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By Céline Choulet

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Brexit: the field of possibilities

The June 2016 referendum and triggering Article 50 signalled the beginning of Brexit, the UK's exit from the European Union. Brexit promises to be a long process fraught with obstacles. There are numerous sources of potential conflict, foremost of which are the so-called Brexit bill, the amount the UK must pay the European Union as part of its "divorce settlement", and the rights of EU citizens residing in the UK. Given the close ties between the UK and the European Union, the big challenge in the years ahead will be the negotiation of a new trade agreement. Yet with the UK determined to halt the free movement of people, a priori very few options are open.

By Catherine Stéphan

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The incoming US administration has announced major reforms of financial regulation, which it accuses of blocking the financing of the economy and holding back economic growth and job creation in the country. For the time being, the details of the reforms have not been spelled out, and it is unclear what level of support they will receive from Congress. The setbacks and delays that President Trump has faced in addressing 'priority' areas such as healthcare and tax reform, have served as a reminder, if any were needed, that the President's powers are not unlimited. Moreover, this may delay the implementation of the new administration's deregulation plans.

Repeal of all or part of the Dodd-Frank Act lies at the heart of Donald Trump's reforming ambitions. This far-reaching reform of financial regulation was introduced by the Obama administration in July 2010. It sought to create greater financial stability in the US, limit the moral hazard inherent in the 'too big to fail' status of certain financial institutions and protect taxpayers and consumers of financial products. As this law has been implemented over the past seven years, regulators have focused on strengthening the financial supervision architecture, tightening lending criteria, increasing the transparency requirements for issuers of securitised instruments, toughening up the regulatory framework for the largest banks, limiting their speculative activities, institutionalising the management of regular stress tests or even establishing a framework for dividend payments and/or share buybacks.

By putting a bill to the vote as early as the summer of 2010, at a time when international financial regulators (the Basel Committee and the FSB) had not yet issued their final recommendations, the US was clearly seeking to take the lead on certain major topics such as the treatment of systemic risk and the regulation of derivatives markets. The challenge was also to introduce a flagship act, in the wake of one of the biggest financial shocks ever to hit the US, that would provide better protection to taxpayers from any banking failure. The Dodd-Frank Act is very broad in its reach and gives regulators considerable scope in its interpretation (authorising them to tighten or relax the rules it sets out) and application (scope, precise definitions of the activities and products concerned, schedule for compliance). Political conflict, a lack of financial resources, fragmented expertise and the difficulty of coordinating between regulators have all slowed the process of translating the law into concrete measures and introduced numerous delays and exceptions. The act has been criticised for its complexity, the inadequate regulation of 'shadow banking' companies

and markets and the lack of credibility of its crisis management and resolution approach. In his remarks on leaving the Federal Reserve on 5 April, Daniel Tarullo, a major promoter of tougher financial regulation, recommended a number of adjustments to address these imperfections. Mr Trump, meanwhile, has taken a more pragmatic approach, arguing for the elimination of any rule that does not produce the expected effect and instead has undesirable effects on the economy.

It is clear that the issue of financial regulation's impact on economic growth needs to be addressed. Nevertheless, any large-scale deregulation would carry serious threats to financial stability. Moreover, it could undermine international cooperation and ruin the recent efforts of the Basel Committee to harmonise prudential frameworks between major economic zones. The Committee's regulations are not legally binding, but impose a moral responsibility on its members. They are translated into domestic law through regulations or directives followed by national laws in the European Union or by final rules in the US. If the Dodd-Frank Act blocked the shift of the US towards Basel 2, the application of its recommendations on prudential regulation has mainly consisted, since July 2013, of a convergence of US standards towards the international standards of Basel 3. Abandoning these would run the risk of weakening the solvency and liquidity of US banking institutions, introducing distortions of competition and opening the way to regulatory arbitrage.

