



Universiteit
Leiden
The Netherlands

Implications of Brexit on EU Financial Services

Vries, C. de; Bracco Gartner, M.E.J.; Haentjens, M.; Korteweg, J.; Markakis, M.; Repasi, R.; Tegelaar, J.T.

Citation

Vries, C. de, Bracco Gartner, M. E. J., Haentjens, M., Korteweg, J., Markakis, M., Repasi, R., & Tegelaar, J. T. (2017). *Implications of Brexit on EU Financial Services*. Brussels: Policy Department A: Economic and Scientific Policy (European Parliament). doi:10.2861/229538

Version: Publisher's Version
License: [Leiden University Non-exclusive license](#)
Downloaded from: <https://hdl.handle.net/1887/3246896>

Note: To cite this publication please use the final published version (if applicable).



DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT
ECONOMIC AND SCIENTIFIC POLICY **A**



Economic and Monetary Affairs

Employment and Social Affairs

Environment, Public Health and Food Safety

Industry, Research and Energy

Internal Market and Consumer Protection

Implications of Brexit on EU Financial Services

Study for the ECON Committee



DIRECTORATE GENERAL FOR INTERNAL POLICIES
POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

Implications of Brexit on EU Financial Services

STUDY

Abstract

This study, which is prepared by Policy Department A at the request of the ECON Committee, addresses the implications and economic impact of several scenarios of the UK leaving the EU in relation to financial services, ranging from a 'hard Brexit' without any arrangements concerning financial services to the current state of affairs under the terms of a full EU membership. Special focus is put on a peculiar variation of 'hard Brexit', which are the third-country regimes in the current EU secondary legal framework that allow partial access to the EU single market based on 'equivalence' on the basis of decisions by the European Commission or national authorities. The study presents these regimes and the extent to which they were already used in the past. The economic analysis looks at three variations of 'hard Brexit' (one, in which the access to the single market is closed, one with partial access based on equivalence and one, in which the City of London is transformed into an 'offshore financial centre') and at the scenario, in which the UK joins the EEA. The economic assessment is based on the current state of affairs in relation to the interwovenness of financial services in the EU28 including a closer look at the importance of UK-based clearing of Euro denominated trades.

This document was requested by the European Parliament's Committee on Economic and Monetary Affairs.

AUTHOR(S)

European Research Centre for Economic and Financial Governance (EURO-CEFG) of the Leiden University, TU Delft and Erasmus University Rotterdam with contributions from Prof. Dr. Casper De Vries, Peggy Bracco Gartner, Prof. Dr. Matthias Haentjens, Joop Korteweg, Menelaos Markakis, Dr. René Repasi, Jouke Tegelaar

RESPONSIBLE ADMINISTRATOR

Dirk VERBEKEN

EDITORIAL ASSISTANT

Janetta Cujkova

LINGUISTIC VERSIONS

Original: EN

ABOUT THE EDITOR

Policy departments provide in-house and external expertise to support EP committees and other parliamentary bodies in shaping legislation and exercising democratic scrutiny over EU internal policies.

To contact Policy Department A or to subscribe to its newsletter please write to:

Policy Department A: Economic and Scientific Policy

European Parliament

B-1047 Brussels

E-mail: Poldep-Economy-Science@ep.europa.eu

Manuscript completed in June 2017.

Brussels, © European Union, 2017.

This document is available on the Internet at:

www.europarl.europa.eu/studies

DISCLAIMER

The opinions expressed in this document are the sole responsibility of the author and do not necessarily represent the official position of the European Parliament.

Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the publisher is given prior notice and sent a copy.

CONTENTS

LIST OF ABBREVIATIONS	5
LIST OF FIGURES	7
LIST OF TABLES	7
EXECUTIVE SUMMARY	9
1. INTRODUCTION	13
2. THE 'BREXIT' SCENARIOS	14
2.1. Baseline: EU membership	14
2.2. Fall-back scenario: hard Brexit without any arrangements	14
2.2.1. WTO commitments under the 'hard Brexit' scenario	14
2.2.2. Financial services	15
2.3. Joining the European Economic Area Agreement	16
2.3.1. The EEA legal framework	16
2.3.2. Financial services in EEA law	16
2.4. Tailor-made arrangements	17
2.4.1. Types of tailor-made arrangements	17
2.4.2. Financial services	18
3. THE IMPLICATIONS OF THE EU LEGAL FRAMEWORK FOR FINANCIAL SERVICES FOR 'BREXIT'	20
3.1. EU financial regulation	21
3.1.1. Introduction	21
3.1.2. Objectives	21
3.1.3. Legislative instruments	21
3.1.4. Single Market: passporting	22
3.1.5. Global standards	22
3.2. EU third-country regimes	23
3.2.1. Introduction	23
3.2.2. EU third-country regimes	23
3.2.3. Equivalence	23
3.2.4. Wholesale and retail commercial banking	25
3.2.5. Investment services and activities	26
3.2.6. Resolution	27
3.2.7. Funds and fund managers	27
3.2.8. Prospectus	29
3.2.9. Market infrastructure	30
3.2.10. Insurance	34
3.2.11. Credit Rating Agencies	35

3.2.12. Summarising table	36
3.3. UK's approach to third countries	38
4. THE ECONOMIC IMPLICATIONS OF THE 'BREXIT' SCENARIOS ON FINANCIAL SERVICES	40
4.1. The State of Play of the EU and UK financial markets	40
4.2. The economic importance of the UK for the clearing of Euro denominated trades	44
4.2.1. Dealing with the systemic importance of CCPs: Enhancing supervisory arrangements	45
4.2.2. Dealing with the systemic importance of CCPs: Location Policy	45
4.2.3. State of the art of the clearing market	46
4.3. The economic importance of the EU27 on having access to the UK financial market and infrastructure: current developments	48
4.4. Scenario 1: 'hard Brexit'	50
4.5. Scenario 2: 'Equivalence' scenario	53
4.5.1. The impact	55
4.5.2. Banking	56
4.5.3. Asset management	57
4.5.4. Insurance and re-insurance	58
4.5.5. Market infrastructure	58
4.5.6. Overall	59
4.6. Scenario 3: London as an 'Offshore Financial Centre'	59
4.7. Scenario 4: Joining the EEA	62
4.7.1. The framework	62
4.7.2. The impact	63
4.8. Opportunities and challenges in the current 'fluid' situation	64
4.8.1. Challenges	64
4.8.2. Opportunities: Establishing a financial centre on European mainland	66
5. POLICY RECOMMENDATIONS	68
6. CONCLUDING REMARKS	69
REFERENCES	70

LIST OF ABBREVIATIONS

AIF	Alternative investment fund
AIFM	Alternative investment fund manager
AIFMD	Alternative Investment Fund Managers Directive
BRRD	Bank Recovery and Resolution Directive
CCP	Central counterparty
CRA	Credit rating agency
CRD IV	Capital Requirements Directive IV
CRR	Capital Requirements Regulation
CSD	Central securities depository
CSDR	Central Securities Depositories Regulation
CMU	Capital Markets Union
EBA	European Banking Authority
ECB	European Central Bank
ECJ	European Court of Justice
EEA	European Economic Area
EFTA	European Free Trade Association
EIOPA	European Insurance and Occupational Pensions Authority
EMIR	European Market Infrastructure Regulation
ESA	European Supervisory Authority
ESC	European Securities Committee
ESMA	European Securities and Markets Authority
FSAP	Financial Services Action Plan
GATS	General Agreement on Trade in Services

GC	General Court
IOSCO	International Organization of Securities Commissions
LSE	London Stock Exchange
MiFID	Markets in Financial Instruments Directive
MiFID II	Markets in Financial Instruments Directive II
MiFIR	Markets in Financial Instruments Regulation
MTF	Multilateral trading facility
NPPRs	National private placement rules
OFC	Offshore financial centre
OTF	Organised trading facility
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of the European Union
UCITS	Undertakings for the collective investments in transferable securities
UK	United Kingdom
WTO	World Trade Organization

LIST OF FIGURES

Figure 1:	UK current account from 1999 to 2015, as a percentage of GDP	40
Figure 2:	The UK Trade Balance 2014	41
Figure 3:	Sectoral breakdown of UK financial services revenue for 2015 in billions of pounds	42
Figure 4:	Panel A: Exports of financial services of a country into the EU as a percentage of national GDP; panel B: Worldwide exports of financial services of a country as a percentage of national GDP	43
Figure 5:	Geographical distribution of OTC foreign exchange turnover (April 2016)	47
Figure 6:	Geographical distribution of Euro denominated OTC exchange turnover (April 2016)	47
Figure 7:	Gross Value Added by the financial services sector, as a percentage of total value added (left axis) (OECD Data 2017) and Total Tax Contribution by the UK financial services sector, in billions of pounds (right axis)	61

LIST OF TABLES

Table 1:	Equivalence decisions issued by the European Commission in relation to wholesale and retail commercial banking (as of 1 April 2017).	26
Table 2:	Equivalence decisions issued by the European Commission in relation to prospectus (as of 1 April 2017).	30
Table 3:	Equivalence decisions issued by the European Commission in relation to CCPs and trade repositories (as of 1 April 2017).	32
Table 4:	Equivalence decisions issued by the European Commission in relation to securities settlement (as of 1 April 2017).	34
Table 5:	Equivalence decisions issued by the European Commission in relation to insurers (as of 1 April 2017)	35
Table 6:	Equivalence decisions issued by the European Commission in relation to CRAs (as of 1 April 2017)	36
Table 7:	Summarising table of the third-country regimes in place in relation to the activities they concern	37
Table 8:	The UK Trade Balance 2014 in billions of pounds	41
Table 9:	Sectoral breakdown of UK financial services revenue for 2015 in billions of pounds	42
Table 10:	Interconnections between UK and EU financial services	43
Table 11:	Number of passports and firms using passports inbound and outbound the UK	48

Table 12: Cross-border business by type of entry into the respective markets in the year 2014	51
Table 13: State of play concerning third-country equivalence decisions (collection of tables 1 to 6)	52
Table 14: Overview of equivalence clauses in key EU financial legislation (shortened version of table 7)	54
Table 15: Current status of incorporation of key EU financial legislation into the EEA Agreement	63

EXECUTIVE SUMMARY

The City of London is, according to the Global Financial Centres Index 21 that ranks financial centres in accordance to their ability to perform high-quality financial activities, the No. 1 global financial centre followed within the EU by Luxembourg at 12, Frankfurt at 19, Munich at 27, Paris at 29, Dublin at 31, and Amsterdam at 33 (Z/Yen Group 2016). These numbers indicate that the most significant economic implications of a withdrawal of the UK from the EU can be found in relation to financial services. This finding is supported by the fact that the UK has, taking all economic sectors together, a comparably high current account deficit of -5.2 per cent in the third quarter of 2016 (OECD 2016: 15), whilst it has at the same time a current account surplus of 50 bn GBP in trade in financial services in the year 2014 (Wyman 2016: 5).

The present study looks at the implications of Brexit on financial services by tackling the following issues:

- A description of the state of play of the EU and UK Financial Services Markets as of today;
- An assessment of the potential UK withdrawal from the EU related impact on the EU Financial Services Markets, based on four scenarios, i.e. ranging from the UK losing all access to the EU Single Market to a 'friendly agreement' whereby the UK maintains its access in a way similar to today's situation;
- An analysis of opportunities and challenges stemming from the current 'fluid' situation, in order to understand and mitigate adverse effects of the process induced by a UK withdrawal from the EU on these markets.

The conclusions of the present study in relation to the abovementioned issues are:

- The UK's national economy is quite dependent on the EU financial service demand. At the same time the EU demand for financial services provided from firms currently established in the UK is relatively high and amounts to at least one quarter of the total demand for financial services from the EU27. In August 2016, the UK accounts for 78% of foreign exchange turnover, 74% of OTC interest rate derivatives and 85% of hedge fund assets, 49% of private equity funds raised, 30% of equity market capitalisation and 26% of bank lending in the EU.
- Clearing of Euro-denominated trades in the City of London is one of the most important reasons for the UK's current strong position within financial services sector. 69% of Euro-denominated OTC exchange turnover is generated and cleared in the UK, followed by France with 11% and Germany with 7%. One of the important reasons for this strong position of the UK are 'margin pool benefits', which derive from portfolio efficiencies that are generated by the fact that clearing involves multicurrency trades. Yet, this strong position also entails risks. The concentration of clearing in one jurisdiction represents a risk to the stability of the financial system as a whole since a single jurisdiction appears not to be financially able to mitigate a financial crisis hitting central counterparties established in this jurisdiction, which might subsequently affect members and clients of these CCPs located within the EU27.
- Brexit will lead to a disruption of these interdependences between the UK and the EU that will entail additional costs for both the UK and the EU27. Some financial services will be more affected than others depending on whether these services need a passport in order to be provided within the EU27. It is shown that wholesale banking is highly dependent on passports, whereas insurance already operates on the basis of subsidiaries with separate legal personalities. The present study joins a recent study assuming in relation to wholesale banking a decline of the UK's share in total European market of 90 to 60 per

cent, which results in an increase of costs for capital making use of these services which amounts to 0.05 to 0.1 per cent of the EU27 GDP (Sapir, Schoenmaker & Véron 2017: 4).

- Brexit can hardly be considered a 'zero sum' game, in which financial service activities could be relocated from the UK into the EU27 without any raising costs. This finding relates to the loss of 'margin pool benefits' and the 'ecosystem' advantage of the City of London, which can be found in the peculiar concentration of organisations, human resources and economies of scale in the City of London.
- As an alternative to relocation, the equivalence mechanism foreseen by some of the secondary legal acts in the area of financial services provides for an opportunity to keep the 'ecosystem' of the City of London intact with at the same time requiring from the UK as a future third country to continue to apply EU financial market regulatory and supervisory standards. The interest for the UK in doing so is linked to the fact that a positive equivalence decision of the European Commission constitutes, within its scope, a necessary (but not sufficient) precondition for third-country based market operators to get access to the entire single market. The main weakness of the existing equivalence regimes is that it does not cover the entire spectrum of financial services.
- The biggest problem linked to the withdrawal of the UK from the EU at this moment of the withdrawal process is the uncertainty about the way how Brexit will be implemented in legal terms. This uncertainty must be in the close future minimised as much as possible in order to minimise negative implications of Brexit irrespective of the chosen scenario.
- Opportunities linked to the withdrawal of the major financial centre of the world from the EU can be found in establishing a financial centre on European mainland. Although a relocation of financial service activities into the EU27 might not be a 'zero sum' game, the EU27 can still benefit from establishing an own financial centre. In order to achieve this, it is recommended to create a competitive environment for financial services providers in the EU27 without lowering regulatory and supervisory standards by completing the Capital Markets Union.

State of Play

The trade in financial services between the UK and the EEA is significant and amounts to 4 bn GBP of imports from the EEA and to 23 bn GBP of exports from the UK into the EEA resulting into a current account surplus of the UK of 19 bn GBP in the relationship between the UK and the EEA. Financial services represent 11.8 per cent of the UK's overall economic output (TheCityUK 2016: 8). 23% of the financial services revenue generated in the UK stems from services provided to the EU27 with the UK representing a share of 24% of the entire financial services market in the EU28. The significance of the trade with the EU varies according to sectors: Whilst 41 to 46% of the business relating to market infrastructure such as clearing relate to trade with the EU, the insurance sector in the UK only benefits of 8 to 12% from trade relations with the EU27. In relation to the EU28 market, it is worth noting that the UK share in asset management amounts to 41% of the entire market. 2.2 million people are currently employed in the UK in the financial services sector. When it comes to clearing, the ICE CDS Clearing Notional Outstanding accounted for 467 bn \$ of euro-denominated trades and for 1.023 bn \$ for trades denominated in other currencies and the LCH SwapClear IRS notional outstanding accounted for 2,692 bn \$ of euro-denominated trades and for 9.291 bn \$ of trades in other currencies. 69% of Euro-denominated OTC exchange turnover is generated in cleared in the UK.

A closer look at passporting reveals further interdependencies: In 2016, 8,008 firms established in the EEA made use of 23,535 passports to provide financial services on the territory of the UK and 5,476 firms established in the UK made use of 336,421 passports. These

numbers show the particular importance that passporting has for the UK financial services industry.

Scenarios

In order to reach the abovementioned conclusions the present study establishes a range within which an estimated impact of several 'Brexit' scenarios can be located. This range is defined by a 'hard Brexit' without any formal arrangements in relation to financial services as the one antipode and the current state of affairs as it is defined under the terms of full EU membership as the other antipode.

Besides these two scenarios, a closer look is taken into two variations of the 'hard Brexit' scenario, which are a 'hard Brexit' without agreement in relation to financial services but the EU making use of the current third-country regimes in EU secondary legal framework issuing equivalence decisions, which grant partial access to the EU single market ('equivalence' scenario), and a 'hard Brexit', after which the UK transforms the City of London into an 'offshore financial centre' (OFC scenario). Furthermore, the study assesses an EEA membership as the 'friendly agreement' solution that secures close to full access to the EU single market.

The 'equivalence' scenario

Special attention is given to the 'equivalence' scenario and its possible attenuating effect on 'hard Brexit'. In a 'hard Brexit' scenario, the UK will qualify as a third country under EU and national financial legislation. UK financial institutions will lose their right to access the EU markets under their UK license with EU passport. Vice versa, EU financial institutions will lose their right to access the UK markets under their license granted by their national competent authorities.

Under this scenario, which assumes that the Commission deems the UK to be equivalent at the moment of or sometime after the withdrawal from the EU comes into effect, UK firms will revert to the so-called 'third-country regimes' in the various EU financial law directives and regulations. Third-country regimes in EU financial legislation either allow national discretion to Member States or provide for a European harmonised approach. Since the former third-country regimes, referring to national discretion, cannot be taken into account when analysing scenarios that rely on European decision-making, the 'equivalence' scenario focusses on the use of the latter third-country regimes. Most of these European harmonised third-country regimes rely on 'equivalence' of the regulatory and supervisory framework of the relevant third country to the corresponding EU framework. The exact content of the third-country regime is calibrated to the scope and purpose of the respective sectorial financial regulation.

A detailed legal study of the third-country regimes in place presents the state of the art in relation to the specific financial services. It examines the third-country regimes of the current legal framework in relation to the various financial service activities covered by this framework. Taking the financial sectors into account that could benefit from a 'third-country regime', a Brexit under the 'equivalence' scenario will have following impact on financial institutions operating on EU and London capital markets:

- UK financial institutions will be allowed to cater for professional investors throughout the EU only if the European Commission will declare the UK rules and supervision to be equivalent to MiFID II. But Member States will have national discretion to allow UK financial institutions to provide services limited to their territory to EU retail investors (and to EU professional investors in the absence of an equivalence decision);
- EU financial institutions may benefit from a possible EU Commission equivalence decision for the calculation of credit risk of UK lenders and UK counterparties (whilst the rules that apply to third-country lenders and counterparties are more burdensome);

- when trading on London trading venues, EU financial institutions and companies may benefit from a possible EU Commission equivalence decision for compliance with trading, reporting and clearing obligations under MiFIR and EMIR; and
- UK AIFs will either need an EU AIFM to market their units or shares to professional investors, or they need to be authorised by the national authorities of the Member State, where they want to pursue their activities. The Commission might by adopting a delegated act activate the third-country regime under the AIFMD, where the competent authorities of the 'Member State of reference' can issue EU-wide passports.

The economic analysis of the 'equivalence' scenario identifies attenuating effects in comparison to a 'hard Brexit' in relation to investment services for professionals and eligible counterparties, asset management and market infrastructure, in particular concerning clearing of Euro-denominated trades (provided that the ECB would not attempt to re-adopt its location policy, according to which CCPs clearing Euro-denominated securities have to be located within the Euro area, after a Brexit materialises and the Union legislator extends the ECB's competence in that regard). Yet, banking will still have to relocate under the 'equivalence scenario'.

The OFC scenario

In the OFC scenario, the UK would transform the City of London into an 'offshore financial centre' by minimising tax and regulatory costs as much as possible. Whilst such a scenario could attract more third-country financial services, which might compensate, from the UK's perspective, for some of the losses related to Brexit, the issues relating to passporting and the access to the EU single market will remain. Moreover, establishing an OFC would require so many changes in the regulatory and supervisory framework that the current 'third-country regimes' would not be available for the UK because of the lack of equivalence with the EU legal regime. Hence, from the EU27 perspective, it appears that in terms of economic implications on the financial service sector the 'OFC' scenario is not much different to the 'hard Brexit' scenario. All services that need to have a passport for being provided will have to be relocated irrespective of the OFC. Yet, in political terms, an OFC close to the borders of the EU implying certain tax constructions seems not to be a very attractive outlook.

The EEA scenario

Although the British prime minister announced that joining the EEA is no option, the scenario was taken into consideration by this study as being one that allows almost full access to the single market. Consequently, there are little to no negative economic implications in comparison to the current EU membership.

Further scenarios

Further scenarios such as the tailor-made solutions referring to free trade agreements were not included in the economic analysis but described and assessed in legal terms. A serious economic assessment can only be done once the parameters for financial services are defined by the future contracting parties. Yet it can already be said that the implications will be located within the range between the 'hard Brexit' and the state of affairs as defined under the terms of full EU membership.

1. INTRODUCTION¹

This in-depth study examines the implications of Brexit on financial services on the basis of several scenarios representing different ways as to how an exit of the United Kingdom from the EU could take place. In order to show the range of implications, the analysis defines two antipodes, in between which the severity of the implications oscillate depending on the degree to which the chosen Brexit scenario deviates from EU membership. The one antipode, which is the baseline scenario, is defined by the full EU membership (sections 4.1, 4.2 and 4.3). The other antipode is formed by the 'hard Brexit' scenario, in which the UK leaves the EU without any arrangements in relation to financial services. In between these two antipodes the other Brexit scenarios are to be located and their implications are to be assessed. The scenarios chosen for an assessment of the economic implications of Brexit on financial services are: The 'hard Brexit', in which the UK loses all access to the EU single market (section 4.4), the 'equivalence' scenario, in which there is still a 'hard Brexit' but the UK financial services providers will have partial access to the EU single market by reference to the existing third-country regimes in EU financial law (section 4.5), the OFC scenario, in which there is again still a 'hard Brexit' but the UK decides to transform the City of London into an 'offshore financial centre' (OFC) (section 4.6) and the 'EEA' scenario, in which the UK joins the EEA (section 4.7). A scenario on tailor-made arrangements such as an EU-UK free trade agreement is not part of the scenarios covered by the economic assessment of the implications of Brexit since such assessment can only be seriously done once policy choices in relation to financial services were made by both the EU27 and the UK. Opportunities and challenges of the current 'fluid' situation will be discussed afterwards (section 4.8).

In order to provide a proper basis for the economic assessment of the implications of Brexit on financial services, the study analyses the legal framework defining the various Brexit scenarios in relation to financial services. As a first step, in a very abstract manner, the major scenarios for exiting the EU will be described (chapter 2) and compared to the baseline scenario, which is the full EU membership (section 2.1). The fall-back scenario, which is the 'hard Brexit' without any arrangements (section 2.2) that subsequently defines one of the two antipodes for the economic analysis; the scenario, in which the UK joins the EEA (section 2.3) and the scenario, in which the UK and the EU reach tailor-made arrangements in order to shape their future relationship with each other (section 2.4). As a second step, emphasis will be put on the existing EU secondary legal framework for financial services (chapter 3). This secondary legal framework provides for an alternative to an explicit agreement between the UK and the EU defining their future relationship concerning financial services. Third-country regimes in this framework allow, within its scope defined by the respective secondary legal act, to grant partial access for UK-based financial service providers to the EU single market (and, provided reciprocity is an element of a successful equivalence assessment, vice versa) by means that can be used by the European Commission irrespective of whether tailor-made solutions between the EU27 and the UK were found. By that, the third-country regime defines a peculiar variation of the 'hard Brexit' scenario, which must be looked at in detail in order to define the parameters for a subsequent economic analysis. Chapter 3 provides next to this detailed description an overview over the use of the third-country regimes by the European Commission until 1 April 2017.

The in-depth analysis closes with policy recommendations (chapter 5) and concluding remarks (chapter 6).

¹ The authors of the present study are grateful to Ms Anna Citarella (Erasmus University Rotterdam) for her valuable input.

2. THE 'BREXIT' SCENARIOS

This chapter sets out the basic features of four 'Brexit' models. The baseline scenario (section 2.1) is formed by the current EU membership of the UK. Exiting the EU can occur in the shape of a (1) '**hard Brexit**' (section 0), re-joining the **European Economic Area** Agreement (section 2.3), and **other tailor-made arrangements** (section 0). It further discusses in an introductory manner the legal implications of these models as regards the single market in financial services. Chapter 3 will afterwards zoom into the current secondary legal framework for financial services (representing the baseline in financial services) and their third-country regimes (representing the fall-back scenario in financial services), thereby explaining which are the legal options for the EU to act unilaterally in the event a 'hard Brexit' would materialise without any arrangements as to how to deal with financial services.

2.1. Baseline: EU membership

Under the EU membership, the UK has full access to the internal market, all the legislation pertaining to financial services is applicable and has, when EU directives are used, to be incorporated into UK domestic law. Furthermore, under the EU membership, there is secure access to justice, as well as the coherent interpretation and application of EU law by the Court of Justice of the European Union (CJEU). In the context of the EU, all these elements are considered a *conditio sine qua non* for having full access to the internal market formed by the EU Member States (European Council 2017: 1; European Parliament 2017: para 10).

As regards financial services, the EU Member States have agreed to a common corpus of financial regulation (the single rulebook), which will be explained in-depth in chapter 3. It concerns *inter alia* issuers of securities, investment firms, investment funds, rating agencies, investment analysts, and market infrastructures, such as trading venues and central clearing counterparties (Moloney 2014). It also concerns deposit-taking institutions (Busch & Ferrarini 2015). The legal position is that 'financial services firms that obtain authorization within this single rule-book from the national competent authority (NCA) in their country are then free to offer services throughout the EU member states without any need for further local authorizations' (the financial services passport) (Armour 2017: S57).

2.2. Fall-back scenario: hard Brexit without any arrangements

The scenario that forms the antipode to the baseline of EU membership is the withdrawal of the UK from the EU without any kind of arrangements, the so-called 'hard Brexit' is the 'fall-back scenario'. Using this scenario as the benchmark for assessing the impact of Brexit on EU policies allows to measure what is arguably the worst possible outcome.

