also shows that until the start of the ECB’s public asset purchase programme in early 2015, dispersion was about twice as high – 2 percentage points – as it is today. Without ultra-easy monetary policy, the level of fragmentation is likely to be significantly higher than the current numbers suggest.

One reason for why this may be the case is illustrated in Figure 2. The vertical axis shows the most recent average sovereign credit rating of every Euro area country, expressed on a 22-point scale (1 denotes the highest possible rating, i.e. AAA; 22 the lowest). On the horizontal axis, the figure shows a measure of the geographic concentration of bank holdings of sovereign bonds for countries in the Euro area, namely, the face value of sovereign bonds issued by the country held in its own banking system divided by the face value of sovereign bonds held in all banking

systems in the Euro area. For example, banks residing in Luxembourg hold a very small share (just 2.5%) of Luxembourg government bonds held in Euro area banks, whereas banks residing in Greece hold virtually all (98%) of Greek government bonds held in Euro area banks.

Figure 2. Sovereign credit ratings and the geographic concentration of sovereign bond holdings



Source: ECB, rating agencies, and author's calculations.

Note: Sovereign credit rating computed on a 22-point scale, based on average of Fitch, Moody's and S&P rating, where 1 is best (AAA) and 22 is worst. Sovereign bonds held by own banking system in % of holdings in Euro area banks computed by dividing series BSI.M.XX.N.A.A30.A.1.U6.2100.Z01.E from the ECB's Balance Sheet Items database (Debt securities held, Total, Outstanding amounts at the end of the period, Domestic, General Government; where XX is a placeholder for the country code, e.g. for Austria: XX = AT) by series BSI.M.XX.N.A.A30.A.1.U2.2100.Z01.E (Debt securities held, Total, Outstanding amounts at the end of the period, Euro area (changing composition), General Government). The series can be downloaded from <http://sdw.ecb.europa.eu/browse.do?node=9691311>.

Figure 2 illustrates three points. First, the dispersion of sovereign credit ratings of Euro area countries remains very high. It goes all the way from AAA (Germany, Luxembourg and the Netherlands) to Greece's sub-investment rating. Second, with few exceptions, Euro area bank holdings of sovereign debt are concentrated in the country of the issuer, with a

median concentration of 68%. This is a legacy of the debt crisis (Battistini et al 2014, Brutti and Sauré 2016). Third, while the sovereign credit rating and bank holding concentration are uncorrelated for the countries with a relatively small share of sovereign debt in the balance sheet of their own banking system (< 50% of Euro area bank holdings), they are strongly correlated (for the remainder, banks in countries with relatively weak sovereign credit ratings tend to hold relatively large amounts of sovereign bonds).

On this basis, it is fair to assume that the end of large-scale asset purchases by the ECB will, *ceteris paribus*, bring a return to significantly higher dispersion of bank lending rates in the Euro area. Given large differences in the sovereign ratings, differences in sovereign yields are likely to widen. This will disproportionately hit banks in countries with relatively weaker credit ratings – since these are countries in which banks hold particularly large amounts of domestic sovereign debt. Consequently, the funding costs of these banks are likely to rise, and some of this rise will be passed on to their borrowers.

Brexit and Euro area financial fragmentation: the general logic³

Continued financial fragmentation in the Euro area relates to cross-country differences in four major areas. First, the strength of bank balance sheets, due to legacy Non-Performing Loans and “home bias” towards sovereigns of varying credit quality. Both vary significantly across countries (as Figure 2 illustrates for the latter). Second, the strength of financial safety nets: deposit insurance, and the fiscal buffers backing it. Third, corporate and bank insolvency regimes, which continue to be based mostly on national law. Finally, non-bank/capital market regulation and supervision. While the EU-27 now have an – albeit incomplete – banking union, there is no equivalent union for the capital markets. The regulation and particularly supervision of capital market and investment banking activities such as issuing and trading of debt and equity securities, foreign exchange trading, and designing and selling derivatives products are still largely in national hands.

3 This section and the next are based on Sapir, Schoenmaker and Veron (2017). For the impact of Brexit on the City of London, see Djankov (2017).

Brexit will negatively affect the Euro area financial system mainly by interacting with the last of these four causes of financial fragmentation. The logic behind this is as follows. Because of the loss of “passporting” rights, a significant proportion of London-based investment banking activities – up to €1.8 trillion (or 17 percent) of UK banking assets and tens of thousands of bank-related jobs, which currently serve EU based clients, may move to the EU-27 – which in practice means, to the Euro area. If these activities were subsequently regulated and supervised by just one Euro area authority, this would not matter much (save for the direct cost of moving and having to build or expand financial and IT infrastructures on the continent). However, supervision and regulation of wholesale banking are still fragmented, even within the Euro area. As a result, the move will likely increase the EU-27 and Euro area cost of capital (in the order of 5-10 basis points according to Sapir, Schoenmaker and Veron 2017). It will also likely increase systemic risk.

To see why this is the case, consider the hypothetical case in which capital market and wholesale banking regulation and supervision were unified across the EU-27, or at least across the Euro area. In that case, the wholesale banking activities that are currently based in London would spread to several Euro area financial centers, resulting in a new geographical allocation that reflects differences in local costs, human capital, physical infrastructure, existing financial infrastructure, and proximity to clients. Because of unified regulation and supervision, the fact that these banking activities would be spread across (say) half a dozen countries would be irrelevant to systemic risk. Systemic risk would be the same as if all activities were in just one location. And depending on the quality of the (assumed) unified regulation and supervision, it may be higher or lower than it is now.

Compared to this benchmark, the lack of unified regulation and supervision will have two effects:

- First, it will increase systemic risk, both because it introduces inconsistencies, and because it increases the chances of regulatory capture - just like local banking supervisors are more susceptible to capture than supervisors that are geographically and politically more remote, as staff members of an international organization.

- Second, it will increase costs, due to both the need to comply with differing local requirements and the higher geographical concentration that this may induce in reaction. The greater the fragmentation of supervision, the bigger the incentives of concentrating in one jurisdiction – which will tend to increase costs because of the increasing marginal costs of supplying infrastructure, offices and housing in a confined geographical space (Batsaikhan, Kalcik, and Schoenmaker 2017, Sapir, Schoenmaker and Veron 2017).

Through both of these channels, the objective of a financially integrated Euro area is likely to suffer a setback. The increase in costs and systemic risk will affect financially weaker Euro area countries – countries with smaller fiscal buffers, less credible deposit insurance, and more concentrated sovereign bond holdings – more than financially stronger countries. This, in turn will amplify existing financial fragmentation.

To summarize, Euro area policy makers need to worry both about the direct implications of Brexit cost of capital and systemic risk in the EU-27 and their interaction with the existing financial fragmentation in the Euro area. As a result, the policy reaction should stand on two legs. First, reduce the direct impact, mostly by shutting off its main channel, which is the lack of unified capital market and wholesale banking supervision. Second, tackle the factors that drive continuing financial fragmentation, and with it the financial vulnerability of the Euro area to a shock such as Brexit.

Enhancing the European Securities and Markets Agency (ESMA)

A critical step toward mitigating the impact of Brexit – and more generally, reducing systemic risk and the cost of capital in the EU-27 – would be to create a single supervisor for capital markets and wholesale banking activities. The most straightforward path to this is to expand the role of ESMA, one of the three European financial agencies created in 2011, prior to banking union, to strengthen regulatory and supervisory convergence (see Schoenmaker and Veron, 2017 for details).

ESMA already has some supervisory authority, but it is very limited (to credit agencies and trade repositories). This should be extended to investment banks, securities firms, clearing houses and audit firms and to the enforcement of international financial reporting standards IFRS. As argued by Schoenmaker and Veron, ESMA should also be given supervisory responsibility over non-EU financial infrastructure that is systemically important for the European Union, and act as a “single point of contact” on matters related to securities markets supervision with parties outside the EU. The latter should include membership in relevant international organizations and fora such as the International Organization of Securities Commissions and the Financial Stability Board.

To enhance its independence and enable it to effectively play this role, ESMA's governance will need to be reformed along the lines of the ECB and SSM, in particular, by creating a full time executive board. Also in analogy with the ECB model, ESMA should be allowed to generate revenues levied directly on the activities it supervises (e.g. a very small levy based on capital markets activities) rather than depending on the EU budget.

Completing banking union: why is it so hard?

Aside from creating a single supervisor for wholesale banking and securities markets, reducing financial fragmentation in the EU-27 area and protecting the EU financial system from shocks such as Brexit requires tackling a set of reforms that are sometimes referred to as “completing the banking union” (see European Commission 2015, 2017). Most prominently, this includes proposals to create a European deposit insurance and a fiscal backstop to Single Resolution Fund created in 2014, which is being gradually built up. Although one can argue about design – for example, whether European deposit insurance should consist of a single tier system or a Euro-area fund or mechanism reinsuring national systems – the basic rationale for these proposals is sound: achieving financial integration in the Euro area requires levelling the cross-country differences in the strength of the financial safety nets that back national banking systems.

At the same time, however, Germany and other fiscally stronger (“surplus”) countries are concerned that new common safety nets may have to absorb risks which currently vary greatly across Euro area member coun-

tries. Apart from differences in non-performing loan levels, which are slowly receding, the most important is the exposure of national banking systems to sovereigns of greatly varying credit quality (see Figure 2). Short of full fiscal union, a levelling of these differences is nowhere in sight. Hence, from the point of view of the “surplus” countries, measures that reduce cross-country differences in financial risks, and specifically steps to reduce the exposure of banks to their national sovereigns, are the quid-pro-quo for moving towards stronger common safety nets. And of course, these steps also make sense regardless of any political quid-pro-quo, as high exposure to national sovereigns is an important factor contributing to financial fragmentation and systemic risk in the Euro area.

In principle, reinvigorating financial reform in the Euro area should hence be straightforward. It requires a “grand bargain” that both strengthens risk sharing – most prominently, via some form of common deposit insurance – and reduces some sources of systemic risk – most prominently, the sovereign exposures of Euro area banks. In practice, however, making and implementing such a grand bargain is all but straightforward. This partly has to do with domestic politics: for example, there is a clear element of populism, unhelpful to Euro reform, in both the denunciations of European deposit insurance by German politicians and the denunciation of European bail-in rules by their Italian counterparts.

For the most part, however, the fact that the banking union debate appears to have deadlocked relates to post-crisis fragility. In a situation of high sovereign debt and still weak bank balance sheets, forcing banks to rid themselves of sovereign exposures can lead to sharp rises in sovereign yields, higher funding costs, and weaker balance sheets, to the point that it could trigger a new crisis. This is true for any measure that enhances market discipline, since this will, by definition, lead to a higher differentiation of risk premia, in line with country and bank fundamentals. A case in point is the famous “Deauville beach walk” of October 2010, at which the French and German leaders agreed both to the creation of the ESM and the principle that private sector creditors should be allowed to take losses in deep debt crises. Although this compromise was sensible in substance, announcing it in the middle of an unfolding debt crisis led to turbulence in the bond market and contributed to the geographic spread of the crisis.⁴

4 See Brunnermeier et al (2016) and Weder di Mauro and Zettelmeyer (2017) for details.

As a result, the Euro area remains caught in a “Catch-22”. Strengthening the financial architecture of the Euro area in a way that would benefit particularly the financially weaker countries requires a reduction in the exposure of Euro area banks to their own sovereigns. At the same time, regulatory changes that incentivize that reduction will, *ceteris paribus*, increase rather than decrease the short-term risk of a new financial crisis.

Engineering a safe reduction of Euro area bank exposures to national sovereigns

There are two ways to deal with the Catch-22 described in the previous section. One is to wait with significant new reforms to the European financial architecture until sovereign debt levels have declined and banking systems have strengthened. But this means living with financial safety nets of unequal strengths and the risk of continued bank-sovereign vicious circles for a potentially very long time. Another is to try to break out from the Catch-22. Based on the logic of the previous paragraph, this means combining a change in the regulatory treatment of sovereign exposures with an additional reform that would neutralize the short-term destabilizing effects of the latter – without, however, upsetting the “grand bargain” between greater risk sharing and “risk reduction”.

One approach that might conceivably meet these requirements is to combine a gradual change in the regulatory treatment of sovereign exposures – that is, subjecting sovereign debt holdings to a capital charge, or introducing tough exposure limits – with the introduction of a Euro area safe asset that would inherit the current regulatory privileges bestowed on sovereign debt. To be a solution to the economic and political problems described in the previous section, this would have to meet at least four conditions.

1. The asset must be genuinely safe – not just to merit its privileged regulatory treatment (zero risk weight) but also to reassure fiscally a stronger Euro area that they will not be called upon to bail it out.
2. The safety of the asset must not rely on guarantees or other mechanisms that would give rise to redistribution from the stronger to the fiscally weaker Euro members. If this condition is not satisfied,

the fiscally stronger members will view the safe asset as just an additional “risk sharing” scheme, and reject it.

3. The asset must be generated in a way that does not lead to sharp drop in net demand for sovereign debt issued at the national level, and hence avoids increases in borrowing costs on impact, particularly in the fiscally weaker countries. Simply assigning safe asset status to sovereign debt issued by AAA-rated Euro area sovereigns, for example – that is, imposing a capital charge on all but AAA rated sovereign debt -- would obviously fail this condition.

4. Finally, it must be “scalable” to a degree that would allow it to replace sovereign holdings currently on bank balance sheets.

To see what 3 and 4 imply in practice, Table 1 shows current Euro area-wide as well as national banking system holdings of sovereign debt. Euro area sovereign debt securities holdings range from below 5% of national GDP (Estonia, Luxembourg) to about 30% of national GDP (Italy). Hence, if the objective is to avoid a brusque change in average national borrowing costs, and the safe asset is constructed in a way that creates a net demand for national sovereign issues in proportion of national GDPs, a volume of about 30% of GDP would be required. This would be just enough to replace Italian bond holdings in Euro area banks and more than enough to replace holdings of remaining Euro area sovereign bonds, leaving a “surplus” of safe assets of about 15% of Euro area GDP (about €1.6 trillion, slightly higher than the outstanding total volume of German general government bonds, and substantially higher than German federal tradable bonds, which according to the Germany Finance Agency currently stands at about €1.1 trillion).

Table 1. General government debt in the Euro area, by issuer
(end-2016 stocks, in percent of issuer GDP)

	General government debt			Debt securities held by banks of ...		Bonds held by banks of ...	
	Total	All debt securities	bonds	Euro area	Issuing country	Euro area	Issuing country
Austria	84.6	70.3	67.2	19.0	9.6	18.9	9.6
Belgium	105.9	86.8	80.0	20.0	10.6	18.8	10.1
Cyprus	107.8	35.2	33.6	15.8	13.6	14.1	12.4
Estonia	9.5	1.1	1.1	0.4	0.6	0.4	0.6
Finland	63.6	49.0	46.3	8.2	2.3	8.1	1.4
France	96.0	81.2	73.7	11.4	7.5	10.4	...
Germany	68.3	49.6	47.3	9.3	7.2	9.0	7.2
Greece	179.0	32.5	26.7	7.1	6.6	3.1	2.9
Ireland	75.4	46.7	45.8	9.7	6.7	9.5	6.7
Italy	132.6	112.0	105.6	30.4	23.1	28.9	22.2
Latvia	40.1	29.4	29.4	6.4	3.9	6.4	3.9
Lithuania	40.2	31.8	31.8	6.5	3.1	6.5	3.1
Luxembourg	20.0	11.5	11.5	4.2	2.1	4.2	2.1
Malta	58.3	54.3	51.8	18.4	17.5	15.8	14.9
Netherlands	62.3	48.9	46.5	9.2	5.9	9.1	5.8
Portugal	130.4	71.9	63.8	25.8	16.5	20.6	11.8
Slovakia	51.9	44.3	43.8	18.0	11.7	17.6	11.5
Slovenia	79.7	67.0	66.3	15.8	12.0	15.1	11.5
Spain	99.4	82.6	75.2	26.4	19.6	24.1	17.5
Euro area	89.2	71.0	66.2	15.8	...	14.8	...

