**EXECUTIVE SUMMARY / KEY MESSAGES**

**STUDY OVERVIEW**

- Eurogroup Consulting and Institute Louis Bachelier (ILB) have combined to produce a study that focuses on the impacts of Brexit in relation to the European financial services ecosystem. It involves a particular focus on the UK financial services ecosystem as well as the EU financial centres that could benefit from the outcome of Brexit. The study encompasses both qualitative and quantitative work as well as primary and secondary research.

- The six financial services ecosystem actors surrounding Brexit (Corporate & Investment Banking (CIB), Retail Banking, Asset & Wealth Management, Insurance / Reinsurance, Stock Exchange including Clearing and Other Financial Ecosystem Services including FinTech) have a UK annual revenue of GBP 197bn and 1.05 million FTEs.

- The latest Brexit developments will cause seven core issues for the UK:
  - Negative: Macroeconomic impacts – lower growth for the UK, loss of passporting rights/no equivalence, human resources/immigration – harder to attract top talent, financial ecosystem actors with no contingency plan (not Day 1 post-Brexit ready), loss of Euro Clearing.
  - Positive: Less UK regulations and tax could attract business, London’s history and traditions.

- A Hard Brexit will cause the whole UK financial ecosystem to decrease by 15-25%, reducing UK revenue to within the range of GBP 170-150bn and FTEs down to 890-790k, although London will continue to be one of the leading financial centres post-Brexit with the amount of relocation dependent on the severity of Brexit. A medium to hard Brexit is predicted currently, but it is very difficult to forecast.

- Of all the European financial centres, Paris, Frankfurt, Dublin and Luxembourg are in the strongest position to benefit post-Brexit according to the new amended Financial Centre Ranking Index, which includes the embedded hard and soft drivers of Business Environment, Human Capital, Reputation, Infrastructure, Finance Sector Development and Tax.

- Of the six financial ecosystem actors, the CIB actor will probably be the most impacted due to its international focus. The CIB market will become fragmented, additional capital (up to GBP 40bn) will need to be invested in new EU units (for licensing and operating reasons), and profitability and ROE will fall with both revenue decreasing and costs rising (around GBP 10-15bn structural costs) due to restructuring and services being duplicated in both new EU entities and London.

- Among the seven core issues for the UK, the CIB actor has identified the following 2 factors as the most critical for their ongoing operation and what could potentially cause a Hard Brexit:
  - Loss of passporting rights/no equivalence (UK financial services groups will lose the right to serve EU clients after Brexit).
  - Loss of Euro Clearing (collateral posted would rise by 40-60%, default fund contributions would increase and banks would hold more equity capital).

- There is currently a great deal of uncertainty regarding the outcome of passporting rights and Euro Clearing. EU financial institutions are pushing to relocate Euro Clearing into Continental Europe, and current sentiment appears to be that the ECB will not allow Euro Clearing to remain in the UK post-Brexit. The European financial services ecosystem will have to monitor the developments of these two topics closely going forward.

- Many UK, USA and European CIB banks are still developing their own activities in the UK, however dependent on the severity of Brexit they will be relocation of CIB activities outside the UK due to Brexit over time. In a Hard Brexit scenario the CIB market will become a lot more fragmented with a few leading European financial centres (as well as non-European CIB home bases, e.g. New York) benefitting.

- In a Hard Brexit, the UK CIB actor will decrease by 20-30% from GBP 44bn UK revenue and 110k FTEs currently to GBP 35-30bn and 90-75k respectively.

- Quantifying UK CIB Brexit Revenue at Stake (GBP 11bn) induces market share re-distribution, however via potential remediation the net UK CIB Brexit Revenue at Stake is estimated to be GBP 7bn.
INTRODUCTION
THE LATEST BREXIT MACROECONOMIC, FINANCIAL SERVICES AND CIB DEVELOPMENTS FOR THE UK ARE EVER CHANGING

BREXIT LATEST UK MACROECONOMIC DEVELOPMENTS
AS OF SEPTEMBER 2017

EUROPEAN PARLIAMENT

- Donald Tusk, the European council president, recently reminded London that article 50 of the Lisbon treaty had already been triggered and talks would have to be concluded by March 2019.
- Brexit discussions between the EU and UK have progressed slowly so far. Before agreeing to talk trade, the EU wants “sufficient progress” to be made addressing citizens’ rights, the Irish border and the Brexit bill. Both sides had initially aimed for that milestone to be met in October 2017, however Slovenian Prime Minister Miro Cerar states that the “process will definitely take more time than we expected”.
- MEPs in Strasbourg approved a resolution setting out the parliament’s red lines in the forthcoming Brexit talks by 516 votes to 133, with 50 abstentions, comfortably exceeding the two-thirds majority sought by parliament leaders to show unity behind their approach.
- In September 2017, Angela Merkel won a fourth term as German chancellor in a victory that was marred by the hollowing out of support for the two main parties in Germany and a surge for the populist AfD party in a clear rebuke to her open-doors immigration policy.

BRITISH PARLIAMENT

- In August 2017, the UK government published the latest in a string of position papers aimed at fleshing out its ambitions for future relations with the EU. This was further developed in September 2017, when the UK government proposed that a 2 year Brexit transition period would be its preference for leaving the EU from March 2019 onwards.
- Due to the loss of a majority of the Conservative Party in the House of Commons, Minister Theresa May’s Conservatives have signed a confidence deal with Northern Ireland’s Democratic Unionist Party (DUP) that will allow them to form a minority government leading the UK over the next 5 years.
- Prime Minister Theresa May promised to listen more closely to businesses’ concerns about the UK leaving the EU as she set out a new Brexit-focused government program, pared-back to reflect her weakened authority.

BREXIT LATEST UK FINANCIAL SERVICES AND CIB DEVELOPMENTS
AS OF SEPTEMBER 2017

- There are two main impacted areas for CIB activity conducted in London serving clients in the EU (e.g. GBP 1-1.2 trillion bank assets (loans, securities and derivatives) and GBP 350-400bn total RWA exposure currently booked by UK based banks to EU clients) and EU products traded in London.
- The CIB market will become fragmented geographically across Europe, with the level of fragmentation dependent on the severity of Brexit.
- It is predicted banks may need to find up to GBP 40bn of additional capital to support new European units in the aftermath of a hard Brexit.
- Profitability and ROE will fall with revenue decreasing and costs rising (GBP 10-15bn structural costs estimated) due to restructuring and services being duplicated in both new EU entities and London (e.g. compliance department).
- For the main UK, USA and European CIB banks, it is forecasted Frankfurt, Paris and Dublin will be the biggest winners from CIB relocation.
- However main UK, USA and European CIB banks are still developing their own activities in the UK.
  - Barclays CEO sees no reason for Brexit jobs shifting to the EU.
  - Goldman Sachs is building a new 1.1m square foot office and Deutsche Bank is completing a 25-year lease for a new building (both in London).
- London and Brussels have been urged to strike a Brexit transition deal by Europe’s top financial lobby groups amid warnings banks will be unprepared for the UK’s secession from the EU.
- London remains the world’s Top Financial Centre according to the GFCI22 Ranking, announced September 2017.
- It is forecasted that the UK’s financial services will experience slower growth over the next two years owing to Brexit pressures, but will start to recover by 2020.
- Private wealth in Western Europe is set to fall behind the Asia-Pacific region for the first time this year, partly as a result of the political and economic uncertainty unleashed by Brexit.