2.2.1. WTO commitments under the 'hard Brexit' scenario

Under this scenario, the trade cooperation between the EU and the UK would be defined by the WTO law. The WTO commitments are seen as basic terms for trade between two countries with very little integration (House of Commons Treasury Committee 2016: 1-6). Currently, both the EU and the UK are members of the WTO in their own right. The core of all WTO agreements is the prohibition of discrimination. Most notably, this covers the most-favoured-nation clause (MFN) and national treatment.

Under the MFN, each WTO member is obliged to extend the same favourable treatment that it accords to any other country (Article II of GATS, Article I of GATT 1947). What is thus prohibited is discrimination between trade partners. The MFN is, however, not applicable to favourable treatment accorded within agreements of 'economic integration' such as the EU (Article V of GATS, Article XXIV of GATT 1947). By that, once the UK withdraws from the EU, based on the MFN principle, it cannot claim the same favourable treatment as one EU Member State accords to another EU Member State on the basis of the EU Treaties (Footer & George

2005: 833). Under the national treatment obligation, WTO members are obliged to treat products in the same manner as domestic products once they have entered the domestic market (Article XVII of GATS, Article III of GATT 1947).

A 'hard Brexit' scenario without any arrangements between the EU and the UK would lead to de-facto closure of the UK's access to the EU internal market. This is due to the fact that favourable treatment agreed between partners in free trade agreements that aim at achieving economic integration is excluded from the scope of the MFN clause, as a result of which the UK cannot claim the same favourable treatment from EU Member States on the basis of the MFN (European Union Committee 2016: para. 197). Under WTO rules, the UK would only have to comply, it was argued, with EU standards and regulations in those services it traded with EU Member States (European Union Committee 2016: para. 213).

WTO rules give the power to governments to restrict cross-border financial services on the basis of prudential controls (GATS, Annex on Financial Services, para 2(a)). John Armour notes that '[t]his consequently increases the cost of cross-border capital flows, with firms often needing to incorporate a subsidiary in each of the other jurisdictions in which they wish to operate, to ensure that each entity is compliant with the local regulatory regime' (Armour 2017: S57).

2.2.2. Financial services

The 'hard Brexit' option would mean that the UK would become a 'third country' for the purposes of EU financial regulation. UK-based firms would no longer be able to rely on the freedom of establishment (Article 49 TFEU) or the freedom to provide services (Article 56 TFEU). Yet, they could rely on the free movement of capital (Article 63 TFEU) since this one is open to third-country nationals. They would further not be able to rely on their 'passporting rights' under the EU financial services legislation (Armour 2017: S59).

EU legislation sometimes allows for 'third-country' access to the single market in respect of specific activities and under specific conditions. In those cases, the non-EU country (in this case, the UK) would have to seek third-country equivalence under the relevant provisions in the EU legislation. In general terms, under the conditions set by the respective secondary legal act establishing an equivalence regime, this would allow UK-based firms to operate in the single market within the scope of the equivalence regime, as long as the UK's regulatory and supervisory arrangements have been found to be equivalent to the EU's standards. These third-country firms would therefore be exempted from national authorisations with respect to rules covered by the relevant third-country equivalence framework (Ferran 2016; Quaglia 2015). This third-country equivalence framework constitutes therefore the core instrument, by which the European Commission can shape and fine-tune the future relationship between the EU and the UK in relation to financial services in the event of a 'hard Brexit' without any arrangements covering this issue. It will be described in detail in chapter 3.

In those fields of EU legislation where there are no specific arrangements for a third-country equivalence regime (or where such equivalence is not yet secured), firms must obtain authorisation under the regulatory regimes of each Member State in which they wish to operate. 'EU law only intrudes in a negative way: most EU financial services legislation contains provisions prohibiting member states from offering more favourable treatment to third-country firms than is provided for under the EU regime for member state firms' (Armour 2017: S60). 'Yet there is nothing to stop member states from discriminating against third-country firms by imposing more exacting standards than for EU firms' (Armour 2017: S60).

2.3. Joining the European Economic Area Agreement

The Brexit scenario which comes the closest to the baseline (EU membership) is 'joining the European Economic Area Agreement'.²

2.3.1. The EEA legal framework

The EEA includes negative integration in the shape of a prohibition of discrimination and non-discriminatory trade restrictions, positive integration in the shape of EU secondary law, which has to be implemented into domestic law of the EEA countries and a centralised Treaty-based Court, the EFTA Court, which ensures uniform interpretation. The key element that distinguishes the EEA from the EU internal market is the non-presence of direct effect. Individuals may only rely on EEA law after it has been incorporated into the national law of the EEA EFTA State.

The European Free Trade Association (EFTA) was established in 1960 by Austria, Denmark, Norway, Portugal, Sweden, Switzerland, and the United Kingdom. The United Kingdom and Denmark left EFTA in 1973 to join the European Economic Community (as it then was). The Agreement on the European Economic Area, which entered into force in 1994, brings the EU Member States and three EEA EFTA States (Norway, Iceland, and Liechtenstein) together in a single market. Portugal joined the EU in 1986, whereas Austria, Finland and Sweden became EU members in 1995. Switzerland has not signed up to the EEA Agreement and relies on a separate network of bilateral treaties with the EU.

It should be stressed that assuming that the UK would implicitly lose EEA membership if it left the EU (Barrett 2017, Koutrakos 2016; Peers 2016), a return to EFTA would be necessary in order for the UK to be part of the EEA Agreement. More specifically, the territorial scope of the latter agreement only covers EU Member States and EFTA States (Article 126 of the EEA-Agreement). Upon its withdrawal from the EU, the UK would no longer be covered through its EU membership. Moreover, the UK is currently not a member of EFTA. The EEA Agreement provides that any European state becoming a member of EFTA may apply to become a party to the EEA Agreement (Article 128(1)). The terms and conditions for such participation are the subject of an agreement between the Contracting Parties to the EEA Agreement (Norway, Iceland, and Liechtenstein) and the applicant state (the UK). That agreement would have to be submitted for ratification or approval by all Contracting Parties in accordance with their own procedures (Article 128(2) of the EEA-Agreement). The EEA-Agreement enables Norway, Iceland and Liechtenstein to participate fully in the internal market.

EU acts that are of relevance to the EEA are incorporated into the EEA Agreement, that is, into one of its annexes and protocols. These amendments to the EEA Agreement are made by means of a Joint Committee Decision (JCD). The JCD may adapt these acts before incorporating them into the EEA Agreement. Proposed EU legal acts with possible EEA relevance, adopted EU acts under consideration for incorporation into the EEA Agreement, and acts that have already been incorporated into the Agreement are available on EEA-Lex.

2.3.2. Financial services in EEA law

The most relevant Annex to the EEA Agreement for present purposes is Annex IX (Financial Services), which includes provisions on (I) insurance, (II) banks and other credit institutions,

² Joining commentators such as Łazowski (2016: 119), it is presently submitted that the UK will not in its own right retain EEA membership. For a different argument, see: Nemeček 2017. For an overview of arguments on this point see Barnard 2017 and Schroeter & Nemeček 2016. Generally, on the state of affairs of the EEA see Haukeland Fredriksen & Franklin 2015.

(III) stock exchange and securities, (IV) occupational retirement provisions, and (V) provisions applying to all kinds of financial services Acts of which the Contracting Parties shall take note. Moreover, Annex XXII concerns company law. Annex V (Free Movement of Workers) is also clearly relevant for the human capital on which the financial sector depends.³

If the UK were to sign up to the EEA Agreement, 'UK-authorized financial services firms would keep their EU passports' (Armour 2017: S58). Moreover, 'UK-registered companies founded by entrepreneurs in other EU member states ... would continue to have their existence recognized by other EU jurisdictions' (Armour 2017: S58). The UK House of Lords' EU Committee argues in its financial services report that the EEA option would be 'least disruptive' to the financial services sector (European Union Committee 2016: 90). It is, however, rightly noted by Moloney that after its exit from the EU the United Kingdom would no longer be able to influence the content of the EU rules that are also applicable in the EEA, as it would lose its voting rights in the EU rule-making processes (Moloney 2016). It is argued by Armour that '[t]he UK would still be permitted to participate as an observer, and of course might seek to exercise informal technocratic influence as an important member of the single market with considerable expertise in the subject matter' (Armour 2017: S58).

Furthermore, it was noted by Markakis shortly after the Brexit referendum that many EU financial laws were yet to be implemented in the EEA (Markakis 2017: 9; Armour 2016: 33). Armour explains that implementing the rules created by the agencies forming part of the ESFS had created 'constitutional difficulties' for some EEA EFTA states, 'which took 6 years to be resolved' (Armour 2017: S58). This meant that until late 2016 none of the EU's acts on the European Supervisory Authorities (ESAs) was incorporated into the EEA Agreement. A political agreement was reached between the Finance Ministers of Iceland, Liechtenstein, Norway and the EU Member States in October 2014, according to which 'the Authority would take formal decisions addressed to the EEA EFTA competent authorities and market operators in the EEA EFTA States, mirroring the role of the ESAs vis-à-vis the EU Member States' (Armour 2017: S58). 'The ESAs will continue to have a non-binding role vis-à-vis the EEA EFTA States, whilst supervisory authorities of the EEA EFTA States and the Authority will be able to participate fully in the work of the ESAs' (Armour 2017: S58).

2.4. Tailor-made arrangements

Between the antipodes of the baseline 'EU membership' (and, close to it, 'joining the EEA'), on the one hand, and of the fall-back scenario 'hard Brexit without any arrangements', on the other hand, there are 'tailor-made arrangements', which differ with regard to the degree of trade cooperation they envisage.

2.4.1. Types of tailor-made arrangements

As part of this general scenario various types of bilateral agreements are conceivable, including (but not necessarily limited) to customs unions (to eliminate customs duties in bilateral trade and establish a common customs tariff with respect to third countries), association agreements, stabilisation agreements, free trade agreements, economic partnership agreements (to remove or reduce customs tariffs in bilateral trade), and partnership and cooperation agreements (to provide a general framework for bilateral economic relations without eliminating or reducing customs tariffs). As such, the arrangements with Switzerland, Turkey, Ukraine, Canada (although CETA is not yet fully ratified) and South Korea would fall under this heading. However, it must be stressed that the existing models clearly do not exhaust the variety of tailor-made arrangements that could possibly inform the future EU-UK agreement.

³ For the annexes to the EEA Agreement, see <http://www.efta.int/legal-texts/eea/annexes-to-the-agreement>.

Of these tailor-made arrangements, the UK Government's White Paper on Brexit (2 February 2017) appears to aim for a 'comprehensive' free trade agreement with the EU (Department for Exiting the European Union & Davis 2017). The more recent Article 50 letter (29 March 2017) speaks of 'a deep and special partnership, taking in both economic and security cooperation' (May 2017: 3), proposing 'a bold and ambitious Free Trade Agreement between the United Kingdom and the European Union' which 'should be', in the UK Government's opinion, 'of greater scope and ambition than any such agreement before it so that it covers sectors crucial to our linked economies such as financial services and network industries' (May 2017: 5).

At the inevitable risk of oversimplification, there are two basic models for comprehensive free trade agreements. Firstly, there is CETA with Canada. This is a purely 'international' agreement, i.e. with no EU acquis. Secondly, there is the Deep and Comprehensive Free Trade Area (DCFTA) that is part of the EU-Ukraine association agreement. This includes most single market acquis. It is noted by Gasiorek, Holmes and Rollo that the 'key differences' between these tailor-made arrangements and the EEA model are that 'an FTA arrangement comes with a lesser degree of sectoral coverage (notably in services) and does not give automatic access to the Single Market'. 'These FTAs typically come with no obligations on free movement of people, budget contributions or legal oversight by the European Court of Justice.' 'Essentially each FTA has some elements of free trade in goods and different coverage of Single Market access' (Gasiorek, Holmes & Rollo 2016: 4).

Both the UK government and the EU have in the meantime clarified their intentions in relation to the outcome of the withdrawal negotiations (May 2017; European Council 2017). The UK government seeks to establish a 'deep and special partnership that takes in both economic and security cooperation', the terms of which it should be agreed 'alongside those of our withdrawal from the EU' (May 2017: 3). In its white paper on the new partnership with the EU, published on 2 February 2017, the UK government only referred to the aim of the 'freest possible trade in goods and services between the UK and the EU' and a 'new customs agreement' (Department for Exiting the European Union and Davis 2017: 35), which should 'ensure that cross-border trade with the EU is as frictionless and seamless as possible' (Department for Exiting the European Union and Davis 2017: 46) in specifying what it considers to be the content of the future partnership in relation to the internal market and the customs union. The EU 'shares' this perspective, whilst at the same time such partnership 'cannot offer the same benefits as Union membership' (European Council 2017: para 18). In the eyes of the EU, the future agreement cannot 'amount to participation in the Single Market or parts thereof [...] 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' (European Council 2017: para 20).

2.4.2. Financial services

As regards tailor-made arrangements for financial services, the UK House of Lords EU Committee believes that 'a deal to bolster the existing equivalence provisions should be a high priority' (European Union Committee 2016: para. 90). However, Armour argues that '[t]he existing precedents for bilateral agreements with the EU do not look promising' for the UK (Armour 2017: S59). It is noted by the House of Lords EU Committee in its financial services report that Switzerland's 'access to the market for financial services is ... limited to an agreement on the supervision of non-life insurance services and it is largely reliant on WTO GATS terms'. 'As a third country, Switzerland has been deemed equivalent under Solvency II and under the European Market Infrastructure Regulation (EMIR) in respect of central counterparties (CCPs).' 'Equivalence determinations under the Alternative Investment Fund Managers Directive (AIFMD) and the Markets in Financial Instruments Directive (MiFID) are in train'

(European Union Committee 2016: para. 8). With respect to the EU-Canada Comprehensive Economic and Trade Agreement (CETA), it is argued by Armour that 'it provisions on financial services (Chapter 13) do not extend anywhere near the "passport" recognition enjoyed by firms authorised within the EU' (Armour 2016).

Armour argues that an EU-UK agreement with provisions on financial services could 'provide a more enduring foundation for access by [UK] firms than a unilateral equivalence determination by the Commission'; and 'cover, in addition to wholesale markets, in order of priority, payment services, banking activity, and wholesale insurance' (Armour 2017: S67). He further argues for 'a transition period of continued membership pending at the very least completion of equivalence determinations and more usefully, the conclusion of a suitable bilateral agreement' (Armour 2017: S68).

Commenting on the UK Government's Article 50 letter, Moloney argues that '[t]he bespoke equivalence/market access arrangements to be contained in a Free Trade Agreement, signalled in the Article 50 letter, would, however, operate outside the current third country/equivalence arrangements which are based on single market law and governance, including Court of Justice oversight. They could accordingly struggle – although there may be some wiggle room in the letter's acknowledgement of the need to address dispute resolution and to manage regulatory evolution (which may be a nod towards shadowing the single rule-book).' 'One of the more intractable elements of any bespoke EU/UK deal on financial services is likely to be the organization of supervision.' Moloney argues that '[t]he attachment of the EU to the current single market governance arrangements can be expected to be a driver of its approach to the negotiations' and that '[t]his attachment cautions against predictions of radically different arrangements for EU/UK access to the current equivalence-based system, whether in a Free Trade Agreement or otherwise' (Moloney 2017).

3. THE IMPLICATIONS OF THE EU LEGAL FRAMEWORK FOR FINANCIAL SERVICES FOR 'BREXIT'

The following analysis of the implications for 'Brexit' of the EU legal framework for financial services regulating the access of UK and EU financial institutions to the EU and UK financial markets, respectively, comprises: an overview of the foundations and characteristics of EU financial regulation (section 3.1) followed by an analysis of a selection of EU third-country regimes (section 3.2), and a brief description of the UK approach in financial regulation where it regards third-country entities (section 3.3).

This analysis is based on the 'hard Brexit' scenario, as described in section 2.2, which means:

- No bespoke agreements will have been concluded between the UK and the EU regarding access to their respective financial markets;
- The UK will default to the WTO trade rules (in particular the General Agreement on Trade in Services (GATS));
- Financial institutions established in the UK wishing to operate within the EU will not have passporting rights to access the EU financial markets on the basis of their UK license;
- Financial institutions established in the EU wishing to operate within the UK will not have passporting rights to access the UK financial markets on the basis of their EU home license;
- The UK will become a 'third country' in respect of the EU, since it is not a Member of the EEA, and fall under the 'third-country regimes' provided for both in EU financial legislation (where these regimes have been harmonised) and in legislation of the various Member States.

The selection of this scenario follows from the fact that under the EEA scenario, as described in section 2.3, the legal framework as it will be presented in section 3.1 remains applicable subject to the reservations outlined in section 2.3.2. An analysis of the implications of other tailor-made arrangements, as described in section 2.4, cannot be done without more detailed indications by the UK and the EU, in which way they intend to deviate from the existing EU legal framework, as it will be presented in section 3.1, as compared to the third-country regime that the current EU legal framework already has in place, which will be described in detail in section 3.2. Against this background, the best theoretical basis for an analysis of the implications of Brexit on financial services is laid by defining the legal parameters of the 'worst case' scenario, which is the 'hard Brexit' scenario. Clarity in relation to these legal parameters will allow a proper economic analysis of various Brexit scenarios, especially of the 'hard Brexit' scenario, as it will be done in chapter 4.

The present analysis on the implications of Brexit on the EU legal framework for financial services will cover third-country regimes in a number of selected key pieces of EU legislation. The selection of legislation will be discussed per sector and includes: (i) banking (wholesale and retail commercial banking); (ii) investment services and activities; (iii) resolution; (iv) funds and fund managers (AIFMs and AIFs & UCITS); (v) prospectus; (vi) market infrastructure (MiFIR trading obligation, CCPs and trade repositories and CSDs); (vii) insurance; and (viii) credit rating agencies.⁴ It will provide for each of the sectors tables presenting the current state of affairs in relation to equivalence decisions adopted under the existing framework.

⁴ The analysis does not cover areas of monetary policy, fiscal policy, and the organisation of (European) financial supervision. It is not intended to be used as legal advice in an individual case.

3.1. EU financial regulation

3.1.1. Introduction

The EU legal framework for financial markets has been built upon the Treaty objective of constructing an internal market (Art. 3(3) TEU) and the fundamental freedoms of free movement of capital and services (Art. 26(2) TFEU). As of the early seventies, a single market for financial services has been on the agenda of the European legislator. The first steps into the creation of a true single market were the First Banking Directive (Directive 77/780/EEC) of 1977 and the Second Banking Directive (Directive 89/646/EEC) of 1989. The size and scope of financial regulation was limited in comparison to the current legal framework regulating financial markets. The emphasis of both Directives was on the harmonisation of the authorisation requirements for credit institutions. For securities markets, the first initiative for creating a single market was taken with the UCITS Directive (Directive 85/611/EEC) of 1985. The Investment Services Directive (Directive 93/22/EEC) was agreed in 1992, providing for mutual recognition of authorisations of investment firms.

In 1999, the European Commission concluded, however, that the EU financial markets had remained fragmented and business and consumers did not have direct access to cross-border financial institutions. These findings led to publication of the European Commission's 'Financial Services Action Plan' (FSAP). With the FSAP, the Commission aimed at further stimulating EU financial integration. MiFID (Directive 2004/39/EC) constituted one of 'backbone' directives of the FSAP, aiming at a further development of a pan-European capital market by facilitating cross-border investment services and activities within the EU. The financial crisis of 2008 acted as a catalyst for increasingly integrated EU financial markets. It also significantly affected the institutional framework. For instance, three new pan-European financial supervisory authorities have since been established, the European Supervisory Authorities (ESAs), to facilitate the convergence of supervision by national competent authorities. Moreover, prudential supervision of banks within the Eurozone has now been centralised with the European Central Bank (ECB). Over the decades, these developments have resulted in a thoroughly harmonised, sometimes even called unified (Tridimas 2011: 783), European legal framework for financial markets.

3.1.2. Objectives

The primary objective of EU financial markets regulation was the creation of a single market for financial services. Since the financial crisis of 2008, however, ensuring financial stability and strengthening investor and depositor protection have become the most important regulatory objectives. Current regulation therefore also focuses on macroprudential oversight, in addition to microprudential supervision, as well as on clearing and settlement of financial transactions and on investor ownership rights of financial instruments.

3.1.3. Legislative instruments

The EU legal framework regulating financial markets comprises numerous instruments of secondary legislation (Directives and Regulations) and 'soft law' instruments with the objective of enhancing cooperation between the Member States and facilitating supervisory convergence.

Prior to the FSAP, financial legislation was developed by means of the ordinary legislative process of the EU, involving the European Commission, the Council and the European Parliament. Such process may take up to two years to conclude. In 2001, this legislative process was assessed in light of the objectives of the FSAP and it was concluded that this process was too slow and too rigid to keep pace with the (rapid) developments in the financial markets (Lamfalussy Report). To overcome these difficulties, a new legislative process was advised:

the ‘Lamfalussy process’. Since then, European financial regulation is developed in accordance with this process.

The Lamfalussy process concerns four levels of legislation. The first level consists of the basic political choices: the framework rules. These framework rules are laid down in Directives or Regulations and are developed in accordance with the ordinary legislative process. The second level elaborates on the framework rules and fills in the details of the first level legislation: the technical standards. These standards are also laid down in Directives or Regulations but are not developed by the ordinary legislative process. These technical standards are drafted by the Commission in cooperation with the relevant ESA: the European Banking Authority (EBA) where it concerns banks, the European Securities and Markets Authority (ESMA) where it concerns markets and securities, and the European Insurance and Occupational Pensions Authority (EIOPA) where it concerns insurers and pension funds. The third level of the Lamfalussy process is focused on enhancing cooperation and convergence among national supervisory authorities and comprises soft law instruments issued by the ESAs, including recommendations, guidelines and Q&A’s. Level four aims at a more effective enforcement of EU legislation by the European Commission.

3.1.4. Single Market: passporting

One of the key features of EU financial legislation is the ‘European passport’ for EU financial institutions. This ‘passport’ is attached to the license to operate as a financial institution granted by the home regulator. On the basis of their authorisation in the Member State of establishment (‘home state’), financial institutions are allowed to operate in all other Member States. The ‘host’ Member State may thus not impose any additional requirements, although in certain instances additional conduct-of-business rules may apply. In order for a financial institution to operate in another Member State on the basis of the European passport, it needs to conclude a ‘notification procedure’: it has to notify the competent authority in its home Member State of its intention to operate in another Member State and the competent authority will consequently notify the competent authority in the host Member State. Prior to the introduction of the European passport, cross-border operating groups had to go through an authorisation process in each Member State where they intended to operate, often requiring them to establish separate legal entities in each Member State.

Under current EU legislation, the passport regime exists for various types of financial institutions, including credit institutions, investment firms and (re)insurers. A similar regime was introduced for prospectuses: once a prospectus has been approved by the competent authority in the Member State where the issuer has its registered office, the prospectus may be used for the offering and/or listing of financial instruments in other Member States.

3.1.5. Global standards

The current EU regulatory framework of financial services is largely based on global standards. The financial crisis of 2008 emphasised the importance of international cooperation and regulatory convergence. The G20 Washington Summit on Financial Markets and the World Economy in 2008 achieved general agreement on the measures to reform the financial markets in order to avoid future crises. Recent European regulatory reforms are also a result of international standards set by bodies such as the Basel Committee, the International Organization of Securities Commissions (IOSCO), and the Financial Stability Forum (now called the Financial Stability Board). These international standards and agreements have been implemented in EU legislation such as the Capital Requirements Directive IV (CRD IV, Directive 2013/36/EU) and the Capital Requirements Regulation (CRR, Regulation 575/2013), the Credit Rating Agencies Regulation (CRA Regulation, Regulation (EC) No 1060/2009), the Alternative Investment Managers Directive (AIFMD, Directive 2011/61/EU) and the European Markets and Infrastructure Regulation (EMIR, Regulation (EU) No 648/2012).

3.2. EU third-country regimes

3.2.1. Introduction

In a hard Brexit scenario, where the UK leaves the EU without becoming a member of the EEA, and if no bespoke agreement has been agreed upon which states otherwise, the UK will qualify as a third country under European and national financial legislation. Therefore, UK firms have to revert to the 'third-country regimes' in the various EU financial law Directives and Regulations. This will impact UK and EU financial institutions' access to the EU and UK markets as well as their compliance with prudential rules and trading, reporting and clearing requirements for shares and derivatives.

3.2.2. EU third-country regimes

Recently, an EU harmonised approach to third-country firms has been a priority item on the agenda of the European legislator. The legislator has recognized that financial markets have become increasingly connected globally, so that a harmonised, EU approach to access to the EU market was required. Thus, the most important post-crisis instruments of financial regulation now include a regime for access of third-country firms based on 'equivalence clauses' (Quaglia 2015: 167). If the regulatory and supervisory framework of the country where the third-country firm is established is regarded as 'equivalent' to the European framework, this firm will not be subject to (full) EU regulation and (full) EU supervision.

Equivalence regimes presently are far from a homogeneous group of regimes. They range from granting access to the single market (passporting rights) to third-country firms, to allowing EU institutions to treat exposures to certain third-country firms as exposures to similar EU financial institutions, to recognising third-country trading venues as eligible venues for EU financial institutions to comply with trading and reporting obligations for shares and derivatives.

The regimes granting passporting rights are characterised by a 'piecemeal approach' (EGOV 2017: 2). As a result, such regimes will only provide access to the EU for the types of services and the types of clients which are explicitly included in the relevant EU legislation. As will be shown hereinafter, for instance the retail market remains (largely) within the competence of the individual Member States as the retail market has not been included in the relevant third-country regimes.

Moreover, the third-country regimes that apply to EU prudential requirements and EU trading and clearing requirements are aimed to accommodate EU financial institutions. Most equivalence decisions taken by the European Commission to date relate to facilitating international capital markets transactions (to be) entered into by EU financial institutions and EU companies and investors.

3.2.3. Equivalence

As stated above, most of the European, harmonised third-country regimes rely on 'equivalence' of the regulatory and supervisory framework of the relevant third country. Therefore, one of the prerequisites for operating within the EU on the basis of an EU third-country regime is that the foreign regulatory, supervisory and enforcement regime is equivalent to the corresponding EU framework (European Commission 2017: 5). This is a general definition of equivalence, and it should be noted that the exact content is calibrated to the scope and purpose of the respective instruments of financial regulation.