Source: European Central Bank

Note: "Bonds" refer to debt securities with original maturity of more than one year. "Debt securities" refers to all original maturities (i.e. bonds plus short-term bills)

Zettelmeyer (2017) sketches three ways of creating a safe asset that might meet these conditions. One of them could be a version of the Brunnermeier et al (2011, 2017) proposal to encourage private financial intermediaries that would purchase Euro area sovereign bonds in the secondary market, financed by issuing sovereign bond-backed securities in several tranches, the most senior of which would assume the role of the safe asset. Alternatively, a public financial intermediary could be set up and given seniority over other creditors by treaty (as was done for the ESM). The intermediary would issue debt, use this to fund purchases of member bonds at face value up to 30 percent of GDP – hence meeting conditions 3 and 4 – and passing its funding costs on to the sovereign issuers. Unlike the closely related "Blue bond" proposal (Weizsäcker and Delpla, 2010, 2011) there would be no joint and several guarantee.

Instead, the safety of the asset would be protected only by seniority and – if needed – by capitalizing the intermediary. To the extent that the combination of seniority and capitalization leads to a AAA rating, this construction would meet conditions 1 and 2. The safe asset would hence be produced without any cross-country risk sharing except through the equity of the intermediary.

Once a legal and institutional infrastructure for producing the safe asset has been set up and tested, it could be used to gradually replace sovereign bond holdings in Euro area balance sheets. To create the right incentives, Euro area bank holdings of newly issued sovereign debt would become subject to a capital charge (or an equivalent regulatory or supervisory disincentive). The capital charge would not apply to (1) holdings of previously issued sovereign debt; (2) the safe asset. The implication is that, as the national bond holdings of Euro area banks mature, Banks would have an incentive to replace these holding by Euro area safe assets rather than freshly issued national bond holdings. Annual issuance of safe assets would be calibrated to meet this demand. This would avoid an adverse shock both to bank balance sheets and to the yields of Euro area sovereign issuers. The transition phase would continue until all national sovereign bonds owned by Euro area banks have matured and been replaced by the Euro area safe asset.

Conclusion

Except for the migration of some financial sector jobs – and possibly rents – to the Euro area, the direct consequences of Brexit are unequivocally bad for the EU-27. Compared to the status quo, the move of London-based wholesale banking activities to the Euro area is likely to raise both the cost of capital and systemic risk. But at the same time, Brexit should be seen as an opportunity. By bringing weaknesses of both the EU-27 and Euro area financial architecture brought into (even) sharper relief, Brexit could accelerate reforms that are already ongoing, but too slowly, such as efforts to create capital market union. Equally importantly, it could help break the deadlock in reform areas that have become stuck, such as completing the banking union.

The vision underlying these reforms has been clear for some time: it involves a “grand bargain”, a package of reforms, that would both

strengthen risk sharing and greatly reduce discrepancies in financial crisis risks across countries in the Euro area. This package would need to include a credible plan to reduce the exposure of Euro area banking systems to national sovereigns. However, this raises a problem: forcing banks to shed sovereign exposures would likely increase instability in the short term, particularly in countries with relatively high sovereign debts. This is the one of the reasons, and perhaps the main reason, why reforms to complete the banking union have gone nowhere since the European Commission made its initial appeal for a common deposit insurance.

Brexit increases the risks of inaction, and may hence push the Euro area towards a solution. But moving forward will require more than an agreement on a future financial architecture that would make both sides—fiscally weaker countries worried about sharp rises in borrowing costs, and fiscally stronger countries worried about redistribution – better off. It also requires a path for getting there without risking a major accident. An example for such a path was sketched in this essay. At a time when Europe is caught in the middle between fear of the risks of inaction and fear of risks from change, a good way to reinvigorate financial architecture reform would be to focus on the minutiae of how a “safe transition” to a better steady state can be made to succeed.

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PART III

A Case Study: Brexit

BREXIT, FINANCIAL MARKETS AND THE WIDER ECONOMY

David Miles

If you want to understand how the decision by the UK government to leave the European Union may play out and affect financial markets it is essential to understand the reason why a (small) majority voted to leave in the June 2016 referendum. The mood of the electorate is a key factor behind the negotiating stance of the UK government and will help shape what kind of Brexit happens. If people voted out of ignorance of the likely economic consequences of being outside the EU then perhaps as their misperceptions are removed the majority in favour of leaving will disappear and the government will adjust its negotiating stance. But if the motives of those who wanted to leave reflected deeper concerns than the narrowly economic, and if those voters also recognised there was probably an economic cost, then it is more likely that the UK will end up outside the single market and quite probably outside the customs union.

So let us start with the motives of voters.

I do not take the view that many economists have in the UK that leave-voters completely ignored the economic costs or that they are totally ignorant of those economic costs. This is the view that leave-supporters voted out of ignorance and quite possibly a combination of ignorance and prejudice. I don't believe that. I think that there was a cost benefit analysis which may have been applied by many people who voted to leave.

Indeed I think continued UK membership of the EU has always been a result of a calculated cost benefit analysis. It has never been a love affair.

On the plus side has been the benefit of being part of a free trade area, with no tariffs and relatively low non-tariff barriers. That is a good thing, and it is a big plus. But anything else you have to accept beyond what is needed to be part of a free trade area has been seen in the UK, I think correctly, with a good deal of suspicion. So in the early part of the 1970s, when the UK joined the EC, the main perceived cost that you paid in exchange for being part of a free trade area was applying the Common Agricultural Policy. Things have changed greatly since then. The costs and the benefits of being in the EU have changed, they have morphed. They have probably both got bigger. The costs have moved from the area of agricultural policy, which is much less important now, toward the potential difficulties for the UK of a push to “ever closer union”.

“Ever closer union” has been the mantra of the European Commission. It is certainly something in which the President of the Commission has seemed to believe with a quasi-religious fervour. Now part of this is just rhetoric and it is a rhetoric that has recently changed. But part of the rhetoric reflects a desire (some see it as a need) for there to be a degree of centralisation of some decisions (partly fiscal) which go beyond what you need for a free trade area. Some rules on financial regulation, which have been rather harmful to the UK, certainly are more than you need for free trade. (I will elaborate on that in a moment.) More recently, there have been hints of wanting a degree of centralisation on military affairs, even on a common army. The recent Commission paper on social rules could be read as a document that maps out a path to greater cross-Europe conformity in social benefits. That may be largely rhetoric too. Who can be sure? But it is not just President Juncker who has seemed to believe that whenever there is a problem, the answer is “closer union”. Some senior figures in the European Central Bank believe that there needs to be a much greater degree of centralisation in many areas in order to make monetary union work – in banking structures and also with national fiscal policies.

Now one might say that the UK can opt out of all of this stuff. Indeed it may be that if the UK stays in the EU it will get more and more opt outs and be able to avoid any further transfer of national decision making powers which go beyond what you need for free trade. But there is a risk that if you try and get more and more opt outs it comes at a cost of less and less influence over decisions where you have no opt-out. It certainly

seems to cause resentment. I think you can end up in a situation where you have so many opt outs, you need to ask yourself what is the point of being “in”.

That is a question put rather forcefully by Mervyn King, the previous Governor of the Bank of England. Here is what he said in the middle of August of 2016 after the Brexit vote:

“All the other large member of the EU belong to both the Euro and the Schengen areas. Britain does not wish to be a member of such a club. Why would you want to be a member of a tennis club, if you do not like tennis? And indeed dislike the game, simply in order to play a game of bridge once a month. That is the fundamental problem with Britain and the other members of the EU...Can it really be in the UK's long run interest to acquiesce in the creation of political union.....Across Europe the younger generation wants to go beyond the nation state, to break down barriers, and find new ways to resolve problems, that extend beyond national boundaries. They will find ways to do this but do not require the out-dated trappings of a super national entity with its own anthem, flag and parliament and even steps towards an army.”

I think he makes an important point. Most of the people in the UK don't want those other things – it is a road they have consistently not wanted to go down. If the UK were to have stayed in the EU it may have paid a significant price in order to avoid the possibility of being taken down that road. Of course there is a price to pay to avoid that risk. You pay a price if, in order to avoid any risk of being dragged down a road to closer union, you lose the benefits of being in a European single market. I think that cost is significant, though it can easily be over-estimated. But I would not want to suggest for one moment that it is a trivial cost.

How big are such costs? That depends on what sort of Brexit happens. I suspect the most likely place the UK will get to is with a tariff free agreement on trade in goods. That is well short of access to the single market. It will mean that there are significant non-tariff barriers to trade and they will be particularly significant with services and will certainly affect financial services. There have been many studies of the size of those costs – measured as a shortfall of GDP some years down the road (2030) from the level that might have existed if the UK continued to be in the

EU. The studies came up with costs sometimes as high as five percent or more of GDP; but some estimates put the cost as low as one or two percent of GDP.¹

If one takes the simple average of the estimates of the GDP cost they are about three and a half percent of GDP by 2030. No one wants to lose three and a half percent of GDP. It is not a trivial number. Neither is it an enormous number. If you thought that the average rate of growth in the UK was perhaps a bit under two percent a year, then losing three and a half percent of GDP is losing two years of growth. That is not nothing. It means that in the year 2050 the standard of living in the UK will only be as high as what you might have hoped it would be in the year 2048. Not trivial, but not enormous. Why isn't it a bigger cost? Partly that is because a lot of the barriers to trade just don't change whether the UK is in the EU or not. The physical distance between any point in the UK and any point in the EU will not change. It was unlikely the UK was going to adopt the European single currency in the foreseeable future. So the currency transaction costs are no different. The language issue, of course, is still the same.

I think it is easy to exaggerate the cost of being outside the EU. An area where it is exaggerated, quite substantially, is in financial services. Financial services are big in the UK. There is about 1.3 million people working in financial services. Financial services make up about eight to nine percent of UK GDP. That is not far off the size of the manufacturing sector. The great majority of people working in the financial services industry in the UK are providing financial services to UK households and UK companies; they are not exporting financial services to the rest of the EU. Most of the people that work in banks, nearly all the people that work in the pension sector, and the great majority of people in the insurance sector are providing services to UK households and UK companies. Financial exports from the UK to the EU are, on some estimates, around about 30 billion pounds. That's about one and a half percent of GDP. Suppose you were very pessimistic. You thought that because the UK was probably going to be outside the single market, so it doesn't get passporting rights, then maybe you lose half of the exports of the financial services that we

1 There is a summary of these estimates in a useful report by the Institute for Fiscal Studies: "The EU Single Market: The Value of Membership Versus Access to the UK", Emerson, Johnson and Mitchell. IFS, August 2016. See Appendix C.

currently send to the EU. That might be around 0.75 of one percent of GDP. Nobody wants to lose 0.75 of one percent of GDP. But the idea that this means the UK would be descending in to a black hole of economic failure is woefully wide of the mark.

The costs of leaving the EU are absolutely not small. They may be of the order of three or four percent of GDP. If that turns out to be accurate then it is probably two years of growth. No one in the UK could be pleased about losing that.

There was an overwhelming majority of economists who took the view before the vote that there were net costs of the UK pulling out, and that those costs would be very significant. I felt, and still feel, that the confidence many economists had in their estimates of the cost of being outside were misplaced. The UK Treasury estimated the long run cost of Brexit, and for some of the scenarios they considered that cost was very substantial (nearly ten percent of GDP). Most of that cost reflected a view that the productivity of the work force in the UK would be much lower with the UK outside. That was partly because foreign direct investment would be lower. It was partly because the UK would have to start producing stuff that it used to import, and that we are not very good at producing; trade barriers might mean you end up producing things you are not very productive at. That, plus less foreign direct investment, would make labour productivity lower. That is the main estimated cost of being outside the EU. My observation on that is that someone in the UK Treasury may have forgotten just how spectacularly bad economists are in predicting productivity. I say that because I have spent much of the last seven or so years in the Bank of England, where we struggled mightily to try and understand why the level of labour productivity in UK is about seventeen or eighteen percent lower - not five, or six or seven percent lower - than it would have been if the UK followed the trajectory it appeared to be on before the financial crisis. Thousands, possibly even tens of thousands, of hours of the time of economists in the Bank of England was spent trying to understand that phenomenon and failing pretty miserably. That is not because the people weren't smart, but because we haven't got good models of productivity. In the light of that I think one should take with an enormous pinch of salt economists' projections of what the long run costs of the UK being outside the EU are when most of that cost is because of supposedly substantially lower productivity.

I don't think, by the way, it is right to add in the costs of the recent depreciation of the sterling exchange rate in to the mix. That is misleading for two reasons. First, goodness knows whether it will be a lasting depreciation (which at the time of writing is around 15% on the trade weighted value of sterling). Nobody has a good model of what the right level for Sterling should be. There is a more fundamental reason for not counting the terms of trade loss from depreciation, or not counting much of it, as a cost of leaving the EU. This is that Sterling almost certainly needed to fall by a substantial amount for the UK to be on the sustainable track anyway. The UK's current account deficit is extremely large – it is one of the largest current account deficits this country has seen outside of major world wars. It is highly likely the exchange rate was at an unsustainable level. Much of the decline of Sterling since June 23rd is something which would have had to have happened anyway. It may just have happened more quickly than it otherwise would.

Overall I think the cost benefit analysis of being in or out of the EU for the UK is quite a close run thing. As a matter of fact I did not vote to leave. That is because I suspect the move towards “ever closer union” – greater centralisation and a Federalism that few people in the UK want – has not much further to go. But who can be sure. Anyway, I don't think that those that did vote to leave did something that must be based on ignorance or prejudice. It is not irrational to worry that EU membership comes with many rules that are not suited to your interests. I do not think you have to look very far for examples of common rules, which the UK reluctantly has had to sign up to, which are rather costly. Let me mention two from the area of financial regulation.

The first is a truly bizarre decision that was made when new capital requirements, which were increased under the Basel Three agreements, became part of EU law. It went from being a rule to ensure that banks must have no less than certain levels of capital, to one where national regulators could not ask for more than that either. It should have been possible for national regulators to decide they wanted their banking systems to be safer than the minimum. But when the capital rules got to be a European Directive it had become a maximum harmonisation rule. This was, I think, because of the bizarre argument that everybody should have exactly the same number for acceptable bank capital – maybe because that is what a “closer union” needs. The UK was forced to accept that we could

not (except under special circumstances) set a higher capital requirement for UK banks than anybody else.

Another piece of poor EU legislation was the bonus caps on the financial sector. I say that not because I think that people in the financial sector deserve enormous bonuses. But rather that the side effects of having limits on bonuses are almost certainly bad. Bonuses had rather little to do with the problems of the financial crash which was much more about leverage and capital. The UK opposed the bonus cap as well, but it has become a rule.

The UK does have many opt as regards financial markets. Being outside the euro zone it effectively has an opt out from banking union. How much comfort a UK government should take from that is unclear. If EU banking union happens there could be a centralised deposit protection scheme. So the liabilities of banks that go badly wrong in one country would get shared out. Whether or not it is an effective opt out is somewhat murky. One could imagine a situation where the majority of countries in the EU do go down that banking union route and then are rather resentful of the UK not being part of that, and find ways to make it rather difficult for UK banks to do things that they can do with not much difficulty at the moment. So one should not ignore a risk to the financial sector even if the UK were to stay in the EU.

The main benefit of the UK being outside the EU is that if the EU goes down a route of greater centralisation, which has until recently been the favoured direction of travel of powerful figures within the EU, the UK will be able to avoid some unfortunate side effects of that. That is a potential benefit. It is worth little if the tide turns sharply against “ever closer union” and stays that way. I guess that is likely – likely but far from certain. And of course there are costs of avoiding that risk – leaving the EU is costly. But economists have probably overestimated the cost of Brexit – and maybe that is particularly true for financial services. They have certainly exaggerated their knowledge.