THE IMPACTS OF BREXIT ON THE EUROPEAN FINANCIAL SERVICES ECOSYSTEM

THE IMPACTS OF BREXIT ON THE EUROPEAN FINANCIAL SERVICES ECOSYSTEM
PASSPORTING RIGHTS ARE SIGNIFICANT WITHIN THE LATEST BREXIT UK & EU FINANCIAL SERVICES DISCUSSIONS

INTRODUCTION

PASSPORTING

- UK will not be able to retain passporting rights post-Brexit according to former Luxembourg finance minister, Luc Frieden
- Global banks will probably lose their current legal rights to provide services from the UK in the EU after Brexit, the UK’s trade minister said
- “Passporting rights are tied to the single market, and would automatically cease to apply if the UK is no longer at least part of the European Economic Area” according to Bundesbank President Jens Weidmann
- 3i, Britain’s largest listed private equity group, is assuming a Hard Brexit where financial services groups will lose the right to serve European customers after the UK leaves the EU single market
- Goldman Sachs economist Andrew Benito predicted that both sides would come around to a deal in the end. “That will involve some additional access being agreed between UK and EU markets in exchange for commitments being made to maintain financial sector regulations”, he said
- European Parliament officials have called for a “workable agreement” because Europe could suffer if the UK’s financial services industry is hurt. Bank of England Governor Mark Carney made the same point in saying there should be a transition
- According to Hogan Lovells, the degree of market access that British firms will enjoy will depend on two factors:
  - Brussels’ need to prevent the UK from being seen to enjoy the benefits of EU membership without the cost
  - The UK government’s willingness to accept conditions such as continued freedom of movement of people and payments to the EU budget

UK PASSPORTING OPTIONS

- The Canada-EU free trade agreement (CETA) is the sort of trade deal that the UK can expect to get given Theresa May’s stated goals on immigration, the European Court of Justice and budget contributions
- CETA does cover some services as allowing Canadian firms not located in the EU to sell services to EU nationals provided they meet certain conditions
- Countries are still allowed to restrict firms from doing or soliciting business, which is obviously a major practical barrier
- Both parties are given a “prudential carve out”, which allows them to impose “reasonable” restrictions

OTHER OPTIONS

- Another option is a “third country regime” (TCR) or “equivalence”
- These are agreements that allow firms in non-EU countries to gain automatic access to the EU market in certain areas where Brussels has judged that the regulatory regime in the host country is comparable to that in the EU
- It seems a plausible approach because several countries have such agreements with the EU
- The countries have to follow EU regulations, which makes them “rule-takers”. Third-country rights are purely at the discretion of the EU, and they can be revoked at a moment’s notice without the right of appeal. They also are granted on a sector-by-sector basis, and usually come with restrictions
- Overall, relying on equivalence without a wider trade deal would also result in a large loss of access

- There are other models beside a free-trade deal and relying on TCRs. Switzerland has a wide-ranging bilateral trade deal, which comes close to, but is not the same as, to single market access. Norway, and the other EEA countries also retain full access to the single market
- However, apart from the potential political problem associated with these models, Britain would lose most of its input into rule-making
EURO CLEARING IS A HOT TOPIC WITHIN THE LATEST BREXIT UK & EU FINANCIAL SERVICES DISCUSSIONS

The topic of Euro Clearing has been a subject of contention among those in the industry since the UK voted to leave the EU in June 2016.

The EU is pushing ahead with plans to assert control over the clearing of EUR-denominated derivatives, a politically charged step that could force firms to move from London to the EU after Brexit.

Bank of England Governor Mark Carney called for a new system of cooperation between the UK and the EU over derivatives clearinghouses to prevent more expensive and fragmented markets post-Brexit.

"Coming to an innovative, cooperative and reciprocal agreement on central clearing would promote competitive financing in the Euro area," Carney said.

The push to "bring home" Euro Clearing, made forcefully by the European Parliament, will clearly be one of the EU's demands in the Brexit talks, said Guntram Wolff, director of the Bruegel think tank in Brussels.

The European Central Bank believes it needs to maintain a firm grip in overseeing clearing of trades in Euro-denominated financial instruments after the UK leaves.

London Clearing House (LCH), the leading clearing house in the UK, is majority-owned by the London Stock Exchange (LSE). As part of LSE's proposed merger with Deutsche Boerse in 2017 which was blocked by the European Commission, LSE sold part of LCH to Euronext.

Citing research from last year, the Financial Times reported that forcing Euro Clearing out of the City could result in up to 80,000 job losses in London over the next seven years.

Deutsche Bank is concerned about being cut off from the LCH following the UK's exit from the European Union, Stefan Hoops, head of the lender's capital markets division, said.

Moving Euro Clearing out of London will increase "systemic risk" while hitting liquidity, the new policy chairman of the City of London Corporation has warned.

The UK is the dominant centre in Europe for Euro Clearing. Around EUR 80 trillion of notional EUR-denominated derivatives trades are currently booked in the UK.

Around 70 per cent of Euro-denominated trades, with a notional value of EUR 930bn, are cleared in the UK each day.

According to the chairman of the City of London Corporation: "We have the scale – based on handling over 70% of the daily Euro Clearing business. Not to mention US dollars and China’s renminbi. We have the infrastructure. And we have the people – the expert clearing professionals themselves, but also the ancillary professionals, such as lawyers, consultants and accountants who make it all happen. Clearing is here for these reasons."

Britain has repeatedly had to defend its right to clear trades, given that it does not have the Euro. In 2015, the UK won a court battle to continue clearing in London.

If Euro Clearing was moved to the EU, the netting benefits (i.e. less collateral posted to clearing firms) of offsetting a position in one currency against positions in other currencies will be significantly reduced.

It is estimated the total amount of collateral that would have to be committed, if Euro Clearing moved to the EU and the market was now more fragmented, could rise by 40-60%, from GBP 65bn currently.

EUR swaps moving to a EU clearing house from the UK would entail additional default fund contributions from clearing members, which is forecasted to be an increase of 20-40%, from GBP 12.5bn currently.