Whether a third-country regulatory regime is equivalent to the EU regime for purposes of financial regulation is determined unilaterally by the European Commission in cooperation with the relevant ESA. Thus, equivalence decisions and their withdrawal are within the discretion of the European Commission. Equivalence decisions are adopted per third country.

Third countries may express their interest in being assessed, but cannot force the Commission to take an equivalence decision even if they materially comply with all equivalence conditions.

According to the European Commission, equivalence regimes may have the following advantages (European Commission 2017: 5):

- Reduce or eliminate overlaps in compliance for EU entities concerned and in the supervisory work of EU competent authorities;
- Allow the application of a less burdensome prudential regime in relation to EU financial institutions' exposures to an equivalent third country than would otherwise be the case for exposures to non-equivalent third countries;
- Provide EU firms and investors with a wider range of services, instruments and investment choices originating from third countries that can satisfy regulatory requirements in the EU.

The Commission has emphasised that equivalence arrangements are not 'a vehicle for liberalising international trade in financial services, but a key instrument to effectively manage cross-border activity of market players in a sound and secure prudential environment with third-country jurisdictions that adhere to, implement and enforce rigorously the same high standards of prudential rules as the EU' (European Commission 2017: 8). In assessing whether a third-country regime is equivalent to the EU regime, the European Commission is guided by the principle of proportionality and by a risk-based approach (European Commission 2017: 8, 11). As a result, each equivalence decision is preceded by identifying and assessing the risks a specific third country may pose to the EU financial system. These risks are taken into account when assessing the third-country regime's compliance with the equivalence requirements (European Commission 2017: 8). Therefore the European Commission is likely to apply stricter scrutiny when assessing 'high-impact' third countries which potentially pose significant risks to the EU financial markets, such as the UK, than when assessing 'lower impact' third countries.

With a view to the objective of pursuing the first advantage, i.e. reducing or eliminating overlaps in compliance for EU entities, under some EU financial services legislation adoption of an equivalence decision is conditional on 'reciprocity'. This means the Commission will only take a positive equivalence decision if the legal framework of the third country in question provides for an effective equivalent system for the recognition of third-country rules or entities authorised under third-country legal regimes. For investment firms, MiFIR forms an example of this regime.

When looking in a very abstract manner at the legal situation in the UK considering its 'equivalence' with the EU regime after a 'Brexit' materialises, it is known that the UK Government plans to incorporate all existing EU acquis into domestic law at the time of exit, by means of a 'Great Repeal Bill' (Department for Exiting the European Union, Davis & May 2017). As such, John Armour argues that 'at the point of exit, the UK will have in place a body of financial regulation that necessarily will be substantively equivalent to EU law', adding that the UK's supervisory authorities (viz., the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA)) would 'meet the Commission's enquiries regarding compliance' (Armour 2017: S61 et seq.). He does express his concern, however, as to 'whether the Commission will have completed the necessary equivalence determinations by the time the UK's 2-year Article 50 period is completed' (Armour 2017: S62). 'Neither a third country, nor its firms, have any right to compel the Commission to start the process of making an equivalence determination, even if the third country would manifestly meet the criteria' (Armour 2017: S62 et seq.). Whilst the EU and UK financial regulation regimes might be equivalent on exit, they might diverge later on. Consequently, the UK could 'fall behind', which is crucial

as equivalence is reviewed periodically and an equivalence decision may in principle be withdrawn by the Commission.

3.2.4. Wholesale and retail commercial banking

CRD IV and CRR contain rules on commercial banking, including deposit-taking, lending, payment services and prudential and authorisation requirements for credit institutions.

CRD IV and CRR do not contain a third-country regime that provides third-country credit institutions with access to the single market. CRD IV also explicitly states that EU branches of third-country credit institutions do not enjoy the freedom of cross-border activity in other Member States (recital 23). Third-country credit institutions therefore need to obtain authorisation in each Member State where they wish to provide commercial banking services. If, however, a third-country credit institution wishes itself to provide investment services or perform investment activities within the EU, the third-country regimes of MiFID II and MiFIR may apply, see section 3.2.5 below.

CRD IV establishes a special third-country regime concerning the consolidated supervision by a third country supervisory authority. If the head office of a financial (mixed) holding company, which is the parent undertaking of a credit institution that is active in the EU internal market, is located in a third country, the competent national authority can decide that this institution is subject to consolidated supervision by a third-country supervisory authority in case this supervision is equivalent to the EU one (Article 127(1) CRD IV).

The third-country regimes of CRR mainly relate to prudential rules and are aimed at facilitating the calculation of counterparty credit risk of EU-based market operators in relation to third-country lenders or counterparties. In short, the CRR rules entail the following:

- assimilation of the prudential treatment of exposures to third-country institutions with the treatment of EU institutions for the purpose of calculating credit risk (Article 107);
- assimilation of the specific risk weights applicable to exposures to EU central governments, central banks, regional governments, local authorities and public sector entities with similar entities in third countries for the purpose of calculating the capital ratio of EU financial institutions (Articles 114-116); and
- taking into account a subsidiary located in a third country for the definition of 'large financial sector entity' (Article 142(1)(4)(b)).

All these three CRR third-country regimes are conditional on an equivalence decision adopted by the European Commission in cooperation with EBA (Article 107(4); Article 114(7), Article 115(7) and Article 116(5); Article 142(2)). The nature of these third-country regimes do not make an equivalence decision conditional on cooperation arrangements with the competent authorities in the relevant third country.

Table 1: Equivalence decisions issued by the European Commission in relation to wholesale and retail commercial banking (as of 1 April 2017).

Instrument	Legal base	Equivalence Decision(s)
CRR	Article 107(4) <i>[exposure to credit institution]</i>	Australia, Brazil, Canada, China, Faroe Islands, Greenland, Guernsey, Hong Kong, India, Isle of Man, Japan, Jersey, Mexico, Monaco, New Zealand, Saudi Arabia, Singapore, South Africa, Switzerland, Turkey, USA ⁵
	Article 107(4) <i>[exposure to investment firms]</i>	Australia, Brazil, Canada, China, Hong Kong, Indonesia, Japan (limited to Type I Financial Instruments Business Operators), Mexico, South Korea, Saudi Arabia, Singapore, South Africa, USA ⁶
	Article 107(4) <i>[exposure to exchanges]</i>	Australia, Brazil, Canada, China, India, Indonesia, Japan, Mexico, Saudi Arabia, Singapore, South Africa, South Korea, USA ⁷
	Articles 114(7), 115(4) and 116(5) <i>[exposure to central governments, central banks, regional governments, local authorities and public sector entities]</i>	Australia, Brazil, Canada, China, Faroe Islands, Greenland, Guernsey, Hong Kong, India, Isle of Man, Japan, Jersey, Mexico, Monaco, New Zealand, Saudi Arabia, Singapore, South Africa, Switzerland, Turkey, USA ⁸
	Article 142 <i>[credit institutions]</i>	Australia, Brazil, Canada, China, Faroe Islands, Greenland, Guernsey, Hong Kong, India, Isle of Man, Japan, Jersey, Mexico, Monaco, New Zealand, Saudi Arabia, Singapore, South Africa, Switzerland, Turkey, USA ⁹
	Article 142 <i>[investment firms]</i>	Australia, Brazil, Canada, China, Hong Kong, Indonesia, Japan (limited to Type I Financial Instruments Business Operators), Mexico, South Korea, Saudi Arabia, Singapore, South Africa, USA ¹⁰

3.2.5. Investment services and activities

The Markets in Financial Instruments Regulation (MiFIR, Regulation (EU) No 600/2014) and the Markets in Financial Instruments Directive II (MiFID II, Directive 2014/65/EU) (together: MiFID II) (applicable from 3 January 2018) contain rules for investment services (execution-

⁵ Article 1 of Commission Implementing Decision 2014/908/EU on the equivalence of the supervisory and regulatory requirements of certain third countries and territories for the purposes of the treatment of exposures according to Regulation (EU) No 575/2013 of the European Parliament and of the Council, [2014] OJ L 359/155, as amended by Article 1(1) of Commission Implementing Decision (EU) 2016/2358, [2016] OJ L 348/75.

⁶ Article 2 of Commission Implementing Decision 2014/908/EU, as amended by Article 1(1) of Commission Implementing Decision (EU) 2016/230, [2016] OJ L 41/23.

⁷ Article 3 of Commission Implementing Decision 2014/908/EU, as amended by Article 1(2) of Commission Implementing Decision (EU) 2016/230.

⁸ Article 4 of Commission Implementing Decision 2014/908/EU, as amended by Article 1(2) of Commission Implementing Decision (EU) 2016/2358.

⁹ Article 5 of Commission Implementing Decision 2014/908/EU in conjunction with the first part of Annex V, as amended by Article 1(3) of Commission Implementing Decision (EU) 2016/2358.

¹⁰ Article 5 of Commission Implementing Decision 2014/908/EU in conjunction with the second part of Annex V, as amended by Article 1(3) of Commission Implementing Decision (EU) 2016/2358.

only services, investment advice and portfolio management), for investment activities (including trading and dealing on own account (e.g. market making), for operating a multilateral trading facility (MTF) or an organised trading facility (OTF)) and for prudential and authorisation requirements for investment firms.

Under MiFID, third-country firms' access was left to national discretion and could be granted only to the relevant national market. Under MiFID II, the EU will introduce a harmonised third-country regime which consists of two different regimes for: (i) professional markets and institutional investors; and (ii) retail markets and investors.

MiFIR includes an equivalence regime granting passporting rights to third-country investment firms wishing to provide investment services or to perform investment activities to professional clients and eligible counterparties (Article 46 in conjunction with Article 47). To benefit from this regime, third-country firms need to register with ESMA. Registration is conditional on an equivalence decision adopted by the European Commission. The equivalence decision is conditional on reciprocity: the legal framework of the relevant third country should provide for an effective equivalent system for the recognition of investment firms authorised in the EU (and other third-country legal regimes).

In case the Commission will not have adopted an equivalence decision under MiFIR, all third-country firms revert to the MiFID II third-country regime. This regime also applies to third-country firms wishing to provide investment services or to perform investment activities (with or without ancillary services) to retail clients or to elective professional clients where the Member State requires the firm to establish a branch (Article 39). This third-country regime is the same as the current MiFID rules: it grants national discretion to the Member States to grant access. If a Member State's authorisation regime requires the presence of a branch office of the third-country firm on its territory, MiFID II sets out the harmonised conditions which apply to the authorisation of the branch. MiFID II does not provide such branches with passporting rights. Therefore, third-country firms wishing to do business with retail clients or elective professional clients need to obtain authorisation in each Member State where they wish to operate.

Since the MiFID II regime only enters into force on 3 January 2018, there are no equivalence decisions issued by the European Commission at the moment of writing.

3.2.6. Resolution

The third-country regime of the Bank Recovery and Resolution Directive (BRRD, Directive 2014/59/EU) entails a framework for the recognition and enforcement of third-country resolution proceedings in situations where a group is not confined to the EU. This regime applies if no international agreement on cooperation between the EU resolution authorities and the third-country authorities has been concluded (Article 94(1) in conjunction with Article 93(1)). Pursuant to the BRRD third-country regime, so-called 'European resolution college' are established (Article 89(1)). In these colleges, the resolution authorities of all Member States sit where the relevant third country institution has subsidiaries or where it has significant branches. These European resolution colleges must take a joint decision on whether to recognise third-country resolution proceedings. In the absence of such a joint decision, or in the absence of a European resolution college, each resolution authority concerned must make its own decision on whether to recognise and enforce the third-country resolution proceedings.

3.2.7. Funds and fund managers

3.2.7.1. AIFMs and AIFs

AIFMD does not have a third-country regime with European Commission equivalence decisions in place for third-country alternative investment fund managers (AIFMs) and third-

country alternative investment funds (AIFs). Third-country AIFs either need an authorised EU AIFM to market their units or shares in the EU or the third-country AIFM needs to be authorised by the competent authority of the 'Member State of reference'. These requirements effectively mean that the third-country AIF and the third-country AIFM need to comply with the AIFMD rules in order to benefit from the EU passport.

Currently, marketing of AIFs managed by third-country AIFMs (Article 42) and marketing of third-country AIFs managed by EU AIFMs (Article 36) are subject to the national private placement rules (NPPRs) of the Member State(s) where the AIFs are marketed. Some jurisdictions do not allow private placement marketing, such as Italy (Ropes & Gray 2016).

Besides NPPRs, the AIFMD provides also for a third-country regime to acquire EU-wide passports for third-country AIFMs intending to market EU AIFs (Articles 37, 39), to market third-country AIFs (Articles 37, 40) and to manage EU AIFs (Articles 37, 41) as well as for marketing third-country AIFs managed by EU-AIFMs (Article 35).

In order for third-country AIFMs intending to manage EU AIFs or to market AIFs to professional investors to obtain the passport, they must acquire prior authorisation of the competent authorities in the 'Member State of reference' (as determined in Article 37(4)). Authorisation is conditional on compliance with the whole AIFMD. Hence, the 'equivalence' under AIFMD does not take into consideration whether third-country rules are more or less comparable to the EU rules but requires complete compliance. Third-country AIFMs should also have a 'legal representative' in the Member State of reference which will be the contact point for investors, ESMA and national competent authorities and which will be responsible for ensuring compliance of the fund manager with the AIFMD. In addition, cooperation arrangements between the competent authorities of the Member State of reference, the competent authorities of the home Member State of the EU AIFs and the supervisory authorities of the third-country fund manager must be in place. In order for EU-AIFMs intending to market third-country AIFs to professional investors to obtain the passport, cooperation arrangements between the competent authorities of the home Member State of the EU-AIFM and the competent authorities of the country where the non-EU AIF is established must be in place.

Finally, the effective exercise of the supervisory functions required by the AIFMD should not be prevented by the laws, regulations or administrative provisions of a third country governing the AIFM, nor by limitations in the supervisory and investigatory powers of that third country's supervisory authorities (Article 34(7)(g)). The assessment of the latter is made by ESMA (Article 67(4)). In order to ensure that the third-country legal regimes applicable to third-country AIFMs do not form 'significant obstacles regarding investor protection, market disruption, competition and the monitoring of systemic risk' (Article 67(4)), the activation of the just described third-country regime is conditional upon the adoption of a delegated act by the European Commission (Article 66(3)), which is conditional upon a positive advice of ESMA on the 'non-presence of significant obstacles' in third-country legal regimes for the application of the rules of the AIFMD (Article 67(6)). On 12 September 2016, ESMA adopted a positive advice in relation to Canada, Guernsey, Japan, Jersey, Switzerland and the USA. It included the third-country regimes on AIFs in Hong Kong and Singapore, excluding third-country AIFMs from these countries. Bermuda and the Cayman Islands are considered positive but conditioned by a new assessment by ESMA once currently pending legislation is adopted.¹¹ The delegated act activating the third-country regime for the mentioned jurisdictions is at the time of writing not yet adopted by the Commission.

Three years after the adoption of the delegated act activating the third-country regime for AIFMs and AIFs under Article 67(6), another delegated act by the European Commission shall

¹¹ ESMA, Advice to the European Parliament, the Council and the Commission on the application of the AIFMD passport to non-EU AIFMs and AIFs, 12 September 2016, ESMA/2016/1140.

terminate the application of NPPRs in relation to those jurisdictions, for which the third-country regime was activated (Article 68(6)). The procedure for adopting this delegated act is initiated by an advice of ESMA (Article 68(1),(4)).

3.2.7.2. UCITS

The UCITS V Directive (Directive 2014/91/EU) does not include a third-country regime.

3.2.8. Prospectus

Pursuant to the Prospectus Directive (Directive 2003/71/EC), the competent authority of a Member State may approve a prospectus from an issuer having its registered office in a third country drawn up in accordance with the legislation of a third-country if:

- (i) the prospectus has been drawn up in accordance with international standards set by international securities commission organisations (including the IOSCO disclosure standards); and
- (ii) the information requirements are equivalent to the requirements under the Prospectus Directive (Article 20(1)).

Assessment of condition (ii) primarily lies with the competent authority of the home Member State.¹² In order to meet the equivalence requirement, the third country must ensure that prospectuses drawn up in accordance with the rules of its jurisdiction are equivalent with Union law, by means of requirements under its national law or practices or procedures based on international standards set by international organisations, including the IOSCO disclosure standards (Article 20(3)). Equivalence may also be determined by the European Commission in cooperation with the European Securities Committee (ESC) (Article 20(3) in conjunction with Article 24(2)). No such equivalence decision has yet been adopted. Even if such an equivalence decision regarding a third country will have been adopted by the European Commission, the issuer will still be required to apply for approval of the relevant prospectus by the competent authority of the home Member State. The discretion to approve remains with the national competent authority.

Once a 'third-country prospectus' has been approved by the competent authority of the home Member State, the prospectus benefits from a European passport: the issuer may offer its securities or list its securities on a regulated market in any other Member State on the basis of that prospectus (Article 20(2) in conjunction with Articles 17-19). The regular passporting conditions will then apply, including language requirements and a notification procedure. The competent authority of the host Member State may not undertake any approval or administrative procedures of its own (Article 17(1)). As a result, the competent authority of the host Member State must in principle acknowledge the validity of a third-country prospectus, even if it would not have approved the third-country prospectus in its capacity as competent authority of the home Member State.

Besides, the question might arise as to the applicable accounting standards for historical financial information in prospectus issued by third-country issuer. In this case, in principle, EU rules require the use of the EU-adopted IFRS (Regulation No 1606/2002). The Commission Regulation No 809/2004 implementing the Prospectus Directive provides for a transitional rule, according to which the IFRS have only to be applied to prospectus of third-country issuers from 1 July 2007 on (Article 35). Article 35(5) of this regulation establishes some sort of a mechanism to determine the equivalence of generally accepted accounting principles (GAAP) of a third country with the IFRS by including the recognised GAAP into the regulation through an amendment of this article.

¹² For determining the home Member State for third-country issuers, see: Art. 2(1)(m)(ii)(iii) Prospectus Directive.

On 16 May 2017, the Council approved (doc. No 9209/17) the European Parliament's decision of 5 April 2017 (doc. No T8-0110/2017) to adopt a new Prospectus Regulation (COM(2015) 583 final), which is expected to enter into force in the course of 2017. The proposal includes a third-country equivalence regime for prospectuses drawn up in accordance with the legislation of a third country (Article 29). According to this new regime, the competent authority of a Member State may approve a prospectus from an issuer having its registered office in a third country drawn up in accordance with the legislation of a third-country if:

- (i) the information requirements imposed by that third country legislation are equivalent to the requirements in the Prospectus Regulation (Article 29(1)(a)); and
- (ii) the competent authority of the home Member State¹³ has concluded cooperation agreements with the supervisory authorities of the third country issuer (Article 29(1)(b)).

This equivalence regime is largely comparable to the regime under the current Prospectus Directive, although condition (ii) is not included in the latter.

The proposal empowers the European Commission to adopt general equivalence criteria by means of delegated acts (Article 29(3)(1)). Based on these general criteria, the European Commission may declare a third country prospectus rules to be equivalent to the Prospectus Regulation by means of implementing measures (Article 29(3)(2)). The ultimate discretion to approve a third-country prospectus remains with the competent authority of the home Member State. Once a third-country prospectus has been approved by the competent authority of the home Member State, the prospectus benefits from a European passport (Article 29(2) in conjunction with Articles 24, 25 and 27).

Table 2: Equivalence decisions issued by the European Commission in relation to prospectus (as of 1 April 2017).

Instrument	Legal base	Equivalence Decision(s)
Prospectus Directive	Article 20(3)	None.
Commission Regulation (EC) No 809/2004 implementing the Prospectus Directive	Article 35(5) <i>[historical financial information in prospectus using GAAP of a third country]</i>	Japan, USA ¹⁴ Canada, China, South Korea ¹⁵

3.2.9. Market infrastructure

MiFID II and EMIR introduce mandatory trading, clearing and reporting requirements for financial institutions that trade shares and derivatives. The purpose of these rules is to enhance pre- and post-trade (price) transparency for these financial instruments as well as to reduce counterparty risk.

3.2.9.1. MiFIR trading obligation

MiFIR will require investment firms to trade shares and equity-like instruments as well as most derivatives to be traded on either a regulated market, an MTF, an OTF or third-country trading venue which has been declared equivalent by the European Commission (Articles 23

¹³ For determining the home Member State for third-country issuers, see: Art. 2(1)(m)(ii)(iii) proposal for a Prospectus Regulation.

¹⁴ Article 1(1) of Commission Regulation (EC) No 1289/2008 of 12 December 2008 amending Commission Regulation (EC) No 809/2004, [2008] OJ L 340/17.

¹⁵ Article 1(1) of Commission Delegated Regulation (EU) No 311/2012 of 21 December 2011 amending Regulation (EC) No 809/2004, [2012] OJ L 103/13.

and 28). Also, such trades are subject to trade execution and clearing obligations (Article 38).

The equivalence process is different for shares and derivatives. For shares, the third-country trading venue should be assessed as equivalent in accordance with the process under the Prospectus Directive. No reciprocity requirements seem to apply. For derivatives, MiFIR sets out the requirements that must be met in order for a third-country trading venue to be declared equivalent by the European Commission:

- third-country trading venues should be subject to authorisation and effective supervision in their jurisdiction;
- third-country trading venues should have rules for the admission to trading of such financial instruments;
- issuers of such financial instruments should be subject to periodic and ongoing information requirements; and
- rules ensuring market integrity, such as insider dealing and market abuse rules, should be in place.

Also, reciprocity is a requirement for a third country to be declared equivalent, allowing EU trading venues to be recognised as an eligible trading venue for any trading obligations in its jurisdiction.

3.2.9.2. CCPs and trade repositories

EMIR introduced mandatory centralised clearing and reporting requirements for derivatives. EMIR allows central banks of third countries to be exempted from the scope of the Regulation. Also, EMIR defines when third-country markets and trading venues are considered to be equivalent to a regulated market in order to avoid duplications in reporting requirements and conflicting clearing requirements.

EMIR contains a third-country regime for third-country CCPs wishing to be an eligible CCP for EU clearing members or trading venues (Article 25). The third-country CCP needs to be recognised by ESMA and recognition is conditional on an equivalence decision by the Commission. An equivalence decision is conditional on reciprocity: the legal framework of that third country must also provide for an effective equivalent system for the recognition of CCPs authorised under third-country legal regimes.

EMIR also contains a third-country regime for third-country trade repositories wishing to provide their reporting services and activities to EU entities (Article 75). The third-country trade repository needs to be recognised by ESMA and recognition is conditional on an equivalence decision by the Commission. Equivalence is not conditional on reciprocity. Finally, EMIR contains a regime, according to which transactions with central banks from third countries can be exempted from the scope of the regulation (Article 1(6)).

Table 3: Equivalence decisions issued by the European Commission in relation to CCPs and trade repositories (as of 1 April 2017).

Instrument	Legal base	Equivalence Decision(s)
EMIR	Article 1(6) <i>[third-country central banks]</i>	Japan, USA ¹⁶
	Article 25(6) <i>[third-country CCPs]</i>	Australia, ¹⁷ Brazil, ¹⁸ Canada, ¹⁹ Dubai, ²⁰ Hong Kong, ²¹ India, ²² Japan, ²³ Mexico, ²⁴ New Zealand, ²⁵ Singapore, ²⁶ South Africa, ²⁷ South Korea, ²⁸ Switzerland, ²⁹ UAE, ³⁰ USA ³¹
	Article 75 <i>[third-country trade repositories]</i>	None.

On May 4, 2017 the European Commission proposed several fine-tuning arrangements to further improve EMIR. The European Commission specifically noted that some third country CCPs play a key systemic role for EU financial markets. This is particularly relevant in connection with Brexit, since as many as 75% of euro-denominated interest rate derivatives are cleared in the UK.

On 13 June 2017 the Commission published a legislative proposal on, inter alia, requirements for the recognition of third-country CCPs.³² Building on existing third-country provision in EMIR, the proposal introduces three categories of third-country CCPs: 'Tier 1 CCPs', which are considered not to be 'systemically important or not likely to be systemically important for the financial stability of the Union or for one or more of its Member States' (Article 25(2a) of the proposed EMIR amendment), 'Tier 2 CCPs', which are 'systemically important or likely to become systemically important' (Article 25(2b)) and CCPs 'of such substantial importance that compliance with the conditions set out [... for Tier 2 CCPs] does not sufficiently ensure the financial stability of the Union or of one or more of its Member States' (Article 25(2c)). The latter won't be recognised for the purpose of clearing EMIR trades so that such CCPs would require to relocate their clearing activities in relation to trade denominated in EU currencies into the EU (Art. 25(2c)(2) of the proposed EMIR amendment referring to Article 14 EMIR). According to the proposal, the European Commission adopts an implementing act establishing the non-recognition of such third-country CCPs, upon a recommendation of ESMA, which assess the systemic importance of CCPs.

¹⁶ Commission Delegated Regulation (EU) No 1002/2013, [2013] OJ L 279/2.

¹⁷ Commission Implementing Decision No 2014/755/EU, [2014] OJ L 311/66.

¹⁸ Commission Implementing Decision (EU) 2016/2276, [2016] OJ L 342/61.

¹⁹ Commission Implementing Decision (EU) 2015/2040, [2015] OJ L 298/32.

²⁰ Commission Implementing Decision (EU) 2016/2277, [2016] OJ L 342/65.

²¹ Commission Implementing Decision No 2014/754/EU, [2014] OJ L 311/62.

²² Commission Implementing Decision (EU) 2016/2269, [2016] OJ L 342/38.

²³ Commission Implementing Decision No 2014/752/EU, [2014] OJ L 311/55.

²⁴ Commission Implementing Decision (EU) 2015/2041, [2015] OJ L 298/38.

²⁵ Commission Implementing Decision (EU) 2016/2274, [2016] OJ L 342/54.

²⁶ Commission Implementing Decision No 2014/753/EU, [2014] OJ L 311/58.

²⁷ Commission Implementing Decision (EU) 2015/2039, [2015] OJ L 298/29.

²⁸ Commission Implementing Decision (EU) 2015/2038, [2015] OJ L 298/25.

²⁹ Commission Implementing Decision (EU) 2015/2042, [2015] OJ L 298/42.

³⁰ Commission Implementing Decision (EU) 2016/2278, [2016] OJ L 342/68.

³¹ Commission Implementing Decision (EU) 2016/377, [2016] OJ L 70/32.