The new administration's deregulation proposals contain many uncertainties and are not free of risk. Critics of Basel 3, considered by some to be contrary to American interests, have been particularly strong. However, the US point of view has, thus far, been highly influential within international regulatory bodies. Most notably, it has inspired two enhanced capital requirements that are now under consideration by the Committee. At present, all banks are subject to minimum Basel 3 risk-weighted capital requirements under a standardised approach. US regulators, however, have opted for a differentiated application of other prudential rules (advanced approaches for risk measurement, leverage ratio, liquidity ratio and so on), varying according to the size of banks. Although it looks fairly unlikely that the regulatory environment will be significantly relaxed, the scope of the application of Basel 3 could be narrowed and the body of Basel rules to be applied could be limited. This is the sense of two proposed reforms, which seek to calibrate the leverage ratio at a level which would be applied, for banks exempt from Basel 3, not as an upper limit, but as a permanent constraint.



Proposed financial deregulation

For the time being there has been no announcement of concrete measures to reform the banking regulation. Over the past twelve months sweeping, and occasionally contradictory statements have been made by the Republicans, some asking for a new version of the Glass-Steagall Act (the 1933 law that separated banking activities, repealed in 1999), and others calling for major deregulation through the repeal of the Dodd-Frank Act (DFA). President Trump has done little to hide his profound dislike of DFA¹. In mid-April, at the Strategic and Policy Forum, which regularly brings together at the White House leaders of the financial services industry and members of the administration, Donald Trump reiterated his promises to do *"a major elimination of the horrendous Dodd-Frank regulations, keeping some obviously, but getting rid of many"* such as *"banks will be able to lend again"*.

A paradigm shift

Since his investiture, Donald Trump has ramped up the number of executive orders issued. On 3 February, he signed an order setting out the seven core principles that he believes should govern the reform of financial regulation: (a) empower Americans to make independent financial decisions and informed choices in savings and investment; (b) prevent taxpayer-funded bailouts; (c) foster economic growth and vibrant financial markets through more rigorous regulatory impact analyses; (d) enable American companies to be competitive with foreign firms in domestic and foreign markets; (e) advance American interests in international financial regulatory negotiations and meetings; (f) make regulation efficient, effective, and appropriately tailored; and (g) restore public accountability within Federal financial regulatory agencies and rationalise the Federal financial regulatory framework. The new Treasury Secretary and the heads of the member agencies of the Financial Stability Oversight Council (FSOC²) were charged with conducting a review, within 120 days, on the extent to which existing laws and regulations promote and support these principles. Draft legislation could be published in June on the basis of this review. No doubt the report will be preliminary given the scale of the task. In addition to this order, on 21 April, President Trump suspended for six months, by means of Presidential Memoranda, the use of two tools created by DFA: the procedure for the orderly liquidation of institutions whose failure would have systemic consequences and the procedure for the designation of non-bank companies as 'systemically important'. The Treasury Secretary must report, within 180 days on the appropriateness of maintaining the resolution framework of Title II of DFA. In particular he must assess the risks of moral hazard (excessive risk taking by institutions) associated with it and the probable effects, under the current regime, of the failure of a financial institutions. The

alternative solution of a change to bankruptcy laws is explicitly mentioned. The second memorandum concerns the FSOC's designation of non-bank systemically important companies. The resulting report will assess the transparency of the designation process and the respect of procedures established by the FSOC. The Treasury Secretary must also assess the risks that could be posed to tax-payers and to financial stability by the act of designating non-bank companies or certain financial market utilities as systemically important and subjecting them to enhanced supervision.

Nearly seven years after it came into force, a far-reaching review of the regulations emanating from the Dodd-Frank Act is no doubt welcome. By July 2017, of the 390 total rulemaking requirements, 70% had been met with final rules and 10% more still provisional³, adding some 25,000 pages of final rules and proposed rules to the Federal Register, coming from a dozen different federal regulators.

However, the executive order issued in February goes further than a mere review and constitutes a paradigm shift. Whereas DFA aimed to introduce a wide-ranging programme of financial reforms to enhance financial stability and manage systemic risk, the emphasis has now shifted to making rules which do not hamper economic growth and job creation in the US. The costs and benefits of each regulation will need to be precisely evaluated⁴, the transparency of regulatory and supervisory agencies improved and American interests more vigorously defended (in keeping with the new administration's 'America first' rhetoric).