If UK clearing houses are not able to obtain equivalence status, EU banks with positions in UK clearers would have to hold a larger amount of equity capital due to the higher risk weightings required.
BREXIT IS IMPACTED
BY A SERIES OF DEVELOPMENTS,
WHICH ENDS ON 29 MARCH 2019

2018-19
UK-EU DEAL
ACHIEVED?

2018-19
SCOTTISH
INDEPENDENCE
REFERENDUM?

23 JUNE
2016
REFERENDUM

29 MARCH
2017
UK INVOKES
ARTICLE 50

JUNE
2017
EARLY UK
GENERAL
ELECTION

29 MARCH
2019
UK EXIT?

MAY 2017
FRENCH
PRESIDENTIAL
ELECTION

SEPTEMBER
2017
GERMAN
ELECTION

2018
ITALIAN
GENERAL
ELECTION

01. INTRODUCTION
THE IMPACTS OF BREXIT
ON THE EUROPEAN FINANCIAL SERVICES ECOSYSTEM
THE SIX FINANCIAL ECOSYSTEM ACTORS SURROUNDING BREXIT HAVE A UK REVENUE OF GBP 197BN AND 1.05 MILLION FTES

<table>
<thead>
<tr>
<th>ECO SYSTEM ACTORS</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORPORATE &amp; INVESTMENT BANKING (CIB)</td>
<td>Investment banking services (Mergers &amp; Acquisitions, Equity Capital Markets, Debt Capital Markets, Syndicated Lending and Advisory) to all clients, including corporates. In addition, sales and trading</td>
</tr>
<tr>
<td>RETAIL BANKING</td>
<td>Deposit taking and lending activities (excluding syndicated lending) for individuals and businesses, including credit cards and payments service etc</td>
</tr>
<tr>
<td>ASSET &amp; WEALTH MANAGEMENT</td>
<td>Asset Management includes fund and portfolio management, including alternatives such as, hedge funds, pension funds and real estate etc. Wealth management includes private banking, advice and tax planning</td>
</tr>
<tr>
<td>INSURANCE / REINSURANCE</td>
<td>All retail individual insurance lines, including life and general Insurance. Also domestic and international business and commercial insurance for corporates and other clients, including public sector</td>
</tr>
<tr>
<td>STOCK EXCHANGE</td>
<td>All post-trade activities, including clearing, settlement, the listing of companies and other securities and their trading on UK market infrastructure</td>
</tr>
<tr>
<td>OTHER FINANCIAL ECOSYSTEM SERVICES (INCLUDING ACCOUNTANCY, LAW, TECHNOLOGY, DATA SERVICES)</td>
<td>Other critical services within the financial ecosystem, including FinTech</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTORS UK SPECIFIC DATA 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>CIB</td>
</tr>
<tr>
<td>Retail Banking</td>
</tr>
<tr>
<td>Asset &amp; Wealth Management</td>
</tr>
<tr>
<td>Insurance / Reinsurance</td>
</tr>
<tr>
<td>Other Financial Ecosystem Services</td>
</tr>
<tr>
<td>Stock Exchange</td>
</tr>
<tr>
<td>Other Financial Ecosystem Services</td>
</tr>
</tbody>
</table>

THE IMPACTS OF BREXIT ON THE EUROPEAN FINANCIAL SERVICES ECOSYSTEM
THE CIB ACTOR WILL PROBABLY BE THE MOST IMPACTED DUE TO ITS INTERNATIONAL FOCUS. THE CIB ACTOR HAS AN EXISTING UK CIB REVENUE OF GBP 44BN AND UK CIB FTES OF 110K.

**UK CIB REVENUE AND FTES, 2016 DATA** (SOURCES IN APPENDIX)

<table>
<thead>
<tr>
<th>Cluster</th>
<th>UK CIB Revenue</th>
<th>UK Cluster</th>
<th>USA Cluster</th>
<th>European Cluster</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK Cluster</td>
<td>44</td>
<td>10.0</td>
<td>26</td>
<td>28</td>
<td>20</td>
</tr>
<tr>
<td>USA Cluster</td>
<td>110</td>
<td>11.0</td>
<td>28</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>European Cluster</td>
<td>16.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Asian banks with subsidiaries in London are included within the ‘Other’ section.
THE EUROPEAN FINANCIAL SERVICES ECOSYSTEM IS BEING REBALANCED, WITH EUROPEAN FINANCIAL CENTRES STRENGTHENING IN A CONTINUOUSLY EVOLVING LANDSCAPE. BREXIT COULD POTENTIALLY CHALLENGE LONDON’S STATUS AS THE MOST IMPORTANT FINANCIAL CENTRE IN EUROPE

<table>
<thead>
<tr>
<th>RANKING</th>
<th>CITIES</th>
<th>GFCI 22 RANKING (GFCI 21 RANKING IN BRACKETS)</th>
<th>IFCD RANKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>LONDON</td>
<td>1st (1st)</td>
<td>2nd</td>
</tr>
<tr>
<td>9th</td>
<td>ZURICH</td>
<td>9th (11th)</td>
<td>14th</td>
</tr>
<tr>
<td>11th</td>
<td>FRANKFURT</td>
<td>11th (23rd)</td>
<td>8th</td>
</tr>
<tr>
<td>14th</td>
<td>LUXEMBOURG</td>
<td>14th (18th)</td>
<td>13th</td>
</tr>
<tr>
<td>15th</td>
<td>GENEVA</td>
<td>15th (20th)</td>
<td>21st</td>
</tr>
<tr>
<td>26th</td>
<td>PARIS</td>
<td>26th (29th)</td>
<td>7th</td>
</tr>
<tr>
<td>30th</td>
<td>DUBLIN</td>
<td>30th (33rd)</td>
<td>37th</td>
</tr>
<tr>
<td>33rd</td>
<td>AMSTERDAM</td>
<td>33rd (40th)</td>
<td>19th</td>
</tr>
<tr>
<td>36th</td>
<td>WARSAW</td>
<td>36th (41st)</td>
<td>Not in list (45 cities)</td>
</tr>
<tr>
<td>54th</td>
<td>MILAN</td>
<td>54th (56th)</td>
<td>36th</td>
</tr>
<tr>
<td>50th</td>
<td>MADRID</td>
<td>50th (68th)</td>
<td>32nd</td>
</tr>
<tr>
<td>79th</td>
<td>LISBON</td>
<td>79th (78th)</td>
<td>45th</td>
</tr>
</tbody>
</table>

**EMBEDDED DRIVERS**

**BUSINESS ENVIRONMENT**
Political stability and rule of law, Institutional and regulatory environment, Macroeconomic environment, Tax and cost competitiveness