³² COM(2017) 331 final.

3.2.9.3. Euro-denominated clearing

Under the current legal framework, Euro-denominated transactions can be settled anywhere in the world. Yet, in 2011, the ECB attempted to implement a location policy in its 'Eurosystem Oversight Policy Framework', according to which CCPs with daily net credit exposures of more than 5 billion euros in one of the main euro-denominated categories of derivatives have to be located in the Euro area in order to have access to Euro-denominated central bank liquidity: 'As a matter of principle, infrastructures that settle euro-denominated payment transactions should settle these transactions in central bank money and be legally incorporated in the euro area with full managerial and operational control and responsibility over all core functions for processing euro denominated transactions, exercised from within the euro area' (ECB 2011: 10).

The location policy for CCPs was, however, declared void by the General Court in an action for annulment initiated by the UK because of a lack of competence for the ECB to adopt this policy. Article 22 of the ECB/ESCB-Statute only allows for adopting acts in relation to 'payment clearing' but not in relation to 'clearing of securities' (General Court 2015: paras. 100 et seq.). Yet, the General Court considered it possible to include into this legal base 'the power to regulate infrastructures clearing transactions in securities' by amending Article 22 of the Statute (General Court: para. 109). Such amendment can be done, according to Article 129(3) TFEU, in accordance with the ordinary legislative procedure requiring a qualified majority vote in the Council.

In the aftermath of the General Court's ruling, the ECB and the Bank of England reached a settlement, according to which both put in place 'enhanced arrangements for information exchange and cooperation regarding UK Central Counterparties (CCPs) with significant euro-denominated business' and both extended 'the scope of their standing swap line in order [...] to facilitate the provision of multi-currency liquidity support by both central banks to CCPs established in the UK and euro area respectively' (ECB & BoE 2015). Brexit may challenge this settlement agreement. The legislative proposal of the European Commission of 13 June 2017³³ on requirements for the recognition of third-country CCPs is of relevance for euro-denominated clearing but not limited to it. Recognised third-country CCPs under this proposal will be able to clear all OTC derivative contracts subject to the clearing obligation as defined in Articles 4 and 5 of EMIR.

3.2.9.4. Securities settlement

The Central Securities Depositories Regulation (CSDR, Regulation (EU) No 909/2014) governs the authorisation of central securities depositories (CSDs).

Under the third-country regime of CSDR, CSDs authorised in a third country may provide CSD (ancillary) services within the EU, including through a branch. However, if a CSD wishes to provide 'core services'³⁴ in relation to financial instruments constituted under the law of a Member State within the EU or if it wishes to provide its services via a branch, it is required to apply for recognition from ESMA (Article 25). Recognition by ESMA is conditional on an equivalence decision. Equivalence is conditional on reciprocity: the legal framework of that third country must provide for an effective equivalent system for the recognition of CSDs authorised under third-country legal regimes.

³³ COM(2017) 331 final.

³⁴ Listed in Annex A (1)(2): 1. Initial recording of securities in a book-entry system ('notary service'); 2. Providing and maintaining securities accounts at the top tier level ('central maintenance service').

Table 4: Equivalence decisions issued by the European Commission in relation to securities settlement (as of 1 April 2017).

Instrument	Legal base	Equivalence Decision(s)
CSDR	Article 25(9)	None.

3.2.10. Insurance

Solvency II contains the prudential regulatory regime for the (re)insurance market.

Solvency II contains a third-country regime for third-country reinsurers. If the solvency regime applied to reinsurance activities of a third-country is found equivalent, reinsurance contracts concluded with reinsurers established in that third-country shall be treated in the same manner as reinsurance contracts concluded with EU reinsurers (Article 172). As a result, Member States may not treat reinsurance contracts concluded with third-country reinsurers less favourable than those concluded with EU reinsurers (Articles 172-173). Thus, these provisions provide reinsurers with passporting rights. In case third-country insurers pursue activities in the EU as a parent undertaking of an EU insurer, an equivalence decision under Article 260 exempts these insurers from some aspects of the group supervision and requires Member States to rely on the group supervision exercised by that third country. Member State supervisors will then form a college led by the third country group supervisor. Besides, Solvency II does not include a third-country regime for solo entities of third-country insurers.

Furthermore, if an EU-based insurer pursues activities in third countries, the presence of an equivalence decision under Article 227 allows them, solely for purposes related to the group solvency, to carry out the solvency calculations for prudential reporting for the subsidiary in the third country concerned in compliance with the rules of that country instead of the rules in Solvency II.

In addition to these three forms of permanent equivalence decisions, provisional/temporary equivalence decisions providing the same effect exist for these three areas, where requirements have to be fulfilled which may be different from the permanent decisions. Furthermore, equivalence may be limited to specific (re)insurance activities.

Table 5: Equivalence decisions issued by the European Commission in relation to insurers (as of 1 April 2017)

Instrument	Legal base	Equivalence Decision(s)
Solvency II	Article 172(2) <i>[third-country reinsurers]</i>	Bermuda, ³⁵ Japan, ³⁶ Switzerland ³⁷
	Article 260(3) <i>[third-country insurers in relation to group supervision]</i>	Bermuda, ³⁸ Switzerland ³⁹
	Article 227(4) <i>[third-country rules for subsidiaries of EU insurers]</i>	Australia, Brazil, Canada, Mexico, USA ⁴⁰ Bermuda, ⁴¹ Japan, ⁴² Switzerland ⁴³

3.2.11. Credit Rating Agencies

The world's three largest credit rating agencies (CRAs), viz. Standard & Poor's (S&P), Moody's, and Fitch Group, who are responsible for 94% of the EU credit rating market, all have their European headquarter in London (Lannoo 2016: 5). The Credit Rating Agency Regulation (CRA Regulation, Regulation (EC) No 1060/2009) subjects the use of credit ratings for regulatory purposes to restrictions if those credit ratings have been issued by CRAs established in a third-country (Article 4). Starting point is that only credit ratings issued by EU CRAs may be used for regulatory purposes. Credit ratings issued by CRAs established in a third country may however be used for regulatory purposes if they comply with the 'endorsement' regime or the 'certification' regime, both based on equivalence.

Pursuant to the endorsement regime, a CRA established in the EU may endorse a credit rating issued by a third-country CRA which is part of the same group of the EU CRA (Article 4). A couple of conditions apply, including that the EU CRA has verified and is able to demonstrate on an ongoing basis to the competent authority of the home Member State that the conduct of credit rating activities by the third-country credit rating agency resulting in the issuing of the credit rating to be endorsed fulfils requirements which are at least as stringent as the requirements applicable under Union law and that the CRA is subject to effective supervision and enforcement. According to ESMA, the 'as stringent' standard is similar to the standard for equivalence applying to the certification regime (ESMA/2011/139). Thus, if the European Commission has adopted an equivalence decision, this decision may be used to support the position that the 'as stringent' test has also been complied with.

Pursuant to the certification regime, in case a credit rating cannot be endorsed (for instance if the issuing third-country CRA has no presence or affiliation in the EU), credit ratings issued by third-country CRAs may still be used for regulatory purposes provided that the European Commission adopted an equivalence decision and that the third-country CRA is certified by ESMA (Article 5). The certification regime is available for smaller CRAs, as only CRAs which credit rating activities are not of systemic importance to the financial stability or integrity of the financial markets of one or more Member States may apply for certification. Whether a

³⁵ Commission Delegated Decision (EU) 2016/309, [2016] OJ L 58/50.

³⁶ Commission Delegated Decision (EU) 2016/310, [2016] OJ L 58/55.

³⁷ Commission Delegated Decision (EU) 2015/1602, [2015] OJ L 248/95.

³⁸ Commission Delegated Decision (EU) 2016/309, [2016] OJ L 58/50.

³⁹ Commission Delegated Decision (EU) 2015/1602, [2015] OJ L 248/95.

⁴⁰ Commission Delegated Decision (EU) 2015/2290, [2015] OJ L 323/22.

⁴¹ Commission Delegated Decision (EU) 2016/309, [2016] OJ L 58/50.

⁴² Commission Delegated Decision (EU) 2016/310, [2016] OJ L 58/55.

⁴³ Commission Delegated Decision (EU) 2015/1602, [2015] OJ L 248/95.

CRA is systemically important will be assessed taking into account the size of its rating activities and interconnectedness of the users of its credit ratings in the Union (Regulation (EU) No 449/2012).

Table 6: Equivalence decisions issued by the European Commission in relation to CRAs (as of 1 April 2017)

Instrument	Legal base	Equivalence Decision(s)
CRAR	Article 5(6) <i>[third-country CRA]</i>	Argentina, ⁴⁴ Australia, ⁴⁵ Brazil, ⁴⁶ Canada, ⁴⁷ Hong Kong, ⁴⁸ Japan, ⁴⁹ Mexico, ⁵⁰ Singapore, ⁵¹ USA ⁵²

On 4 April 2017 ESMA published a consultation paper on updating the Guidelines on the application of the endorsement regime under the CRA (Credit Rating Agencies) Regulation.⁵³ Revised Guidelines are expected to be published by the end of 2017.

3.2.12. Summarising table

The following table shows for which kind of financial service activity (Banking, Asset Management, Insurance, Market Infrastructure and other financial services) EU law provides for an equivalence regime. It covers single financial services as well as financial institutions that could be subject to an equivalence regime. Since the presence of an equivalence regimes does not imply an unlimited access to the single market, the third column in the table specifies whether a certain financial service or a certain financial institution obtains access to the single market in case the Commission issued a positive equivalence decision. Finally, the fourth column indicates whether an equivalence decision of the European Commission is conditional upon reciprocity in the sense that there will only be a positive decision if the third-country legal regime provides for a recognition of the EU financial service activity in question. The latter information is of importance when assessing, under the 'equivalence' scenario, the possibilities for EU financial service providers to enter into the UK market after a withdrawal of the UK from the EU materialises.

It must be stressed that this summarising table is to be read in conjunction with the preceding detailed sections on the various equivalence regimes in place. Equivalence regimes differ with regard to conditions, scope and reach in relation to the specific secondary legal that establishes them. Yet, for the sake of an overview at a glance, the following table will give a simplified summary of the existing third-country regimes that could be activated for UK-based financial market operators once a 'hard Brexit' should materialise.

Explanation of the symbols used in this table:

(–) = not available;

■ = available;

□ = partially available (further explanations are added in italic)

⁴⁴ Commission Implementing Decision No 2014/246/EU, [2014] OJ L 132/68.

⁴⁵ Commission Implementing Decision No 2012/627/EU, [2012] OJ L 274/30.

⁴⁶ Commission Implementing Decision No 2014/245/EU, [2014] OJ L 132/65.

⁴⁷ Commission Implementing Decision No 2012/630/EU, [2012] OJ L 278/17.

⁴⁸ Commission Implementing Decision No 2014/249/EU, [2014] OJ L 132/76.

⁴⁹ Commission Implementing Decision No 2010/578/EU, [2010] OJ L 254/46.

⁵⁰ Commission Implementing Decision No 2014/247/EU, [2014] OJ L 132/71.

⁵¹ Commission Implementing Decision No 2014/248/EU, [2014] OJ L 132/73.

⁵² Commission Implementing Decision No 2012/628/EU, [2012] OJ L 274/32.

⁵³ ESMA33-9-159.

Table 7: Summarising table of the third-country regimes in place in relation to the activities they concern

Financial Service Activity	Equivalence	Market access	Reciprocity
Banking			
Provision of wholesale and retail commercial banking services	(–)	(–)	(–)
Credit institutions providing wholesale and retail commercial banking services	■ <i>only available for EU-based companies concerning the prudential treatment of some of their exposures to third-country based entities</i>	(–)	(–)
Banking resolution decisions	■ <i>in the sense of a right to refuse recognition of third-country resolution proceedings</i>	<i>Recognition of resolution decisions</i>	(–)
Provision of investment services for professionals and eligible counterparties	■	■	■
Provision of investment services for retail markets and investors	(–)	(–)	(–)
Establishment of institutions providing investment services	(–)	(–)	(–)
Asset Management			
UCITS funds	(–)	(–)	(–)
Marketing of EU-AIF by non-EU AIFM	□ <i>Activation of market access regime depends on a positive advice of ESMA</i>	■ <i>decided by MS of reference</i>	(–)
Marketing of third country AIF by non EU-AIFM/EU-AIFM	□ <i>Activation of market access regime depends on a positive advice of ESMA</i>	■ <i>decided by MS of reference</i>	(–)
Managing EU-AIF by non-EU AIFM	□ <i>Activation of market access regime depends on a positive advice of ESMA</i>	■ <i>decided by MS of reference</i>	(–)
Insurance			
Provision of insurance services	■	(–)	(–)

	<i>for the purpose of group supervision</i>		
Provision of re-insurance services	■	■	(–)
Market Infrastructure			
Investment firms	■ <i>limited to investment services to eligible counterparties and professionals</i>	■ <i>limited to investment services to eligible counterparties and professionals</i>	■
Trading venue (in respect of shares)	■	■ <i>recognised as regulated market for EU shares</i>	(–)
Trading venue (in respect of derivatives)	■	■ <i>recognised as regulated market for EU derivatives</i>	■
CCPs	■	■	■
Access to EU trading venues/CCPs	■	■	■
Provision of trade repository services	■	■	(–)
Provision of central securities depository services	■	■	■
Other financial services			
Prospectus	■ <i>decided by home MS</i>	■	(–)
Accounting standards for historical financial information in prospectus	■	(–)	(–)
Credit Ratings	■	(–)	(–)

3.3. UK's approach to third countries

The UK traditionally takes a liberal approach to third-country financial undertakings wishing to operate in the UK (Moulton 2017; Armour 2017: S56). This approach can be illustrated with the limited geographic scope of UK financial regulation; third-country undertakings will generally only become subject to UK regulation and supervision if they are established within the UK (Moulton 2017). Another example to illustrate the UK's approach to third-country firms is the 'overseas persons' exception (Financial Services and Markets Act 2000 (Regulated Activities) Order 2001, Article 72). An overseas person is defined as a person who carries on certain regulated activities but does not carry on these activities or offer to do so from a permanent place of business maintained in the UK. Under the overseas persons' exception, a third-country firm may provide cross-border services to UK-based clients without obtaining prior authorisation from the UK regulator. The UK stance on equivalence regimes may also serve to illustrate its liberal market approach. British policy-makers were critical of the Commission's intention to make access of third-country firms conditional on equivalence and reciprocity, as setting such (high) standards would run the risk of closing the EU financial markets and the London markets (Her Majesty's Treasury 2012: 28). The UK's approach to third-

country firms may be regarded as one of the main factors which have made it one of the world's leading financial centres.

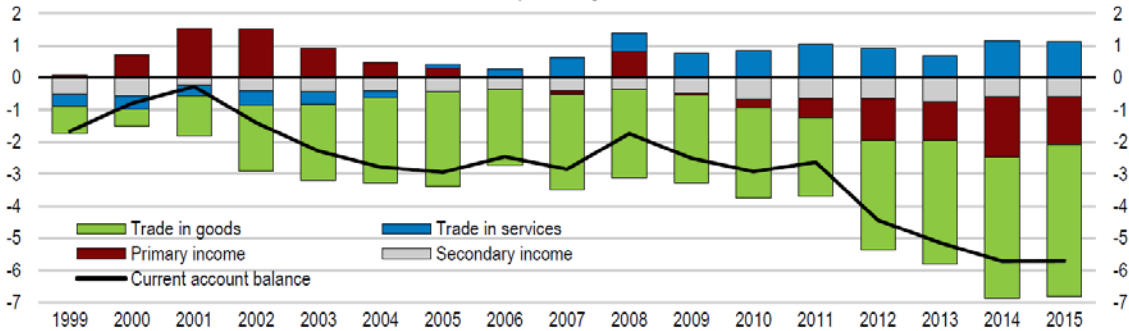
4. THE ECONOMIC IMPLICATIONS OF THE ‘BREXIT’ SCENARIOS ON FINANCIAL SERVICES

Based on the Brexit scenarios as described in chapter 2 and based on the legal framework for financial services applicable to the EU and to third countries, this chapter attempts an evaluation of the economic impact of Brexit on financial services. The chapter is structured as follows. Section 4.1 describes the state of play of the EU and UK financial markets as of today. Section 4.2 analyses the importance of the UK for the clearing of Euro denominated trades, whereas section 4.3 analyses the economic importance for the EU27 on having access to the UK financial market and infrastructure. Sections 4.4, 4.5, 4.6 and 4.7 describe the scenarios in the order as noted above. Section 4.8 analyses the opportunities and challenges stemming from the current (‘fluid’) situation. It should be mentioned that a scenario on tailor-made arrangements, as described on section 2.4 is not part of the following economic assessment of the implications of Brexit since such assessment can only be seriously done once policy choices in relation to financial services were made by both the EU27 and the UK.

4.1. The State of Play of the EU and UK financial markets

The United Kingdom has a high current account deficit of -5.2 per cent in the third quarter of the year 2016. **Source:** shows that in the period 1999-2016 the UK current account has never been positive. At the same time, **Source:** also reveals that from 2005 onwards there was a surplus in trade in services.

Figure 1: UK current account from 1999 to 2015, as a percentage of GDP



Source: OECD 2016: 15; primary sources: ONS 2016 and Eurostat 2016.

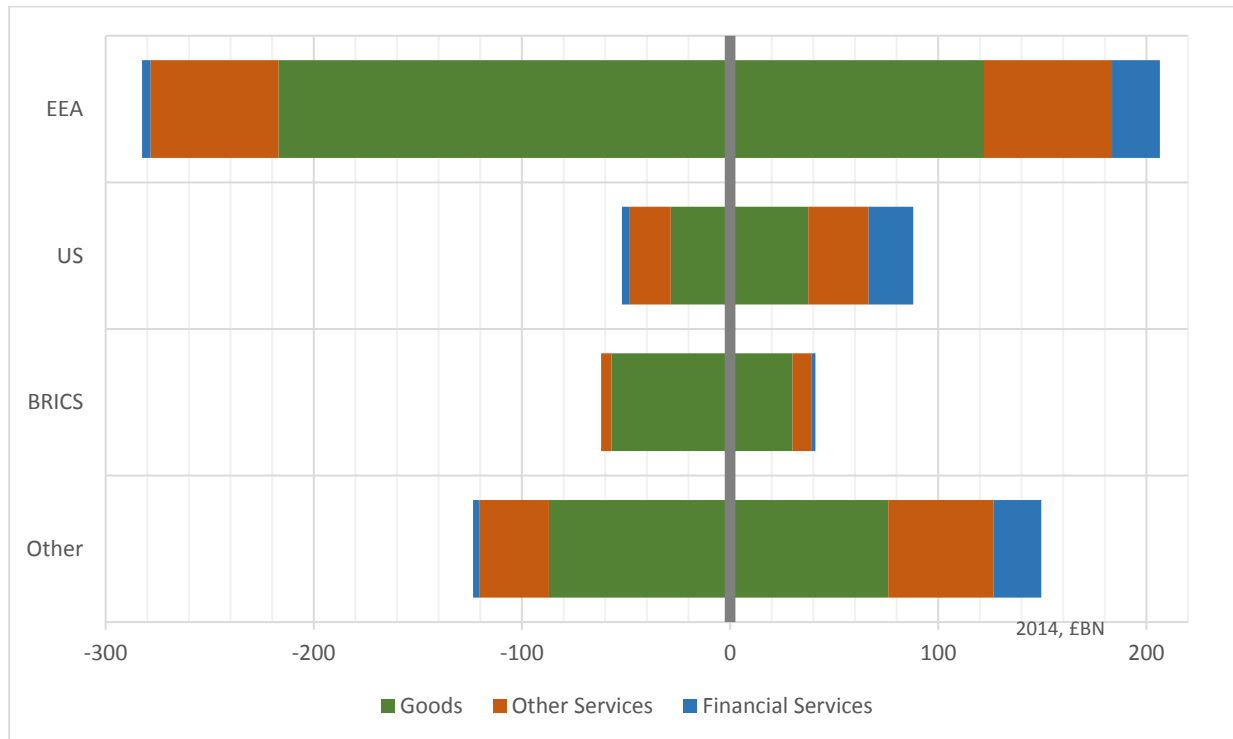
Table 8 and Figure 2, taken from a report prepared by the consulting company Oliver Wyman for TheCityUK (Wyman 2016), provide a more detailed picture for 2014. They reveal that in relation to EEA countries the UK’s surplus in trade in services can be almost exclusively attributed to financial services.

Table 8: The UK Trade Balance 2014 in billions of pounds

Sector	Trading Partner	Import	Export	Net	Total
Goods	EEA	217	122	-95	339
	US	29	38	9	66
	BRICS	57	30	-27	87
	Other	87	76	-11	163
Other Services	EEA	62	62	0	123
	US	20	29	9	49
	BRICS	5	9	4	14
	Other	34	51	17	84
Financial Services	EEA	4	23	19	27
	US	4	22	18	25
	BRICS	0	2	2	2
	Other	3	23	20	26

Source: Wyman 2016: 5.

Figure 2: The UK Trade Balance 2014



Source: Wyman 2016: 5.

This data shows that there is a demand for financial services within the EEA that is currently covered by the service providers established in the UK rather than within the EU27. It can be assumed that increasing the costs for EEA based financial services recipients will, against this background, negatively impact the economies within the remaining internal market of the EU27, provided that the demand cannot be met by financial services provided elsewhere within the EU27 under the same conditions (the case for a concentrated financial centre within the EU27 is laid out in section 4.8.2.). This negative impact cannot be compensated by satisfying the current EU27 demand elsewhere on the global level. The data indicates that

other third-country financial centres are currently not as competitive as the UK so that a shift of demand towards these centres entails additional costs that would negatively impact the economies of the EU27. Yet, it cannot be excluded that after a 'Brexit' materialises, satisfying the EU27's demands elsewhere on global level could at least be less costly than the assumed increase in costs in the UK.

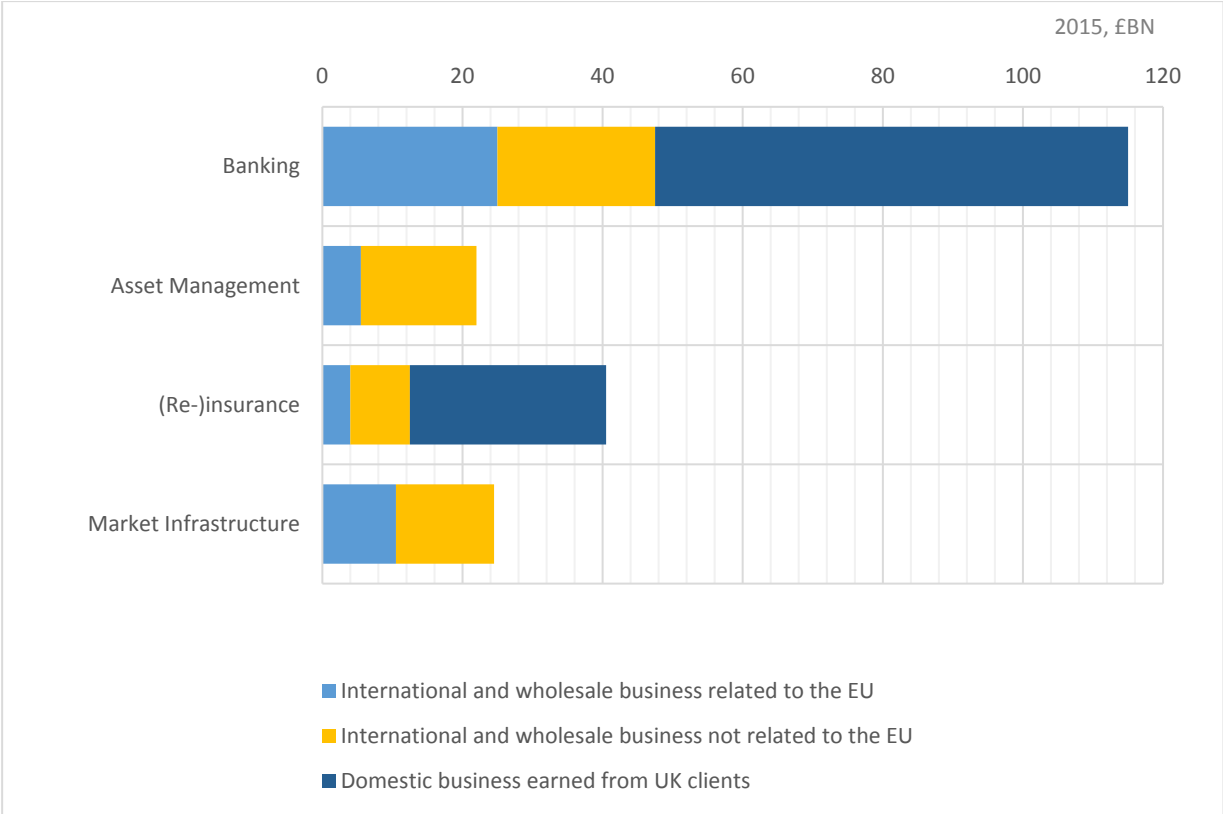
The dimension of this potential impact becomes clearer when breaking down the financial services revenue generated in the UK into the various financial services sectors. This is done by Wyman (2016) in table 9 and figure 3 for 2015.

Table 9: Sectoral breakdown of UK financial services revenue for 2015 in billions of pounds

Financial services sector	International and wholesale business related to the EU	International and wholesale business not related to the EU	Domestic business earned from UK clients	Total
Banking	23 - 27	20 - 25	65 - 70	108 - 117
Asset Management	5 - 6	15 - 18	0 - 0	20 - 23
(Re)insurance	3 - 5	7 - 10	27 - 29	39 - 42
Market Infrastructure	9 - 12	13 - 15	0 - 0	22 - 26
Total	40 - 50	55 - 65	90 - 95	190 - 205

Source: Wyman 2016: 6.

Figure 3: Sectoral breakdown of UK financial services revenue for 2015 in billions of pounds



Source: Wyman 2016: 6.

Table 10 shows the interconnections between the UK and the EU in relation to the financial services sectors. It provides the UK financial services revenue data from figure 3 and relates

this to the fraction of the revenue within the financial service sectors that stem from the EU and, moreover, to the respective UK market share in the EU.