Changes to financial regulation will require Congressional approval

Various proposals for reforms of the current regulatory framework have been put forward, including a change in the powers delegated to regulatory and supervisory bodies, a rewriting of the Volcker rule⁵, a relaxation of lending conditions, an easing of the specific prudential requirements for community banks⁶, a raising of the threshold for systemically important banks⁷ and a simplification of the stress testing process. For the moment, however, details on the financial deregulation favoured by the new US administration remain unclear.

³ The remaining 20% did not result in any concrete proposals.

⁴ In accordance with the order of 30 January, during the 2017 fiscal year, the net cost of each new regulation must be zero; in subsequent years, heads of government agencies will, for each regulation having an additional cost, have to identify a means of offsetting this by eliminating an existing regulation. A court ruling is currently pending on a case against the 30 January order which required that for each new regulation issued, at least two existing regulations must be cancelled.

⁵ The Volcker rule (section 619 of DFA) aims to separate certain high-risk activities (ban on own-account trading, limits on exposure to venture capital funds or hedge funds) from those businesses covered by government guarantees.

⁶ Banks with assets of less than USD 10 billion under Federal Reserve definitions.

⁷ DFA set this threshold at USD 50 billion: on 31 December 2016, 38 US Bank Holding Companies or Intermediate Holding Companies for foreign banks active in the US had assets above this threshold. Raising the threshold to USD 100 billion would cut the number of systemically important banks to 32; raising it to USD 150 billion would cut the number to 21.

¹ "Dodd-Frank is a disaster", "We expect to be cutting a lot out of Dodd Frank because, frankly, I have so many people, friends of mine, who have nice businesses who can't borrow money [...] because of the rules and regulations in Dodd-Frank".

² The Board of Governors of the Federal Reserve System, the Office of the Comptroller of the Currency, the Bureau of Consumer Financial Protection, the Securities and Exchange Commission, the Federal Deposit Insurance Corporation, the Commodities Futures Trading Commission, the Federal Housing Finance Agency, the National Credit Union Administration, the Office of Financial Research and the Federal Insurance Office.



First, it is worth noting that reforming financial regulation does not appear to be the new President's main priority. In his first address to Congress as President of the US on 28 February, Mr Trump did not mention DFA, nor give details of his administration's plans for deregulation.

Secondly, the confirmation process for candidates for a number of key posts only got under way at the end of March⁸. Twenty or so unfilled posts at the regulatory bodies (notably the position of Vice-Chair of Supervision at the Federal Reserve⁹) or at the Treasury Department are pending review and/or confirmation by the Senate.

Lastly, where financial regulation has the force of law, it can only be repealed through the legislative process. Although the House is controlled by the Republicans, the Democrats have a blocking minority in the Senate. The upper house of Congress generally requires 60 of the 100 votes to pass a law (or more precisely to prevent a filibuster). Currently, Republicans have only 52 Senate seats. Thus with no changes in Senators, eight Democrat votes are needed if certain amendments are to be passed. The desire to ease the regulatory burdens on small banks, raise the threshold above which tougher standards apply from its current level of USD 50 billion, take a lighter approach to stress tests (notably their qualitative sections) and simplify the Volcker rule all have broad support amongst politicians and regulators alike. By contrast, it would be harder to engender bipartisan support for measures that ease lending criteria, do away with the Volcker rule altogether, or relax the solvency and liquidity requirements for the big banks. The regulatory lag is also fairly long: first, Congress must review draft bills, then approve them; next, regulators (as many as five or six bodies for some rules) must interpret the law in the form of a regulation (generally after consultation) before bringing them into force (sometimes according to a timetable of phased implementation). By way of illustration, the Volcker rule, included in the Dodd-Frank act of 2010, was only finalised by the five regulatory bodies involved in 2013. For certain types of exposure, banks then obtained a grace period, running until 2022, for full compliance.

No prudential capital or liquidity standard applicable to the banks can be amended or suspended without the agreement of Congress. Certain regulations that have not yet been finalised or are still in the draft stage, such as the net stable funding ratio (NSFR) proposed in May 2016, or the 'systemic buffer' plan to toughen specific requirements for the biggest banks as part of stress tests, could, however, be abandoned without a vote in Congress.