Divorce is always messy. There is never a good time to negotiate about a divorce settlement. When most people do it is when they are not feeling very warm towards the other person. On the other hand being in an unhappy marriage is not a great thing either.

CHANGING GEOGRAPHY OF FINANCE AND REGULATION IN EUROPE: BREXIT CASE STUDY

Jonathan Faull¹

The word geography in the title of this book is not metaphorical. For the first time in its history, if you exclude the scarcely relevant precedents of Algeria, Greenland and Saint Barthélemy, the EU is losing territory with Brexit. This is particularly important in the financial world, because the UK is a major centre and has had considerable influence in the regulatory history of financial services.

For more than four decades, British influence has enhanced and been enhanced by the European Union.² The Financial Services Action Plan (1999), subsequent legislation and the regulatory measures adopted in the aftermath of the 2007/8 financial crisis all bear the imprint of British input and many of them took particular account of the status and specific characteristics of the UK, home to the City of London, outside the euro and the banking union. The UK played an important role in the Financial Stability Board and other Basel-based bodies which have been crucial fora for international coordination and agreements since the crisis broke. The UK's often pivotal position owed a great deal to its unique combination among financial powers of EU and Anglosphere memberships.

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2 For a French view, see *L'influence britannique perdurera-t-elle?* Revue Banque, 10.10.2016, <http://www.revue-banque.fr/risques-reglementations/article/influence-britannique-perdurera-t-elle>

We do not know yet exactly what will change because Brexit negotiations have not yet started in earnest. Both the UK and the EU 27 are establishing their respective negotiating positions for the complex and time- constrained talks about to start. We have some official documents, some leaks and lots of speeches in London, Brussels and other European capitals. We have election manifestos³ and by the time this is published a freshly elected Government in the UK.

It seems to be clear that the UK does not want to be in the EU's single market. This is said to be because such inclusion or membership is not on offer without the full range of the single market's fundamental freedoms and disciplines, including free movement of workers, citizenship rights for people and the enforcement and judicial mechanisms culminating in the jurisdiction of the European Court of Justice. Some in Britain relish the prospect of dealing with the rest of the world from a new position outside the EU's single market and customs union. The UK is therefore expected to seek close relations with and the best possible access to the single market but not membership of it. The same position seems to have been taken in respect of the customs union: close relations, but not membership.

How can we try to understand what will happen next?

We can isolate some specific British issues with the EU from those shared to some extent with one or more other Member States. We can extrapolate from what has been said and written so far in Brussels and other EU national capitals.

The UK's Article 50 notification and the Prime Minister's speeches accompanying it can be compared and contrasted with the European Council's guidelines and the Council's negotiation directives.

The February 2016 European Council UK settlement⁴ set out what the 27 were prepared to agree and do within the scope of the treaties as they

3 When I spoke at this conference on 27 April 2017, I did not expect the Democratic Unionist Party's manifesto to be highly relevant, but it certainly is now: see Standing Strong for Northern Ireland, http://dev.mydup.com/images/uploads/publications/DUP_Wminster_Manifesto_2017_v5.pdf

4 "A new settlement for the United Kingdom within the European Union", OJ C 69 I, 23 February 2016."

stood at the time (and still stand today) to keep the UK on board. Although on its own terms now lifeless as a result of its self-destruct provision⁵, it nevertheless contains useful statements of what all Member States agreed was legally possible. What they think is politically opportune now in a very different context is another matter.

A Commission White Paper on the Future of Europe (1 March 2017) presented five scenarios and initial national reactions to it can be assessed, but clarity about the future direction of the UK-less EU is unlikely to emerge until the new French and German Governments have had a chance to settle and talk frankly to each other in the autumn of 2017.

The 27 have stuck together during the relatively easy period in which the referendum result was digested, the British notification was awaited and the preparations for the negotiation were begun. Article 50 seems to be working effectively to channel national positions into one EU 27 position.

An initial focus in the UK on customs tariffs and processes ignored the fact that market access and frictions depend increasingly on regulation. This is particularly true of services provided alone or as part of a package with goods, but it is goods themselves. Modern economies and societies want to promote security, protect workers, investors, depositors, the environment and consumers and pursue various other public policy goals. One way they do this is by regulating goods and services and requiring that those regulations be complied with by goods sold and services provided in their jurisdiction.

What does this mean for finance?

The single market is not fully in place. Services have lagged behind goods. Controversies in financial services have not been infrequent, particularly in Euro area/rest of EU relations. Solutions were always found

5 “It is understood that, should the result of the referendum in the United Kingdom be for it to leave the European Union, the set of arrangements referred to in paragraph 2 above will cease to exist.” Paragraph 4, C 69 I/2. This is perhaps the referendum’s only strictly legal consequence. Of course, as the Supreme Court held in *Miller*, “(...) that in no way means that it is devoid of effect. It means that, unless and until acted on by Parliament, its force is political rather than legal. It has already shown itself to be of great political significance.” *R (on the application of Miller and another) v Secretary of State for Exiting the European Union*, (2017) UKSC 5, para. 124.

in Banking Union legislation and in the February 2016 European Council decision (“new settlement”), now lifeless but still an authoritative statement of what was possible *à traité constant*.

The UK as a foreign country starts with very similar rules to the rest of the EU, but wishes to abandon the EU’s enforcement mechanisms and institutional framework. If similarity of rules is significant in determining market access, agreement will be needed on what happens when rules or interpretations change on either side.

In post-2008 financial regulation, many rules and ideas came from common international sources. What happens in Basel and in the G20 depends on many factors unrelated to Brexit, such as the Trump administration’s evolving positions. As the EU 27 and the euro area get on with their own single market and economic and monetary union, their influence will grow as they pursue the path of integration and present a unified to the rest of the world in international fora.

The EU’s influence in Basel so far has come from the combination of one unified regulatory jurisdiction for most purposes and the strength of big member states, including the UK. For its influence to remain intact, the EU will have to compensate for the loss of the UK by convincing the rest of the world that it is an integrated, coordinated entity.

If proof were needed, the financial crisis and its aftermath show that regulatory and supervisory cooperation in financial services is both difficult and necessary. The EU is a remarkable example of such international cooperation and that will survive Brexit, whether or not the UK is closely associated with further EU developments.

Is equivalence or passporting the key to future UK-EU relations in the financial sector?

Let’s look at passporting. According to the Bank of England’s Prudential Regulation Authority,⁶ “Subject to its fulfilment of conditions under the relevant single market directive, a firm authorised in a European Economic Area (EEA) state is entitled to carry on permitted activities in any other

6 <http://www.bankofengland.co.uk/pru/Pages/authorisations/passporting/default.aspx>; see also the British Bankers’ Association’s definition: <https://www.bba.org.uk/wp-content/uploads/2016/12/webversion-BOB-3-1.pdf>

EEA state by either exercising the right of establishment (of a branch and/or agents) or providing cross-border services. This is referred to in Financial Services and Markets Act 2000 (as amended) (FSMA) as an EEA right and the exercise of this right is known as ‘passporting’. The activities that are ‘passportable’ are set out in the relevant EU single market directives. Activities that are not covered by the directives and are not ‘passportable’ will require the firm wishing to carry on such activities to contact the relevant competent authority of that host state in order to determine whether direct authorisation is needed. Passporting rights only apply within the EEA. So, for example, they do not apply in the Channel Islands or the Isle of Man, as these are not EEA states. Although Switzerland is not an EEA state, Swiss general insurers have the right to set up an establishment in the EEA under the provisions of special bilateral treaties between the European Union and Switzerland.⁷ EEA general insurers also have equivalent rights in respect of Switzerland under these treaties. Special arrangements also apply in relation to Gibraltar.”

So outside the EEA and in the absence of a special bilateral treaty, the facilitated access to the single market known as passporting is not available to firms registered, licensed and regulated elsewhere. At the heart of the passporting regime is the “single rule book”, i.e. the set of rules regulating financial services laid down in EU law and, under EEA rules, extended to Norway, Iceland and Liechtenstein.

Passporting is not the same as market access from a jurisdiction found to be “equivalent” or “adequate”. There are also well established EU procedures and examples of foreign countries with equivalent or adequate regimes in various policy areas.⁸ The choice of equivalence or adequacy (or some other word yet to be used in this context or, like passporting, to be invented) is open to the negotiators if they want to devise a system whereby reciprocal market access is made conditional on some degree of regulatory alignment.

7 <http://ec.europa.eu/world/agreements/downloadFile.do?fullText=yes&treatyTransId=549>

8 I well remember a senior US official objecting to the “adequacy” requirement in negotiations about data exchange and protection. “I can’t hear the word adequate without imagining the adverb “barely” before it”, he said. He was right. It’s a rather humiliating notion, in fact I believe simply a bad translation of the French *adéquat* which means something more like appropriate than the British sense of adequate as “just about enough”.

A “Great Repeal Act” which incorporates EU law into British law should ensure that on day one British and EU law are convergent. Negotiators will have to grapple with what happens on day two and thereafter. EU and UK law will diverge once the UK leaves the administrative, regulatory and judicial system at the apex of which sits the European Court of Justice. Legislatures, courts, supervisors and regulators will go their own way unless constrained by higher law. If there is agreement providing for market access and passporting as long as regulatory outcomes remain aligned, who will decide whether that alignment has been broken and what the consequences are for market access rights? That is obviously a major political issue for those who believe that Brexit must restore untrammelled British sovereignty.

The European Council Guidelines stipulate⁹ that “...any agreement with the United Kingdom will have to be based on a balance of rights and obligations, and ensure a level playing field. Preserving the integrity of the Single Market excludes participation based on a sector-by-sector approach. A non-member of the Union, that does not live up to the same obligations as a member, cannot have the same rights and enjoy the same benefits as a member. In this context, the European Council welcomes the recognition by the British Government that the four freedoms of the Single Market are indivisible and that there can be no “cherry picking”. The Union will preserve its autonomy as regards its decision-making as well as the role of the Court of Justice of the European Union... Any free trade agreement should be balanced, ambitious and wide-ranging. It cannot, however, amount to participation in the Single Market or parts thereof, as this would undermine its integrity and proper functioning. It must ensure a level playing field, notably in terms of competition and state aid, and in this regard encompass safeguards against unfair competitive advantages through, inter alia, tax, social, environmental and regulatory measures and practices. Any future framework should safeguard financial stability in the Union and respect its regulatory and supervisory regime and standards and their application. The future partnership must include appropriate enforcement and dispute settlement mechanisms that do not affect the Union’s autonomy, in particular its decision-making procedures.”

9 http://www.consilium.europa.eu/en/meetings/european-council/2017/04/29-euco-guidelines_pdf/

The outcome of this negotiation will place the UK in a different position from that which it had as a Member State. This is not a punishment, it is a reflection of the country's new status as a foreign ("third") country. The attractions of the EU for its members I come to next will not be available to the UK, if indeed it ever understood them to be attractions.

The fundamental attraction of the EU for its member countries remains strong. Former dictatorships of right and left still see the EU as a democratic bulwark. Former Soviet or Warsaw Pact countries still see the EU as part of their international identity and protection against Russia. Former colonies still see the EU as a strong symbol of their independence and international identity. Former occupying or occupied countries still see the EU as a peace and reconciliation project. Countries which have decentralised political power, whether or not with a federal label attached, see the EU as the umbrella which made that process possible and relatively painless. Countries linked to the German economy for a large part of their trade and production still want to be inside the meeting rooms where economic decisions are taken with Germany. Countries which do not want the continent of Europe to be dominated by a single country and see the EU as the best way to achieve that aim will remain committed to the European project (they include Germany and used to include the UK). Countries sharing the euro as their currency or aspiring to do so will want to keep it and participate in the making of monetary policy in the ECB. The thought of abandoning the euro, re-establishing a revalued or devalued national currency and re-denominating everything is a major incentive to cleave to the status quo.¹⁰ It is noteworthy that the UK fits into none of these categories (except perhaps non-federal decentralisation), while all the other 27 can be recognised in one or more of them. A word of caution: a British exceptionalism¹¹ certainly exists, but many Member States which agree with many British positions have been happy to allow the UK to lead on them. They will now have to stand up and be counted. With the UK gone, the EU will change as the pack is reshuffled and new positions and equilibria are found.

10 A recent illustration is the difficulty faced by Marine Le Pen in the 2017 French Presidential election campaign in articulating a convincing argument against the euro. See, e.g., *Sortie de l'euro: le naufrage en direct de Marine Le Pen*, http://www.lexpress.fr/actualite/politique/elections/sortie-de-l-euro-le-naufrage-en-direct-de-marine-le-pen_1905031.html

11 See Tilford, *The British and their exceptionalism*, Centre for European Reform, London, http://www.cer.org.uk/sites/default/files/insight_ST_3.5.17.pdf

BREXIT: A TALE OF EXIT OVER VOICE

Brigid Laffan

‘Membership of the EU is the means by which nation states preserve and protect their interests and values, whereas standing alone puts those interests and values at risk’¹

On the 23rd of June 2016, the UK electorate voted narrowly to leave the EU having joined in 1973, over 43 year earlier. The Lisbon Treaty (2009) made provision for the exit of a Member State under the procedures outlined in Article 50 (EU, TEU). The UK decision was a shock to the EU and a harbinger of political turmoil in the UK. The British Prime Minister David Cameron resigned immediately and was replaced by Teresa May who appointed a very different cabinet which included many of those who had campaigned for Brexit. The referendum outcome destabilised the UK because there was majority support for Remain in Scotland and Northern Ireland. The new UK Government took until March 29, 2017 to deliver its Article 50 notification letter which began the formal process of withdrawal. This was followed by the decision of PM May to call a UK general election on June 8, 2017. The general election did not lead to the expected outcome of an enhanced majority for the Government. Rather, PM May found herself facing a hung parliament when she lost the majority won by PM Cameron in May 2015. This forced her to negotiate support from the Democratic Unionist Party (DUP) of Northern Ireland which has formally agreed to vote with the Government on major issues including the laws related to Brexit (UK Gov, 2017).

The lengthy timespan between the referendum and notification enabled the EU to overcome its shock and begin to prepare for the world of EU27. The heads of government met informally in September 2016

1 Armstrong K.A., 2017, *Brexit Time*, CUP, 282.

in Bratislava to establish a road map for the future development of the Union minus the UK (EU, 2016). This was followed by the issuing of negotiating guidelines and directives in April and May 2017 (EU 2017). This paper analyses the key elements of the negotiating process, the issues to be addressed including the attitudes of the two parties and the position of financial services in these negotiations. By definition, the subject matter of the paper is a moving target given the uncertainty of UK politics and the dynamic nature of the Brexit negotiations.

Managing an Exit

The European Union (EU) is a negotiating machine which has built up an impressive capacity to get agreement among its Member States on a large body of law and public policy instruments. It is also a formidable negotiator in the international arena with over 881 bilateral treaties and 259 multilateral treaties to its name. Following the UK referendum, the EU is embarking on an unprecedented negotiation to agree the departure of one of its largest members. This endows these negotiations with a significance that is symbolic, existential, material and consequential. To put it simply, these negotiations are not about creating a better future but about damage limitation and the attribution of loss from the perspective of the EU. International trade and economic negotiations are usually designed to bring parties together and to arrive at an outcome that is superior to the status quo as possible. The Brexit negotiations, on the other hand, are about disentanglement, new barriers and further differentiation. The UK's partners in the Union neither sought nor favoured Brexit. However, having overcome the initial turbulence associated with the vote, the EU went into problem solving mode and quickly set up Brexit Task Forces in the Commission and the Council. Michel Barnier, a former Commissioner, was appointed by the EU as its chief negotiator from October 1, 2016. The European Parliament, although not a formal negotiating partner, is a key player and has appointed the longstanding senior politician Guy Verhofstadt to act as its Brexit coordinator and spokesperson. There has been remarkable consensus on the EU side that there would be no informal meetings or discussions with the UK authorities prior to the Article 50 notification. The time between July 2016 and end March 2017 was spent by European institutions preparing for the negotiations and the preparations were characterised by meticulous assessment across the entire gambit of EU policies of the consequences of Brexit and the issues associated with disentangling the UK from the Union.