**HUMAN CAPITAL**
Availability of skilled personnel, Education and development, Flexible labor market and practices

**REPUTATION**
City and brand appeal, Level of innovation, Attractiveness and cultural diversity, Comparative positioning with other centres, Level of personal safety, Level of economic security

**INFRASTRUCTURE**
Building and office infrastructure, Transport infrastructure, ICT infrastructure, Environmental care and sustainability

**FINANCE SECTOR DEVELOPMENT**
Volume and velocity of trading, Availability of capital, Depth and breadth of industry cluster, employment and economic output

*The IFCD Ranking has not been updated since 2014

2GFCI main drivers and areas of competitiveness
FOLLOWING FINANCIAL CENTRES IS VALUABLE, BUT EXISTING METHODS HAVE SHORTCOMINGS. BREXIT ISSUES AND CHANGES IN THE WAY ACTORS ORGANISE THEMSELVES IS LIKELY TO LEAD TO A REORGANISATION WITHIN EUROPEAN FINANCIAL CENTRES

KEY SHORTCOMINGS
IN THE MAIN RUNNING INDEX (GFCI)

◆ Historically the GFCI and IFCD ranking indexes have shown very different outcomes. The GFCI index regularly provides surprising ranking results with large movements taking place in a short space of time

◆ The statistical model used to calculate the ranking is not transparent (not possible to reproduce)

◆ Significance to Financial Centres and lack of weighting of (soft) indicators such as ‘good country index’, ‘Top Tourism Destinations’ or ‘Big Mac Index’ is questioned

◆ Tax is not a key area of competitiveness

◆ No totaling or averaging across factors (due to involved complexity)

◆ Redundancy in data, e.g. use of indexes that are built on multiple indicators already represented in other indices

◆ Representation and quality of respondents in online survey not ensured (anyone can answer)

◆ Transformations including new technology and its impact on Financial Centres eco-system players is not being correctly accounted for within the index (e.g. digitalisation and FinTech)

KEY POSITIVES
IN THE MAIN RUNNING INDEX (GFCI)

◆ Existence of historical data over a number of years

◆ Factors and indicators covering the Financial Centres ecosystem

◆ New challenges to the Financial Centres ecosystem are gradually integrated (e.g. Brexit)

◆ The specialized Financial Centres (i.e. either back office or front office focused) are accurately measured within the drivers

RECOMMENDATION

◆ A new open, transparent, co-constructed database and index should be developed to accurately measure dynamics in the specialized, regional and international Financial Centres

◆ The goal of the database & index should be to provide global Financial Centres eco-system actors with a open, transparent, flexible and operational tool that on a sound data basis can point to movements and allow comparison between European Financial Centres in general as well as in different segments

◆ Tax should be added as a key driver and area of competitiveness
BREXIT: IMPACTS ON THE UK (LONDON)
**UK ISSUES DUE TO BREXIT**

**MACRO ECONOMIC IMPACTS - LOWER GROWTH FOR THE UK**
- UK economy only grew by 0.3% in second quarter of 2017, according to official figures
- The increases in tariff and non-tariff barriers between the UK and the EU could reduce per capita income by 6%
- The pound has become significantly weaker against major currencies since the referendum on EU membership
- The Office for National Statistics said inflation hit its highest level in nearly four years in May 2017 at 2.9%. Inflation is now expected to remain high throughout 2017
- Brexit could cost the UK an EUR 50bn Brexit bill for contracts already in place with the EU
- Resolution on negotiating mandate insists a transition arrangement for the UK after 2019 can last no longer than three years

**LOSS OF PASSPORTING RIGHTS/NO EQUIVALENCE**
- 5,500 companies, with a combined turnover of GBP 9bn, rely on passporting in the UK, according to the Financial Conduct Authority (FCA)
- Nearly 360,000 financial “passports” are at risk following the triggering of Article 50
- One significant consequence of Brexit might be that the UK lose its EU passporting rights and therefore access to the EU market. Consequently many financial ecosystem actors and companies located in the UK may seek relocation of some or all of their business going forward

**HUMAN RESOURCES/IMMIGRATION – HARDER TO ATTRACT TOP TALENT**
- 2 parallel worlds for the foreseeable future, with the EU and UK separate, which could lead to staff duplication
- For 36% of companies, attracting EU nationals with “specific skills” in the UK has become more of a priority as a result of the referendum
- Human capital constraints will limit how fast actors can adapt and move their operations, if required
- Employers are dealing with the uncertainty around Brexit by hiring fewer full-time roles, relying instead on temporary workers
- The introduction of a work visa for EU nationals is a possibility and would limit the freedom of movement

**FINANCIAL ECOSYSTEM ACTORS WITH NO CONTINGENCY PLAN**
- Large global financial services companies will already have ready-made structures in the EU, allowing them to not be too affected
- It is feared many financial services companies will not be Day 1 post-Brexit ready. The Brexit transition timeframe differs depending on the actor involved
- 45% of investment banks have announced options to move jobs out of the UK
- 27% of insurance companies and 23% of asset managers have made public statements about their Brexit contingency plans
- The Bank of England gave financial firms a deadline of July 14th, 2017 to explain how they are planning for the UK’s departure from the EU, and warned them to be ready for all possible outcomes, including a hard Brexit
BREXIT IS IMPACTING THE UK’S ECONOMY BOTH POSITIVELY AND NEGATIVELY

UK ISSUES DUE TO BREXIT

NEGATIVE FOCUS

LOSS OF EURO CLEARING

- Citing research from last year, the Financial Times reported that forcing Euro Clearing out of the City could result in up to 80,000 job losses in London over the next seven years
- Industry estimates that splitting the Euro Clearing of interest rate swaps could cost EU firms EUR 22bn per year across all of their business
- Euronext, a large EU clearing company, which operates markets in Amsterdam, Brussels, Lisbon and Paris, has said Brexit will likely diminish London’s role as a global financial centre and may create opportunities for the company to win business

LESS UK REGULATIONS AND TAX COULD ATTRACT BUSINESS

- A regulatory light regime in the UK, with low corporate taxes could be beneficial for the UK
- Will the UK’s exemption from the new EU Financial Transaction Tax (FTT) cause actors to favor the UK post-Brexit?
- The UK government considers the ECJ will no longer have jurisdiction over the UK after Brexit
- According to recent studies, business investment is now expected to be positive in 2017, while policymakers more than doubled their forecast for business investment in 2018 to 3.25%, from a previous projection of 1.25%