Table 10: Interconnections between UK and EU financial services

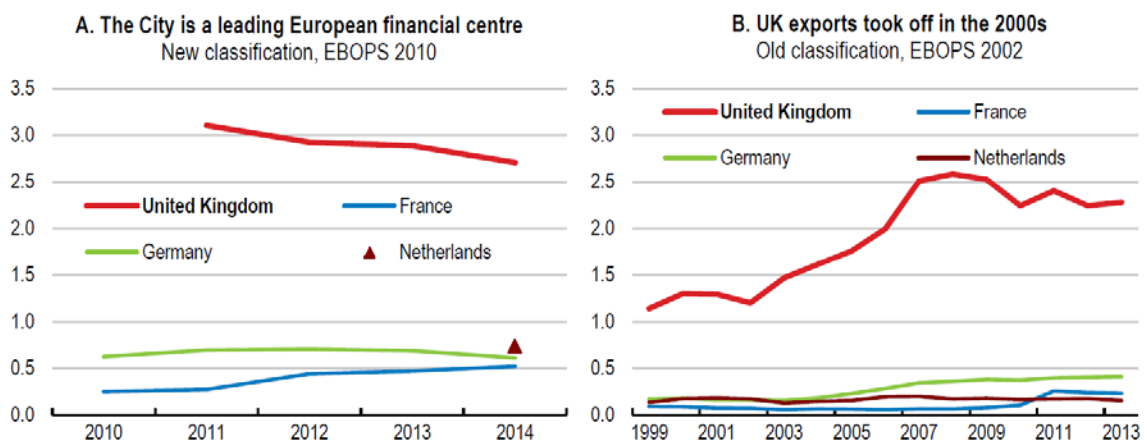
	Total	Banking	Asset management	Insurance & Reinsurance	Market Infrastructure
UK financial services revenues (in GBP)	190-205	108-117	20-23	39-42	22-26
Fraction of the UK financial services revenues related to the EU	23%	21%-23%	25%-26%	8%-12%	41%-46%
UK market share in the EU	24%	26%	41%	22%	–

Sources: Wyman 2016: 6 & EGOV 2016: 1.

This data shows, on the one hand, that the UK’s national economy is quite dependent on the EU financial service demand and, on the other hand, that the EU demand for financial services provided from firms currently established in the UK is relatively high and amounts to at least one quarter of the total demand for financial services from the EU27. According to numbers published by TheCityUK in August 2016, the UK accounts for 78% of foreign exchange turnover, 74% of OTC interest rate derivatives and 85% of hedge fund assets, 49% of private equity funds raised, 30% of equity market capitalisation and 26% of bank lending in the EU (TheCityUK 2016: 3). It is probable that, after Brexit, much of the OTC trading will migrate to the location of a central counterparty (see to the particularities in relation to the location policy concerning central counterparties section 4.3). Furthermore, in addition to trading, the London market is valuable for its knowledge and invention of new derivatives.

Figure 4 shows the relationship between financial services provided by the UK as compared to financial services provided by the three most important national economies in relation to financial services following the UK: Germany, France and the Netherlands.

Figure 4: Panel A: Exports of financial services of a country into the EU as a percentage of national GDP; panel B: Worldwide exports of financial services of a country as a percentage of national GDP



EBOPS = Extended Balance of Payment Services (classification)

Source: OECD 2016: 16.

It derives from figure 4 that the UK is the most important financial service exporter with a large gap to financial service providers in the EU27. Based on these data doubts can be raised as regards to the capacity of the EU27 to meet its own financial services demands that are currently covered by the UK. Such doubts are supported by the Global Financial Centres Index 21 that ranks financial centres in accordance to their ability to perform high-quality financial activities (based on instrumental factors such as Business Environment, Financial Sector Development, Infrastructure, Human Capital and Reputational Factors as well as on online surveys). According to this index London is the No. 1 global financial centre followed within the EU by Luxembourg at 18, Frankfurt at 23, Munich at 27, Paris at 29, Dublin at 33, and Amsterdam at 40 (Yeandle 2017). These numbers indicate that the attainment of the UK's role by one or more EU27 Member State(s) will call for significant capacity building requiring time and entailing costs. Opportunities linked to a capacity building within the EU27 in the aftermath of a 'Brexit' will be addressed in section 4.8.2.

4.2. The economic importance of the UK for the clearing of Euro denominated trades

The clearing of financial trades is an important tool in the financial market, as it permits net instead of gross exposures to carry on participants' books (Armour 2017: S56). Derivative contracts are cleared, in principle, globally and not only within the jurisdiction that issues the currency in which trades are denominated. Yet, as explained in section 3.2.9.3, in 2011 the ECB attempted to adopt a so-called 'location policy', according to which central counterparties (CCP) that clear Euro-denominated securities must be established within the Euro area. Although this location policy failed in front of the General Court of the EU because of a lack of competence for the ECB to adopt this policy, it is not excluded that, following a transfer of the necessary competence by the Union legislator on the ECB in accordance with Article 129(3) TFEU, the ECB might adopt this policy again after a Brexit materialises. The European Commission has recently suggested it could, by means of secondary legislation, introduce location requirements 'to ensure that CCPs that play a key systemic role for EU financial markets are subject to the safeguards provided by the EU legal framework' (European Commission 2017c and 2017f). On 13 June 2017 the Commission published a legislative proposal on, inter alia, requirements for the recognition of third-country CCPs.⁵⁴ Building on existing third-country provision in EMIR, the proposal introduces three categories of third-country CCPs: 'Tier 1 CCPs', which are considered not to be 'systemically important or not likely to be systemically important for the financial stability of the Union or for one or more of its Member States' (Article 25(2a) of the proposed EMIR amendment), 'Tier 2 CCPs', which are 'systemically important or likely to become systemically important' (Article 25(2b)) and CCPs 'of such substantial importance that compliance with the conditions set out [... for Tier 2 CCPs] does not sufficiently ensure the financial stability of the Union or of one or more of its Member States' (Article 25(2c)). The latter won't be recognised for the purpose of clearing EMIR trades so that such CCPs would require to relocate their clearing activities in relation to trade denominated in EU currencies into the EU (Art. 25(2c)(2) of the proposed EMIR amendment referring to Article 14 EMIR). According to the proposal, the European Commission adopts an implementing act establishing the non-recognition of such third-country CCPs, upon a recommendation of ESMA, which assess the systemic importance of CCPs.

It is hence relevant to examine the economic importance of the UK for the clearing of Euro denominated trades.

Currently, the following central counterparties (CCP) established in the UK are authorised to offer services and activities in the Union: LCH Ltd, CME Clearing Europe Ltd, LME Clear Ltd and ICE Clear Europe Ltd (European Commission 2017d: 88 et seq.). LCH and ICE are the

⁵⁴ COM(2017) 331 final.

most significant CCP's respectively in clearing interest rate swaps and credit default swaps and short-dated interest rate futures executed on the London International Financial Futures and Options Exchange (LIFFE). According to data published by Standard & Poors, the ICE CDS Clearing Notional Outstanding accounted for 467 bn \$ of euro-denominated trades and for 1.023 bn \$ for trades denominated in other currencies and the LCH SwapClear IRS notional outstanding accounted for 2.692 bn \$ of euro-denominated trades and for 9.291 bn \$ of trades in other currencies (Standard & Poors 2016). This highlights that UK-based CCPs are not dependent on internal market access for their entire clearing activities, as they are not only used for clearing Euro-denominated trades, but also trades in other currencies.

As a consequence of the importance (systemic relevance) of CCPs for the Euro as a currency, several proposals are discussed how euro area institutions could ensure sufficient oversight over the activities of third-country CCPs after a 'Brexit' materialises.

4.2.1. Dealing with the systemic importance of CCPs: Enhancing supervisory arrangements

One idea refers to the system as it is set up in the US. There, any clearing house can serve US clients, regardless of the location of the CCP, as long as it is registered at the Commodity Futures Trading Commission (CFTC) as a so-called Derivatives Clearing Organization (DCO). In order for a CCP to be eligible for registration as a DCO, it must demonstrate to be a well-managed organization (by, for example, showing it has sufficient financial resources, effective system safeguards and robust margin methodology), have a primary regulator with which the CFTC has a strong relationship, and lastly, it must allow the CFTC to access the data it needs for oversight without hindrance, and allow the CFTC to make onsite visits as needed (Bowen 2017). Using a system such as this in the euro area, euro-denominated clearing could remain in the UK, while the EU27 can keep its oversight.

4.2.2. Dealing with the systemic importance of CCPs: Location Policy

Another idea was to revive the relocation policy of the ECB, as it was suggested by the 'Eurosystem Oversight Policy Framework' in 2011 (see section 3.2.9.3). Such uncoupling of centralised clearing and requiring a relocation of parts of the clearing from the UK into the Euro area could lead to a situation, in which firms whose business model does not only require clearing of euro-denominated trades but also trades in other currencies would have to make use of different clearing houses. In such a scenario S&P expects an increase in margin collateral for market participants. The market fragmentation that comes along with such a separation of clearing operations would lead, according to the financial data company ClarusFT,⁵⁵ to 'a near doubling of initial margin requirements, from \$83 billion to \$160 billion at LCH' (Standard & Poors 2016).⁵⁶ The European Commission, in contrast to these numbers, estimates, on 'the basis of confidential and proprietary data available to the Commission' for OTC IRDs an increase in initial margin in the range of 8% to 12%, which would equal a range of 6.8 bn to 10 bn Euro (European Commission 2017h: 63 et seq.). ICE adds to the increase in initial margin costs that the separation of the clearing of euro-denominated trades from trades denominated in other currencies would deprive EU banks 'of access to liquid trading and clearing facilities, and may [prevent them] from accessing directly those non-EU facilities supported by global banks and infrastructure', which would lead to a considerable increase

⁵⁵ <https://www.clarusft.com/moving-euro-clearing-out-of-the-uk-the-77bn-problem/>.

⁵⁶ It should be noted that that study of ClarusFT is based on the assumption that concerned CCPs currently apply a 50% margin discount. It furthermore assumes 'that the entire portfolio of the CCP examined would be reduced to only one interest rate swap while in reality the actual portfolio of the CCP extends across multiples of clearing members and client accounts. Furthermore, the study analyses an interest rate swap portfolio reduction for a single long EUR/Short USD 12y swap, assuming that the market as a whole conducts a directional correlation trade between both currencies: this is not the practice where clients and dealers have genuine specific interests and ignores other cross-currency and cross-products offsets' (European Commission 2017h: 64).

in costs for banks and customers: 'This is because existing margin pool benefits from portfolio efficiencies that would be unavailable if the euro-denominated portion were disaggregated' (ICE 2016: 7). What is more, this would take place 'at a time when collateral requirements are already rising and high quality collateral is becoming more scarce' (Standard & Poors 2016).

Further costs attached to a relocation of CCPs could be transaction costs in form of either 'switch trades', by which EU counterparties would unwind transactions cleared outside the EU and reopen and clear them in EU-CCPs (here third-country counterparties could request additional costs for their acceptance of the switch), or costs attached to closing and novating the affected transactions (European Commission 2017h: 63).

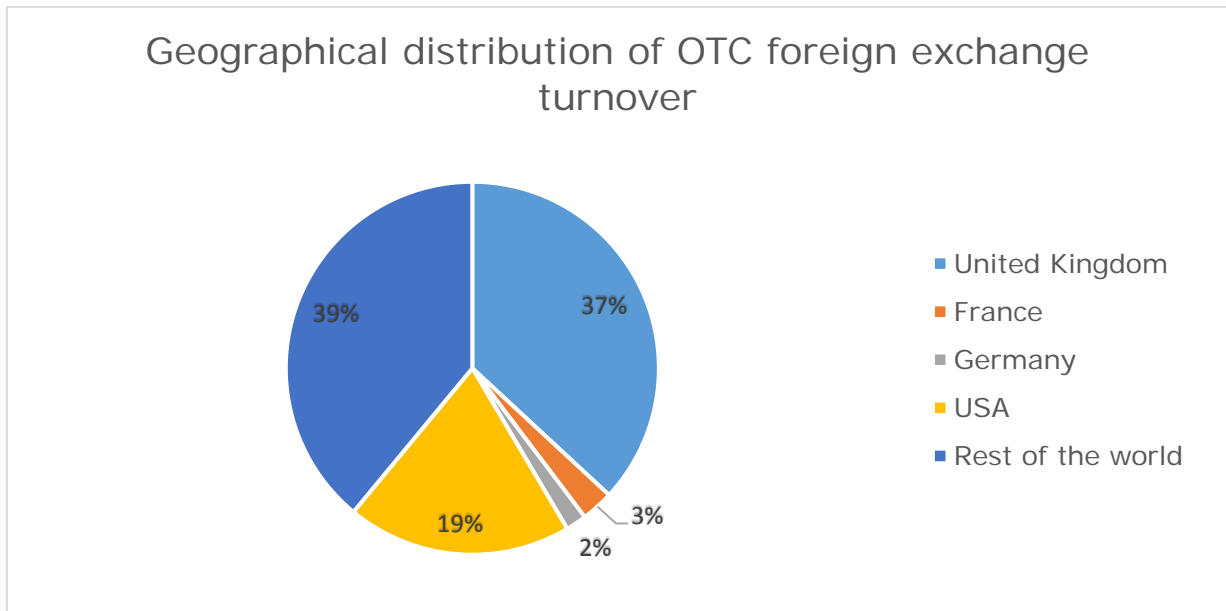
On the other hand, relocating clearing into the Euro area would make for easier oversight, in absence of a US-like system. Furthermore, the fact that clearing is currently centralised in the UK raises financial stability concerns due to increased concentration and systemic risk. The European Central Bank argues that CCPs might be single points of failure due to their growing systemic importance and the fact that CCPs increase interlinkages between the CCP, its members and their clients (European Central Bank 2016: 17). Decentralisation of the clearing industry into the EU27 can mitigate this risk by spreading it. In this way, there could be a trade-off between convenience for market participants (centralised clearing) and risk mitigation (decentralised clearing).

4.2.3. State of the art of the clearing market

Figure 5 illustrates the geographical distribution of the foreign exchange turnover of the most significant trade for clearing, which is OTC. Figure 6 presents the geographical distribution of Euro denominated OTC turnover. This data does not only highlight that the UK is currently *the* trading place for foreign exchange OTC in the world and for Euro denominated OTC, but also that the two most important trading places in the EU after the UK, which are France and Germany, are currently small. In fact, these are so small that the abovementioned 'margin pool benefits' that favour the UK as a location for clearing do not (yet) exist. The US, however, could against this background maybe benefit from 'Brexit'. The country was deemed equivalent by the European Commission last year (European Commission 2016) and thus clearing of Euro-denominated trades could move to New York, which is a big enough market for 'margin pool benefits' to exist.

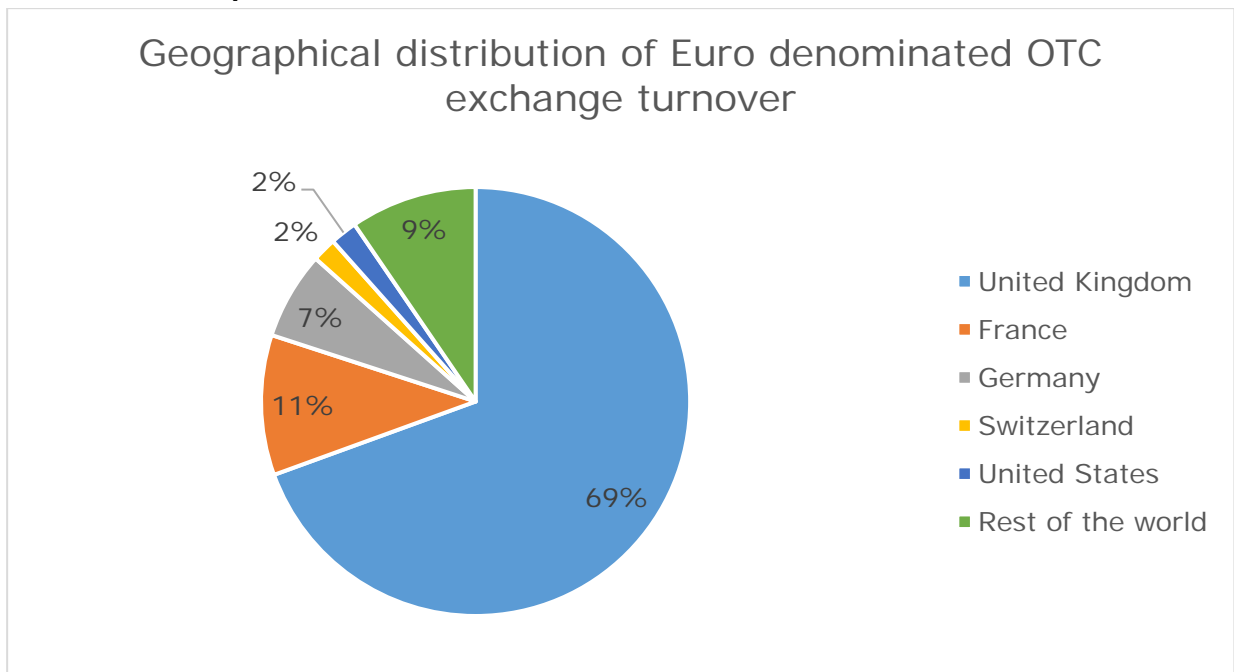
The crucial question for an estimation of the effects of a relocation of clearing of euro-denominated trades from the UK into the Euro area is therefore, whether the clearing of trades with other currencies would follow the Euro denominated trades when clearing of the latter is relocated. The current advantages for the clearing of non-Euro denominated trades in the UK seems to suggest that such a movement is not to be expected. One reason for this is the before mentioned 'margin pool benefit'. Another one is that OTC derivatives are in most instances issued under English law, meaning that investors rely on the English legal system to protect their interests in relation to OTC. Both arguments are supported by the ecosystem argument explained in the following section concerning the relocation of financial services (Scarpetta & Booth 2016: 53).

Figure 5: Geographical distribution of OTC foreign exchange turnover (April 2016)



Source: BIS (Foreign exchange turnover in April 2016, 2016).

Figure 6: Geographical distribution of Euro denominated OTC exchange turnover (April 2016)



Source: BIS (OTC interest rate derivatives turnover in April 2016, 2016).

If clearing of trades in other currencies than the Euro is not following the relocation of the clearing of euro-denominated trades, the aim of the Euro becoming an internationally competitive currency and a global reserve currency would be undermined. Foreign traders may consider trading in Euro less attractive, if clearing of Euro denominated trades will not take place in the same CCPs as other trades (Scarpetta & Booth 2016: 53; Standard & Poors 2016).

Yet, these threats to the EU27 may, in the end, not be as harmful as they appear at first sight. The main reason for this assertion is that LCH and ICE may also move within the company Euro denominated trades to subsidiaries established in the Euro area such as the LCH SA, established in Paris, and the ICE Clear Netherlands. By moving trades to subsidiaries located in the Euro area, these CCPs could comply with a potential relocation requirement and still make use of the ‘margin pool benefit’, which is generated within one CCP at company level (Schoenmaker 2016: 9; Standard & Poors 2016). Only CME has not yet a Euro area subsidiary, which it would have to set up.

In sum, the current economic importance of the UK for the clearing of Euro denominated trades is high. By being the No. 1 clearing location for both Euro denominated trades and trades denominated in other currencies, the UK based CCPs create significant ‘margin pool benefits’, which makes clearing in the UK attractive for Euro denominated trades. A relocation of these trades into the Euro area would therefore, at first sight, result in higher costs relating to the additional margin requirements. Yet, UK based CCPs can continue to offer these advantages to their clients trading with Euro denominated financial products by moving these trades to subsidiaries located in the Euro area, which are take part at company level in the ‘margin pool’ generated in the UK.

4.3. The economic importance of the EU27 on having access to the UK financial market and infrastructure: current developments

In the previous sections, it has been established that there is a significant demand for financial services as they are provided by firms established in the UK. This demand is currently not met by other EU Member States inter alia for reasons of a lack of capacity, the lack of a comparable ‘ecosystem’ as London including a large pool of highly skilled human capital, as well as the lack of economies of scales that can provide comparable financial services. A reduction of the significance of the UK financial services for the EU27 requires investments related to the relocation of those financial services that need passporting. Persisting fragmentation of the financial markets in the EU27 is one of the most problematic barriers in this regard (Sapir, Schoenmaker & Véron 2017: 4 et seq.). The case for a concentrated financial centre on European mainland is laid out in section 4.8.2).

The current reliance of the EU27 on access to the UK financial market and infrastructure is also highlighted when taking a closer look at passporting. According to the UK Financial Conduct Authority (FCA), 8.008 EEA-based firm make use of 23.532 passports to provide financial services in the UK. These passports are used by companies such as Deutsche Bank and Commerzbank (Ringe 2017: 13). Table 11 lists the number of passports used inbound and outbound.

Table 11: Number of passports and firms using passports inbound and outbound the UK

	Total	Inbound (into the UK from the EEA)	Outbound (UK firms into the EEA)
Number of passports in total	359,953	23,532	336,421
Number of firms using passporting	13,484	8,008	5,476

Source: FCA 2016.

Furthermore, out of 2,229 companies and a total market cap of 4 trillion GBP 112 companies from other EU Member States are listed on the London Stock Exchange with a market cap of 378 bn GBP (Scarpetta & Booth 2016: 14). Both the number of companies of EU27 origin listed on the London Stock Exchange and the number of firms using passports in the UK

strongly suggest that access to the UK financial market is also of interest for EU27 based firms.

In January 2017, HSBC and UBS outlined plans to shift about 1.000 jobs each from the UK to the EU27. The same was already announced by Citigroup, Deutsche Bank and JPMorgan Case.

Lloyd's of London has already confirmed it will set up a subsidiary in Brussels as its new European Base. The subsidiary is expected to be up and running in January 2019. Chief executive Inga Beale stated it to be important to provide a solution to the market and customers for uninterrupted business during and post Brexit. The Brussels office is expected to employ less than 100 people, so a significant movement of staff is not needed (Ralph 2017).

Goldman Sachs' Europe CEO Richard Gnodde said the firm will begin executing on their contingency plans. Part of that is the relocation of "hundreds of jobs" from Britain to the EU. They will initially do so by hiring people inside Europe, as well as moving some people out of London. Furthermore, they will invest in infrastructure and technology over the next 18 months to ensure clients can be served by the time Brexit materialises. Where in the EU the firm is planning to move was not disclosed. Goldman Sachs has banking licenses in Germany and France and offices in multiple European cities (Davies 2017).

Deutsche Bank is also considering to move thousands of jobs from London to Frankfurt, according to Chief Regulatory Officer Sylvie Matherat. She added that relocating front office employees to continental Europe in order to deal with EU clients would amount to 2000 people. And if risk management is required to be done locally, another 2000 people would have to move. The company would also have to invest in information technology in Frankfurt. Matherat stated that "everybody needs clarity – and the sooner the better" (Schuetze 2017).

JPMorgan's head of investment banking Daniel Pinto has recently stated the bank will move hundreds of people from London to Europe in the short term, "to be ready from day one". Furthermore, chairman of Standard Chartered José Viñals said the firm is in talks with regulators in Frankfurt about setting up a new subsidiary in Germany, where it already has a branch. Standard Chartered is not planning on moving staff from London, instead it intends to hire staff locally in Frankfurt (Treanor 2017a).

A different opinion is held by Barclays chief executive Jes Staley, who considers Brexit to be "a wholly manageable challenge" which is "significantly less costly" than other problems the bank has faced. Staley noted: "Finally, we do not currently see a need in our options to shift British jobs or significant operations elsewhere. If we require a build-up of capability in another European Union jurisdiction as part of our plans then we can do so, and we will" (Treanor 2017b).

The exact shape of the future legal relationship between the UK and the EU is still a moving target. The 'hard Brexit' scenario, which is described in the next section, is quite possible to materialise. As stated above, some financial firms are planning ahead and are ready to move jobs and activities regardless of the outcome of the negotiations. Others apply a wait-and-see approach. In any case, financial firms are given the deadline of 14 July by the Bank of England to draft their Brexit contingency plans (Allen 2017). To counter a possible exodus of financial services, the UK could set up an 'Offshore Financial Centre', which will be addressed in section 4.6.⁵⁷ The options for an orderly relocation as a reaction to the establishment of such an 'Offshore Financial Centre' will be addressed in section 4.8.2.

⁵⁷ The International Monetary Fund defines an Offshore Financial Centre as "a country or jurisdiction that provides financial services to non-residents on a scale that is incommensurate with the size and the financing of its domestic economy" (Zoromé 2007: 7).

4.4. Scenario 1: 'hard Brexit'

This section focusses on the economic impact of a 'hard Brexit' on the EU27 economy of financial services. The term 'hard Brexit' is understood in the following, as described in section 2.2, as a withdrawal of the UK from the EU without any transitional agreement. In this scenario, the UK becomes a third country without any further specifications of its (future) legal relationship with the EU27. This absence of any legal arrangements entails, in this scenario, the lack of any equivalence decision adopted by the European Commission, which could lead to limited third-country passports. As a preliminary note, the authors refer to a quote by the IMF in their World Economy Outlook on Brexit: 'But with the event still unfolding, it is very difficult to quantify its potential repercussions' (IMF 2016: 2). With this observation in mind, the present study draws on existing studies and economic data published today. The short period available for the completion of this advanced extract did not allow for own calculations.

Exactly quantifying the economic impact of a 'hard Brexit' at this point of time remains a difficult undertaking, if not an impossible one. The main reason for this assertion is that the gravity of the impact is linked to the scale of relocation of financial services from the United Kingdom into the EU27. As will be shown hereafter, the argument predicting a significant negative impact on the EU27 builds on the assumption that the City of London 'ecosystem', being the most important global financial centre, is very unlikely to be replicated within the EU27, due to cultural differences. Thus, significant additional costs linked to the demand for financial services by companies established in the EU27, currently covered by the UK, are predicted. The presence of a high demand for these services becomes clear when examining the surplus of the UK in trade in financial services with the EU27, as is done in section 4.1. While it is hardly possible to operationalise this argument in economic terms by making a robust prediction of its actual impact on the EU economy of financial services, the argument and its underlying economic data is well worth examining in order to estimate the potential risks for the EU27.