Article 50 established the legal format for negotiations. Once a Member State issues an Article 50 notification, the EU responds with a set of negotiating guidelines agreed by the European Council acting without the country that intends to exit. This is then followed by an agreement to a set of negotiating directives prepared by the Commission and agreed in the Council. Article 50 made provision for the involvement of the European Parliament as it must consent to the Withdrawal Agreement. In addition, COREPER and a specially established Art. 50 Working Group follow the negotiations on a continuous basis. The European Council remains seized of the negotiations from start to finish and reviews, up-dates and develops the negotiating guidelines as the process evolves. In this way, EU institutions and the 27 Member States seek to manage the exit process in as orderly a manner as possible. The UK for its part sits on the other side of the table in that twilight zone between its status as a departing Member State and a third country. At time of writing, the UK has delivered its notification, the European Council has agreed on the guidelines and the Council has agreed for the Commission to initiate negotiating directives. The strategy of the EU27 is to be transparent about all facets of the negotiations and all documents have been made public (EU 2017a). The first formal session of the exit negotiations was held on 19 June 2017 after the formation of the new UK Government.

Article 50 provides not just for the format of negotiations but also the sequencing of the substantive issues that must be addressed in the negotiations. Essentially the process must address three baskets of issues. The first basket is the disentanglement of the UK from the EU which is frequently referred to as the divorce settlement or withdrawal agreement. The second basket refers to the future relationship between the departing country and the EU27. The third basket addresses the transition from basket one to two, in other words the transition arrangements, if any, that will be agreed. Article 50 also makes provision for the automatic exit of the Member State in question two years after the notification unless there is unanimous agreement to extend the negotiating process. Hence, departure negotiations are time bound which imposes urgency on all those responsible for managing the process. As Armstrong pithily put it, 'The clock is ticking down. Time is short' (Armstrong, 2017, 269).

Opening Positions

The opening negotiating positions of the two parties were established in the key official documents that formally began the process. The Art 50 notification letter represents formal UK Government policy which was submitted by the UK on 29 March, 2017 (UK Gov 2017a). The letter set out in broad terms how the UK approaches these negotiations. The letter is very clear about its core objective in the negotiations and that is to agree a 'deep and special partnership' between the UK and the EU, a formula, which is used seven times in the short document. This is further elaborated as a 'bold and ambitious Free Trade Agreement' and an agreement that includes both 'trade and security cooperation' (ibid). Moreover, the UK wants this agreement to be more substantial than anything the EU has ever offered a third country before. There is an ill-disguised attempt at issue linkage given the 11 references to security and 6 to trade. Clearly the UK thinks it has negotiating capital on security. Prior to notification, PM May had made a number of public statements that outlined her Government's position such as the decision to withdraw from the single market and the removal of the UK from the jurisdiction of the European Court of Justice (ECJ).

The letter identifies UK objectives concerning the conduct of the negotiations expressed as a wish to negotiate the future partnership alongside the withdrawal agreement, in other words parallel negotiations to be completed within two years. In addition, there is a desire to move from overarching principles to technical discussions quickly and to disaggregate the negotiations into policy areas. Finally the letter contains a veiled threat about the security consequences of any failure to reach agreement. The document could be summarised as high on ambition but sparse on identifying what the actual content of a 'deep and special partnership' might be. Crudely it could be translated into the aim of retaining as much access to the single market as possible and the highest level of cooperation within the constraints of UK redlines.

The EU27 response was swift and emerged as a set of negotiating guidelines from the European Council and directives agreed by the General Affairs Council. The dominant and unexpected feature of the EU27 approach has been the unity of the Member States, which is re-stated in the guidelines. The commitment to acting as one has created a pow-

erful soft norm, which will be difficult to dislodge. The EU27 define their objective vis à vis the future relationship with the UK as a 'close partnership' which is not as ambitious as the 'deep and special partnership'. There is however a commitment to working hard and striving towards agreement but within limits designed to protect the interests of the EU, the autonomy of its decision making systems and the role of its judicial processes. There can be no sector by sector approach to the future agreement and any agreement must balance rights and obligations and represent a level playing field. The EU27 identify the three core issues that form part of the divorce negotiations: citizens, the financial settlement and Ireland. The Commission Task Force has produced substantial documents on all three facets of the withdrawal agreement and these negotiating documents have been agreed by the remaining Member States. The focus on citizens relates to the uncertainty caused by the vote for the many millions of citizens who have exercised their treaty right to free movement. There is a desire on both sides to address this issue as the first issue to be dealt with in the negotiations. The financial settlement is likely to be strongly contested as it relates to the post-Brexit budgetary legacy of UK payments to the EU. There is no agreement on the modalities for calculating this or the sums involved. The third issue, Ireland, has received considerable attention because Ireland which will remain a Member State will have the only land border with the UK. Any return to a hard border on the island of Ireland threatens the fragile peace.

The EU27 and the UK differ fundamentally on the sequencing of the negotiations. Whereas the UK wanted parallel negotiations, the EU27 was adamant that the negotiations would be phased and that there would be no discussions on the future relations before sufficient agreement has been reached on the withdrawal agreement. Thus, the Brexit negotiations began with a substantial gap between the opening positions of both sides. Successful negotiations require agreement on a shared course of action and this is certainly missing.

First Round of Negotiations

Notwithstanding the fact that PM May did not achieve an overall majority, the opening meeting of the Brexit negotiations went ahead as planned on June 19, 2017. The meeting was largely procedural with the aim of

agreeing terms of reference for the conduct of the negotiations. Agreement was reached on the structure of the negotiations, negotiating texts, the frequency of negotiating rounds and other modalities of the talks. Working groups have been set up to address citizens' rights, the financial settlement and other separation issues. In addition a dialogue has been established concerning the Irish border. The distinction between working groups and a dialogue underline just how complex and difficult the question of the Irish border is although both sides have pledged to achieve as frictionless a border as possible. The border question hinges on the customs union. If the UK exits the customs union, which remains its stated policy, then there will have to be EU border checks and controls. The UK will not be granted the benefits of customs union membership without the obligations. There may yet be differentiated treatment for Northern Ireland but this would require agreement on issues of rules of origin, co-operation between customs authorities on both sides of the border and risk management to ensure that the Irish border did not become a smugglers paradise.

Both sides entered the negotiations divided on substance and process. The likelihood of getting to 'yes' depends crucially on the first phase, on creating sufficient trust and momentum to propel these negotiations forward. Unfortunately for the UK, it will have to do significantly more than the EU27 to achieve this because it is the Member State that as opted for exit over voice. This will be difficult because of the highly politicised nature of the issue in the UK, a weakened prime minister and a deeply divided Conservative party cabinet and party. The Labour party also faces Brexit challenges as it does not hold a coherent and consistent policy. Moreover, the UK's traditional approach to EU negotiations makes it difficult for it to make early concessions in order to generate momentum. The UK has tended in the past to push EU negotiations on every detail rather than establishing broad trade-offs. The UK pattern is to resort to voting against rather than getting concessions as part of the emerging majority and in extremis to look for opt-outs. The UK approach has tended to be 'us' and 'them' rather than viewing the EU as a collective endeavour. The rampant Europhobia of the British tabloid press serves to reinforce difference rather than commonality with the rest of Europe. The UK's traditional strategy will not serve it well in these negotiations. The UK Government has to accept that these are asymmetric in which it is in the role of 'demandeur'. It has limited negotiating capital, is under time pressure and must use its available capital carefully.

An early indicator of the imbalance of forces in these negotiations was the question of the phasing or sequencing of the negotiations. The Minister for Brexit, David Davis, threatened to make this issue the 'row of the summer' but simply caved in at the June 19 meeting. The well-established and well-signalled EU27 position that negotiations must take place in phases won the day. This was always going to be the case as the European Council had not given the Commission a negotiating mandate to do anything other than address the withdrawal agreement and only when sufficient progress is made, to begin discussions of the future relationship. Agreement on the future relationship if as requested by the UK, is a Free Trade Agreement, cannot be concluded within the time-frame allowed for by Article 50 (March 29, 2019). Moreover, the European Council not the UK will decide when sufficient progress has been made. This means that the UK has a major interest in getting the European Council to this position. Moreover, the UK as the country on the way out and the source of uncertainty and disruption for millions of people and businesses must create the incentives for the EU27 to invest in a long-term relationship with it.

Citizens' Move Centre Stage

Creating momentum will depend crucially on the negotiations concerning EU citizens. Michel Barnier, the chief negotiator, signalled at the centrality of citizens' rights in his State of the Union address in Florence in May 2017. His wide ranging address highlighted the complexities of this dossier and the EU27 commitment to protecting the rights of all those Europeans who live in the UK or UK citizens who live in the other EU States. This was followed by the publication of an EU document on Essential Principles on Citizens' Rights on June 12, 2017. The EU set out exacting principles derived from existing EU law concerning the scope of its demands concerning citizens' rights. The EU's side opening demand is essentially that EU citizens should retain all acquired rights.

The UK responded with its first publically available negotiating position on citizens' rights. The negotiations will focus on the differences between the two sides which remain significant. The most important divergence in preference is the role of the European Court of Justice (ECJ). The UK document clearly states that 'The Court of Justice of the European Union (CJEU) will not have jurisdiction in the UK' (UK, 2017, 4). This causes a problem for the EU27 as its stated aim is that 'the Court

of Justice of the European Union should have full jurisdiction corresponding to the duration of the protection of citizen's rights in the Withdrawal Agreement' (EU, 2017,4). The question of judicial enforcement is a major issue of principle and substance for both sides and unless a formula is arrived at to satisfy both parties, no agreement will be possible. The issue of the ECJ is also central to the post-membership agreement and relationship. There are other issues concerning citizens such as the cut-off date for applying for residence and the status of those who arrive after the cut-off date. The UK has promised that it will simplify its bureaucratic procedures. EU citizens will only retain their status in the UK if they do not leave for a period of more than two years. There are also issues to do with family reunification. The reality of Brexit is that EU citizens in the UK will experience a loss of status. The outcome on citizens is not just of importance to those who are affected by it but will have a bearing on the remainder of the negotiations.

Broad agreement on citizens would enable the negotiations to move to the more difficult issues of Ireland and the financial settlement. The financial settlement is the most fraught issue in the first phase given the high salience of UK budgetary contributions in the past. Again the UK will have to be flexible and engage actively in identifying what is to be included in the settlement. Without this there will be no move to the second phase and no trade agreement. If on the other hand, the European Council could agree by the October or December EC meeting that the second phase should begin, then the outline of a future deal and transitional arrangements might be possible within the time frame allotted in Article 50. However, here again, the UK has to be realistic; its future arrangements and benefits will be less than it has now across a wide range of sectors and forms of co-operation.

Financial Services

The impact of Brexit on financial services is entirely dependent on the future relationship that is negotiated between the EU27 and the UK. There is uncertainty about the timing and the outcome of these negotiations and notwithstanding a myriad of Brexit related analyses, it would be foolhardy to predict what might happen by 2020. The issues surrounding financial services relate to regulatory frameworks, equivalence and the ultimate judgements of individual financial institutions wishing

to access the European market. The certainty and clarity that produces a good investment climate has been disturbed by Brexit. It is clear that financial services are of core interest to the UK as the City of London is a global financial centre and is Europe's financial hub. Moreover, the UK has become a service driven economy. The issues that are likely to dominate the negotiations on financial services are (a) the question of passporting rights for financial services, (b) Euro-clearing and (c) regulatory frameworks post Brexit. The objective of the UK will be to retain as much of the Europe related business it now has but in a new regulatory environment as it does not want to come under the jurisdiction of the ECJ. The Chancellor of the Exchequer in his Mansion House speech (June 20, 2017) acknowledged that 'as Britain leaves the EU, there are genuine and reasonable concerns among our EU colleagues about oversight of financial markets that will then be outside the EU jurisdiction' but he went on to say that 'avoiding fragmentation of financial services is a huge prize for the economies of Europe' (HM Treasury, 2017). The sub-text of his argument is, on the one hand, that there are significant regulatory challenges arising from Brexit, but that on the other hand, if the UK loses its current status this would also harm Europe. His offer is a 'new process for establishing regulatory requirements for cross-border business between the UK and the EU. It must be evidence-based, symmetrical, and transparent' (ibid). Just how prepared the EU27 will be to offer the UK and the City of London a regulatory framework that allows it to retain all of the EU related business that it now has is impossible to predict given that there is as yet no negotiating document on this issue. It seems highly unlikely that the EU will agree to passporting, highly accommodating deals on equivalence, and the euro clearing market for a third country. The current conditions for UK financial services are unlikely to persist in the post-Brexit era. This does not mean that the City will cease to be a key player in financial services but it is unlikely to escape some costs and consequences of Brexit.

Conclusions

At the time of writing the formal process of Brexit negotiations has commenced and given the legal rules, the UK will leave the EU on March 29th mid-night Brussels time. This exit date cannot be changed without the agreement of all 27 Member States. Given that the process has begun, it is likely although not certain that the UK will depart the European Union

in 2019. Political turbulence and fragility in London will hamper the UK Government's ability to get the necessary legislation through Westminster and any future deal will go back to Parliament. The Parliament may return the issue to the people so that they have voice on the terms of exit. The relationship between London and the devolved administrations is also fraught and may spring some surprises. Nor should we take for granted that agreement will be reached between the EU27 and the UK. The negotiations could stall on any number of issues over the next two years and in any event two years is not enough to negotiate a significant post Brexit relationship. The UK retains the right to leave without an agreement and to resort to WTO provisions, which do not in any case, cover the entire range of EU co-operation. Such a unilateral move would raise the costs and consequences of Brexit in unforeseeable ways and would represent an extraordinary fissure in UK relations with its near neighbourhood. Opting for national self-determination, the formula outlined in the withdrawal letter in a highly interdependent 21st century world, is an extraordinary gamble for a once great power. Paradoxically, PM Cameron's desire to take the 'European Question' out of UK politics by holding a referendum has only served to heighten its salience and the divisions with the UK on the issue. It is reminiscent of the 'Irish Question' which dogged UK politics through the 19th and 20th centuries and although both islands had achieved a *modus vivendi* by the end of the 20th century, Brexit also re-opens the question of Ireland.

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CONNECTING AND DISCONNECTING CRITICAL FINANCIAL MARKET INFRASTRUCTURES : OVERSIGHT AND REGULATION OF CCPS AFTER BREXIT

Agnieszka Smoleńska

Much like physical infrastructures such as roads or gas pipes connect scattered geographical locations, the EU's financial system is connected through market infrastructures (FMIs), entities which operate as nodes linking market actors, buyers and sellers of financial products, of which central counterparties (CCPs) are a prominent example. Barriers erected in the aftermath of Brexit will interrupt all these infrastructures – both physical and virtual. However, in the context of financial markets, the issue of free movement was already raised before the UK referendum in the context of ECB's so-called "Location Policy", challenged by the British government before the EU courts. Brexit in itself will not resolve the issues related to ECB competence and EU's internal market. In fact, in 2017, the perfect storm brought about by Brexit, the revision of EU's financial market infrastructure regulatory framework (EMIR) and the general extension of central bank prerogatives in terms of financial stability objectives will force a profound re-examining of the traffic rules on European financial infrastructures, in particular from the perspective of a (multi-currency) internal market and principles of EU law.