POSITIVE FOCUS

LONDON’S HISTORY AND TRADITIONS

- London has a critical mass of financial actors, which makes it a leading global financial centre
- London, whilst maintaining its heritage and history, will adapt and evolve to remain competitive as a global financial centre post-Brexit
- London has a significant number of global multinational corporations listed on its stock exchange (London Stock Exchange)
- The widespread use of English around the world gives London an edge over Frankfurt, Paris, or Milan as Europe’s main financial centre
- The fair and efficient UK legal system is a point of attraction: when there are parties from several countries in a deal, they often choose to have the contract drawn up in the language of the country that has the clearest commercial laws and the most experienced judges, as it is very often the case in the UK
- London has highly rated universities that draw international talent and create a pool of well-prepared professionals: in the 2016 global ranking of universities, London and its environs had four among the top 25...
THE BREXIT INDUCED ISSUES FOR THE UK WILL IMPACT THE KEY ATTRACTIVENESS DRIVERS USED FOR LONDON’S RANKING WITHIN THE NEW AMENDED FINANCIAL CENTRE RANKING INDEX (INCLUDING TAX AS A DRIVER)

<table>
<thead>
<tr>
<th>BREXIT INDUCED ISSUES</th>
<th>BUSINESS ENVIRONMENT</th>
<th>HUMAN CAPITAL</th>
<th>REPUTATION</th>
<th>INFRASTRUCTURE</th>
<th>FINANCE SECTOR DEVELOPMENT</th>
<th>TAX</th>
<th>COMMENTS</th>
</tr>
</thead>
</table>
| MACRO ECONOMIC IMPACTS – LOWER GROWTH FOR THE UK | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | • Inflation hit its highest level in nearly four years in May 2017 at 2.9 per cent  
• UK economy grew by 3% in second quarter of 2017 |
| LOSS OF PASSPORTING RIGHTS/NO EQUIVALENCE       | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | ![Low Impact](https://example.com/low) | ![Low Impact](https://example.com/low) | • A fundamental foundation for any European Financial Centre  
• The labour market within financial services will suffer |
| HUMAN RESOURCES/IMMIGRATION – HARDER TO ATTRACT TOP TALENT | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | ![Medium Impact](https://example.com/medium) | • For 36% of companies, attracting EU nationals with specific skills in the UK has become more of a priority  
• The UK Prime Minister wants to get net migration down to a ‘sustainable’ level, which she defines as being below 100,000 a year |
| FINANCIAL ECOSYSTEM ACTORS WITH NO CONTINGENCY PLAN | ![Low Impact](https://example.com/low) | ![Low Impact](https://example.com/low) | ![Low Impact](https://example.com/low) | ![Low Impact](https://example.com/low) | ![Low Impact](https://example.com/low) | ![Low Impact](https://example.com/low) | • The City is unlikely to be challenged by Brexit in the short term due to a developed ecosystem of capabilities |
| LOSS OF EURO CLEARING                            | ![Low Impact](https://example.com/low) | ![Low Impact](https://example.com/low) | ![Low Impact](https://example.com/low) | ![Low Impact](https://example.com/low) | ![Low Impact](https://example.com/low) | ![Low Impact](https://example.com/low) | • The loss of Euro Clearing will severally impact the UK financial services ecosystem and London’s global financial status |
| LESS UK REGULATIONS AND TAX COULD ATTRACT BUSINESS | ![High Impact](https://example.com/high) | ![High Impact](https://example.com/high) | ![High Impact](https://example.com/high) | ![High Impact](https://example.com/high) | ![High Impact](https://example.com/high) | ![High Impact](https://example.com/high) | • A regulatory light regime in the UK, with low corporate taxes could be beneficial for the UK  
• According to recent studies, the business investment is now expected to be positive in 2017 |
| LONDON’S HISTORY AND TRADITIONS                 | ![High Impact](https://example.com/high) | ![High Impact](https://example.com/high) | ![High Impact](https://example.com/high) | ![High Impact](https://example.com/high) | ![Low Impact](https://example.com/low) | ![Low Impact](https://example.com/low) | • London, while maintaining its heritage and history, will adapt and evolve to remain competitive as a global financial centre post-Brexit  
• London currently has the most important global financial ecosystem |

THE IMPACTS OF BREXIT ON THE EUROPEAN FINANCIAL SERVICES ECOSYSTEM
**On Balance the UK Brexit Induced Issues Will Not Greatly Impact London’s Key Attractiveness Drivers. It Is Expected London Will Continue Being a Leading Financial Centre Post-Brexit, Dependent on the Severity of Brexit**

<table>
<thead>
<tr>
<th>Key Attractiveness Drivers Vs UK Brexit Induced Issues</th>
<th>Financial Centre Ranking Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Environment</strong></td>
<td><strong>Human Capital</strong></td>
</tr>
<tr>
<td><strong>Very Positive</strong> (Higher Ranking)</td>
<td>Less UK regulations and tax</td>
</tr>
<tr>
<td><strong>Positive</strong></td>
<td>London’s history and traditions</td>
</tr>
<tr>
<td><strong>Neutral</strong></td>
<td>Loss of passporting</td>
</tr>
<tr>
<td></td>
<td>HR/ Immigration</td>
</tr>
<tr>
<td></td>
<td>Financial ecosystem actors - no contingency plan</td>
</tr>
<tr>
<td></td>
<td>Loss of Euro Clearing</td>
</tr>
<tr>
<td><strong>Negative</strong></td>
<td>Macroeconomic impact – lower growth for the UK</td>
</tr>
<tr>
<td><strong>Very Negative</strong> (Lower Ranking)</td>
<td>HR/ Immigration</td>
</tr>
</tbody>
</table>

---

**The Impacts of Brexit on the European Financial Services Ecosystem**

17
EU FINANCIAL CENTRES: BREXIT IMPACTS AND RESPONSE
THERE ARE MANY POTENTIAL OPPORTUNITIES FOR EU FINANCIAL CENTRES AND THE FINANCIAL SERVICES ACTORS WITHIN THEM TO BENEFIT FROM BREXIT.

THE CURRENT STATUS OF FINANCIAL CENTRES AND THE ACTORS WITHIN THEM, IN COMPARISON WITH LONDON

**CIB**
- With Britain planning to leave the EU single market under Brexit and due to historical reasons (purchase of Credit Commercial de France in 2002), HSBC bank will switch 1,000 investment banking jobs to Paris from London. HSBC has estimated the cost of Brexit, forecasting it will have to pay as much as $300m in relocation and legal costs.
- Tax exemption for impatriates on income from their impatriation premium for 8 years.
- Paris also ranks 1st in Europe in corporate bonds, with a 33% market share.
- There is a strong reputation of quants and risk managers, including those being based abroad.