Some changes could also be introduced as part of the budget reconciliation process, which requires a simple majority in the Senate (51 votes in favour). However, this process is restricted to issues relating to the federal budget. The Consumer Financial Protection Bureau (CFPB) could be forced to get Congressional approval for its budget; the federal funds allocated to the Office of Financial Research

(OFR) could be removed; the powers of the FSOC and the Federal Deposit Insurance Corporation in the area of supervision of systemic risk and orderly liquidation, which were targeted in the 21 April memoranda, could be significantly reduced via this route.

A disintermediated approach to financing

It might seem paradoxical that the US, which was after all the centre of the subprime crisis, could be considering a phase of deregulation. That the question of the effects of regulation on banks' ability to lend should be raised with increasing vigour in a disintermediated economy may seem even more so.

The structure of the financing of the US economy relies more on capital markets than just bank lending. By way of illustration, we estimate that in the US bank loans account for only one-third of the debt of households and non-financial corporations. This is nearly half the figure for the euro area (see Chart 1). The traditional activity of originating loans and holding them to maturity, still widespread in Europe, competes with more disintermediated practices in the US. The depth and liquidity of capital markets, on the one hand, and federal guarantees on the secondary market for mortgage loans, on the other, represent two powerful sources of support¹⁰ (see Chart 2). Since the mid-1990s, debt securities have constituted the main means of financing for US non-financial corporations: at present, nearly 70% of corporate debt takes the form of debt securities (against 15% in the euro area). In the mortgage lending segment, banks carry only some 30% of outstanding loans on their balance sheets, with the bulk of such loans sold and securitised with the help of mortgage refinancing and guarantee agencies (Government Sponsored Enterprises, Ginnie Mae), or originated by non-banks.

A disintermediated financing structure

Comparison of household and non-financial corporate debt at 31/12/2016

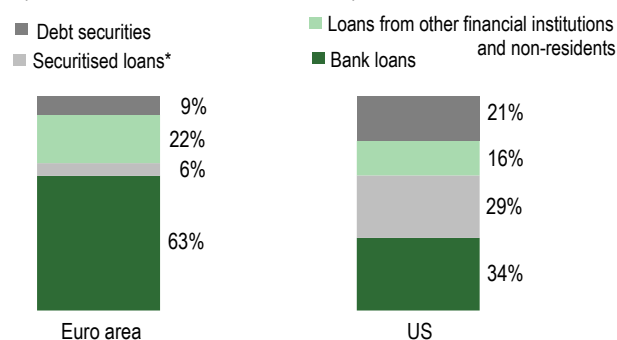


Chart 1

Sources: Federal Reserve, ECB, BNP Paribas calculations

* In the euro area, loans registered on the balance sheets of securitisation vehicles; in the US, loans registered on the balance sheets of mortgage guarantee and refinancing agencies (Government Sponsored Enterprises, Ginnie Mae) and private issuers of securitised products.

¹⁰ See C. Choulet and Y. Shulyatyeva: History and major causes of US banking disintermediation, BNP Paribas, Conjoncture 16-01, January 2016.

⁸ On 2 May, the Senate approved the appointment of Jay Clayton as Chairman of the Securities and Exchange Commission (SEC) by 61 votes to 37.

⁹ Fed Governor J. Powell has been appointed as Chairman of the Fed's Supervision and Regulation Committee. In the absence of a Vice Chairman of Banking Supervision on the Council of Governors (Randal Quarles has been named as one possible appointment), J. Powell will take this role over the coming months, in much the same way as Daniel Tarullo has done thus far.