Post-trading activities have gained in regulatory prominence since the Great Financial Crisis, when they have been covered by a flurry of post-crisis financial reform efforts, with the momentum provided by the 2009 G20 com-

mitment and successive FSB recommendations.¹ In the EU, the 2012 European Market Infrastructure Regulation (EMIR)² seeks to specifically bring Over-the-Counter (OTC) derivative transactions within the scope of regulation. To this end, EMIR addresses the emergence of global market infrastructures for clearing and settlement of securities transactions by requiring registration and supervision of central counterparties as well as making mandatory central clearing for particular types of asset classes. Responsibilities for specific tasks are placed to this end on ESMA – the EU agency for financial markets – including co-ordination of national regulation and drafting of technical standards. Even before EMIR was put in place, however, the ECB has sought to regulate CCP activity by requiring euro-denominated transactions to be cleared in a Eurozone Member State as part of its general oversight framework. The repercussions of the judgement delivered by the EU Court when this policy was challenged by the UK will reverberate beyond Brexit, in particular in the context of proposals on CCP supervision put forward by the European Commission in 2017.

Central counterparties – risk mitigators or risk concentrators?

Central counterparties place themselves in the middle of a transaction between a buyer and a seller in derivatives markets and are a means to mitigate default, counterparty and liquidity risk of transaction parties by concentrating risk in a multilateral setting. They combine therefore the characteristics of brokerage with that of a risk management facility. Where the post-crisis financial reform has sought to increase the transparency of post-trading activity, inter alia through standardisation of certain derivative contracts and mandatory clearing of certain asset classes, the central clearing infrastructure became visible to the eye of the regulator, and has been growing in prominence ever since.

In accordance with the EMIR Regulation, CCPs are now required to obtain authorization to offer services and pursue their activities in the Union: out of 17 CCPs established in the EU, almost half (7) are established outside

1 Financial Stability Board, *Implementing OTC Derivatives Market Reform*, October 2010. <http://www.fsb.org/2010/10/fsb-report-on-implementing-otc-derivatives-market-reforms/>.

2 Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories, *OJ L* 201, 27.7.2012, p. 1–59. <http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:%3A32012R0648>.

the Eurozone (UK, Sweden, Hungary and Poland). EMIR requires EU CCPs to be supervised by colleges of national supervisors, the European Securities and Markets Authority (ESMA) as well as relevant members of the European System of Central Banks (ESCB), that is central banks of issue of the dominant currencies traded.³ The broad membership of these colleges reflects the EU-wide scope of CCPs' activity.

The rapid growth of central clearing since the crisis - by the end of 2016, 60% of all OTC interest-rate derivatives were centrally cleared, while the corresponding figure by the end of 2009 was 36% - has raised concerns regarding their systemic nature and in particular their relevance for the conduct of monetary policy inasmuch as they affect the liquidity conditions on the market. Here, it is the volume of transactions as well as interconnectedness of the parties which pose a threat to the financial system more broadly. At the same time, rapid changes in the operation of financial market infrastructures resulting from innovation (including FinTech) further bring uncertainty on the CCPs' future role. This in turn raises the question of appropriate competences and tools which should be conferred on central banks, if any. In the EU context, a further caveat has been the concentration of CCP clearing activity in a particular geographic market - the UK. The European Commission estimates that 75% of euro-denominated interest rates derivatives are cleared in the UK, the ECB holds it to be as much as 90% for certain asset classes.

EU reform

The extent to which central counterparties can pose a systemic risk to financial stability has been recognized not only in regulation, which seeks to limit scope for failure by improving CCP resilience (prudential aspect), but also by regulatory measures oriented at strengthening crisis management tools in cases of CCP failure (recovery and resolution). Driven by initiatives at global level - including of the IOSCO and the FSB,⁴ since 2016 the second round of EU reform seeks to put in place a system for recovery and resolution of

3 Art. 18(2)(h) EMIR.

4 See in particular recent joint reports by BIS, FSB and IOSCO on Chairs' Report on the Implementation of the Joint Workplan for Strengthening the Resilience, Recovery and Resolvability of Central Counterparties, July 2017, highlighting in particular the global interdependencies in CCP markets. <http://www.bis.org/cpmi/publ/d165.pdf>.

CCPs, extending a majority of BRRD principles to CCPs⁵ - as early intervention measures and resolution tools, building on the particular system of loss absorption inbuilt in CCP activity known as the “default waterfall”.

In addition, in 2017 the European Commission has presented two proposals for EMIR amendments: one oriented at improving the proportionality and efficiency of the current regime,⁶ the second looking to improve supervision of CCPs both within the EU and in case of entities established in third countries.⁷ These proposals were made in the context of the Capital Markets Union initiative, where the role of central clearing is to play a crucial part in improving and promoting the development of EU financial markets. The second proposal in particular, made in June 2017, seeks to enhance EU-level supervision by ESMA of systemically important EU CCPs, bolstering as well the role of the central bank of issue of the currencies in which assets are cleared by EU CCPs.

Why should central banks play a role not only in oversight, but also in regulation of post-trading activities in this respect? Being part of the financial system, CCP activity and interconnectedness has implications for the transmission of monetary policy and broader financial stability considerations;⁸ this results in particular from their role in liquidity provision, position in the market as concentrators of risk, and also their

5 Proposal for a Regulation of the European Parliament and the Council on a framework for the recovery and resolution of central counterparties and amending Regulations (EU) No 1095/2010, (EU) No 648/2012, and (EU) 2015/2365, COM/2016/0856 final - 2016/0365 (COD) <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:%3A52016PC0856>.

6 Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 648/2012 as regards the clearing obligation, the suspension of the clearing obligation, the reporting requirements, the risk-mitigation techniques for OTC derivatives contracts not cleared by a central counterparty, the registration and supervision of trade repositories and the requirements for trade repositories, COM/2017/0208 final - 2017/090 (COD) <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=COM:2017:0208:FIN>.

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8 Jakob de Haan, Sander Oosterloo and Dirk Schoenmaker, *Financial Markets and Institutions: A European Perspective* (Third Edition, Cambridge University Press 2015) 242.

interconnection with the banking market.⁹ ECB further emphasizes the systemic dimension of stability of the centrally-cleared repo segment of euro money markets. To this end, the EC proposal of June 2017 emphasizes the need to align the competences and responsibilities of supervisors (including through EU-wide coordination) and central bank functions. While the proposal enhances the supervisory role of ESMA in proposing the establishment of a CCP Executive Sessions of the Board of Supervisors to supervise EU and third country CCPs,¹⁰ it also bolsters the role of central banks, recognising “potential risks that the malfunctioning of a CCP could pose to the definition and implementation of the monetary policy of the Union and the promotion of the smooth operation of payment systems.” The proposal requires prior authorization by the central banks of issue for a number of decisions taken by relevant regulators, including authorisation and its withdrawal (Art. 14, 15, 20 EMIR), liquidity risk controls (Art. 44 EMIR) and collateral requirements (46 EMIR).¹¹ In the context of the Eurozone, can such competences be conferred and exercised by the ECB? As EU law stands today, the 2015 CJEU judgement on ECB’s “Location Policy” would suggest otherwise.

The internal market dimension and the limits to ECB competence

EU financial market infrastructures connect not only different markets, but also different currencies. Consequently they find themselves at the intersection of competences pertaining to monetary policy and broader financial system concerns: are financial market infrastructures, such as CCPs, equally a concern of central banks as traditional (‘cash’) payment systems? In the EU specific context, what is the significance of the specific tasks and competences conferred on the ESCB by the EU Treaties in delineating the broad responsibilities of the ECB with respect to the financial system in this regard? These points became the axis of contention in the 2015 judgement of the EU General Court, the significance of which – as will be explained below – extends far beyond the issues of where UK CCPs will migrate post-Brexit or how their activity with relation to EU financial market infrastructure will be regulated, delving into

9 See: Benoît Coeure, Central clearing: reaping the benefits, controlling the risks’ Banque de France, ‘Financial Stability Review’ (2017) 21 97.

10 See proposed Arts. ESMA Regulation, new Articles 44a to 44c.

11 See proposed Article 21a and b.

the very heart of discussions on the limits of competence of the ECB and the nature of the internal market in a multi-currency Union.¹²

Location Policy judgement of 2015

On 4 March 2015 the EU's General Court delivered a key judgement on the scope of ECB's competence for oversight and regulation of financial market infrastructures, in particular the legality of certain aspects regarding the Eurosystem's Oversight Policy Framework.¹³ The challenge brought forward by the UK concerned ECB's policy to require all euro-denominated transactions above a set threshold to be conducted by CCPs legally established in the Eurozone with full managerial and operational control and responsibility exercised from one of its Member States – thus potentially restricting the extensive business done in the UK.¹⁴ The ECB's policy sought to limit (forbid) settlement and clearing of euro transactions, where these may have adverse effects on payment systems located in the euro area inasmuch as the euro area had no direct control over such transactions.

The case therefore raised the question of the scope of tasks assigned to the ECB under Article 127(2) TFEU, which confers on the ESCB the competence to promote the smooth operation of payment systems, further detailed under Article 22 of the Statute, which provides that “[t]he ECB and national central banks may provide facilities, and the ECB may make regulations, to ensure efficient and sound clearing and payment systems within the Union and with other countries.”

Among the pleas put forward by the UK government challenging the policy of the ECB, two are of particular relevance for the future regulation of financial market infrastructures, namely those relating to ECB

12 On the location policy judgement see in particular: Heikki Marjosola, 'Missing Pieces in the Patchwork of EU Financial Stability Regime? The Case of Central Counterparties' (2015) 52 *Common Market Law Review* 1491; Benedikt Wolfers and Thomas Volland, 'The Almighty ECB?: Limits to the ECB's Competencies according to the Judgement of the General Court of March 4, 2015 on the Location Policy for Financial Market Infrastructures' (2015) 30 *Journal of International Banking Law and Regulation* 670.

13 Judgement of the General Court of 4 March 2015, Case T-496/11, *United Kingdom v European Central Bank (ECB)*, ECLI:EU:T:2015:133 ['Location Policy' judgement].

14 These requirements would also have implications for the access to Target2, see: Decision of the Central Bank of 24 July 2007 concerning the terms and conditions of TARGET2-ECB (ECB/2007/7), OJ L 237, 8.9.2007, p. 71 with subsequent amendments.

competence to lay down a location requirement in respect to CCPs and the extent to which such a policy infringes provisions of EU Treaties relating to three out of the four EU freedoms (establishment, services and capital).

While the Court recognised the ECB's interest in smoothly operating clearing markets, it distinguished between oversight and regulation of market activity, where the latter consist of imposing uniform requirements such as imposing a location policy.¹⁵ Furthermore, it adopted a restrictive reading of the ECB's competence with regard to regulating payment systems, excluding from its scope the power to regulate the clearing operations of CCPs inasmuch as they relate to transfer of securities¹⁶ rather than transfer of funds: it is only the latter activity which, per Court jurisprudence, falls within the scope of 'payment system' competence conferred on the ECB under Article 127(2) TFEU. Additionally, the Court rejected the claim that competence for regulating CCPs could be conceived as an implicit regulatory power – an avenue which must be interpreted restrictively given the general principle of conferral, and applying only to situations where such implicit powers are necessary to ensure the practical effect of the provisions of the Treaty.¹⁷ Consequently, the ECB did not have the competence to require euro-denominated derivative transactions to be cleared in the Eurozone. The judgement however helpfully provided an avenue for the powers of the ECB to be extended to regulation of securities transactions clearing by market infrastructures such as CCPs: the Court suggested that under 129(3) TFEU the ECB, if it considers necessary to extend its powers, could submit a recommendation – a request to EU legislature – to amend Article 22 of the Statute.¹⁸ On a practical level, the judgement led to a specific ECB-Bank of England agreement on CCPs, in particular with regard to enhanced arrangements for information exchange and cooperation regarding UK Central Counterparties with significant euro-denominated business.¹⁹

This restriction of the reading of the ECB's competence is incompatible with the regulatory powers which would be conferred to central banks

15 Para. 102 Location Policy judgement.

16 Para. 97-99 Location Policy judgement.

17 Para. 105 Location Policy judgement.

18 Para. 109 Location Policy judgement.

19 See: <https://www.ecb.europa.eu/press/pr/date/2015/html/pr150329.en.html>.

under the 2017 EMIR proposals. In particular, the proposed wording of Article 21b provides the central bank of issue with a veto right on any decision proposed by the competent authority – “[w]here the central bank of issue proposes amendments, the competent authority may only adopt the decision as amended by that central bank of issue”. This clearly goes beyond mere oversight as interpreted by the Court. Anticipating such controversies, in July 2017 the ECB Governing Council proposed an amendment to Article 22 of its Statute with the following wording: “[t]he ECB and national central banks may provide facilities, and the ECB may make regulations, to ensure efficient and sound clearing and payment systems, and clearing systems for financial instruments, within the Union and with other countries.”²⁰ In particular, as its Explanatory Memorandum explains, “the Eurosystem should have regulatory powers to adopt binding assessments and require remedial action, in close cooperation with other Union authorities. Moreover, where necessary to protect the stability of the euro, the ECB should also have the regulatory powers to adopt additional requirements for CCPs involved in the clearing of significant amounts of eurodenominated transactions.” Notwithstanding the ECB’s particular responsibility for financial stability in the Eurozone as well as the insight into market operations, the sequencing of the proposals as well as the potential scope of extension of ECB competences raises serious concerns from the point of view of EU law, including principles of proportionality as well as possible implications in terms of restrictions of free movement in the internal market. To this extent the difference in the Council voting procedures under Art. 114 TFEU (EU-wide) and Article 129(3) TFEU (where only Member States without a derogation vote) is evocative of the tension which exists between the pursuit of harmonisation in the internal market - especially given the restrictive scope of Art. 114 TFEU as interpreted by the EU Courts - and conferring regulatory competences on an EU institution.

This is not least, as the Location Policy judgement failed to address the question which is likely to resonate broadly and further after Brexit: that is the extent to which such “location policies” could be held to be at odds with the internal market or discriminatory under Article 18 TFEU,

20 See Explanatory Memorandum, Recommendation for a Decision of the European Parliament and of the Council amending Article 22 of the Statute of the European System of Central Banks and of the European Central Bank (ECB/2017/18) (presented by the European Central Bank), 22 June 2017.

where such a policy, inasmuch as mandatory for the relevant market infrastructures, could be perceived to be an obstacle to free movement of establishment, services and capital, especially where the legal framework applicable at the time explicitly allowed the CCP cross-border access to investment firms, market operators as well as regulated markets.

Brexit as trigger for EU rearrangement of financial infrastructure traffic rules

Among its various far-reaching implications, Brexit will most certainly require a serious rearrangement of the EU market infrastructure for CCPs. The ECB estimates that in the UK are cleared 90% of euro-denominated interest rate swaps of euro area banks, as well as 40% of their euro-denominated credit default swaps. How will these transactions be governed after Brexit? This will be decided by the framework of equivalence regimes. But even as much attention with regard to the most recent EMIR revision proposal has been devoted to the two-tier system for recognising third-party CCPs, i.e. creating potentially a preferential regime for selected jurisdictions (such as the UK), from an internal market perspective the consequences of these proposals might be even more far-reaching, in particular with regard to: (a) consequences of regulation of EU financial infrastructures in a multi-currency financial market and - to that end - defining what constitutes significant CCP market activity from the perspective of stability of a given currency area and the Union as a whole; (b) the scope for ECB to shape and define its own competences in regulating financial markets, in accordance with the procedure helpfully suggested by the General Court.