**ASSET MANAGEMENT**
- The Paris asset management industry is comprised of 634 asset management companies, among them 4 asset managers are in the top 20 global ranking and 3 global custodians in the top 10 global ranking.
- France is extremely fertile ground for the development of first-rate asset management services: Paris is home to some internationally recognised entrepreneurial successes (Carmignac Gestion, Financière de l’Echiquier). Such “French boutiques” contribute to the growth of the French financial industry.
- The first two ELTIF European funds (European Long Term Investment Funds) have been authorised by the Autorité des Marchés Financiers (AMF).
- The AMF and the French Asset Management Association (AFG) are launching FROG, a working group that is intended to raise the profile and broaden the distribution of French investment funds abroad. The creation of the FROG group is a very positive sign that the industry’s energy is focused on making the French financial ecosystem more appealing to investors. By proposing to implement simple and concrete initiatives, FROG can contribute to the development of top notch asset management services.

**LAW**
- Paris is very attractive in the field of international arbitration on commercial litigation hosting the International Court of Arbitration of the International Chamber of Commerce in Paris.
- Gibson Dunn LLP opened a new office in Paris after the announcement of Brexit.
- Paris is hosting the International Chamber of Commerce (ICC).

**FINTECH**
- Paris is launching a brand new welcoming program for foreign companies: the Paris Landing Pack.
- Between the 2nd and 3rd quarters of 2016, capital invested in UK for FinTech has barely increased by € 71 million, compared with an increase of € 560 million for France.

**MARKET INFRASTRUCTURE**
- Euronext Paris, which merged with the Amsterdam, Lisbon and Brussels exchanges in September 2000 to form Euronext NV, is the second largest exchange in Europe behind the UK’s London Stock Exchange Group.
- LCH Clearnet is the second largest central counterparty clearing house (CCP) in Europe becoming the leading CCP for sovereign bonds.
## The Current Status of Financial Centres and the Actors Within Them, in Comparison with London

<table>
<thead>
<tr>
<th>CIB</th>
<th>ACCOUNTANCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deustche Bank is planning to move up to 4,000 staff to Frankfurt from London</td>
<td>Three of the four largest international accountancy and professional services firms are present: PricewaterhouseCoopers, KPMG and Ernst &amp; Young</td>
</tr>
<tr>
<td>Goldman Sachs is transferring up to 1,000 employees from London to Frankfurt, including traders</td>
<td></td>
</tr>
<tr>
<td>Frankfurt is one of the top EU financial centre choices because the European Central Bank is headquartered there</td>
<td></td>
</tr>
<tr>
<td>The local authorities want to bring German labor law closer to British standards in order to attract London bankers</td>
<td></td>
</tr>
<tr>
<td>The Single Supervisory Mechanism by which the European Central Bank was to assume responsibility for specific supervisory tasks related to the financial stability of the biggest and most important Eurozone banks is in Frankfurt</td>
<td></td>
</tr>
<tr>
<td>Germany is the main precursor for cluster policy and cluster initiatives in Europe, with some policies starting since the 1990s</td>
<td></td>
</tr>
</tbody>
</table>

### Frankfurt

<table>
<thead>
<tr>
<th>Asset Management</th>
<th>Law</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swiss bank UBS has set up a bank in Frankfurt to consolidate most of its European wealth management operations</td>
<td>Frankfurt has the highest concentration of lawyers in Germany, with one lawyer per 97 inhabitants</td>
</tr>
<tr>
<td></td>
<td>Frankfurt is home to around 44 Law firms</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Insurance</th>
<th>Fintech</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two institutions of the European System of Financial Supervisors, the European Insurance and Occupational Pensions Authority and European Systemic Risk Board are installed in Frankfurt</td>
<td>Ginmon, a Germany-based Robo Advisor firm, has moved into the new centre ‘The Spot’, a Frankfurt Fintech hub, along with other Fintech startups in order to settle in the city’s financial district</td>
</tr>
<tr>
<td></td>
<td>Germany has the second highest number of patent applications worldwide, which is a key success factor for the economy specifically in the Fintech sector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stock Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frankfurt Stock Exchange is an important European hub for trade fairs and financial services, the main rival of Euronext</td>
</tr>
<tr>
<td>According to the 2015 Futures Industry Association, Eurex Exchange is ranked as the world’s third-largest derivatives exchange by contract volume</td>
</tr>
</tbody>
</table>
THE CURRENT STATUS OF FINANCIAL CENTRES AND THE ACTORS WITHIN THEM, IN COMPARISON WITH LONDON

CIB
- Bank of America Merrill Lynch is actively looking for more office space in Dublin, capable of accommodating hundreds of additional staff as it prepares for the outcome of Brexit. Any expansion would be in addition to the group’s plans to increase its Irish workforce by 17 per cent to more than 700 people, as it develops its global technology and operations hub in Dublin.

ASSET MANAGEMENT
- Asset and wealth management industry plays an important role in Ireland’s export-oriented open economy with €3.8tn of investor assets serviced by Irish service providers.
- 340 UK based asset management firms have investment funds domiciled from Ireland.
- Standard Life, which is merging with Aberdeen Asset Management to create a £650bn giant, is considering making Dublin its new hub inside the EU as it prepares for the UK to lose easy access to the single market, the firm’s chairman said.

INSURANCE
- Lloyd’s of London insurer Beazley PLC will hire additional staff in Ireland to establish a European insurance company English-speaking, flexible and highly skilled workforce.

LAW
- The number of applications to the Irish Bar from England and Wales has never been so high after the Brexit. According to a report by Legal Week, Slaughter and May is funding an increasing number of lawyers to join the roll of solicitors in Ireland.

CLEARING
- CME Group Inc. is examining options in Dublin to ensure its clearinghouse keeps access to EU customers after the UK leaves the bloc.

ASSET MANAGEMENT
- Luxembourg is Europe’s largest investment fund centre and the world’s largest after the USA, accounting for more than EUR 3 trillion in assets under management.
- Columbia Threadneedle Investments have stated “we have begun the process of applying to expand the scope of our Luxembourg-based management company to enable us to establish an asset management presence in Europe.”
- In the mutual fund industry, Luxembourg has a global market share of 16%.
- With a maximum corporate tax rate of 29.22%, the Luxembourg fiscal environment is also appealing to companies.
- Political system with great stability and advantageous tax system.

AMSTERDAM
- Good transport links and English is widely spoken.
- Financial technology, digital connectivity and unique atmosphere.