Looking at the broader picture, the parameters for the assessment of the impact of a 'hard Brexit' without unilateral equivalence decisions adopted by the Commission on the financial services in the EU become clear. As a significant share of the EU27's demand for financial services is currently covered by the UK, the increase in costs for these financial services that would result from a withdrawal of the UK from the EU will have a negative impact on the EU27. This is the case unless this demand can be met from within the EU27, where the barriers to financial services remain the same as compared to the ones the UK financial services have to overcome today. The crucial question is therefore whether there will be a relocation of financial services from the UK into the EU27 equal to the volume that is currently exported from the UK into the EU27. Relocating is, of course, decided upon by the UK financial service providers by equating the costs of losing a share of their customers or profits by staying in the UK to the cost of (partially) relocating their activities.

The possibility of such a 'zero sum game' is, rebutted by the economic studies that have been published on this issue unto now (most prominently Wyman 2016: 3). It is argued that 'organisations will not shift activities and employment on a one-for-one basis out of the UK to the EU. For some institutions, the cost of relocation and the on-going inefficiencies associated with a more fragmented environment could cause them to close or scale back part of their business. Others, particularly those with parents located outside of the EU, could move businesses back to their home country, reducing their overall footprint in Europe' (Wyman 2016: 3). This reasoning relates to the 'ecosystem' argument (Ringe 2017: 13), which forms the core of the assertion that a 'hard Brexit' would not only concern the UK but also affect the EU27 significantly.

This assertion is built on the belief that there won't be a significant relocation of financial services from the UK into the EU27. This assumption refers to the particular concentration of a broad spectrum of financial services in one place, which attracts a lot of highly-skilled people that work in one single place. The UK financial services sector employs anywhere between 1.1m and 1.9m people (Scarpetta & Booth 2016: 15). Furthermore, the language, the legal system (many financial instruments are subject to English law), as well as the experienced regulatory environment are all part of the ecosystem. Economies of scale, scope, information sharing and ancillary services that are all located in London contribute to this ecosystem (House of Lords 2016: 16).

Finally, the provision of financial services is not equally dependent on passporting, which requires a relocation in the event of a 'hard Brexit'. This observation was made by Schoenmaker (2016: 5) when looking at the vehicles, by which UK based financial service providers pursue their business activities within the EU27 and by EU27 based financial service providers pursue their activities in the UK: Either by establishing a branch or by establishing a subsidiary. In the latter case, a passport is not necessary since the subsidiary needs already today as a separate legal entity an own licence, whilst in the former case the foreign based service provider would need a passport. It appears then that those financial service providers that pursue their business activities mainly via branches would be more affected by a Brexit than those that act already today via subsidiaries. Looking at the numbers collected by Schoenmaker (here reproduced in table 12) reveals that banking will be more affected by the loss of passporting rights than insurers.

Table 12: Cross-border business by type of entry into the respective markets in the year 2014

	Type of entry	Banking	Insurance
EU-wide	Branch	36%	13%
	Subsidiary	64%	87%
UK	Branch	69%	9%
	Subsidiary	31%	91%

Source: Schoenmaker 2016: 5.

This observation leads to the supplementary presumption that currently UK based firms offering banking as well as insurance services would have to relocate those activities that are dependent on having a passport, whilst those activities that operate already today without making use of passports won't be affected by any relocation decisions. This partial relocation of financial services does not only create additional costs for firms that previously offered services from one central location, but could also result into a fragmentation of a complex network of financial services. Such fragmentation would bear in itself higher costs (Ringe 2017: 13).

The assumption that the London ecosystem is difficult to be replicated and any attempt to do so would entail high costs leads to several conclusions made by those advocating this assumption. Firstly, from the perspective of EU27 based financial service recipients, there would be, in relation to services that need passporting, higher costs for the relocation of financial services into the EU27. Moreover, in relation to services that do not need passporting, this would lead to higher costs for financial services provided in the UK as a result of a loss of economies of scales. Both would lead together to negative repercussions on the EU economy of financial services.

From the perspective of third-country firms that utilize the UK as a hub to offer financial services in the entire EU, the question may arise, whether both the additional costs linked to the continuation of activities in the UK or, in the alternative, those linked to a relocation of activities into the EU27 would not render any kind of business activity in the EU too unprofitable. A consequence may be the discontinuation of the entire activity and the offering of services from the third-country mother company using passporting rights based on equivalence decisions that the European Commission has already adopted (Scarpetta & Booth 2016: 15; Ringe 2017: 15). This concerns the countries mentioned in table 13, which gives an overview over the current state of equivalence decisions issued by the European Commission that were mentioned in Chapter 3. The second scenario (cf. section 4.5) elaborates more on the impact of equivalence on a 'hard Brexit'.

Table 13: State of play concerning third-country equivalence decisions (collection of tables 1 to 6)

Sector	Measure	G20	Non-G20
Banking	CRR, CRD IV	Australia, Brazil, Canada, China, India, Japan, Mexico, Saudi Arabia, South Africa, South Korea, Turkey, USA	Faroe Islands, Greenland, Guernsey, Hong Kong, Isle of Man, Jersey, Monaco, New Zealand, Singapore and Switzerland
Insurance	Solvency II	Australia, Brazil, Canada, Japan, Mexico, USA	Bermuda, Switzerland
Credit Ratings	CRA Regulation	Argentina, Australia, Brazil, Canada, Japan, Mexico, USA	Hong Kong, Singapore
Derivatives	EMIR	Australia, Brazil, Canada, India, Japan, Mexico, South Africa, South Korea, USA	Dubai, Hong Kong, New Zealand, Singapore and Switzerland, UAE

Summing up, the argument relating to the negative impact of a 'hard Brexit' on the EU economy, as it was constructed by those advocating it, goes as follows: Currently, the UK has a trade surplus in financial services vis-à-vis the EU27, which proves the existence of a significant demand in financial services currently satisfied by the UK. 'Hard Brexit' increases costs of these financial services, which cannot easily be relocated into the EU27 because of the Ecosystem argument.⁵⁸ What follows from this is that in order to be able to quantify the negative impact of a 'hard Brexit' on the EU economy in relation to financial services, a quantification of the ecosystem argument is called for. Yet, as has already been stated in a hearing of the UK House of Lords Financial Affairs Sub-Committee, this is a difficult task:

*'The more difficult piece as regards quantification is what are sometimes described as the ecosystem effects, or the network effects of having a concentration of financial services in the UK. That has defied quantitative analysis for a very long time. The industry can explain how it works, but we find it difficult to translate that into what the impact scenarios would look like. That is more difficult, and I do not think it is a nut we can crack analytically for these purposes and in this timescale.'*⁵⁹

Nevertheless, in a recent contribution Sapir, Schoenmaker & Véron (2017) attempt to quantify the potential migration of banking wholesale market from the UK to the EU27. They

⁵⁸ The EU27 can attempt to do so, however, cf. section 4.8.2.

⁵⁹ K Braddick, House of Lords, Select Committee on the European Union, Financial Affairs Sub-Committee, Corrected oral evidence: Brexit and Financial Services in the UK, 19 October 2016, Question 58.

estimate 'based on discussions with market participants throughout Europe' that 35 per cent of the London based wholesale banking is related to the EU27, corresponding to 17 per cent of all UK banking assets (1.8 trillion Euro), which may be moved from the UK to the EU27 (Sapir, Schoenmaker & Véron 2017: 3). This relocation would result in a decline of the UK's share in the total European wholesale market from 90 to 60 per cent. In moving wholesale assets from the UK to the EU27, costs for capital making use of the relocated banking wholesale services would increase within a range of 5 to 10 basis points, corresponding to 0.05 to 0.1 per cent of EU27 GDP, because of market fragmentation in the EU27 (Sapir, Schoenmaker & Véron 2017: 4). The Capital Markets Union initiative can (partially) mitigate these increased costs of capital by decreasing market fragmentation (see also sections 4.7.1 and 4.8.1.3.).

Despite the persuasiveness of the 'Ecosystem' argument, on the basis of the economic data publicly available, it has still to be concluded that there will be negative repercussions on the economy of the EU27 concerning financial services, at least in the short run. There is no viable scenario, in which a 'hard Brexit' would be cost-neutral for the EU27 current account deficit in trade in financial services. It can thus be argued that 'hard Brexit' does not amount to a 'zero sum game'. The quantification of the costs involves a comparison of costs linked to the closed internal market access for UK financial services as compared to the costs for the relocation (or in other terms: the increase in) financial services within the EU27, as compared to the costs of financial services provided by firms established in those third countries, for which the European Commission already adopted equivalence decisions.

At the same time, it can be observed that the negative repercussions will be higher on the UK economy than on the EU economy since the only trade surplus of the UK is currently generated in relation to financial services and since the share of financial services in the total GDP of the UK is quite high compared to other countries.

4.5. Scenario 2: 'Equivalence' scenario

A variation of the basic 'hard Brexit' scenario is one with equivalence decisions adopted by the European Commission in relation to UK regulatory and supervisory framework on the basis of the currently existing third-country regimes in EU secondary law, i.e. the UK would be considered at the moment of withdrawal from the EU as compliant with the relevant EU financial service law. In this scenario, financial firms lose their passporting rights (see table 14), yet the European Commission formally grants third-country equivalence to the UK as a whole. Firms and financial services activities, for which an equivalence mechanism entailing market access is available within the respective EU secondary legal acts, can then remain active within the single market of the EU27 provided the Commission does not withdraw any equivalence decision.

This has benefits for both the UK and the EU27. EU authorities can rely on the fact that UK entities are compliant with equivalent rules. Moreover, overlap in compliance requirements between the UK and the EU is reduced or even eliminated. Also, certain products or services of UK companies are acceptable for regulatory purposes in the EU. Furthermore, in relation to EU financial institutions' exposures to the UK and in the event supervisory standards in the UK would change significantly as compared to the state of affairs of today, a less burdensome prudential regime can be achieved by an equivalence determination than would otherwise be the case for exposures to the UK in the absence of an equivalence decision (European Commission 2017a: 5).

The body responsible for assessing equivalence is the European Commission's *Directorate General for Financial Services* (DG FISMA), advised by three financial supervisors: EBA, ESMA and EIOPA (European Commission 2017c). Since it is up to the Commission's final verdict whether a country is granted equivalence, and the Commission can postpone this decision as

long as it pleases, this could become a factor in the negotiations concerning the withdrawal agreement under Article 50 TEU.

Equivalence is granted on specific aspects of individual legislations as they were described in detail in chapter 3. Solvency II, for example, requires three aspects to be evaluated before equivalence is granted for this legislation (see section 3.2.10).⁶⁰ Other EU legislation, however, either does not offer equivalence, or the equivalence available does not provide for passports in that it does not grant access to the Single Market. These legislations include MiFID II/MiFIR (investment services and activities, see section 3.2.5), CRD IV/CRR (wholesale and retail commercial banking, see section 3.2.4), UCITS (EU-domiciled funds marketed to retail clients, see section 3.2.7.2) and, also, Solvency II (insurance and re-insurance activities, see section 3.2.10). Table 14⁶¹ depicts key EU financial legislation and the availability of equivalence clauses and the extent to which an equivalence decision adopted by the Commission allows for an access to the single market.

Table 14: Overview of equivalence clauses in key EU financial legislation (shortened version of table 7)

Activity	Legal act	Equivalence	Market access
Banking			
Credit institutions providing wholesale and retail commercial banking	CRD IV/ CRR	■ <i>only available for EU-based companies concerning prudential treatment of some of their exposures to third-country based entities</i>	(-)
Provision of investment services for professionals and eligible counterparties	MiFID II/ MiFIR	■	■
Provision of investment services for retail markets and investors	MiFID II/ MiFIR	(-)	(-)
Asset Management			
UCITS funds	UCITSD	(-)	(-)
Marketing of EU-AIF by non-EU AIFM	AIFMD	□ <i>Activation of market access regime depends on a positive advice of ESMA</i>	■ <i>decided by MS of reference</i>
Marketing of third country AIF by non-EU AIFM/EU-AIFM	AIFMD	□ <i>Activation of market access regime depends on a positive advice of ESMA</i>	■ <i>decided by MS of reference</i>
Managing EU-AIF by non-EU AIFM	AIFMD	□ <i>Activation of market access regime depends</i>	■ <i>decided by MS of reference</i>

⁶⁰ The three aspects are: calculation of capital requirements, group supervision and reinsurance.

⁶¹ Explanation of the symbols used in this table: (-) = not available; ■ = available; □ = partially available (further explanations are added in italic).

		<i>on a positive advice of ESMA</i>	
Insurance			
Provision of insurance services	Solvency II	■ <i>for purpose of group supervision</i>	(–)
Provision of re-insurance services	Solvency II	■	■
Market Infrastructure			
Investment firms	MiFiD II/ MiFiR	■ <i>limited to investment services to eligible counterparties and professionals</i>	■ <i>limited to investment services to eligible counterparties and professionals</i>
Trading venues (in respect of shares)	MiFiR/ MiFiD II/ Prospectus	■	■ <i>recognised as regulated market for EU shares</i>
Trading venues (in respect of derivatives)	MiFiR	■	■ <i>recognised as regulated market for EU derivatives</i>
CCPs	EMIR	■	■
Provision of trade repository services	EMIR	■	■

Moreover, equivalence can be withdrawn (as opposed to passporting rights for EU based market operators), which might introduce minor uncertainty in the financial market. Withdrawal can happen if legislation between the EU and the third country diverge from each other. So if EU legislation changes over time, the UK will have to adapt in order to remain equivalent. The European Commission has, however, never withdrawn equivalence in the past.

The feasibility of this scenario seems high. As the UK and the EU currently have the exact same regulations, regulatory equivalence should be relatively easy to achieve (Scarpetta & Booth, 2016).

4.5.1. The impact

Under this scenario, several financial services will be able to obtain passporting rights based on a positive equivalence decision adopted by the European Commission. It follows that the London ecosystem will partially remain intact. Therefore, the preliminary notion can be made that the 'regulatory equivalence' scenario is less costly than the 'hard Brexit' scenario.

Since the European Commission does not work on fixed deadlines, a decision on equivalence can take years, introducing uncertainty in the financial market. Therefore Scarpetta & Booth (2016) argue 'pre-emptive' equivalence should be considered in the Article 50 talks. That is, a set of equivalence decisions that enter into force on day one of Brexit. This would minimise uncertainty. However, this would require an alteration to, or at least a liberal interpretation of, the equivalence process. The UK will not become a 'third country' until day one of Brexit, and therefore can strictly only apply for equivalence from this day onward.

Yet, the UK is likely to be regarded a ‘high-impact’ third country, since “an equivalence decision may be used intensively by market operators and any shortcomings in the analysis underpinning the decision may significantly jeopardise financial stability or market integrity in the EU will feature a higher number of risks which the Commission will need to address in its assessment of the equivalence criteria and in the exercise of its discretion” (European Commission 2017a: 11). The importance of risk assessment in relation to the UK after having become a third country will most likely require a lengthy determination period. At the same time, the fact that currently the regulatory and supervisory regime of the UK and the EU are similar to each other could speed up this procedure.

4.5.2. Banking

Investment banking activities will fall under EU regulations MiFiD II and MiFiR from 3 January 2018 onward. As shown in section 3.2.5, the equivalence regimes foreseen by MiFiD II/MiFiR includes largely rights to access the single market. Yet, as concerns retail clients and retail clients that have chosen to be treated as professional clients under MiFiD II, there is no European harmonised third-country equivalence regime in place but Member States’ authorities are free to grant access to third country based firms to their respective national markets. Hence, UK firms, once they are considered to be third-country firms after ‘Brexit’ materialises, will have to establish a branch in every EU member country in which they wish to provide services to retail clients and to retail clients that have chosen to be treated as professional clients under MiFiD II.

Wholesale banking activities are covered by CRD IV and, as shown in section 3.2.4, the regulation does not provide for a third-country equivalence regime. In a scenario based solely on equivalence decisions, the wholesale banking market of the UK will lose direct access to the EU27 market. This means, for instance, that EU27 firms seeking to borrow funds from UK banks will need to use currency swaps. This scenario works both ways, in that UK firms seeking to borrow funds from EU27 banks will also have to use currency swaps. The largest impact for the EU27, however, seems to be the loss of direct access to UK bank lending. As stated before, the UK accounts for 26% of bank lending in the EU, as of 2014 (TheCityUK 2016: 3). In the UK, the banking sector accounts for around 30% of the revenue generated in the UK financial services sector (Scarpetta & Booth 2016). The need for currency swaps makes borrowing less straightforward, increasing search costs for firms somewhat, even though central clearing counterparties offer currency swaps.

So for banking (investment and trading), the London ecosystem remains intact partially in a regulatory equivalence scenario. The main issues are to be identified in relation to financial services covered by MiFiD II and CRD IV. Whether UK based financial firms will relocate depends on the cost of doing so vis-à-vis the cost of losing a certain percentage of customers/profits. Under MiFiD II, banks will have to set up branches, instead of subsidiaries, but they will have to do so in every EU member state they wish to operate in that has this requirement. Under CRD IV, banks will have to set up a subsidiary in a EU27 member state. Then, this subsidiary, being an EU based legal person, will be able to enjoy passporting rights across the EU27 (Allen & Overy 2016: 4).

However, setting up a subsidiary is particularly costly, as it is a separate legal entity, it would be capitalised separately, would have to comply with EU regulation and would be taxed on profits locally. These costs can be somewhat reduced since most UK banks can convert one or some of their existing branches into a subsidiary. From the four big UK banks,⁶² all four have multiple branches in EU27 member states, and Barclays, RBS and HSBC already have subsidiary companies in one or more EU27 Member States, granting these banks passporting rights under this scenario already (Scarpetta & Booth 2016: 18). This means that these banks

⁶² RBS, Barclays, Lloyds and HSBC.

can technically still serve their existing EU clients, but the costs for the banks lie in the re-organization. They will have to move a lot of their activities (most probably including employees) to subsidiaries or branches (and then convert these branches to subsidiaries), in order to be able to serve the EU27 market from their new location. Additionally, for receivers of, for instance, wholesale banking services, costs of capital would increase with 5 to 10 basis points (0.05 to 0.1 per cent of EU27 GDP) following relocation, because of market fragmentation in the EU27 (see section 4.4) (Sapir, Schoenmaker & Véron 2017: 4).

From the EU27 perspective, the key point is whether the banks are willing to go through with this, or if they will simply drop the EU market. Early signs appear to be pointing in the direction of the former (see also section 4.3), as multiple banks (such as Goldman Sachs and Deutsche Bank) have announced plans to move part of their business out of the UK, following UK Prime Minister Theresa May's announcement that she will pursue a complete break with the EU (Petroff & Riley 2017). So for EU27 receivers of banking services, it appears they will continue to be able to receive these services, reducing the cost of this Brexit scenario to the EU27.

4.5.3. Asset management

Another financial service affected by this scenario is asset management. Funds falling under the AIFMD can potentially enjoy passporting rights. As described in section 3.2.7.1, the activation of the regime for granting these passporting rights is subject to the adoption of a delegated act by the Commission based on an assessment by ESMA on whether there are "no significant obstacles regarding investor protection, market disruption, competition and the monitoring of systemic risk, impeding the application of the passport" (Article 67(4)). However, since there is no clear timeline as to when the ESMA might decide on whether UK fund managers can enjoy passporting rights, UK fund managers wanting to serve the EU27 market will have to use one or more fall back options. These options include delegation of portfolio management from an undertaking in an EU27 member state to the UK, managing portfolios under MiFIR instead of AIFMD, relying on private placement regimes in various EU27 member states and relying on so-called 'passive marketing' (Scarpetta & Booth 2016: 45).⁶³

There is no potential for passporting rights for third country based market operators for funds falling under UCITS. It is necessary for both the UCITS fund as well as the management company to be based in a EU27 member state, to be able to enjoy passporting rights. It is, however, possible to delegate management of the fund to the UK (Article 13 of the UCITSD).

For UK-based fund managers, delegation seems the most convenient option, whether they manage AIFMD or UCITS funds, or both. That means setting up a company in a EU27 member state and delegate management to the UK. This practice is currently being used by US fund managers (Ellison 2016), and is also already common practice for UK fund managers (Scarpetta 2016). The downside of this are the additional (administrative) costs. Smaller asset managers might find this too expensive, and decide to move to the EU27 altogether, depending on their client base.

All in all, the lack of the availability of third-country passporting rights based on equivalence regimes is less of a burden for the UK asset management industry than it is for the UK banking industry, as asset managers have multiple alternatives, of which delegation is the most common.

In the EU27, 41% of the asset management market is currently handled by UK firms (Wyman 2016). Failing any agreement to the contrary, as of the effective date of withdrawal, the

⁶³ Passive marketing implies EU27-based clients can be served if they find the UK fund manager, without the fund manager actively marketing towards EU27-based clients.

passporting provisions in secondary law, as well as the underlying fundamental freedoms of the Union treaties, will cease to apply to the UK so that UK firms will lose direct access to passporting rights under this scenario as no third-country equivalence regime is available. However, since UK asset managers have the option of delegation, which they are likely to be doing already, this market share is expected to drop only somewhat. This means that EU27-based clients can probably continue to enjoy asset management services from UK fund managers, keeping the cost of this scenario to the asset management industry relatively low.

4.5.4. Insurance and re-insurance

As described in section 3.2.10, the insurance industry under Solvency II contains in parts an equivalence regime with passports for third-country firms. If the UK is deemed equivalent, UK re-insurance companies can freely serve clients in the EU27 using their passporting rights. Insurance companies based in the UK, however, will also in the 'equivalence' scenario lose access to their passporting rights. Continuous access to EU27 markets requires either the establishment of a branch, whose activities would then be limited to the national market in which it is located, or of a subsidiary, which then, being a legal person established in the EU27, would be able to enjoy passporting rights for EU-based companies and serve the entire EU27 (Scarpetta & Booth 2016: 47).

It is expected that the insurance and re-insurance industry is not disrupted much by this equivalence scenario. While UK-based insurance companies will lose passporting rights, 87% of these companies that provide services to the EU27 already do so through subsidiaries (Scarpetta & Booth 2016: 48). As stated above, Lloyd's of London has already confirmed plans to set up a subsidiary in Brussels, since it does use passporting rights extensively (Ralph 2017). Moreover, clients generally buy insurance in their domestic country. Only 3% of total gross written premiums in 2011 and 2012 were crossing intra-EU borders (Schoenmaker & Sass 2014: 12). So, the (re-)insurance sector is the least affected financial services sector in this scenario. Costs to the EU27 therefore are likely to be minimal in this industry.

4.5.5. Market infrastructure

As shown in figures 5 and 6, the UK has the major market share of trades in financial services. As explained in section 3.2.9.2, when the UK is deemed equivalent under the currently existing legal framework, the central counterparty (CCP) clearing houses based there can enjoy passporting rights in the EU27 markets and thus resume business as usual.

This is unlike a scenario, in which CCPs would have to (partially) relocate because of an imaginable adoption of the ECB's location policy requiring that CCPs clearing Euro-denominated securities have to be located within the Euro area or the adoption of the recent legislative proposal by the European Commission on requirements for the recognition of third-country CCPs⁶⁴, according to which CCPs of 'substantial systemical importance' have to be established within the EU (see sections 3.2.9.3 and 4.2). It should be noted that the ECB can re-introduce its location policy irrespective of whether the UK's legal regime is deemed equivalent in relation to the CCPs if the Union legislator transfers the necessary competence upon the ECB.

In the equivalence scenario (without relocation requirements), the 'margin pool benefits' described in section 4.2 remain intact. Therefore, the UK will continue to be attractive for the clearing of Euro denominated trades. The biggest advantage of this scenario over the 'relocation of CCPs' scenario for the EU27 is that the aim of the Euro becoming an internationally

⁶⁴ COM(2017) 331 final.

competitive and a global reserve currency is not undermined.⁶⁵ The market infrastructure sector is largely unaffected under this equivalence scenario in comparison with the (current) situation where the UK is still an EU member.

4.5.6. Overall

In the 'hard Brexit' scenario, it was noted that not all financial service providers will need to relocate as not all providers are equally dependent on passporting rights (which they would lose in that scenario). In this 'equivalence' scenario, fewer financial service providers will have to relocate as some will be able to enjoy passporting rights due to equivalence decisions adopted by the European Commission.

However, a substantial amount of financial service providers will need to relocate to continue to be able to serve EU27 clients even in the equivalence scenario, as they will lose passporting rights. This is true in particular for wholesale banking activities (CRD IV) and also for some investment banking activities (MiFID II) and some asset management activities (AIFMD and UCITS). In table 11 it is shown that 5.476 UK firms use 336.421 passports into the EEA, and 8.008 EEA firms use 23.532 passports into the UK. As noted before, there seems to be willingness among these financial service providers to relocate (Petroff & Riley 2017; Economist Intelligence Unit 2017: 5). However, as also noted before, third-country firms that use the UK as a hub to offer financial services in the entire EU may reconsider whether both the additional costs linked to the continuation of activities in the UK or, alternatively, those linked to a relocation of activities into the EU27 would not render any kind of business activity in the EU too unprofitable.

There is one main aspect, however, not solved by financial firms simply relocating to the EU27, and that is, again, the ecosystem aspect. While some financial service markets, such as reinsurance, can remain in London, the London ecosystem is still disrupted. Economies of scale and, especially, scope (due to partial relocation) are at risk, leading to negative repercussions on the EU economy of financial services. This means this scenario is not cost-neutral to the EU27, just like the 'hard Brexit' scenario. It is, however, less costly than the 'hard Brexit' scenario. The EU27 can mitigate these negative repercussions by attempting to create a financial ecosystem on European mainland. This would then benefit from the same economies of scale and scope as London does today. Opportunities linked to this possibility will be addressed in section 4.8.2.

4.6. Scenario 3: London as an 'Offshore Financial Centre'

A third scenario would be for the UK to allow London to become an 'Offshore Financial Centre' (OFC). That is a jurisdiction providing financial services to non-residents on a disproportionate scale with respect to the size of its domestic economy. This is only possible if the UK fully disentangles itself from the EU, i.e. this is a variation of the 'hard Brexit' scenario.

At first sight, it appears to be beneficial for London to become an OFC, as transaction costs become minimal and it remains highly profitable to keep financial services (such as clearing) in the offshore London market.