With regard to the regulatory architecture, while the role of CCPs for currency stability cannot be underestimated, even if only given the volume of transactions, just as in the case of banking there is no consensus on the desirable division of tasks between public authorities for supervision and oversight: across the EU the regulators of CCPs vary.²¹ This indicates an open discussion as to the possible responsibilities and powers of supervisors and regulators, as well as the value which may come from decentralisation of responsibilities – in particular as the competences for oversight over financial stability appear to increasingly centralise with the central banks. While the European Commission's pro-

21 <https://www.esma.europa.eu/ncas-ccps>.

posals strengthen the role of ESMA in CCP oversight as well, the limits on independent scope of action of this agency imposed by EU constitutional law, in particular discretionary decisions, must be borne in mind.

Furthermore, until any revision of the ECB Statute, the Location Policy judgement remains valid, with the limits it imposes on the ECB. Here, however, the precedent of the ECB proposing for an amendment to Article 22 of its statute should not be trivialised as it raises broad institutional questions of how far does the authority of a monetary policy extends and what limits should be set on the ECB's power to define its own competences. While there are certainly many premises for conferring further regulatory and prudential powers over CCPs to central banks – not least given the possibility for emergency liquidity provision to systemic CCPs so far rejected – such continued extension of prerogatives warrants a parallel reassessment of accountability and transparency arrangements at the very least.²²

The question of extension of central bank competence into spheres of securities markets in the EU context, particularly where these markets have not been regulated previously, was raised predominantly by the UK given the sheer volume of euro-denominated transactions carried out in London. Where location policies are unambiguously restrictive of freedom of movement, the question of CCP regulation should also be seen in the broader context of the internal market. In a scenario where the regulatory landscape seems to be shifting to a world where central banking – and hence the link between currency and money – becomes ever more predominant, not just in microprudential regulation but also in general macroprudential policy, even post-Brexit we can expect EU Courts to have to grapple with the question of how far “stabilisation” regulatory policies should reach, restricting or disincentivising free movement across the internal market as a whole. This is not least, due to the role played by the very derivatives traded on CCPs in mitigating exchange and interest rate risk, as well as in the light of the fact that the relationship between law and regulation on one side, and financial stability on the other is contested in itself.²³

22 See Transparency International, Two sides of the same coin? Independence and accountability of the ECB?, 2017. <https://transparency.eu/ecb-needs-democratic-oversight-if-the-euro-is-to-survive-the-next-crisis/>.

23 See: Dan Awrey, Law, Financial Instability, and the Institutional Structure of Financial Regulation”, in: Anita Anand (ed), *Systemic Risk, Institutional Design, and the Regulation of Financial Markets* (First edition, Oxford University Press 2016).

Conclusion

The systemic importance of central counterparties is increasingly taking centre stage as a key regulatory concern – as made clear by the proliferation of initiatives at both global and EU level. While CCPs have taken centre stage in the context of Brexit, the proposed 2017 EMIR reform of the regulatory framework will extend far beyond creating a new third country regime. Traffic rules on the financial market infrastructures will increasingly have to accommodate the hilly terrain of a multi-currency Union as well as the broader transformation of the financial system resulting from technological change, especially as we shift towards an increasingly functional approach to financial regulation – rather than one based on institutions. As pointed out by Zettelmeyer in this volume,²⁴ Brexit will bring to the foreground many tensions which still persists in the architecture of financial integration in the EU – not least the tension between currency integration (and the consequential role of central banks in maintaining currency stability) and an integrated internal market with its principles of freedom of movement of establishment, capital and services. This taking place in the EU specific context, where the boundaries of competence of respective actors and supervisors are set by the principles of EU law and the Court of Justice.

Can financial stability across the EU financial market infrastructures be achieved (to the extent possible), only by limiting traffic via location policies? This would seem to impede the very aim which an integrated financial market infrastructure is meant to deliver: that is to connect market actors. This is all the more the case in a world where technological change is challenging the very concept of what is a “reliable and adaptive” financial market infrastructure.²⁵ Defining what is systemic and critical in such a geographical and legal context in a proportionate manner will be crucial, and in many senses will be much more sensitive than for the transport and energy sectors, especially when risk-sharing or solidarity aspects come into play.

24 See Zettelmeyer, Jeromin, *After Brexit: Rebooting Euro Area Financial Integration*, published in this book in Part 2 - Regulatory Arbitrage Across Jurisdictions.

25 On this point see in particular World Economic Forum and Oliver Wyman, *Balancing Financial Stability, Innovation, and Economic Growth* (FSIEG), White Paper, 2017. <http://www.oliverwyman.com/our-expertise/insights/2017/jun/balancing-financial-stability--innovation--and-economic-growth.html>.

Dinner Speech

LESSONS FROM THE PAST FOR THE FUTURE

Martin Sandbu¹

It's a daunting prospect to round off this year's conference. First of all, because such is the range of expertise concentrated here that whatever I have to say, somebody present will be able to call me out and correct me. Second, financial regulation is not the lightest theme for concluding dinner remarks that are after all expected to be entertaining as well as illuminating. And third, the topics you have chosen for this year's meeting — fintech, regulation, and Brexit, all under the heading of the changing geography of finance — range so broadly that they are all the more difficult to synthesise.

The best I can do is to offer a counterpoint to all that has been said today. In music, a counterpoint is a compositional line that constitutes a variation on the original theme which, when played alongside that original melody, creates a fuller harmony. While today's speakers have looked to the future, I therefore propose to start out in the opposite direction and look into the past.

If you will follow, in fact, I'd like to go take you all the way back to the dawn of the first, or at least the most fundamental, financial technology of them all. I am referring to *money*.

You will have heard the story given in the economics textbook: money was invented to overcome the inconvenience of barter. That story, it turns

¹ Edited remarks given at the concluding dinner on the 27th of April 2017.

out, is completely wrong. The anthropologists tell us there is really no evidence at all that there barter was ever all that common, let alone that it spurred the development of money. There is instead a lot of evidence that money was invented as a way to make debt relationships more manageable.²

The anthropological story as I understand it is as follows. Money came into being as a way of transforming personalised debt obligations between a named debtor and creditor who were known to one another, into tokens of transferable financial claims that were not tied to personal relationships. I want to dwell on this transformation because there are lessons to be learnt from the primordial financial technology that money constitutes for the topics we have been talking about today.

By freeing financial claims from personal relationships and the cultural and psychological baggage that comes with them, you also make it possible for financial claims to span a far greater distance than any particular personal relationship can reach.

The word “distance” here should be understood not just as physical distance, but any dimension along which the participants in a financial relationship may be separated. They can be separated by *time*, by (*in*) *ability to communicate*, by their *imperfect knowledge* of one another, by (*dis*)*trust*, by *mismatched personal opportunities* to enter or fulfil mutually advantageous obligations, and by any imaginable practical obstacle to carrying out whatever economic transaction they may ideally want to commit to. Such practical obstacles could be, for example, a lacking stable denominator of value or the absence of a reliable system of keeping tabs on particularly complex undertakings.

Now, the most obvious of those dimensions of distance are of course physical geography and time. Money payment tokens – financial claims not tied to specific person – makes it possible to create claims across a wider physical space than a single person can span and across a longer time than a single person can live.

2 For a general-audience overview of this thesis, see Ilana E. Strauss, “The Myth of the Barter Economy”, *The Atlantic*, 26 February 2016, <https://www.theatlantic.com/business/archive/2016/02/barter-society-myth/471051/>.

The broader point is that the ancient invention of transferable impersonal value claims (ie money) is at the root of all later financial innovations including those we have discussed at this conference. Armed with the concept of money, it is easy to make the leap to any kind of financial relationship imaginable, based on such tokens of transferable, impersonal units of value. The economists in the room will know about Arrow-Debreu securities, the conceptual contract structure that specify financial claims conditional on any time, location, and “state of the world” — a term so ample that it can contain any uncertain but definable outcome.³

Once you have money, you can theoretically have Arrow-Debreu securities, which means you can theoretically have any sort of financial relationship you might care to invent. This shows how there is something inherently expansive about money, and by extension about finance. Once financial relationships are separated from personal relationships, they can transcend the limits that personal relationships are contained by. That gives finance an inherently colonising character, not just in a geographical sense but along all these other dimensions I have mentioned. It will naturally encourage the creation of ever more distant financial relationships until it runs up against new limits – which are not the limits of personal relationships, but limits particular to finance, that is to say impersonal money claims.

What could these be? What could limit financial relationships when they are no longer bound by personal relations?

One sort of limit is the kind of thing we’ve discussed today: *technological* limits. In a very broad sense, we can think of technological limits in two ways. One is plain physical limitation. The reach of a financial claim is obviously limited by how far technology will actually allow you to contact and communicate with others. If there are civilisations on other planets, we are clearly not in financial relationships with them at the moment because we are not technologically able to communicate with them.

3 Kenneth Arrow and Gerard Debreu, “Existence of an equilibrium for a competitive economy”, *Econometrica* (1954): 265-290. See also John Geanakoplos, “Arrow-Debreu model of general equilibrium”, <http://dido.econ.yale.edu/~gean/art/1987-newpalgrave1.pdf>.

The much more interesting technological limit isn't physical, but informational. We can enter into financial relationships and commit to and fulfil financial obligations only to the extent that it is possible to track, monitor, calculate and verify the monetary implications of those relationships. That's a technological ability, one which is never infinite but also not constant. Much of technology's role in expanding the geographic reach of finance is really the technological expansion of our informational ability.

So as a point of departure for thinking about these issues, I am offering a kind of creation story. The primordial separation of financial claims from personal relationships has moral and political consequences but also financial consequences. One of those consequences is that financial interconnectedness constantly expands as far as it can go.

It is no surprise, then, as we walk from prehistory into history, that financial innovation has always been tied to real economic activity that also expands geographic limitations. Financial centres have typically also been great trading centres. The prime example is of course the location of this conference: Florence during the late middle ages and the Renaissance, together with many other Italian city states.

Given the place and theme of our meeting, let me pay respect to this fascinating episode in financial history. The Medici family, long the rulers of Florence, have a good claim to being the most famous banking family in history. (Perhaps the Rothschilds can give them a run for their money.) For a while they enjoyed what must surely have been the best banking gig ever, as bankers to the Holy See.⁴ It is no surprise that this was lucrative. What may be less obvious is the important geographic element to the job. As the papal court travelled from Rome to its other secondary seats, it would rely on its bankers to take care of its financial needs during those displacements. An important part of banking the Vatican was, in other words, to facilitate the establishment or maintenance of financial claims across significant time and space.

So that was one geographic dimension of the Medici's business. Another was physical merchandise trade. The Medici traded commod-

⁴ "Those Medici", *The Economist*, 23 December 1999, <http://www.economist.com/node/347333>.

ities such as wool and silk, which perfectly illustrates how the informational technologies involved in maintaining a network of distant physical trade — ways to ensure and verify the reliability of far-flung business partners — allow the geographical expansion of finance, and vice versa.

This period in Italian banking produced some extraordinary innovations that continue to shape finance to this day. These were technological innovations – not in a physical sense like, say, digital electronics, but in the sense I mentioned before: advances in our information-processing ability, improved techniques for tracking and managing financial claims. Among them were new accounting practices such as double-entry book-keeping. The Medici also mastered branch banking. Today we would probably call their branches subsidiaries, as they often constituted separate partnerships.

Through such innovations, it became possible to keep track of ever more complex chains of finance.

There was also a concomitant increase in the skill of regulatory arbitrage. Because this was medieval Europe, with its religious restrictions on usury. You should ask yourself: how do you make money as a banker if you can't charge interest? Everyone at this conference can no doubt come up with creative, inventive solutions. So did the Medici and their peers. They used, for example, bills of exchange, which created financial claims across geographic distance and time. You would exchange money paid in at one time, in one place in order to withdraw money in a different currency at a later time, in a different place. Bills of exchange are very useful for traders of physical merchandise. But they are also useful because you can always set the exchange rates so as to bake in an implicit interest rate, and thereby get around the ban on interest.

The innovation of the bill of exchange, in other words, allowed you to do well without jeopardising the eternal health of your soul. Another trick was what we can think of as a form of collateralised lending: issuing credit to merchants in return for the right to buy their stock of goods at a below-market price, again allowing an implicit interest charge to be built into the complexity of a financial claim.

Examples such as these are obvious to contemporary financial professionals, but somebody had to invent them. I mention them partly to pay tribute to Florence and early modern Italian banking. But I also raise them to ask whether everything we have covered at this conference isn't a case of nothing new under the sun.

We have discussed technological innovation — but we've had (in my broad sense of the word) technological innovations in finance at previous periods in history. They have previously led to regulatory arbitrage, just like they do today. They have led to the geographical expansion of financial and real economic relationships, just like they do today.

What about fintech — is that also just more of the same? In some sense it is. Essentially what fintech does is to increase the power of our informational technologies. It allows us to do calculate, monitor, and track trades and clearing much faster and in much greater quantities, and at higher levels of complexity than ever before. It's a simple point of arithmetic that as you increase the number of dimensions or nodes in a network, you increase the number of possible combinations of nodes and relationships by much more. That is the root of increased complexity. But that word "complexity" should remind us of the old trope that when a quantitative change becomes big enough, it turns into a qualitative transformation.

Put more simply: as soon as you have progress in financial technology, you should expect runaway products. You should expect to play catch-up intellectually in order just to understand what is actually going on.

That's a problem for regulators. It's also a problem for participants, as we saw in the crisis. When you have innovative products and techniques for linking up new and more complex financial relationships, everybody loses track of what the consequences might be. That was the case in the run-up to the global financial crisis where virtually nobody appreciated the vulnerabilities and interconnections in the real economy created by the growth of new structured financial products.

So perhaps there is something new under the sun after all, if only because the quantitative change brought on by today's innovations is big enough to become a qualitative change.

Let me finish by using this glimpse into the past to engage in some unreined speculation about the changing geography of finance, in terms of what might happen in the three areas we have covered today: technology, regulation and Brexit.

On technology I have already said that our capacity for financial complexity is increasing. That is a talent to be celebrated, but that needs to be governed. It creates more scope both for better financial services but also for regulatory arbitrage. It creates more scope for self-delusion, too.

Added to “mere” complexity is the possibility of financial transactions becoming self-executing — so-called “smart contracts” in which digital technology allows us to make do without a lot of what is now done by humans. I think it will be very interesting to watch the extent to which the execution and enforcement of ever more complex claims is soon enough carried out by automated technology, with no need for anybody actually to enact the agreement that’s set out in the contract. That would have big consequences for regulation.

As for regulation, what future can we speculatively imagine? If technological innovation changes the geographical scope of financial relationships, there are several things regulators could do in response. But doing nothing is hardly an option — the complexity of new financial relationships is dangerous since we don’t understand how it unfolds in various states of the world. Both financial participants and “innocent victims” need regulation to keep up with the times.

Regulators could respond to a geographically more expansive financial world by moving regulation “up” and expanding it geographically as well. That is to say, engage in more regulatory harmonisation across national borders. We are indeed seeing a lot of that, above all in the European Union but at a global level as well.

The alternative is to bring more regulation back down to the national level, but more effectively. One can use either technology or old-fashioned legislation to *limit* some of the geographical expansion of finance, putting limits on the cross-border financial links themselves. Perhaps Brexit will lead to more of that in the UK.

But a middle way is to shift from regulating a financial *activity* (which straddles borders) towards regulating the *end user* of the activity (who will be resident in nation-state). So instead of (or in addition to) regulating, say, mortgages in terms of what loans banks are allowed to issue, you regulate your residents in terms of what sort of mortgages they are allowed to take out.

Regulating end users is quite doable and often has little to do with technology. In the runup to the financial crisis, for example, the euro-zone countries that experienced big real estate bubbles possessed powers to regulate in precisely this way, even though they made too little use of them. If Irish regulators had really wanted to contain the mortgage bubble in Ireland, what stopped them? You might answer that if they had restricted lending by Irish banks, Irish branches of foreign banks would just come in to do the same lending with the same results. But you could then have regulated Irish mortgage holders directly instead, for example by banning Irish residents from borrowing more than some loan-to-income ratio. (To make this enforceable the law would have had to disallow the securing of any non-compliant loan against real property in Ireland.) It is not hard to think of other possibilities.