STOCK EXCHANGE
- Euronext has offices in Amsterdam.
- Amsterdam has been a dynamic marketplace for 500 years and is already home to major international investors.
THE CURRENT STATUS OF FINANCIAL CENTRES AND THE ACTORS WITHIN THEM, IN COMPARISON WITH LONDON

**CIB**
- PM of Italy: “Milan is a different city. It does not have some of the big limitations and bottlenecks of other cities”
- “Civil justice is at European levels, the underground works well and costs less than in London, and security and bureaucracy are fine”

**CIB**
- Lloyds Banking Group has decided to convert its Berlin branch into an official subsidiary of the main company, to enable the lender to keep providing clients with all its services after the split

**FINTECH**
- Berlin as a startup hub offers unique access to a vast pool of specialist labour and a big network of investors
- Berlin has already attracted over 70 FinTech companies, which makes it the biggest FinTech cluster in Germany
- This has led to more than 100 companies asking to relocate from London to Berlin
- Berlin startups raised €2.4 billion in venture capital funding in 2015, more than London or Stockholm

**CIB**
- Madrid’s regional government is positioning the city as the low-cost, high-sun alternative to other financial centres such as Frankfurt, Paris and Dublin in the fight for London’s crown
- Cheap and well-educated labor force
- Influential role in Central Europe
- Goldman Sachs will expand its Warsaw office to “several hundred” people over the next three years
- JP Morgan Chase is considering creating back-office positions in Poland as part of a plan to continue to look for alternative places for operations

**INSURANCE**
- Really robust reputation for regulation
- Good accessibility to talent
- Brussels is to host Lloyds of London’s European hub, beating off competition from six other EU cities to entice the 329-year-old organization

**CIB**
- Many of the biggest US and European banks are accelerating the shift of thousands of people and ever more critical activities out of the main financial centres to lower-cost locations. Executives at BNP Paribas are drawing up plans to hire several thousand additional staff over the next three years in Portugal.
PARIS, FRANKFURT, DUBLIN AND LUXEMBOURG ARE IN THE STRONGEST POSITION TO BENEFIT POST BREXIT ACCORDING TO THE NEW AMENDED FINANCIAL CENTRE RANKING INDEX (INCLUDING TAX AS A DRIVER).

REVIEW OF THE SPECIFIC LEVERS THAT EU FINANCIAL CENTRES NEED TO UNDERTAKE IN ORDER TO MAXIMISE ATTRACTIVENESS POST-BREXIT

<table>
<thead>
<tr>
<th>BUSINESS ENVIRONMENT</th>
<th>HUMAN CAPITAL</th>
<th>REPUTATION</th>
<th>INFRA-STRUCTURE</th>
<th>FINANCE SECTOR DEVELOPMENT</th>
<th>TAX</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARIS</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td></td>
<td>• Paris financial marketplace has undertaken a strategic approach to strengthen its positioning. • Reforms to labour rules and fiscal conditions are underway in order to make Paris more competitive.</td>
</tr>
<tr>
<td>FRANKFURT</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
<td>• Finance city with the ECB located there. Other major asset is regulatory stability. • Financial conditions are advantageous for employers (e.g., payroll taxes on high wages are low comparatively). • Population of 700k, with limited infrastructure and culture comparatively.</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
<td>• Dublin’s main attraction appears to be language, corporate tax rate and the legal system. • However, personal tax rates in Ireland are high by European standards.</td>
</tr>
<tr>
<td>LUXEMBOURG</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
<td>• Appealingly low-tax. Luxembourg bills itself as “the only country that still loves bankers.” • Luxembourg claims right to host EU banking body after Brexit.</td>
</tr>
<tr>
<td>AMSTERDAM</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td></td>
<td>• Good transport links and English is widely spoken.</td>
</tr>
<tr>
<td>MILAN</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
<td>• The Select Milano Committee was established with the purpose of building a permanent bridge between London and Milan, and to relocate in Milan the financial services that could be impacted by Brexit.</td>
</tr>
<tr>
<td>MADRID</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td></td>
<td>• Madrid’s #ThinkMadrid campaign is based on affordable housing, a relatively cheap, well-qualified workforce and plentiful sunshine.</td>
</tr>
<tr>
<td>BRUSSELS</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>• Brussels’ position as a financial center is improving, which could inspire other insurers and specialized financial institutions for which Brussels already has a strong tradition.” Belgian Finance Minister Johan Van Overtveldt said.</td>
</tr>
<tr>
<td>BERLIN</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
<td>• “Berlin is getting stronger and stronger,” said Stefan Franske, head of business and technology at investment agency Berlin Partner.</td>
</tr>
<tr>
<td>WARSAW</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>• Poland wants to attract companies’ middle and back offices rather than their corporate headquarters.</td>
</tr>
<tr>
<td>LISBON</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td></td>
<td>• Portugal’s non-habitual residents’ scheme is very attractive. This special tax regime has a flat income tax rate of 20% for certain income.</td>
</tr>
</tbody>
</table>
FINANCIAL ECOSYSTEM’S RESPONSE TO BREXIT SCENARIOS
WE PREDICT THE IMPACT OF A HARD BREXIT ON THE UK FINANCIAL SERVICES ECOSYSTEM IS A 20% DECREASE IN REVENUE, WITH UK CIB REVENUE COMPRISING 28% OF THE TOTAL REVENUE FALL.

HARD BREXIT: CONSEQUENCE OF BREXIT INDUCED FACTORS AND ECOSYSTEM RESHUFFLING ON THE UK FINANCIAL SERVICES ECOSYSTEM REVENUE (GBP BN), 2016 DATA (SOURCES IN APPENDIX)¹²

FOCUS ON UK CIB: REVENUE (GBP BN) SPLIT BY CLUSTERS¹

POSSIBLE REMEDIATION – NET UK CIB BREXIT REVENUE AT STAKE

POTENTIAL LEVERS:

- CIB Relocation: favours European banks due to their already existing EU presence
- Reducing Uncertainty: pressing the UK government for passporting rights
- Agility of Product Offering: to cater to new post-Brexit client base and environment
- Contingency Planning: to be prepared for all Brexit eventualities

SCOPE: UK CIB revenue = revenue generated in the UK
Brexit Revenue at Stake figures are potential relocation amounts outside the UK in the case of a Hard Brexit

¹ Our analysis is focused on the 'end short-term state' economics, consequently we are not reviewing transitional costs (e.g. cost of migration including HR and IT). In addition, we are only focusing on revenue, and do not attempt to derive profitability impacts. ² Brexit Induced Factors are the 7 negative and positive factors already stated. Ecosystem Reshuffling is how the 6 actors will react to Brexit.
### Scenario 1 – Soft Brexit

- Soft Brexit, where London’s financial services sector and overall business are not greatly impacted
- London maintains its status as the leading global financial centre

<table>
<thead>
<tr>
<th>GBP, bn</th>
<th>FTEs k</th>
</tr>
</thead>
<tbody>
<tr>
<td>194</td>
<td>1.04m</td>
</tr>
</tbody>
</table>

#### UK Revenue (annual)
- Revenue Reduction: Brexit Induced Factors: GBP 2.25bn
- Ecosystem Reshuffling: GBP 0.75bn

<table>
<thead>
<tr>
<th>£m</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
<td></td>
</tr>
<tr>
<td>62</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