The major role of federal guarantees and markets in the financing of the US economy

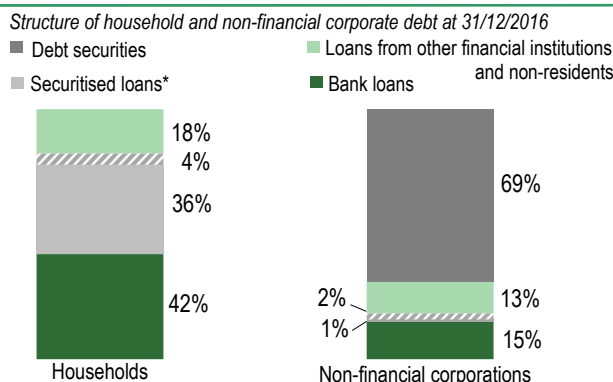


Chart 2

Sources: Federal Reserve, BNP Paribas calculations

* Loans registered on the balance sheets of mortgage guarantee and refinancing agencies (Government Sponsored Enterprises, Ginnie Mae) (full shading) and private issuers of securitised products (hatched areas).

As a result, trends in lending cannot be judged solely in the light of loans on bank balance sheets. It makes more sense to consider the total debt of households and non-financial corporations. Whilst in the aftermath of the financial crisis the debt rate of private non-financial agents fell as a result of loan write offs, renegotiation of debt at lower rates and a drop in new lending, it has recovered over the past few years, with strong growth in the issuance of debt securities by non-financial corporations since the end of 2010 and growth in loans to households since March 2015. In September 2016, corporate debt as a proportion of GDP reached a record high of 45.7%, with household debt representing 104% of GDP (see Charts 3 and 4). Over and above the structure of the debt, there is also the question of its sustainability. It should be remembered that the last three record highs of US non-financial corporate debt preceded the onset of recession in the country. Although the average quality of loans has improved, in major part thanks to tightening of lending criteria (particularly in the residential mortgage sector), some areas continue to cause concern, including student loans, car loans and commercial real estate loans¹¹.

The slowdown in bank lending to US corporations that is sometimes cited (on the basis of weekly figures, year-on-year growth was 2.9% in early April, from 12.5% two years ago), is not, on its own, sufficient evidence of the supposedly 'devastating' effects of bank regulation. In general terms, growth in loans to corporations, from all sources, has slowed over the past two years. Banks seem to have gained some ground on other financial institutions, as the proportion of loans on their balance sheets recovered to 54% at the end of 2016, following a period of virtually uninterrupted decline since the early 1980s (in favour of non-bank lenders, investment funds and issuers of securitised products). Indeed the low point, at 38%, was reached in the third quarter of 2010, at precisely the time Dodd-Frank was enacted. The slowdown in loans has not been produced by a specific constraint on banks, but rather by the favourable low interest rate conditions for debt securities. Concern

over the contraction in the proportion of loans to small corporations (who largely finance themselves through traditional loans), does, however, appear to have a more solid basis. Loans to such corporations accounted for 31% of total business lending in 2010, a figure that had fallen to 22% by 2016.