But a much more exciting avenue for regulatory innovation is technological. Instead of regulating the financial transactions themselves you could start looking at regulating the technology used in those transactions.⁵ Computer algorithms themselves could be subject to regulatory specifications. Here is a thought that may be veering deep into science fiction and yet seems burningly timely: Could we not imagine that regulation itself becomes much more automated? Could we not require financial institutions to insert “virtual regulator” software programmes in their transaction technology, which would automatically monitor, track, report on and possibly stop certain types of automated transactions from taking place? I think we are barely scratching the surface here.⁶

A last possibility is that national authorities themselves start

5 See Katherine Ellen Foley, “A pioneering computer scientist wants algorithms to be regulated like cars, banks, and drugs”, <https://qz.com/998131/algorithms-should-be-regulated-for-safety-like-cars-banks-and-drugs-says-computer-scientist-ben-shneiderman/>, 3 June 2017.

6 See Jane Croft, “Law firms programmed for more technological disruption”, <https://www.ft.com/content/8a4d4634-29a0-11e7-bc4b-5528796fe35c>, 2 June 2017.

employing technologies in ways that crowd out private financial activity. A fascinating example is how central banks are beginning to contemplate the use of block chain. This is being thought of seriously at, for example, the Bank of England.⁷ The question being asked is whether money, which today exists largely in the form of deposits in private banks, could not instead be created and maintained as entries in a block chain distributed ledger. There are pros and cons around managing the money supply in this way, and it would be a radical step to take. But if a central bank ever does go down that route, it will clearly be a mortal threat to banks.

Finally, on the third issue we have discussed today — Brexit — I'd like to make just one argument that links it with the other themes.

As we have seen, technological innovation — not just in finance, but especially there — makes for geographical expansion. That is one reason why there is much more trade, and immeasurably more financial activity, across borders now than there was 50 years ago. The obstacles to cross-border economic activity have changed in the last half-century, too. Tariffs are no longer the main barriers to trade in goods and never really have been for trade in services, including financial services. What stands in the way of cross-border economic relations today is the degree to which rules and regulations diverge between nations. In the case of international finance, the issue is whether separate jurisdictional authorities and different rules apply to the end points of a financial transaction (and any intermediaries between the ultimate transacting parties).

This means that promoting trade in financial and other services, and even in goods, today involves taking part in efforts of common rule making. One particularly frustrating element of the Brexit debate has been the complete lack of recognition of this fact that being open to trade means accepting the need to make decisions together with others. There is a perception among some parties to the Brexit debate that trade openness and joint decision-making are somehow opposites, so that escaping the rules of the EU is a way for Britain to be more open to the world.

7 See Ben Broadbent, "Central banks and digital currencies", <http://www.bankofengland.co.uk/publications/Pages/speeches/2016/886.aspx>, speech given 2 March 2016; as well as the research questions asked by the Bank of England at <http://www.bankofengland.co.uk/research/Documents/onebank/cbdc.pdf>.

But this perception is false. Withdrawing from collectively binding rules is a move *away* from cross-border economic openness. Now, we have recently seen an upsurge in nationalism and protectionism across the western world, most worryingly in the US — but the current US protectionist attitude at least has the merit of being consistent. When someone like Stephen Bannon wants to throw up barriers to and repatriate cross-border economic activity, it is part and parcel of the desire to be less constrained by agreements with other nations.

Most of those who argue for Brexit, in contrast, lack Bannon's consistency. So here is the thought I want to end on. There are ways to (at least try to) stop or reverse the growing international flows of goods and money, even though technology is making that ever harder. (Technology may also be giving us new tools to do so if we so wish). Alternatively, you can embrace the deepening of cross-border financial and economic links and try to agree common rules to govern them. You can be open economically, or you can try to repatriate your rule making. But you cannot successfully do both at the same time.

Postface

STILL LOOKING FOR THE BANKING UNION'S FISCAL BACKSTOP

Pierre Schlosser¹

Europe's economic and financial governance has been experiencing dramatic changes over the last years. These ground-breaking transformations have been brought about by a set of events of unprecedented magnitude whose nature cut across the banking, financial and sovereign areas. They have been commonly termed 'euro crisis'.

The euro crisis has revealed gaps and shortcomings in the original architecture of Europe's Economic and Monetary Union (EMU) that have been partially addressed by the *ad hoc* layering of new rules and instruments and by the creation of the Banking Union in June 2012. The original EMU set up was indeed flawed (De Grauwe, 2013; Giavazzi and Wyplosz, 2015). Maastricht-designed EMU proved to be highly geared towards its monetary pillar, under-developed in its fiscal dimension, over-specified in its battery of rules and under-equipped in its arsenal of crisis management capabilities. Besides, EMU was established on the underlying notion (and cognitive framework) that all emerging risks potentially threatening EMU's sustainability would come from the fiscal side whose alleged perilous developments were to be contrasted to the proclaimed anchoring power of monetary policy.

1 This paper is based on two recent interventions given by the author, the first at a workshop on 'Europe's Economic and Monetary Union 25 years after the Creation' held on 29 May 2017 in Dublin and the second at a joint EP-EUI History Roundtable on the Political Theory of and Economic Background to Economic and Monetary Union – 25 years after the signature of the Maastricht Treaty, 31 May 2017 in Brussels.

As a result, no EU institutions and instruments were in place to deal with risks or vulnerabilities which originated in or were largely amplified by the financial sector. As neatly captured by Sapir and Schoenmaker (2017:1): ‘there was no common instrument in case a sovereign faced a liquidity or solvency crunch. For banks, there was not even a common instrument for the surveillance of risk, and there was no common instrument in case of a liquidity or solvency crisis. Everything was left in the hands of individual member countries.’

Located at the intersection of Europe’s Fiscal and Banking Unions, this analysis focuses on EMU’s post-crisis crisis management capabilities. The question that the paper aims to provide a first answer to is the following: which institutional form should EMU’s banking crisis management backstop take?

The paper is organized as follows: section 1 provides a ‘Padoa-Schioppa’ framing of the topic of crisis management that distinguishes between ‘private money solution’, ‘tax-payer money solution’ and ‘central bank money solution’. Concentrating on the tax-payer money solution, section 2 enters the core of the argument and claims that a credible crisis management tool is still missing in EMU. Section 3 substantiates the claim further and provides more details on the currently existing backstops. Section 4 suggests new reforms while section 5 concludes.

1. What is meant by crisis management?

It is almost impossible to travel back to the early days of EMU in Maastricht without thinking immediately of Tommaso Padoa-Schioppa. A founding father of EMU, and man of vision, he energetically advocated a European supervisory framework, insisted on the constitution of a European payments system and defended an embedded European Central Bank (ECB) which – he feared – would otherwise risk suffering from ‘institutional loneliness’ (Padoa-Schioppa, 1999). History proved him right on all those three accounts.

A fourth – often overlooked – foresight is worth mentioning. In line with the attention that he dedicated to financial stability (Maes, 2016), Padoa-Schioppa was also a believer of discretionary liquidity support. More broadly, he captured with lucidity the unsettled institutional nature

of Europe's crisis management framework. In his 2004 monograph on the ECB, Padoa-Schioppa underlined the following, referring to the EMU original architecture: 'crisis management is the issue on which most of the criticism of the present arrangements has concentrated in the early years of the euro. It has been argued that in euroland responsibilities to manage a banking (or more broadly financial) crisis are neither clearly assigned nor openly disclosed, and that the sheer number of authorities potentially involved would make the efficient provision of emergency liquidity unmanageable' (Padoa-Schioppa, 2004: 116). Despite the transformation that the European polity has endured in recent years – in particular with the creation of the Banking Union, the post-euro crisis framework remains in line with this past fragmentation. Several liquidity instruments exist at the EU level, they are however spread among several EU actors namely the European Central Bank (ECB), the European Stability Mechanism (ESM) and the Single Resolution Board (SRB), mainly.

2. The argument: Europe still misses a credible crisis management tool

Over the past nine years, much has been done to make Europe's banking system more resilient. It would be foolish to argue the opposite. On the prudential side, stricter and more intrusive capital rules have been adopted with the Capital Requirements Directive IV and the Capital Requirements Regulation package while a new, two-level micro-prudential supervisory regime has been established with the creation of the Single Supervisory Mechanism (SSM). As far as banking resolution is concerned, the Bank Recovery and Resolution Directive (BRRD) sets now clear rules on bank recovery and bank resolution and provides detailed provisions on loss absorption as well as on resolution tools and resolution strategies. Those rules are about to be strengthened with the adoption of the new Banking Package. Besides, the SRB has been established as the central actor of this new resolution process. Yet, despite all the advances made, the existing political narrative on EMU is that the latter 'is not yet fully shock-proof', to borrow the wording of the recent Commission Reflections Paper on EMU (Commission, 2017: 3). EMU's crisis management capacity remains weak as the elephant in the room has not been addressed: who is backstopping the Banking Union and with which instrument?

If one assumes that the European Central Bank cannot be the mother of all crisis management forever, then one has to face the bare truth that Europe is not prepared to address a systemic banking crisis of large magnitude. First, because its existing crisis management instruments are fragmented among too many actors and are therefore suboptimal in terms of firepower. Second, because their credibility is at stake. The very unlikely use of the ESM's banking recapitalization instruments (as will be explained further below) is a good illustration of the disconnect between the theoretical availability of crisis management tools at the EU level and the practice of too high operational burden and conditions to mobilize those tools. Third, because the crisis management arsenal still assumes the implicit support of the ECB whose shadow is cast on the whole crisis management system. After all, it was only with the 'whatever it takes' declaration by Mario Draghi and the following launch of the Outright Monetary Transactions that the concerns of a pervasive doom loop between fragile Southern European banks and fiscally vulnerable governments ebbed away. Fourth, because Europe's Banking Union remains by and large untested. In the same way that the credibility of the Stability and Growth Pact was only really tested when it had to be enforced fully on two large Member States (France and Germany) with the known result for its credibility, Europe's new Banking Union's real life test will come when one of Europe's most systemic banks based in a large euro area economy will be declared 'failing or likely to fail'.

To help us enter into further details on the weaknesses of the current crisis management system we will rely on distinctions provided by Tommaso Padoa-Schioppa (2004). The latter narrowed down crisis management into three dimensions: (1) "the **private money solution**", (2) "the **tax-payers money solution**" and "the **central bank money solution**". We will review those three dimensions in turn.

(1) The private money solution is at the core of Europe's contemporary crisis management regime. The private sector is financing the Single Resolution Mechanism (both its Board and its Fund) and the spirit and letter of the BRRD revolves around preparing the financial sector to severe shocks by making it mandatory for them to develop the necessary tools to ensure that the lion's share of the loss-absorption is born by them. Yet, the contribution of a private sector involvement to crisis management should not be over-estimated either. As Avgouleas and Goodhart

(2016:87) explained, currently 'there is a danger of over-reliance on bail-ins when the risk is not idiosyncratic'. Given the inter-connectedness of financial entities, a deep private sector solution, for an example a deep bail-in is unlikely to occur in the middle of a cross-border and systemic crisis. Schoenmaker in particular explained that to the extent that 'bail-in spreads the losses through the system and can thus cause contagion [...]', 'the strength of a banking system ultimately depends on the strength of the sovereign behind it' (Schoenmaker, 2015: 42). This exposes Europe to self-fulfilling dynamics of insolvency as EMU is notoriously sovereign-less.

Over the years of the euro crisis, the **central bank money solution** (2) has been relied on extensively: unconventional monetary policy instruments have mushroomed to safeguard the euro and Emergency Liquidity Assistance (ELA) has been largely mobilized by Eurosystem central banks. It is obvious to recognize that central banking solutions are *par excellence* a cornerstone of crisis management solutions. Again as Padoa-Schioppa highlighted 'a strong central bank is an institution which is in the position to act in a discretionary way' (TPS, 1996). However their use should be restricted to last resort situations and be subject to the real discretion of the central bank. During the crisis, the opposite seemed to be true as those instruments appeared to be increasingly of a business as usual nature and were used at times reluctantly by the ECB, simply because there was no other actor left to save the euro. So if it becomes the rule rather than the exception that the ECB intervenes as a provider of last resort liquidity, then it means that there is a risk that it is no longer a discretionary choice but rather an obligation. As of now, enough delicate tasks have been 'dumped' on the ECB. Delegating even more tasks to the ECB in an immediate future would cause a public uproar and would lead to a constitutional debate on the limits and financial risks of the ECB's task expansion. Surely, the possible appointment of Jens Weidman as a successor to Mario Draghi, despite the collegial nature of the ECB's Executive Board – is likely to put a halt to the ever expanding logic that characterised the ECB's action pattern during the crisis.

As far as the design of an EU level backstop for the Banking Union is concerned, it thus seems to be wise to consider that 'depending on the ECB alone is economically dangerous and politically unsustainable' (De Geus, Enderlein and Letta, 2017:2). Similarly, one can assume that cen-

tral banking solutions cannot include a permanent crisis management instrument of the scale that would be necessary to safeguard the Banking Union. To recapitulate: private money solutions are already relied on a lot in Europe and it is fair to assume that their contribution to financial stability is over-estimated; central banking solutions have been used a lot in the past and will tend to be relied on less in the future both for constitutional reasons and political reasons; what thus remains is the third component of crisis management that Padoa-Schioppa termed ‘the tax-payers money solution.’ The problem is that the tax-payers money solution to banking crises remains a taboo in the current bail-in regime which is also the reason why the few existing EU instruments are fundamentally under-developed in their design. The recent public interventions to support ailing Italian banks are a timely wake-up call in that regard as they recall that the only operational taxpayer’s money solutions are of a national nature, thereby fuelling the doom loop between sovereigns and banks.

My understanding is that when a serious crisis kicks in and a huge impact looms, then the tax-payers money solutions will be activated again, and we should consider the most intelligent way to engineer and prepare such a scenario instead of pretending this will never happen again. In other words, EU leaders will have to formalize soon enough an EU level function of last resort liquidity that can directly contribute to risk-absorption through liquidity intervention measures but also indirectly, via a re-insurance and recapitalization function to other EMU actors. This way EMU would be finally equipped with a formal and mutualized crisis management facility and would also be armed with an actor that performs the crisis intervention tasks traditionally performed by a sovereign and exceptionally performed in Europe by the ECB. Before formulating this recommendation in more detail, one should first understand the existing EU banking crisis management tools on the tax-payer side. For this, one has to travel back to June 2012.

3. The Banking Union’s tax-payers’ money recapitalization instruments

The Banking Union was created out of concern for the doom loop between the banking sector risks and the sovereigns, following the realization that Member States’ fiscal sustainability was threatened by finan-

cial dominance. These malicious dynamics were illustrated most tellingly by Ireland first and then Spain which ended up in the eye of the cyclone in June 2012. Following this, the Banking Union, as has been well documented by Gloeckler, Lindner and Salines (2016) 'came about as the result of a situational package deal that linked the SSM to a short term crisis management measure, namely direct bank recapitalization (DBR) via the European Stability Mechanism' (Gloeckler et al, 2016: 2). A similar interpretation has been provided by De Rynck (2016).

The original idea was that the doom loop would be broken by a sufficiently strong and direct banking recapitalization tool which would be a new ESM instrument set up right after the SSM's creation and which would directly address ailing banks without burdening national governments' balance sheet. The original euro area summit statement of 29 June 2012 specifies the following: 'when an effective single supervisory mechanism is established, involving the ECB, for banks in the euro area the ESM could, following a regular decision, have the possibility to recapitalize banks directly' (Euro Area Summit, 2012: 1). Meanwhile, a transitory instrument was created for the purpose of Spain. The so-called indirect recapitalization instrument, formally known as the 'loans earmarked for the specific purpose of recapitalizing the financial institutions of its members, under a financial assistance recapitalization facility', is the instrument used by the Spanish government to recapitalize its banks. Its added value is that conditionality is only attached to the financial sector and that market access problems is not a condition of the loan activation, its downside is that it increases fiscal deficits since loans are channels by governments but are also contracted by them.