When identifying OFCs strictly on macroeconomic features, it can be argued that the UK as a whole already is an OFC. Zoromé (2007: 8) suggests that a macroeconomic indicator of OFC status could be the ratio of net financial services exports to GDP. For the UK in 2003 this is found to be 0.9% (Zoromé 2007: 20). According Zoromé (2007: 9 et seq.) two proxy

⁶⁵ Other factors that are important for the Euro to become an internationally competitive and global reserve currency besides convenient clearing are the size of the market and the stability of the currency.

indicators of OFC status are the ratio of CPIS Portfolio Assets⁶⁶ to GDP and the ratio of filtered IIP assets⁶⁷ to GDP. The higher of the two for the UK was the ratio of IIP assets to GDP, which amounted to 203.76% in 2003 (Zoromé 2007: 20). Based on these ratios Zoromé (2007: 19) finds that the UK as a whole already possesses the characteristics of an OFC.

In order for an OFC to be attractive for financial service providers and clients (and, in the case of the London City, to offset the costs of being in a third country), transaction costs should be minimal. OFCs usually have low fiscal and regulatory costs. This also increases risks to the UK as a country. Tax earnings for the government are likely to be lower, and decreased regulation increases the odds for a financial crisis. It is nonetheless interesting to see whether the UK has potential for lowering these costs.

Regarding fiscal costs, in the year to March 2016 the UK financial services sector contributed £71.4 billion in tax payments, which is 11.5% of the UK government's tax earnings. £42.6 billion was collected by the sector, and £28.8 billion borne. (PricewaterhouseCoopers 2016: 4et seq.). To increase competitiveness of UK financial service providers, tax rates charged to customers would have to decrease, in turn decreasing the tax collected by the sector. A report by PricewaterhouseCoopers (2016: 19) for the City of London finds the companies it surveyed collected 16.7%, of tax collected by the sector in 2016, at the source. It is difficult to extrapolate this percentage to the whole sector, however. Moreover, the UK government could decide to lower the corporation tax and property taxes such as business rates and bank levy in the hope that the sector passes this on in its fees and prices, increasing competitiveness further. This would lower the tax borne by the sector. In 2016, the corporation tax and bank levy borne by the sector amounted to £8.4 billion and £2.3 billion respectively (PricewaterhouseCoopers 2016: 17). The financial services sector contributed 23.3% of its turnover to tax payments in 2016, while the sector's Total Tax Rate⁶⁸ stood at 35.8% (PricewaterhouseCoopers, 2016: 30).

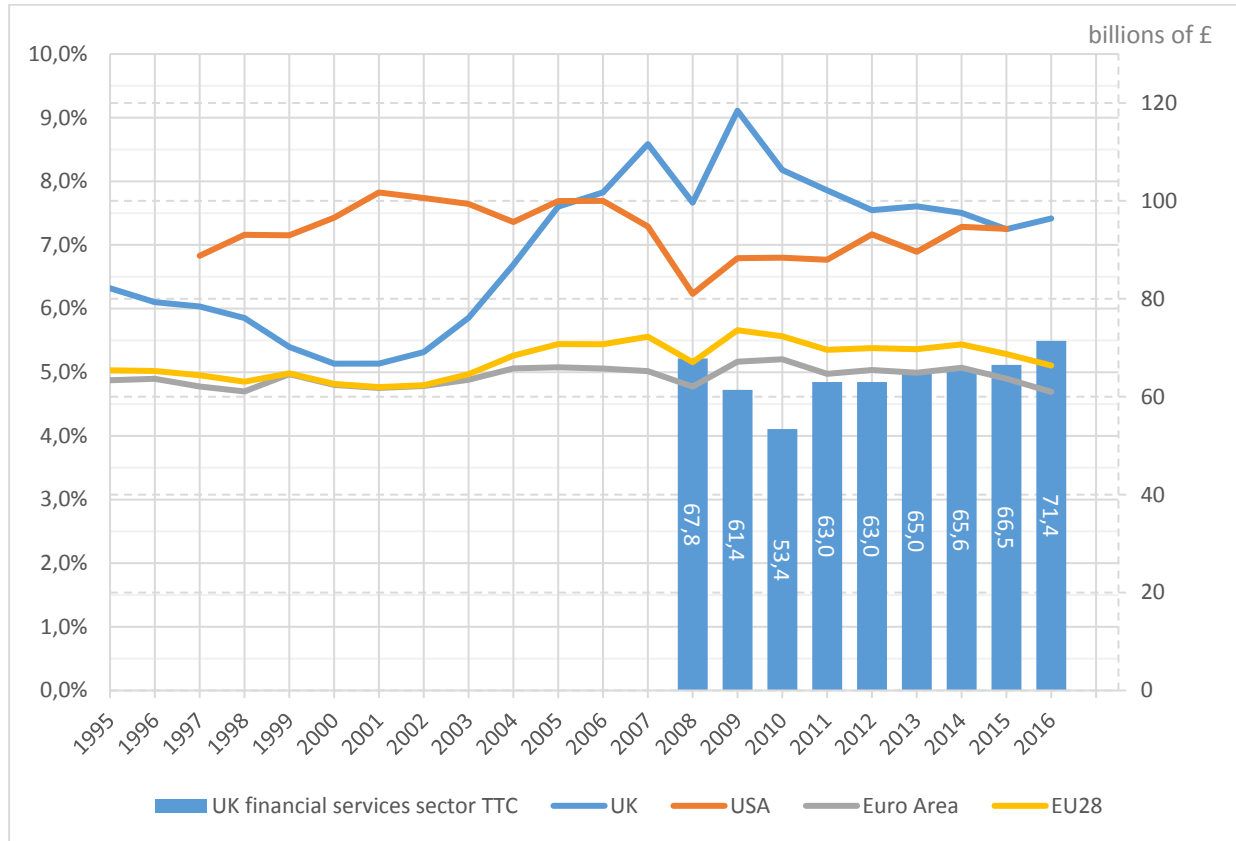
In 2016, the Gross Value Added to the UK economy by its financial services sector was 7.2% of value added (7.42% according to OECD 2017), which is relatively high as shown in figure 7 (Tyler 2017: 5). This amounts to £124.2 billion, of which 50.9% is accounted for in London (Tyler 2017: 5 et seq.).

⁶⁶ CPIS stands for Coordinated Portfolio Investment Survey and it "collects data on cross-border holdings of portfolio investment assets (broken down into equities, long-term debt securities, and short-term debt securities) by residence of the issuer" (Zoromé, 2007).

⁶⁷ IIP stands for International Investment Position. Zoromé (2007). defines filtered IIP assets as "total IIP assets less the components not pertaining to portfolio capital transactions."

⁶⁸ The Total Tax Rate is a measure of taxes borne compared to profits (Zoromé, 2007).

Figure 7: Gross Value Added by the financial services sector, as a percentage of total value added (left axis) (OECD Data 2017) and Total Tax Contribution by the UK financial services sector, in billions of pounds (right axis)



Source: PricewaterhouseCoopers 2016: 12.

One of the reasons the Total Tax Contribution of the financial services sector fluctuates, are legislative changes in the UK in recent years (PricewaterhouseCoopers 2016: 12). Figure 7 shows that the sector is capable of adding value to the economy, while Total Tax Contribution is low (possibly caused by looser legislation). This *could* indicate that lower taxes in the financial sector contribute to a higher Gross Value Added number.

Furthermore, assuming the financial sector grows when London becomes an OFC, the UK will see an increase in employee income tax collected since this will not need to be lowered for the sake of competitiveness of the sector. Employee income tax currently (in 2016) generates the largest amount of tax paid in the UK, which is £31 billion. With more than 1.1 million employees, that is an average tax per employee of £32,676 with an average wage of £64,389, indicating the high level of skill in the workforce (PricewaterhouseCoopers 2016: 24). This amount is not expected to change much if London becomes an OFC, and can even increase if the sector grows.

For regulatory costs that do not manifest themselves as taxes, the UK will have an easy solution. It can freely minimize these costs as much as it sees fit due to the fact that it can write its own legislation when it has been disentangled from the EU. Yet, this freedom is of course at least politically limited by standards agreed in international fora such as the G20.

It seems there is potential in the UK to lower transaction costs and convert London into an OFC. After (hard) Brexit, the UK has more power to write its own legislation, which it can use to minimize regulatory costs for the financial services sector. Moreover, while the financial

services sector contributes substantially to the total UK tax collected, it seems there is capacity to lower fiscal costs for the sector, certainly when an inverse relationship between GVA and TTC *does* actually exist.

As noted, however, this scenario is a risky one. It is likely that the Total Tax Contribution of the sector decreases, and it remains to be seen if the UK government has sufficient tax earnings if it does. Furthermore, since the financial crisis the trend has been to increase regulation of financial sectors, it seems unwise to slacken the reins. Due to the increased odds for a financial crisis this brings, this is of particular importance to the EU27. From the EU27 perspective, it does not change much in comparison to the findings in section 4.4 on the 'hard Brexit' scenario and in section 4.5 on the 'equivalence' scenario. Financial services that need passports in order to be provided to EU27 service recipients will have to relocate either into the EU27 or into jurisdictions, for which the European Commission has already adopted equivalence decisions. The necessity for having passports is not defined by the regulatory costs linked to an OFC. The most relevant danger for the EU27 linked to the OFC scenario would be the relocation of providers for financial services that are currently established in the EU27 into the UK in order to benefit from the OFC advantages. Seeing the current account deficit in trade in financial services between the EU27 and the UK, this risk appears, however, to have only little impact of the EU27 economy. Yet, having an OFC just next to its own borders is still a scenario that the EU27 should better avoid in political terms.

4.7. Scenario 4: Joining the EEA

Since the London ecosystem is highly valuable to both the UK and the EU27, the most convenient scenario for both parties would be one in which this remains intact and thus does not have to be replicated at all. This is possible if the UK remains a member of the European Economic Area (EEA), which grants the country access to the Single Market. This means all UK financial service providers can enjoy full passporting rights into the EU27, and vice versa. Strictly speaking, EEA membership is open to EU member states and members of the European Free Trade Association (EFTA). Since the UK will cease to be an EU member after Brexit, they would have to apply to become an EFTA member to be eligible for EEA membership again, as explained in section 2.3. The UK will then be in the same position as Norway and Iceland.

4.7.1. The framework

While Ringe (2017: 8) and Pisani-Ferry, Röttgen, Sapir, Tucker & Wolff (2016: 3) argue this scenario to be hard to sell to the UK public, as it would also mean accepting the four freedoms, it is actually more beneficial to the UK than the 'equivalence' scenario. This is due to the fact that EFTA members can influence and contribute to new EEA policy and legislation (EFTA 2009), a power the UK would not have under the 'equivalence' scenario, albeit less so than EU members can.

UK membership in the EEA also includes the free movement of capital between the UK and EU27. This is of importance to the Capital Market Union (CMU) initiative, which is a project intended to make cross-border investment more accessible and hereby increasing the funding options for companies (European Commission 2015). In capital market segments such as derivatives trading and clearing and the management of alternative investment funds, the UK currently accounts for over 70% of EU activity (Dombrovskis 2017a). In the EEA membership scenario, this can remain the case. Any other scenario, with the largest capital markets hub then leaving the single market, makes the need for the CMU all the more pressing. Herein would also lie an opportunity for the EU27 to appropriate a large share of the capital markets.

The UK has been the driving force of the CMU project, but after Brexit the country is set to lose (at least some of) its ability to influence the project, even as an EEA member. However, with the UK likely being the main beneficiary of CMU (PricewaterhouseCoopers 2009), the country will probably view the carrying on of the project as an advantage to the 'EEA membership' scenario.

Key EU financial legislation depicted in table 14 is established in directives and regulations applicable to the European Union. The EEA, on the other hand, has to abide by the EEA Agreement. Certain EU legislation has so-called "EEA relevance". This means that it will have to be incorporated in the EEA Agreement. All legislation from table 14 has EEA relevance. Table 15 shows the current status of incorporating them into the EEA Agreement.

Table 15: Current status of incorporation of key EU financial legislation into the EEA Agreement

Financial service	EU legislation	Domain	EEA legal status
Banking	MiFiD II/MiFiR (investment services and activities)	EU with EEA relevance	Adopted act under scrutiny by EEA EFTA
	CRD IV/CRR (wholesale and retail commercial banking)	EU with EEA relevance	Adopted act under scrutiny by EEA EFTA
Asset Management	AIFMD (Non-UCITS funds marketed to professional clients)	EU with EEA relevance	Incorporated into the EEA Agreement and in force
	UCITS (EU-domiciled funds marketed to retail clients)	EC with EEA relevance	Incorporated into the EEA Agreement and in force
Insurance	Solvency II (insurance and re-insurance activities)	EC with EEA relevance	Incorporated into the EEA Agreement and in force
Market infrastructure	EMIR (central clearing counterparties – CCPs)	EU with EEA relevance	Entry into force of Joint Committee Decision (JCD) pending

Source: EEA-Lex 2017.

As is clear from table 15, only the asset management and insurance sector legislations have currently been incorporated into the EEA Agreement, while the banking legislation has not. CRD IV, for example, has been compliant in the EU since 31 December 2013, but is as of today not incorporated into the EEA Agreement despite intentions to "permitting simultaneous application in the European Union and in the EEA EFTA States" (EFTA 2017).

4.7.2. The impact

Under this scenario, all financial services will be able to enjoy passporting rights into and out of the UK. It follows that the London ecosystem can remain intact almost completely. In this regard, the preliminary notion can be made that the 'EEA membership' scenario is less costly than the 'equivalence' scenario. The downside of this scenario from an EU27 perspective is

the absence of the opportunity to create a financial centre on European mainland (see section 4.8.2), as relocation is not required.

The impact of this scenario is actually fairly low, which is a good thing. Since the UK keeps access to the Single Market, financial markets are probably not disrupted much. And if so, it is likely this will only be in the short term (the FTSE100 recovered within a week after the referendum results came in, although the pound sterling still has not recovered). The EEA membership is an 'off-the-shelf' scenario, as it is already in place in, for example, Norway, therefore it minimizes uncertainty (Swidlicki 2016).

All financial service sectors (including but not limited to banking, asset management, (re)insurance and market infrastructure) will be able to enjoy passporting rights. There are no (partial) relocation costs or increased costs of capital, and economies of scale, scope, information sharing and ancillary services are not at risk. The London ecosystem is preserved.

However, there are multiple downsides to the UK. The UK will lose quite some political power in the EU, but will have to abide by its rules (in the form of the EEA Agreement), turning it into an almost pure rule-taker. On the other hand, the EU Court of Justice will not have jurisdiction over the interpretation of EEA law (Schroeter & Nemecek 2016). Also, the UK will have to accept the four freedoms, including the free movement of people. Yet the free movement of workers is more flexible under the EEA Agreement (Article 112), potentially allowing the UK to limit this freedom by imposing 'safeguard measures' (Schroeter & Nemecek 2016). These downsides are precisely some of the main motivations for the Brexit, yet some can be mitigated from a UK perspective although it is not entirely obvious by how much.

A downside to the EU27 is that EU and UK legislation might diverge temporarily, due to slow implementation of new legislation into the EEA Agreement (see table 15). This might induce unwanted behaviour from UK financial service providers. What is more, as just noted, the EU Court of Justice will not have jurisdiction over the interpretation of EEA law (Schroeter & Nemecek 2016).

4.8. Opportunities and challenges in the current 'fluid' situation

The previous sections have shown that, for the financial system and markets to be least disrupted, it appears to be preferable that the London ecosystem remains intact. In that sense, the EEA membership scenario is the most favourable. However, shifts are already occurring, caused by the looming Brexit. As outlined above, some of the bigger firms are already executing relocation plans, as they are unwilling to wait for the Article 50 negotiations to finish and wish to provide uninterrupted service to their clients. This means that, regardless of the outcome of the negotiations, the relocation aspect of the hard Brexit and equivalence scenarios will, at least partially, become reality.

4.8.1. Challenges

4.8.1.1. Uncertainty

The main adverse effect of the withdrawal of the UK from the EU on the financial markets is increased uncertainty. The key objective for both the UK and the EU27 is thus to minimize this uncertainty. Regardless of the scenario, uncertainty during negotiations will be difficult to minimize. Therefore swift Article 50 negotiations appear to be essential. Also clear communication towards the financial markets about intentions and vision before and during the negotiations will help actors on these markets judge the current situation more accurately.

Schoenmaker (2016: 13) argues that a transitional agreement should be put in place, regardless of the scenario. This would provide certainty to financial markets during the process of UK withdrawal from the EU. According to Schoenmaker (2016: 13), key elements to the

transition are so-called grandfather clauses and a sufficiently long grace period. Grandfather clauses ensure that licenses received under the old regime remain valid under the new one.

To provide even more certainty to financial markets, Schoenmaker (2016: 13) argues the partnership between the EU27 and the UK should be fixed in a Treaty to minimize the scope there is for changing parts of the relationship in the future. But this seems highly unlikely to happen in the short to medium term. Another advocate for certainty, if possible during the negotiations, is the International Monetary Fund. In their World Economic Outlook Update of July 19, they argue that “uncertainty is projected to take a toll on confidence and investment, including through its repercussion on financial conditions and market sentiment more generally” (IMF 2016: 1). UK Prime Minister Theresa May has, in her Article 50 letter, expressed the intention to minimize disruption and provide as much certainty as possible (May 2017: 2, 4).

The Bank of England has given financial firms the deadline of 14 July 2017 to draft their Brexit contingency plans. The main reason for this deadline is, according to bank governor Mark Carney, to ensure “all firms are making, and stand ready to execute in good time should the need arise, contingency plans for the full range of possible scenarios” (Allen 2017). Financial service providers themselves call for certainty as well. Deutsche Bank's Chief Regulatory Officer Sylvie Matherat recently stated that “everybody needs clarity - and the sooner the better.” (Schuetze 2017) Goldman Sachs Europe CEO Richard Gnodde has said that the uncertainty on whether the EU and the UK agree on transitional agreements has caused the firm to start executing its contingency plan, i.e. moving London jobs to European mainland (Davies 2017). A similar statement was made by the firm's CEO Lloyd Blankfein: “If there is no period of time to implement whatever changes are brought about in a negotiation, we may have to do things prematurely.” (Riley 2017) This is the flipside of the uncertainty in the negotiation period and (current) absence of a transitional agreement, and herein lies an opportunity for the EU27. If more firms decide they want to provide uninterrupted service to their clients regardless of the outcome of the negotiations, they might decide to relocate to European mainland pre-emptively, just like Goldman Sachs. This can help the EU27 in a possible attempt to create a financial centre of its own (see section 4.8.2).

4.8.1.2. Clearing Euro-denominated trades

The clearing of Euro-denominated trades is currently of great importance to the UK (see also section 4.2). In light of Brexit, the EU27 has two main options: the American model, meaning the EU regulator also supervises foreign clearing houses dealing with EU clients, and the relocation policy, where clearing houses handling Euro-denominated trades are forced to relocate to the EU27. In the American model, clearing of Euro-denominated trades can remain in the UK, hereby not undermining the aim of the Euro of becoming an internationally competitive and a global reserve currency. This would, however, also mean that clearing remains centralised in London. The ECB has its concerns about centralised clearing due to the concentration of risk that this entails (European Central Bank 2016: 17). In the case of a relocation policy, the EU27 could put in place certain requirements resulting in a decentralisation of clearing of Euro-denominated trades in the Euro area, decreasing the concentrated risk. Such a relocation policy would also make oversight more convenient. Should the EU27 decide to attempt to create a financial centre on European mainland (see section 4.8.2), a relocation policy would increase the economies of scope. It appears a relocation policy has more benefits than the American model, however, there is a clear trade-off between convenience for market participants (American model) and mitigation of concentration risk, easier oversight and possibly increased economies of scope (relocation policy).

4.8.1.3. Capital Markets Union

As noted by European Commission Vice President Valdis Dombrovskis during the Capital Markets Union mid-term review held in April, the efforts to build the Capital Markets Union across the EU27 need to be redoubled, in light of Brexit. The need for more advanced capital markets to complement bank lending is now more pressing than ever. Dombrovskis stated: “Stronger and deeper pan-European capital markets are not a luxury - they are a necessity. And they are, above all, a major opportunity.” (Dombrovskis 2017a) The Capital Markets Union is expected to decrease costs of capital, attracting businesses to the EU27. The initiative also provides a chance for the EU27 to appropriate a larger share of the capital markets, and will help in making the Euro a global reserve currency. A swift implementation is recommended. In this context, the Commission Communication on the Mid-Term Review of the CMU Action Plan (European Commission 2017g: 8) underlines ‘the urgent need to further strengthen and integrate the EU capital market framework, including on central counterparties (CCPs), investment firms and markets for initial public offerings (IPOs)’, and the ‘the need for further integration of supervision at EU level.’

4.8.1.4. The London ecosystem

Furthermore, the potential disruption of the London ecosystem constitutes an additional adverse effect of Brexit. In that sense, the friendly ‘EEA membership’ agreement would be in the best interest of both the UK and EU27 financial markets. Since both sides are dependent on each other, fragmenting the London ecosystem would increase finance costs in all of Europe (Ringe 2017: 13). UK Prime Minister Theresa May has declared in her Article 50 letter that the UK seeks economic cooperation with the EU27, and that both sides should aim to avoid a ‘hard Brexit’ scenario (May 2017: 3). For the UK, however, it might be difficult to sell a ‘friendly agreement’ to the public, as some of the main motivations for Brexit will not be honoured in this scenario.

4.8.2. Opportunities: Establishing a financial centre on European mainland

However, the challenge of a fragmented London ecosystem creates a great opportunity for the EU27: to establish a financial centre on European mainland. This opportunity is present in any scenario, except possibly the ‘EEA membership’ scenario. There will be costs involved in the short run in increasing capacity, infrastructure and technology and in the relocation of firms, but these costs are one-off and not insurmountable. The benefits lie in the long run, in economic growth, the attraction of a skilled workforce and increased tax earnings.

Such a financial centre is recommended to be physically centralised, just as London is today. This nourishes its growth, as firms will be able to easily find both employees and clients, and vice versa. Furthermore, economies of scale apply, to infrastructure for example. Economies of scope are even more significant, e.g. in knowledge spillover effects.

In order to attract financial firms to European mainland, it is recommended that the EU27 creates a competitive environment, as opposed to forcing businesses to relocate to mainland through regulation. When firms are obliged to relocate to mainland, without there being a competitive environment, it is expected that firms will only do the absolute minimum in order to comply with regulation and keep most of their activities in London (or wherever they are situated now).⁶⁹

The Global Financial Centres Index 21 (GFCI) by Z/Yen identifies five areas of competitiveness: the business environment, human capital, infrastructure, sector development and reputation (Yeandle 2017: 8). The following recommendations aid in creating a competitive en-

⁶⁹ Regarding banking licenses, the ECB has stated it will not accept ‘shell companies’ (Lautenschläger, 2017).

vironment in the EU27. In the business environment area, low transaction costs will be attractive to both businesses and clients in their day-to-day activities. Also, a competitive regulatory system is alluring for businesses. A regulatory system can be competitive by being light on regulation, however, Member of the Executive Board of the ECB and Vice-Chair of the Supervisory Board of the ECB Sabine Lautenschläger (2017) has stated the ECB “will resist any supervisory or regulatory race to the bottom.” The regulatory system can be competitive in other areas, such as in efficiency and flexibility of the labour market. Currently, UK banks applying for a banking licence in Europe have to wait six months for a decision (European Central Bank 2017). If possible, it is highly recommended this process is sped up. This regulatory system could pay particular attention to being (FinTech) startup-friendly, to promote setting up new businesses. Being competitive in regulation does not necessarily mean setting low capital and liquidity requirements. It is recommended that these requirements are kept at safe levels. In the human capital area, having a concentrated financial centre with a flexible labour market helps attracting a highly skilled workforce to one location. In the infrastructure area, improving built, ICT and transport infrastructure is best done in a concentrated financial centre, taking full advantage of economies of scale and scope. In development of the sector, the Capital Markets Union initiative is expected to increase availability of much-needed capital for such a financial centre, and keep the costs of capital down. Moreover, liquidity requirements can ensure that sufficient market liquidity is available. Lastly, in the reputation area, a startup-friendly regulatory environment, as mentioned before, helps increase the level of innovation in the financial centre. Also, Europe has numerous cities with a strong brand and appeal, and attracting a culturally diverse workforce will not be a problem with the EU’s free movement of persons.

London is currently number one on the most recent (March 2017) GFCI competitiveness list, even slightly above New York, although both their ratings dropped due to Brexit and the US election, respectively. The ranking is based on instrumental factors and financial centre assessments, i.e. a survey mainly targeted at financial centre professionals. London comes first in business environment, infrastructure and sector development and is only surpassed by New York in human capital and reputation. The survey respondents thought the business environment to be the most important factor of competitiveness at the moment. Brexit was noted to be a major source of uncertainty for all centres, and protectionism and trade barriers worry many. The second-most important factor of competitiveness was thought to be human capital. UK and USA respondents in particular feared restrictions in movement of talented staff. Following human capital is taxation, where respondents called for a harmonisation of tax laws internationally. Further down the list of importance of factors of competitiveness is infrastructure, where ICT and FinTech are significant topics at the moment. Last on the list is sector development, where protectionism is feared to threaten clustering of financial services (Yeandle 2017: 2, 4, 9, 36, 37).

From these responses, more recommendations can be distilled. To take away concerns of uncertainty, the recommendations from section 4.8.1.1 apply, in particular the EU27 could work directly with financial service providers and assist them in relocating pre-emptively, hereby taking away a large part of the uncertainty. The ECB is already doing so, having held a technical workshop recently (4 May) for banks considering relocation and having set up an advisory website for banks (European Central Bank 2017). Protectionism and trade barriers, as well as the fear for restricted movement of staff, are already largely mitigated by the EU’s four freedoms. To improve on taxation, the competitive regulatory system could pursue harmonisation of taxation across the EU27. Furthermore, the importance of an innovation-friendly environment is noted, for which the regulatory environment can be of great help.