NFC debt at record highs

Non-financial corporate debt (loans and debt securities) as a % of GDP

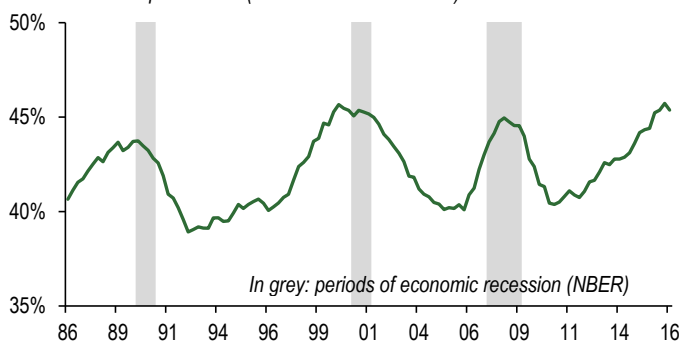


Chart 3

Sources: Federal Reserve, Macrobond

Household debt is rising again

Household debt as a % of GDP

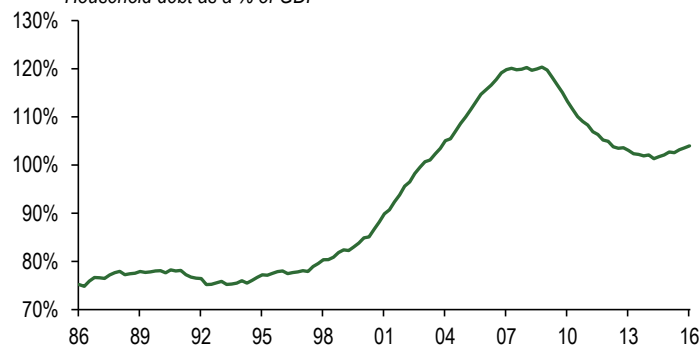


Chart 4

Sources: Federal Reserve, Macrobond

In the household lending segment, mortgage origination and servicing activities have, it is clear, suffered from new banking regulations (increased capital requirements for lending and mortgage servicing rights, tightening of lending criteria) although other factors have also come into play such as the pressure on net interest margins from low interest rates, the costs of loan buybacks and disputes linked to the mortgage market, and increased requirements from guarantee and refinancing agencies in terms of declarations and guarantees. Thus in 2015, half of residential mortgages were originated by non-bank mortgage lenders (the highest level since at least 1995). In 2014, the twenty biggest servicers, responsible for the recovery of 65% of residential mortgages, included nine non-bank institutions with total market share of 27%.

¹¹ Semiannual Monetary Policy Report to Congress, Board of Governors of the Federal Reserve System, February 2017.



Any change in regulations creates, by definition, the risk of regulatory arbitrage and a displacement of risk. Yet, the increased competition from independent mortgage lenders and on-line lending platforms – for the consumer and SME segments – calls not for a relaxation of banking regulations so much as better regulation of these shadow banks. As with corporate debt, this is a financial stability issue.

Basel 3: American influence

One of the topics that raises Republican criticism is the Basel 3 agreement (international standards on banking regulation developed by the Basel Committee since 2009), which is accused of being unfavourable to Americans¹². However, it appears that so far, the US's involvement in this international cooperation has been an effective way for the country to influence the direction of discussions. From a general point of view, the implementation of the Dodd-Frank Act recommendations in terms of prudential regulation has mainly consisted of a convergence of US standards towards the international standards of Basel 3 – which the Basel Committee itself judges satisfactory¹³ –, but the US 'vision' continues to play an important role. This is reflected in two higher standards introduced by US regulators above the level required by the Basel recommendations (capital floor, leverage surcharge for systemic banks), which are now on the Committee's agenda (or at least they were until the postponement, in January 2017, of the finalisation of the Basel 3 agreements). These two examples serve as a reminder of US regulators' influence but also of their longstanding attachment to capital requirements that are simple and as little sensitive to risk as possible.

The introduction of a capital floor

US regulators finalised the transcription of the new international solvency standards into American law in July 2013 (two years after the publication of the final Basel recommendations), with an effective date of 1 January 2014 for the biggest banks¹⁴. As with Europe's CRR/CRD4, the US rules raised the quality of assets that qualify for prudential capital (the numerator of solvency ratios), changed the details for the calculation of risk-weighted assets (RWA) in both the standardised and advanced approaches (denominators of the ratios)¹⁵, and increased minimum ratio levels. In the US, regulators elected to differentiate the

application of the prudential rules according to the size of the bank, whilst in the European Union their counterparts have applied them to all credit institutions (see box, pages 13 and 14).

Only 10 US banks publish capital ratios using the advanced approaches

Under DFA, regulators sought to impose the new risk-weighted capital requirements on as many banks as possible. This was done as, at present, all banks are subject to minimum Basel 3 risk-weighted capital requirements using the standardised approach. However, only the biggest internationally active banks (i.e. the 13 banks at end-2016 with total consolidated assets greater or equal to USD 250 billion or with USD 10 billion or more in on-balance sheet foreign exposures) and the two 'opt-in' banks¹⁶ are subject, or have chosen to be subject, to the Basel 3 advanced approaches¹⁷.

Thus only fifteen banks, representing 64% of total consolidated banking assets at end-2016, have, under Basel 3, developed their own internal risk assessment models. The Fed has designated these as the Advanced Approaches Banks, or AA-banks for short. By the end of 2016 ten of these fifteen AA-banks had had their internal risk assessment models approved by their supervisory bodies (these ten banks together represented 57% of total banking assets). The other five are still in the so-called 'parallel run' phase: pending approval of their models, their solvency is assessed only on the basis of their capital as measured under the standardised approach (see Table 1).