On 25 June 2012, the Spanish government requested financial assistance for the recapitalization of its banking sector. On 20 July 2012, the Eurogroup approved such a request. 100 billion euros of financial assistance were thus agreed to the Spanish government which in turn provided funds exclusively to its banking sector restructuring. Ultimately, only 41.3 billion euros were requested by the Spanish government and disbursed by the ESM. With hindsight, the 'Spanish deal' was a success. As of 31 December 2016, the average interest rate on ESM loans to Spain was 0.9%. The Spanish government exited the programme one year and a half after it entered it. The loan will be fully repaid at the end of 2027 so in 10 years' time. In the meantime, Spain has made 4 volun-

tary requests (needless to say that they were all accepted) to accelerate repayment of the loan. Judging by the analysis of the Commission's latest country report on Spain, the medicine seemed to have had a positive impact on the health of the Spanish financial sector: 'the financial sector has continued to show a high degree of stability, supported by its ongoing restructuring, low funding costs and the economic recovery. The banking system further strengthened its capital buffers and the six largest Spanish banks comfortably met their capital requirements in the EBA stress tests of July 2016. The aggregate non-performing loan ratio fell to just above 9% in November 2016' (Commission, 2017: 2).

Despite this resounding success, the use of this indirect recapitalization instrument in June 2012 was a one off and was complemented by another direct recapitalization instrument. One can assume that its relevance has been downsized with the adoption of new rules and conditions on loss absorption and recapitalization (as part of the BRRD) and that Northern Member States will not indulge Southerners to rely on it too much in the future thereby pushing them to the 'atomic' ESM solution, the Macro-Economic Adjustment programme.

The second existing back-stop instrument is the Direct Bank Recapitalization, which is limited to 60 billion euros given that it is considered a more risky instrument. The DRI took more than 2 years to be created, has an incredible list of conditions required for its activation, requires unanimous consent and is judged by policy-makers from the field as an instrument that will probably never be used. This point is actually eloquently illustrated on the website of the European Stability Mechanism in its 'Explainers' section: 'when the instrument was first proposed, it was to cut the link between troubled banks and sovereigns. However, it soon became clear that banking union mechanisms could achieve this aim without resorting to the direct recapitalisation instrument. More specifically, the bail-in of private investors, in accordance with the Bank Recovery and Resolution Directive (BRRD), and the contribution of the Single Resolution Fund (SRF), has shifted the bulk of potential financing from the ESM to the banks themselves, along with their investors and creditors' (ESM, 2017).

The irony is therefore that the instrument that triggered the Banking Union will therefore probably never be used and that the one which has been used to temporarily – yet successfully solve Spain's problems – will

probably not be used in the future either. Under the current institutional architecture I therefore believe that in case of very severe banking crisis, what is very likely to happen is that existing EU backstop mechanisms (the two ESM bank recap instruments) will be difficult to use because they are expected to come in too late to solve crises, are too small to be effective and overall do not address the doom loop.

Therefore, it is likely that to address future large scale banking crisis, a mixture of national bank recapitalizations and of central banking liquidity provision will have to be relied on again. And this would then illustrate in the best possible way that the sovereign bank nexus has not been addressed. It is hence in my view better to anticipate and design a fiscal backstop that is capable to address the self-fulfilling dynamics of banking crises. Against this background, how should the Banking Union's fiscal backstop be designed?

4. A two-legged reform proposal to address the drawbacks of Europe's crisis management

My conclusion from the above is that the only type of crisis management instrument that is likely to genuinely provide confidence to market actors about Europe's and the euro's financial stability is a tax-payer money instrument. How should this instrument look like?²

Several contributions (Mayer and Gros, 2010; Enderlein and Haas, 2015) suggested the creation of a European Monetary Fund and of a European Treasury able to provide sustained stability to EMU. Compared to some time ago, the political context looks more prone to the discussion of this solution as it seems to become a common denominator between France and Germany (FT, 2017)³. The common thread of those EMF proposals is that the EMF is imagined to act as a single actor that financially assists sovereigns in their reform efforts. It would thereby regroup lending and monitoring activities currently scattered among several EMU actors. However, one of the lessons to draw from the euro crisis is that whenever such institutional consolidation opportunities in EMU presented themselves, they have been ignored. The Commission, after having been granted with the operation of the Balance of Payments

2 Another intrinsically linked question is how to ensure that it provides value for taxpayers' money. However answering such a question would go beyond the scope of this paper.

3 <https://www.ft.com/content/8d4b3414-2756-11e7-8995-c35d0a61e61a?mhq5j=e1>

and of the European Financial Stabilization Mechanism has been systematically kept in distance from all delegations of financial management as EU Member States were keen to keep control over the centralized funds. Likewise, attributing the role of resolution authority to the European Stability Mechanism was briefly envisaged during the crisis but very swiftly abandoned for reasons of political feasibility (back then, re-opening the ESM Treaty only a few months after its ratification and amending it for a third time was seen as too risky). As a result, financial assistance and crisis management instruments are now spread between the Commission, the ESM, the Single Resolution Board and the ECB. Among those actors however, the ESM stands out because it manages several existing EU crisis management instruments (this paper has covered two of them). This means that the ESM is also the most realistic starting point for reform.

- In this context, I believe that the short-term step to instil further credibility in the EU's current fiscal backstop should be to bolster and expand the capacity of the ESM. The first reform dimension should be to increase the real financial capacity of the ESM's bank recapitalization instruments and ensure that their design and conditions help to break the doom loop across EMU. As was argued in the Five Presidents' Report: 'in due course, the effectiveness of the ESM's direct bank recapitalisation instrument should be reviewed, especially given the restrictive eligibility criteria currently attached to it, while respecting the agreed bail-in rules. A more easily accessible mechanism for direct bank recapitalisation would boost depositor confidence by keeping distressed sovereigns at arm's length in the governance of restructured banks, and it would break the sovereign-bank nexus at national level' (Five Presidents' Report, 2015). This solution is close to what De Geus, Enderlein and Letta (2017) have coined 'ESM+'. The general purpose of such a capacity increase would be to ensure that the ESM has sufficient firepower to withstand a large banking crisis in Europe; one that would involve Europe's largest financial institutions, including the three largest French banking groups. The second reform dimension is not a new idea but requires further elaboration: it would consist in attributing the task to the ESM of backstopping the Single Resolution Fund. It has been formulated in the past by the Five Presidents' Report

and by the IMF notably. This scenario is also mentioned by the more recent Reflections Paper on EMU by the European Commission (Commission, 2017: 19) and therefore seems to appear as the most operational and politically acceptable solution. One can question however whether such a bridge will prove sufficient to instil credibility in the system.

- Symmetrically, I am convinced that political realism shouldn't however prevent us from exploring a third, even more ambitious long-term solution to the EMU's sustainability: the artificial creation of the functional equivalent of an EU sovereign. Instead of being a replica of the International Monetary Fund whose function is to directly interface with borrowers, its role would be to act as EMU's re-insurance facility (Schlosser, 2016), providing both limited recapitalization support and thus shock-absorption to the ESM's crisis management instruments, thereby de-risking the euro area's banking system and sovereigns. In other words, the role of this re-insurance facility would be to enhance the real firepower and capacity of existing EU institutions and instruments rather than replacing them or taking them over. Put differently, the current EMU eco-system made up of fragmented elements (EC, SRB, ECB, ESM) would stay intact. What would change however is that whenever additional recapitalization would be required, a common pool of funds could be accessible on short notice to ensure that the instruments' firepower is sustained and guaranteed. If such a scheme proves efficient to support the stability of banks in EMU, then the next step – along similar lines but with much higher implementation barriers – would be to use this re-insurance facility as a backstop to other existing or future mechanisms who currently risk suffering a lack of *ex ante* mutualisation. The European Deposit Insurance Scheme as well as the European Investment Bank – as has been mentioned in the Commission's White Paper in its most ambitious scenario – could represent other actors that the re-insurance facility could backstop. Lastly, a central actor who could benefit from it is the European Central Bank, which, precisely because of the absence of an EU or EMU treasury, suffered from a Padoa-Schioppian 'institutional loneliness' during the crisis. Compared to other OECD central banks whose long-term sustainability is implicitly

provided by the Treasury of the country in which they are based, I argue that the ECB could only take on limited credit risk as it knew that in case it exposed its balance sheet to too high risks, its recapitalization would prove problematic as it would have to occur through national channels. On 16 December 2010, the ECB Governing Council had autonomously decided to increase its subscribed capital from 5.76 bn € to 10.76 bn €. The latter number is the figure foreseen as maximal cap by Council Regulation No 1009/2000 which means that the capital leeway that the ECB had at its disposal was exhausted. In other words, any further capital increase to the ECB during the crisis would have had to be subject to qualified majority in the Council.

Needless to say, all EU Treaties would therefore need to be amended to accommodate for those changes which would bring in quite some headaches to EU lawyers. Yet, the EMU as a whole would benefit from it, institutional actors would too, in particular the ESM (directly) and the ECB (indirectly).

5. Conclusions

This paper has argued that, in spite of the creation of the Banking Union and its constitutive set of rules, instruments and actors, Europe's financial stability is not safeguarded because the continent over-relies on private and central banking crisis management mechanisms. In other words, while the new regime foresees several recapitalization instruments, it still misses a credible and operational EU fiscal backstop. Judging by the existing institutional outlook of the Banking Union it is thus fair to consider that Europe still believes in rule enforcement as its principal line of defence against future banking crises. The continent is therefore trapped in a conundrum: it has proven unable to move from a rules-based regime to a regime based on common capacities to manage common risks.

However, if political momentum gathers pace on the creation of a new joint capacity to support EMU's resilience, then chances are high that the ESM would be the central actor supporting this capacity. Why? Because the modification of the ESM Treaty appears to be the easiest thing to do politically, in particular compared to the two functional alternatives: the revision of the EU Treaties on the one hand and the adoption

of yet another intergovernmental agreement on the other. This is quite ironic: the ESM Treaty revision was precisely the political option that was dismissed four years ago when the SRM was about to be established.

Today, a revision of the ESM Treaty lends itself neatly to a targeted institutional engineering. Why exactly? First, because the number of Member States involved is only 19 Member States, compared to 27 (or 28) at the EU level. Second because negotiations can occur under more controlled and predictable political conditions insofar as the ESM Treaty has been ratified in all euro area Member States through the parliamentary channel (with the 'help' of the Pringle Case Law for Ireland). Although the shadow of a referendum will hover around Ireland, generalized parliamentary ratification significantly increases the chances of success of the whole enterprise. Those reasons speak in favour of privileging the ESM as the beacon of Europe's fiscal backstop, as rightly anticipated by Enderlein and Vannahme (2014). Should a treaty revision be out of the cards, some elements of the ESM design can even be modified without Treaty change: for example, capital increases at the ESM can be performed through the simple activation of the procedure foreseen by article 10 of the ESM Treaty which specifies that the Board of Governors (i.e. Eurogroup finance ministers are entitled to 'change the authorised capital stock and amend article 8 and Annex II accordingly').

A more centralized approach will bring up challenges. Connecting the dots of Europe's currently highly fragmented fiscal regime will be arduous but perpetuating the current status quo will come at a cost too. Risks of inconsistencies and distorted incentives loom large. This was demonstrated in the recent rescue case of Northern Italian banks as contradicting signals came from the enforcement of the parallel but connected resolution and state aid regimes. Another connection point between the grand idea of the ESM becoming EMU's last resort re-insurer and the fiscal framework is the distribution of the burden-sharing of such a mechanism which is unlikely to be shielded away from participating Member States' fiscal performance.

In that regard, one could be even more imaginative in establishing further connections within the existing EMU fiscal regime. The way the ESM is financed could be amended for example. As things stand⁴, the ESM is financed via national contributions whose volume are determined on the same basis as the ECB's contribution key, i.e. the contributor's share in the overall EU population and GDP. A possible reform would consist in moving away from those structural and generic variables and head towards more cyclical and politically loaded indicators, such as the fiscal performance or the performance of the contributing country's banking sector. Such inflections could be considered as the counter-parties to insert in the North-South package deal that such a reform would be part of. Some will say that this is unrealistic. And it is probably true. However, it is not more unrealistic than the current conventional expectation of a full enforcement of the Stability and Growth Pact's Excessive Deficit Procedure. After all, isn't it time to stop pretending that the SGP has any future at all?

4 Further details can be found in article 42 of the Treaty establishing the European Stability Mechanism.

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Conference Programme



CONFERENCE

THE CHANGING GEOGRAPHY OF FINANCE AND REGULATION IN EUROPE

Scientific Organisers:

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Elena Carletti | Bocconi University, BAFFI CAREFIN and European University Institute

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27 APRIL 2017

■ INTRODUCTION

The financial world is undergoing a profound technological change. The advent of innovative technologies is unsettling the industry's *modus operandi* which will soon enough disrupt the current practices of both supervisors and central banks. Big data, block-chain and the proliferation of distributed ledgers are only a few illustrations of a wider financial technology industry build-up - known as FinTech - which will revolutionise the global financial infrastructure.

As a result of this, the geography of finance is evolving at a rapid pace. In this new context of digital transformation and innovation, how should regulation respond? Is regulatory arbitrage and the reliance on more decentralised regulatory regimes a possible solution or is the top-down central model resilient enough to sustain these changes? Can regulators turn these new challenges into opportunities?

■ PROGRAMME

- 09.15 - 10.15 Registration and Welcome Coffee
- 10.15 - 10.30 Welcome by **Elena Carletti** | Bocconi University, BAFFI CAREFIN and Florence School of Banking and Finance
- 10.30 - 12.00 **Session 1: The New World of FinTech**
Chair: **Franklin Allen** | Brevan Howard Centre, Imperial College
Eva Micheler | London School of Economics
Andrei Kirilenko | Imperial College London
Stuart Hoegner | Bitfinex
- 12.00 - 13.00 Chair: **Elena Carletti** | Bocconi University, BAFFI CAREFIN and European University Institute
Keynote Lecture: **Jean-Pierre Landau** | Sciences Po Paris
- 13.00 - 14.30 Lunch
- 14.30 - 16.00 **Session 2: Regulatory Arbitrage across Jurisdictions**
Chair: **Mitu Gulati** | Duke University
Yannis Manuelides | Allen & Overy LLP
Lachlan Burn | Linklaters
Jeromin Zettelmeyer | Peterson Institute for International Economics
- 16.00 - 16.30 Coffee Break
- 16.30 - 17.45 **Session 3: A Case Study: BREXIT**
Chair: **Joanna Gray** | Birmingham University
Simon Gleeson | Clifford Chance
David Miles | Imperial College Business School
Jonathan Faull | Former Director General European Commission
Brigid Laffan | Director of the Robert Schuman Centre
- 17.45 - 18.00 Concluding remarks by **Brigid Laffan** | Director of the Robert Schuman Centre
- 18.00 - 21.00 Reception and Dinner at Villa Schifanoia
Dinner speaker: **Martin Sandbu** | Financial Times

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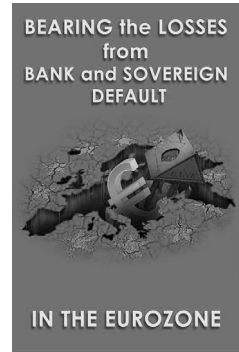
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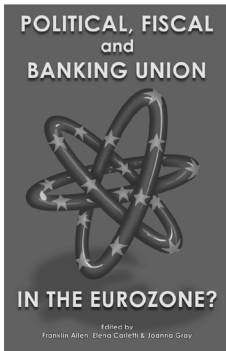
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