5. POLICY RECOMMENDATIONS

Based on the analysis in chapter 4, the following policy recommendations aiming at mitigating the shown adverse effects of the process induced by a withdrawal of the UK from the EU can be made:

- Minimising uncertainty in the financial markets created by initiation of the withdrawal procedure: Swift and transparent negotiations for a withdrawal agreement relating to financial service matters (cf. section 4.8.1.1). Furthermore, the EU together with Member States' governments can engage in direct contact with financial services providers in order to assist them in relocating pre-emptively;
- Diversification of risks for the financial stability of the Euro area as a whole: As a matter of principle, a separation of supervision and liability as a consequence of 'Brexit' should be avoided. In relation to CCPs this means that those CCPs that clear significant trade volumes by EU27 based counterparties should be subject to an enhanced supervision by ESMA. In the absence of establishing a supervision on UK-based CCPs that is, after a 'Brexit' materialises, comparable to the current state, the adoption of a location policy concerning CCPs should be considered in a sense that trades denominated in EU currencies have to be cleared by CCPs being established within the EU27 (cf. sections 4.2 and 4.8.1.2);
- Strengthening the single market for financial services: In order to gain global competitiveness in relation to financial services, the EU27 should finalise and implement the Capital Markets Union (see section 4.8.1.3). This should allow for an increase in available capital for financial service providers and keep costs for capital down;
- Promoting the establishment of a financial centre within the EU27: This requires the creation of a competitive environment without lowering the EU27's regulatory and supervisory standards. Improving the competitive environment in addition to (or instead of) relocation obligations can attract significant parts of the financial industry to the EU27 (see section 4.8.2). The following measures could contribute to achieve this goal:
 - Improving the effectiveness of the supervisory mechanism in order to speed up the issuance of banking licences;
 - Regulatory framework should be further developed in being start up-friendly (in particular in relation to FinTech) and in promoting to set up new businesses;
 - Capital and liquidity requirements must remain at safe levels;
 - Harmonised taxation within the single market in order to create taxation certainty for financial service providers within the EU27;
 - It could be imaginable to make use of cohesion funds programmes in order to promote Information and Communication Technology (ICT) and transport infrastructure that attracts financial service providers by making use of economies of scale and scope.

6. CONCLUDING REMARKS

This study has focused on four scenarios on the impact of Brexit on financial services ranging from (1) a 'hard Brexit' scenario, (2) an 'equivalence' scenario, (3) an 'OFC' scenario to (4) an 'EEA membership' scenario, from an EU27 perspective. It has also described the state of play of the EU and UK financial markets as of today, analysed the importance of the UK for the clearing of Euro denominated trades, analysed the importance for the EU27 to have access to the UK financial market and infrastructure and analysed the opportunities and challenges stemming from the current ('fluid') situation. It should be mentioned that a scenario on tailor-made arrangements, as described on section 2.4 was not part of the economic assessment of the implications of Brexit since such assessment can only be seriously done once policy choices in relation to financial services were made by both the EU27 and the UK. It can, however, already be said that the impact will oscillate between the 'hard Brexit', as described in section 4.4, and 'no impact' representing the baseline scenario, the EU membership. The impact depends then on the extent to which a tailor-made solution deviates from the current EU legal framework.

It was found that the UK and EU27 financial markets are highly interconnected and that the UK is the most important financial service exporter currently in the EU. Moreover, the UK is the No. 1 clearing location for both Euro denominated trades and trades denominated in other currencies, giving it significant 'margin pool benefits'. It was also found that both the EU27 and the UK are highly reliant on passporting into and out of the UK, respectively.

In the 'hard Brexit' scenario, quite some financial service providers will have to relocate in order to serve the EU27 market, resulting in increased costs and possible fragmentation. This problem is slightly mitigated in the 'equivalence' scenario, as in that scenario certain financial service providers can make use of passporting rights because of a positive equivalence decision adopted by the European Commission in order to serve the EU27 (or UK) market. The least disruption to the financial system and markets occurs in the 'EEA membership' scenario. In this scenario, all financial service providers can continue to use passporting to serve both markets. This results in no increase in costs nor fragmentation. This would be the scenario that both sides should strive for. In any scenario other than the EEA membership scenario, the opportunity arises for the EU27 to create a financial centre within the EU27. This would entail relatively high relocation costs in the short run, but this may turn out to be (very) lucrative in the long run.

Regardless of the resulting scenario, however, the main challenge in the current situation is to uncertainty. The Article 50 procedure has just commenced, and the outcome is still very much unclear. Uncertainty can disrupt financial markets, and should therefore during the negotiations be as much minimized as possible. This minimization of uncertainty is also pursued by several financial service providers, which are already executing on their contingency plans.

REFERENCES

- Allen & Overy, Financial services regulation – what impact will Brexit have on regulated firms established in the UK, Europe & third country jurisdictions?, February 2016, http://www.allenoverly.com/SiteCollectionDocuments/AO_06_Brexit_Specialist_paper_Financial_services.pdf.
- Allen K, “Bank of England orders financial firms to draft Brexit contingency plans”, The Guardian, 7 April 2017, <https://www.theguardian.com/business/2017/apr/07/brexit-city-europe-carney-bank-of-england-uk-eu>.
- Amtenbrink F, Vedder H.H.B., Recht van de Europese Unie, 6th edition, Den Haag 2017.
- Armour J (2017), “Brexit and Financial Services”, 33 Oxford Review of Economic Policy (2017), S54-S69.
- Armour J (2016), “Brexit to the EEA: What Would It Mean?”, in: Eleftheriadis P and others (eds), Legal Aspects of Withdrawal from the EU: A Briefing Note, 14 July 2016, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2809285.
- Barnard C, “Law and Brexit”, 33 Oxford Review of Economic Policy (2017), S4-S11.
- Barrett G, “How Article 127 of the EEA Agreement Could Keep the UK in the Single Market” (EUROPP Blog, 4 January 2017), <http://blogs.lse.ac.uk/europpblog/2017/01/04/how-article-127-eea-agreement-could-keep-the-uk-in-the-single-market>.
- Basar S, “ECB questions non-euro CCP supervision”, MarketsMedia, 11 November 2016, <http://marketsmedia.com/ecb-questions-non-euro-ccp-supervision/>.
- BIS (2016), Triennial Central Bank Survey: Foreign exchange turnover in April 2016. Monetary and Economic Department. Basel: Bank for International Settlements. <http://www.bis.org/publ/rpfx16fx.pdf>.
- BIS (2016a), Triennial Central Bank Survey: OTC interest rate derivatives turnover in April 2016. Monetary and Economic Department. Basel: Bank for International Settlements. <http://www.bis.org/publ/rpfx16ir.pdf>.
- Bowen S Y, “What future for global regulation of financial markets?”, 5 April 2017, <http://www.cftc.gov/PressRoom/SpeechesTestimony/opabowen-15>.
- Busch D, Ferrarini, European Banking Union, Oxford 2015.
- CME Group, “Cleared OTC Interest Rate Swaps”, 7 April 2017, <http://www.cme-group.com/trading/interest-rates/cleared-otc.html>.
- Council of the European Union, “Markets in financial instruments: One-year delay enacted”, Press Release, 17 June 2016, http://www.consilium.europa.eu/press-releases-pdf/2016/6/47244642619_en.pdf.
- Craig P, De Búrca G, EU Law. Text, Cases and Materials, 6th edition, Oxford 2015.
- Davies A, “Goldman Sachs is moving hundreds of London jobs before Brexit happens — and more could go”, Business Insider UK, 21 March 2017, <http://uk.businessinsider.com/goldman-sachs-london-jobs-brexit-2017-3?international=true&r=UK&IR=T>.
- Department for Exiting the European Union and Davis D, “The United Kingdom’s Exit from and New Partnership with the European Union White Paper”, 2 February 2017,

- <https://www.gov.uk/government/publications/the-united-kingdoms-exit-from-and-new-partnership-with-the-european-union-white-paper>.
- Department for Exiting the European Union, Davis D and May T, The Great Repeal Bill: White Paper (30 March 2017), <https://www.gov.uk/government/publications/the-great-repeal-bill-white-paper>.
 - Dombrovskis V (2017a), "Capital Markets Union", Opening remarks by Vice-President Dombrovskis at the Public Hearing on the Capital Markets Union Mid-Term Review, 11 April 2017, https://ec.europa.eu/commission/commissioners/2014-2019/dombrovskis/announcements/capital-markets-union-opening-remarks-vice-president-dombrovskis-public-hearing-capital-markets_en.
 - Dombrovskis V (2017b), Speech by Vice-President Dombrovskis on EMIR REFIT, 4 May 2017, http://europa.eu/rapid/press-release_SPEECH-17-1225_en.htm.
 - Duff A, Written Evidence, ETG0014, <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/eu-external-affairs-subcommittee/brexit-future-trade-between-the-uk-and-the-eu/written/43513.html>.
 - ECB (2011), Eurosystem Oversight Policy Framework, 5 July 2011, <https://www.ecb.europa.eu/pub/pdf/other/eurosystemoversightpolicyframework2011en.pdf>.
 - ECB (2016), Looking back at OTC derivative reforms – objectives, progress and gaps, August 2016, https://www.ecb.europa.eu/pub/pdf/other/eb201608_article02_en.pdf.
 - ECB (2017), "Relocating to the euro area", 2017, <https://www.bankingsupervision.europa.eu/banking/relocating/html/index.en.html>.
 - ECB and Bank of England, European Central Bank and Bank of England announce measures to enhance financial stability in relation to centrally cleared markets in the EU, Press Release, 29 March 2015, <https://www.ecb.europa.eu/press/pr/date/2015/html/pr150329.en.html>.
 - Economist Intelligence Unit, Industry Report: Financial Services, United Kingdom, 1st Quarter 2017.
 - EGOV (2016), Briefing: Brexit, the United-Kingdom and the EU financial services, 9 December 2016, [http://www.europarl.europa.eu/Reg-DATA/etudes/BRIE/2016/587384/IPOL_BRI\(2016\)587384_EN.pdf](http://www.europarl.europa.eu/Reg-DATA/etudes/BRIE/2016/587384/IPOL_BRI(2016)587384_EN.pdf).
 - EGOV (2017), Briefing: Third-country equivalence in EU banking legislation, 7 March 2017, [http://www.europarl.europa.eu/Reg-DATA/etudes/BRIE/2016/587369/IPOL_BRI\(2016\)587369_EN.pdf](http://www.europarl.europa.eu/Reg-DATA/etudes/BRIE/2016/587369/IPOL_BRI(2016)587369_EN.pdf).
 - Ellison P, "Post-Brexit Regulatory Landscape - Radical Departure Or Business As Usual?" Macfarlanes, 24 June 2016, <http://www.macfarlanes.com/media/569717/post-brexit-regulatory-landscape-radical-departure-or-business-as-usua.pdf>.
 - Emerson M, Which Model for Brexit?, CEPS Special Report No 147, 14 October 2016, <https://www.ceps.eu/system/files/SR147%20ME%20Which%20model%20for%20Brexit.pdf>.
 - ESMA (2011), "Final Report, Guidelines on the application of the endorsement regime under Article 4(3) of the Credit Rating Agencies Regulation No 1060/2009", ESMA/2011/139.
 - ESMA (2016), "ESMA's advice to the European Parliament, the Council and the Commission on the application of the AIFMD passport to non-EU AIFMs and AIFs", 12 September

- 2016, https://www.esma.europa.eu/sites/default/files/library/2016-1140_aifmd_passport.pdf.
- European Commission (2015), Capital Market Union Factsheet, 20 September 2015, http://ec.europa.eu/finance/capital-markets-union/docs/cmu-factsheet_en.pdf.
 - European Commission (2016), "European Commission adopts equivalence decision for CCPs in USA", Press Release, 15 March 2016, http://europa.eu/rapid/press-release_IP-16-807_en.htm.
 - European Commission (2017a), "EU equivalence decisions in financial services policy: an assessment", Staff Working Document, Brussels 27 February 2017, SWD(2017) 102 final.
 - European Commission (2017b), "Recognition of non-EU financial frameworks (equivalence decisions)", 27 February 2017, https://ec.europa.eu/info/business-economy-euro/banking-and-finance/international-relations/recognition-non-eu-financial-frameworks-equivalence-decisions_en.
 - European Commission (2017c), "Commission proposes simpler and more efficient derivatives rules", Press Release, 4 May 2017, http://europa.eu/rapid/press-release_IP-17-1150_en.htm.
 - European Commission (2017d), Commission Staff Working Document, Impact Assessment of the Proposal for a Regulation 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, 4 May 2017, [SWD\(2017\) 148](#).
 - European Commission (2017e), Commission Staff Working Document, Executive Summary of the Impact Assessment, 4 May 2017, [SWD\(2017\) 149](#).
 - European Commission (2017f), Communication from the Commission on Responding to challenges for critical financial market infrastructures and further developing the Capital Markets Union, 4 May 2017, [COM\(2017\)0225](#).
 - European Commission (2017g), Communication on the Mid-Term Review of the Capital Markets Union Action Plan, 8 June 2017, [COM\(2017\) 292](#) final.
 - European Commission (2017h) Commission Staff Working Document, Impact Assessment of the Proposal for a Regulation amending Regulation (EU) No 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority) and amending Regulation (EU) No 648/2012 as regards the procedures and authorities involved for the authorisation of CCPs and the requirements for the recognition of third-country CCPs, 13 June 2017, SWD(2017) 236 final.
 - European Council, Guidelines following the United Kingdom's notification under Article 50 TEU (29 April 2017), EUCO XT 20004/17.
 - European Parliament, Resolution of 5 April 2017 on negotiations with the United Kingdom following its notification that it intends to withdraw from the European Union (2017/2593(RSP), P8_TA(2017)0102.
 - European Union Committee, Brexit: The Options for Trade (fifth report), HL 72, 13 December 2016.
 - Eurostat, Annual National Accounts (database), 2016.

- FCA, Financial Conduct Authority, Letter to the Chairman of the Treasury Committee, House of Commons, 17 August 2017, <https://www.parliament.uk/documents/commons-committees/treasury/Correspondence/AJB-to-Andrew-Tyrie-Passporting.PDF>.
- Ferran E, "The UK as a Third Country Actor in EU Financial Services Regulation", (2016) University of Cambridge Faculty of Law Working Paper No 47.
- Footer M E and George C, "The General Agreement on Trade in Services", in: Macrory, Appleton & Plummer (eds), The World Trade Organization, Volume I, 2005, p. 799-954.
- Gasiorok M, Holmes P and Rollo J, "UK-EU Trade Relations Post Brexit: Too Many Red Lines?", UK Trade Policy Observatory Briefing Paper No 5 (2016).
- General Court, Judgment of 4 March 2015, Case T-496/11, United Kingdom of Great Britain and Northern Ireland v European Central Bank (ECB), ECLI:EU:T:2015:133.
- Haar B, "Organizing Regional Systems: The EU Example", in: Moloney N, Ferran E and Payne J (eds), The Oxford Handbook of Financial Regulation, Oxford 2015.
- Haukeland Fredriksen H and Franklin C N K, "Of Pragmatism and Principles: The EEA Agreement 20 Years On", 52 Common Market Law Review (2015), 629.
- Her Majesty's Treasury (2012), "Letter from the UK Government to the chairman, EU Economic and Financial Affairs Sub-Committee, House of Lords, 'MiFiD II: Getting It Right for the City and EU Financial Services Industry'", available at: <https://www.publications.parliament.uk/pa/ld201213/ldselect/lducom/28/28.pdf>.
- House of Commons Treasury Committee, Oral Evidence: The UK's future economic relationship with the European Union, HC 483, 13 July 2016.
- House of Lords, European Union Committee, Brexit: financial services, 9th Report of Session 2016-17, 15 December 2016, <https://www.publications.parliament.uk/pa/ld201617/ldselect/lducom/81/81.pdf>.
- Hüttl P, Schoenmaker D, "Should the 'outs' join the European banking union?", Bruegel Policy Contribution No 2016/03, February 2016, http://bruegel.org/wp-content/uploads/2016/02/pc_2016_03.pdf.
- ICE, Access to Global Markets to Sustain Jobs and Growth, ICE Working Paper, December 2016, https://www.theice.com/publicdocs/ICE_Working_Paper_Access_Global_Markets.pdf.
- IMF, World Economic Outlook, Update Uncertainty in the Aftermath of the U.K. Referendum, 19 June 2016, <https://www.imf.org/external/pubs/ft/weo/2016/update/02/>.
- Koutrakos P, "Brexit, European Economic Area (EEA) Membership, and Article 127 EEA" (Mockton Chambers Blog, 2 December 2016), <https://www.monckton.com/brexit-european-economic-area-eea-membership-article-127-eea>.
- Lamfalussy Report, "Final Report of the Committee of the Wise Men in the Regulation of European Securities Markets", 15 February 2001, http://ec.europa.eu/internal_market/securities/docs/lamfalussy/wisemen/final-report-wise-men_en.pdf.
- Lannoo K, "EU Financial Market Access after Brexit", CEPS Policy Brief September 2016.
- Lautenschläger S, "Some supervisory expectations for banks relocating to the euro area", 4 May 2017, <https://www.bankingsupervision.europa.eu/press/speeches/date/2017/html/ssm.sp170504.en.html>.
- Łazowski A, "EU Withdrawal: Good Business for British Business?", European Public Law 22, no. 1 (2016), 115-130.

- LCH, "SwapClear - The Clear Leader", 27 March 2017, <http://www.lch.com/asset-classes/swapclear>.
- Markakis M, "Legal Issues Arising from the Brexit Referendum: A UK and EU Constitutional Analysis", 45 International Journal of Legal Information (2017), 1-10.
- May T, UK Prime Minister's letter to Donald Tusk triggering Article 50, 29 March 2017, www.gov.uk/government/uploads/system/uploads/attachment_data/file/604079/Prime_Ministers_letter_to_European_Council_President_Donald_Tusk.pdf.
- Moloney N (2014), EU Securities and Financial Markets Regulation, 3rd edition, Oxford 2014.
- Moloney N (2016), "Financial Services, the EU, and Brexit: An Uncertain Future for the City?", 17 German Law Journal (Brexit supplement) (2016), 75-82.
- Moloney N (2017), "Brexit Negotiations Series: 'Negotiating a Financial Services Deal: Politics and Preferences'", Oxford Business Law Blog, 6 April 2017, <https://www.law.ox.ac.uk/business-law-blog/blog/2017/04/brexit-negotiations-series-%E2%80%98negotiating-financial-services-deal>.
- Morel P, Teschner C, Martin D, Rhode W, Bohn A, "Global Capital Markets 2016: The Value Migration (Part 2) – Assessing the Impact of Brexit", BCG White Paper, 2016, http://image-src.bcg.com/BCG-Impact-of-Brexit-on-Capital-Markets-July-2016_tcm9-38972.pdf.
- Moulton R (2017), "Theresa May's 12 Brexit Principles - and What They Mean for Financial Services", Oxford Business Law Blog 2017, available at: <http://www.latham.london/2017/01/theresa-mays-12-brexit-principles-and-what-they-mean-for-financial-services/>.
- Nemeček H, "The Application and Surveillance of EEA Law by British Domestic Courts and Authorities after Brexit" (Cambridge International and European Law conference, 23-24 March 2017).
- OECD (2016), The Economic Consequences of Brexit: A Taxing Decision, OECD Economic Policy Paper 16/2016, 27 April 2016, <https://www.oecd.org/eco/The-Economic-consequences-of-Brexit-27-april-2016.pdf>.
- OECD (2017), Value added by activity, OECD Data 2017: <https://data.oecd.org/natincome/value-added-by-activity.htm>.
- ONS, Balance of Payments: Oct to Dec and annual 2015. Office for National Statistics.
- Peers S, "Could the UK Stay in the Single Market after Leaving the EU? The Planned Case on Article 127 EEA", EU Law Analysis Blog, 30 November 2016, <http://eulawanalysis.blogspot.co.uk/2016/11/could-uk-stay-in-single-market-after.html>.
- Petroff A and Riley C, "Banks begin moving thousands of jobs out of Britain", CNN Money, 19 January 2017, <http://money.cnn.com/2017/01/18/news/economy/brexit-banks-financial-services/>.
- Pisani-Ferry J, Röttgen N, Sapir A, Tucker P and Wolff G, "Europe after Brexit: A proposal for a continental partnership", Bruegel 2016, <http://bruegel.org/wp-content/uploads/2016/08/EU-UK-20160829-final-1.pdf>.
- PricewaterhouseCoopers, "How does Brexit impact the UK's participation in the Capital Markets Union project?", <http://www.pwc.co.uk/services/legal-services/insights/what-is-the-cmu.html>.

- PricewaterhouseCoopers (2016), Total Tax Contribution of UK Financial Services, 9th edition, London, <https://www.cityoflondon.gov.uk/business/economic-research-and-information/research-publications/Documents/research%202016/total-tax-report-2016.pdf>.
- Quaglia L, "The Politics of 'Third Country Equivalence' in Post-Crisis Financial Services Regulation in the European Union", 38 Western European Politics (2015) 167-184.
- Ralph O, "Lloyd's of London picks Brussels for European base", Financial Times, 30 March 2017, <https://www.ft.com/content/9945c0ee-1483-11e7-80f4-13e067d5072c>.
- Riley C, "Goldman Sachs says Brexit will 'stall' London's growth", CNN Money, 5 May 2017, <http://money.cnn.com/2017/05/05/investing/brexit-london-goldman-sachs-loyd-blankfein>.
- Ringe W-G, "The Irrelevance of Brexit for the European Financial Market", Oxford Legal Studies Research Paper No 3/2017, January 2017, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2902715.
- Ropes & Gray, "The AIFMD Third Country Passport – An Update", 1 September 2016, <https://www.ropesgray.com/newsroom/alerts/2016/September/The-AIFMD-Third-Country-Passport-An-Update.aspx>.
- Sapir A, Schoenmaker D and Véron N, Making the Best of Brexit for the EU27 Financial System, Bruegel Policy 1/2017, <http://bruegel.org/2017/02/making-the-best-of-brexit-for-the-eu27-financial-system/>.
- Scarpetta V and Booth S, How the UK's financial services sector can continue thriving after Brexit, Open Europe Report 10/2016, <http://openeurope.org.uk/intelligence/britain-and-the-eu/how-the-uks-financial-services-sector-can-continue-thriving-after-brexit/>.
- Scarpetta V, Understanding regulatory equivalence – an effective fall-back option for UK financial services after Brexit?, Open Europe, 19 October 2016, <http://openeurope.org.uk/today/blog/understanding-regulatory-equivalence-an-effective-fall-back-option-for-uk-financial-services-after-brexit/>.
- Schoenmaker D, The UK Financial Sector and EU Integration after Brexit: The Issue of Passporting, 8 October 2016, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2844253 (Forthcoming Chapter in 'The Economics of the UK-EU Relationship: From the Treaty of Rome to the Brexit Vote', edited by N. Campos and F. Coricelli, Palgrave MacMillan, London).
- Schoenmaker D, Sass J, "Cross-border Insurance in Europe", DSF Policy Paper No 45, November 2014, <http://www.dsf.nl/wp-content/uploads/2014/09/DSF-Policy-Paper-No-45-Cross-border-Insurance-in-Europe.pdf>.
- Schroeter U G and Nemeček H, "The (Uncertain) Impact of Brexit on the United Kingdom's Membership in the European Economic Area", 27 European Business Law Review (2016), 921-958.
- Schuetze A, "Deutsche Bank weighs moving thousands of jobs from London after Brexit", Reuters, 26 April 2017, <http://www.reuters.com/article/us-britain-eu-deutsche-bank-idUSKBN17S1PR>.
- Shearman & Sterling, Brexit: Implications for the Insurance and Reinsurance Industry, 2016, <http://www.shearman.com/~media/Files/NewsInsights/Publications/2016/07/Brexit-Implications-for-the-Insurance-and-Reinsurance-Industry-INS-071916.pdf>.

- Standard & Poors, Requiring Euro-Denominated Contracts' Clearing within the EU would be Disruptive but could have limited impact on Ratings, 17 November 2016, https://www.globalcreditportal.com/ratingsdirect/renderArticle.do?articleId=1758126&SctArtId=408068&from=CM&nsi_code=LIME&sourceObjectId=9876220&sourceRevId=3&fee_ind=N.
- Swidlicki P, "The UK searches for a post-Brexit plan: is the EEA a viable option?" Open Europem 4 August 2016, <http://openeurope.org.uk/today/blog/uk-searches-post-brexit-plan-eea-viable-option/>.
- TheCityUK, The UK: Europe's Financial Centre, August 2016, <https://www.thecityuk.com/assets/2016/Reports-PDF/The-UK-Europes-financial-centre.pdf>.
- Treanor J (2017a), "JP Morgan to move hundreds of jobs out of UK due to Brexit", The Guardian, 3 May 2017, <https://www.theguardian.com/business/2017/may/03/jp-morgan-jobs-uk-brexit-dublin-frankfurt-luxembourg>.
- Treanor J (2017b), "Barclays CEO sees no reason for Brexit jobs shift to Europe", The Guardian, 10 May 2017, <https://www.theguardian.com/business/2017/may/10/barclays-ceo-jes-staley-no-reason-brexit-jobs-shift-europe>.
- Tridimas T (2011), "EU financial regulation: federalization, crisis management, and law reform", in: P. Craig and G. De Búrca (eds.), The evolution of EU law, 2011, p. 783-803.
- Tyler G, "Financial services: contribution to the UK economy", in: House of Commons Briefing Paper No. 6193, 31 March 2017, <http://researchbriefings.files.parliament.uk/documents/SN06193/SN06193.pdf>.
- Wyman O, The Impact of the UK's Exit from the EU on the UK-based Financial Services Sector, October 2016, http://www.oliverwyman.com/content/dam/oliver-wyman/global/en/2016/oct/Brexit_POV.PDF.
- Yeandle M, The Global Financial Centres Index 21, Long Finance, March 2017: http://www.longfinance.net/images/gfci/GFCI21_05_04_17.pdf.
- Zoromé A, Concept of Offshore Financial Centers: In Search of an Operational Definition. IMF Working Paper (WP/07/87), April 2017, <https://www.imf.org/external/pubs/ft/wp/2007/wp0787.pdf>.

DIRECTORATE-GENERAL FOR INTERNAL POLICIES

CAT: QA-01-17-655-EN-C (paper)
CAT: QA-01-17-655-EN-N (pdf)

POLICY DEPARTMENT ECONOMIC AND SCIENTIFIC POLICY **A**

Role

Policy departments are research units that provide specialised advice to committees, inter-parliamentary delegations and other parliamentary bodies.

Policy Areas

- Economic and Monetary Affairs
- Employment and Social Affairs
- Environment, Public Health and Food Safety
- Industry, Research and Energy
- Internal Market and Consumer Protection

Documents

Visit the European Parliament website:
<http://www.europarl.europa.eu/supporting-analyses>



ISBN 978-92-846-1186-7 (paper)
ISBN 978-92-846-1187-4 (pdf)

doi: 10.2861/568878 (paper)
doi: 10.2861/229538 (pdf)