List of banks subject to the US version of the Basel 3 Advanced Approaches (AA-banks)

	Balance sheet at 31/12/2016, USD billion
Banks whose internal models have been approved	
JPMorgan Chase & Co. (JPM)	2,491
Bank of America Corporation (BoA)	2,188
Wells Fargo & Company (WF)	1,930
Citigroup Inc. (Citi)	1,792
Goldman Sachs Group, Inc. (GS)	860
Morgan Stanley (MS)	815
U.S. Bancorp (USB)	446
Bank of New York Mellon Corp (BONY)	333
State Street Corporation (STT)	243
Northern Trust Corporation (NTT)	124
Banks engaged in 'parallel run'	
PNC Financial Services Group, Inc.	366
Capital One Financial Corporation	357
TD Group US Holdings LLC	344
HSBC North America Holdings Inc.	278
American Express Company	159

Table 1

Sources: National Information Center, annual reports

¹² For the moment, the Federal Reserve has been asked not to continue to attend Committee meetings, until the vacant post of Vice-Chairman of Banking Supervision is filled, and more details are provided on the direction of financial regulation in the US.

¹³ <http://www.bis.org/bcbs/publ/d301.pdf> and <http://www.bis.org/bcbs/publ/d404.pdf>.

¹⁴ When the Basel 3 agreements were introduced, Prompt Corrective Action (PCA) measures were maintained, with the trigger levels and sanctions of these measures simply adjusted to the new minimal requirements.

¹⁵ There are three methods of risk measurement in the Basel texts: the standardised approach, the foundation internal ratings based approach and the advanced internal ratings based approach. The internal ratings based approaches (IRB) allow banks, subject to approval by their supervisory body, to replace standardised weightings (based on external ratings) used in the calculation of risk-weighted assets with weightings based on parameters assessed by the banks themselves. In addition to the assessment of the probability of default allowed under the 'Foundation' IRB, the Advanced IRB allows banks to use internal models to assess other risk parameters (loss given default, exposure at default, maturity). The Foundation IRB approach has not been introduced in the US.

¹⁶ American Express Company and Northern Trust Corporation.

¹⁷ Moreover, only the AA-banks are subject to the greater requirements of the Countercyclical Capital Buffer (currently set at 0%). This capital requirement applies when regulators judge that growth in lending is excessive and threatens a build up of risk across the system.



Under the US version of Basel 3, the AA-banks whose models have been approved make a quarterly calculation of their Common Equity Tier 1 (CET1), Tier 1 and Total Capital ratios under the two approaches (standardised and advanced) and compare the lowest ratio with the regulatory threshold to determine whether or not their solvency is satisfactory. They are thus subject to a permanent capital 'floor', equivalent to 100% of risk-weighted assets calculated under the Basel 3 standardised approach (as adopted in the US, see below), a requirement inherited from DFA. In other words, solvency ratios at the AA-banks are not allowed to be lower than those calculated under the standardised approach.

Use of internal models for valuing risk-weighted assets is not only in less widespread use in the US than in the European Union, but is also a more recent arrival.

In both zones, advanced approaches were introduced as part of the legislative framework implementing the Basel 2 agreements (in December 2007 in the US, coming into force in April 2008)¹⁸. For regulators, the aim was to encourage banks to better assess and manage the risks to which they were exposed. At the end of the parallel run phase (the period of testing of internal models spread over at least four consecutive quarters), the 2007 final rule envisaged that major banks would be required to maintain, during a 3-year transitional period, capital above a floor level based on capital calculated on the standardised approach multiplied by an adjustment factor (95% in the first year, 90% in the second and 80% in the third).