#### UK HR (FTEs)
- 104

### Scenario 2 – Medium Brexit

- Medium Brexit, with London’s financial services sector declining initially but the majority of business stays
- Certain European financial centres will become specialised in particular ecosystem actors, for example Frankfurt CIB, Dublin Law, Luxembourg Asset Management

<table>
<thead>
<tr>
<th>GBP, bn</th>
<th>FTEs k</th>
</tr>
</thead>
<tbody>
<tr>
<td>179</td>
<td>979</td>
</tr>
</tbody>
</table>

#### UK Revenue (annual)
- Revenue Reduction: Brexit Induced Factors: GBP 11bn
- Ecosystem Reshuffling: GBP 4bn

<table>
<thead>
<tr>
<th>£m</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

#### UK HR (FTEs)
- 979

### Scenario 3 – Hard Brexit

- Hard Brexit, with a significant proportion of London activities being relocated among a few European financial centres (in particular Frankfurt and Paris)
- A substantial part of the financial ecosystem will relocate away from the UK (London) in this scenario where loss of Passporting will take place, but London will remain a competitive global financial centre

<table>
<thead>
<tr>
<th>GBP, bn</th>
<th>FTEs k</th>
</tr>
</thead>
<tbody>
<tr>
<td>158</td>
<td>859</td>
</tr>
</tbody>
</table>

#### UK Revenue (annual)
- Revenue Reduction: Brexit Induced Factors: GBP 29bn
- Ecosystem Reshuffling: GBP 10bn

<table>
<thead>
<tr>
<th>£m</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

#### UK HR (FTEs)
- 859

### Current State:

- **Total annual UK revenue:** GBP 197bn
- **Total UK HR FTEs:** 1.05m

---

#### The Impacts of Brexit on the European Financial Services Ecosystem

- CIB
- Retail Banking
- Asset & Wealth Management
- Insurance / Reinsurance
- Stock Exchange
- Other Financial Ecosystem Services
EURO CLEARING – DEEP DIVE

EURO CLEARING – DEEP DIVE

EURO CLEARING –
CURRENT STATUS

◆ The UK is the dominant centre in Europe for Euro Clearing. Around EUR 80 trillion of notional EUR-denominated derivatives trades are currently booked in the UK.

◆ Around 70 per cent of Euro-denominated trades, with a notional value of EUR 930bn, are cleared in the UK each day.

◆ GBP 1-1.2 trillion bank assets (loans, securities and derivatives, in which trading-related exposure is GBP 700-800bn) and GBP 350-400bn total RWA exposure currently booked by UK based banks to EU clients, whereby GBP 40-50bn of equity capital held against risk is required by banks.

EURO CLEARING –
POSSIBLE FUTURE IMPACTS

◆ If all Euro Clearing was moved to the EU (currently under discussion as a potential scenario), the following impacts are predicted in the near future:

   1. It is estimated the total amount of collateral that would have to be committed, with the market now more fragmented inducing additional instability in the EUR-denominated market with increased systemic risk, would rise by 40-60%, from GBP 65bn currently

   2. EUR swaps moving to a EU clearing house from the UK would entail additional default fund contributions from clearing members, which is forecasted to be an increase of 20-40%, from GBP 12.5bn currently

   3. If UK clearing houses are not able to obtain equivalence status, EU banks with positions in UK clearers would have to hold a larger amount of equity capital due to the higher risk weightings required.
SELECTED FINANCIAL ECOSYSTEM ACTOR INTERVIEWS ON THE IMPACTS OF BREXIT

<table>
<thead>
<tr>
<th>INSTITUTION</th>
<th>IMPACTS OF BREXIT</th>
</tr>
</thead>
</table>
| SOCIÉTÉ GÉNÉRALE | ◆ Loss of passporting  
◆ No equivalence  
◆ No 2 year probation period extension  
◆ Potential moves of CCPs: it means a lose game where ecosystem will bear rebuilding costs while not charging clients for that Revenue at risk mentioned as ‘significant’  
◆ Retroplanning from May 2019 means being ready by May 2018 |
| LONDON ATTRACTION | ◆ One stop shopping for clients  
◆ Flexibility and ease of doing business (e.g. freetrade)  
◆ Less complexity and more political stability  
◆ Limited appetite for London residents to relocate for economic (e.g. tax) and living standards reasons (e.g. Paris not ready to accommodate international standards such as international schooling)  
◆ Potential backfire of European hard line on Brexit (e.g. Loss of market share as no will from Banking ecosystem to pay to play, stop of Euro Clearing in London / ban of Continental Europe on Derivatives/ Swap clearing)  
◆ Potential reorganization scenario in hub (London) and selected branches (Continental Europe)  
◆ Size of hub and branches to be sorted out |
| EURLONEXT CLEARING | ◆ Euronext confirmed it is pushing to relocate Euro Clearing into Continental Europe  
◆ Euronext thinks no piece of the chain of treatment for any Euro operation could stay in the UK after Brexit without being at least backed-up by a set-up somewhere in the Eurozone. Euronext will carefully watch the clearing business on derivatives which had been relocated in London recently. Eurex in Frankfurt is a good candidate, but Euronext could play a challenger’s role in putting in place rapidly something more innovative and with a better governance as is already the case at LCH in London |

◆ Continental Europe tribe will hedge impact by moving back their resources to HQ  
◆ UK / US banks will favor and saturate best tax locations first then taking into account other drivers such as infrastructure (e.g. country skilled resource pool). So, prediction is Dublin first, then potentially Frankfurt and so on
INFORMATION SOURCES

SUMMARISED SOURCES

EUROGROUP CONSULTING RESEARCH DEPARTMENT – INCLUDING PROPRIETARY DATA AND ANALYSIS WITH A PARTICULAR FOCUS ON CIB ACTIVITIES

DETAILED FINANCIAL ANALYSIS OF THE ANNUAL REPORT OF EACH BANK WITHIN THE UK, USA AND EUROPEAN CLUSTERS

PRIMARY RESEARCH INTERVIEWS (AS DETAILED WITHIN THE STUDY)

EXTERNAL RESEARCH REPORTS, OF PARTICULAR NOTE:

◆ PWC – Leaving the EU: Implications for the UK financial services sector, 2016
◆ The City UK – Key Facts about the UK as an International Financial Centre, 2016
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PRESS ARTICLES
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Institut Louis Bachelier (ILB) is a sponsored network of research in economy and finance. It works to finance, develop and promote excellent research related to the industry’s issues. ILB currently runs more than 45 research programs and has around 350 researchers mobilized via two foundations: “L’Institut Europlace de Finance” (EIF) and “La Fondation du Risque” (FdR).

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October 2017
THE IMPACTS OF BREXIT ON THE EUROPEAN FINANCIAL SERVICES ECOSYSTEM