The Dodd-Frank Act, which came into force just a few months after the core banks entered the parallel run process (April 2010, see Table 2), made the implementation of the Basel 2 framework in the US redundant, as banks barely had the time to demonstrate the relevance of their models over the required four quarters. Whereas in Europe the Basel 2 standardised and Foundation IRB¹⁹ approaches came into force in 2007, followed by the Advanced IRB approach in 2008 (after a one-year parallel run period), no US bank was able to complete its Basel 2 qualification. DFA (under the Collins amendment, Section 171) also removed all references to transitional floors of less than 100%. It requires that any minimum risk-weighted capital or leverage requirement introduced by the regulator is no lower than "generally applicable requirements", which thus serve as a floor, nor below the "generally applicable requirements" in force at the time the law was passed. In summary, this rule created, in July 2010, a permanent Basel 1 floor for any new capital adequacy rule. In accordance with the final rule enacted in July 2013, Basel 3 risk-weighted capital ratios, calculated using the new standardised approach, became the new "generally applicable requirements", and thus the new floor, from 1 January 2015.

The final rule of July 2013 ensured the convergence of US standards and Basel 3 standards, a development that had long been doubted

following the announcement of delays in finalising the rule²⁰. The introduction of the new advanced approaches under the Basel 3 framework required a parallel run period from which US banks only emerged in February 2014 at the earliest. Thus although estimates were given in 2013 annual reports, it has only been since the second quarter of 2014 that major US banks have published their capital ratios under the advanced approaches (see Table 2 and schema).

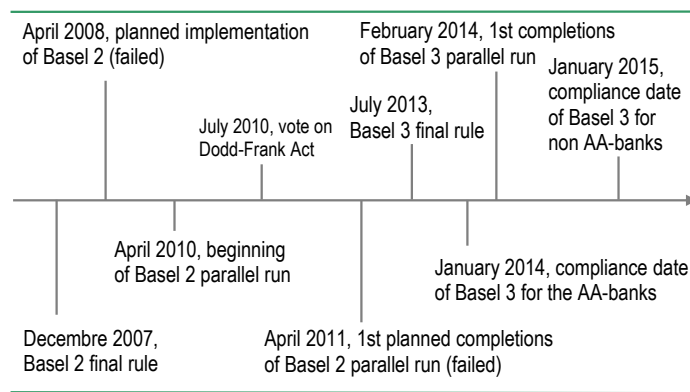
First releases of capital ratios under the advanced approaches in the US

	Beginning of parallel run under Basel 2 US	Authorisation to leave Basel 3 US parallel run	1 st publication of risk-weighted assets under Basel 3 US advanced approaches
Citi	Apr. 10	Feb. 14	Q2 2014
GS	Apr. 10	Feb. 14	Q2 2014
JPM	Apr. 10	Feb. 14	Q2 2014
NTT	Apr. 10	Feb. 14	Q2 2014
BoA	Apr. 10	Sept. 15	Q4 2015
BONY	July 10	Feb. 14	Q2 2014
MS	July 10	Feb. 14	Q2 2014
STT	July 10	Feb. 14	Q2 2014
USB	2011	Apr. 14	Q2 2014
WF	July 12	March 15	Q2 2015

Table 2

Source: Annual reports

Implementation of Basel 3 in the US



Schema

Incomplete application of the standardised Basel 3 framework

Among the banks authorised to use the advanced approaches, assessment of total risk-weighted assets under internal models (advanced RWA) exceeds that based on the standardised approach (standardised RWA) in 6 (or 7) cases out of 10 since the fourth quarter of 2015, even though credit and counterparty risks are systematically higher when assessed using the standardised approach (see Chart 5).

¹⁸ US regulators planned to make adoption of the Basel 2 standardised approach optional (for banks not subject to the advanced approaches).

¹⁹ See Note 15.

²⁰ In November 2012, US regulators announced that the rules transcribing the Basel 3 agreements, which had been put out to consultation in June, could not be finalised by the end of December and applied from 1 January 2013 as originally planned.



This observation is due in large part to the fact that the standardised Basel 3 approach has not been fully transcribed in the US. First, the US version eliminates all reference to credit ratings from the ratings agencies (DFA, Section 939A). For a large number of exposure types (retail loans, mortgages, corporate loans), the standardised measure of credit risk remains faithful to the Basel 1 framework, with the result that the standardised Basel 3 approach in the US is a sort of hybrid, combining elements of the Basel 1 and Basel 2 frameworks. Secondly, neither the standardised requirement on operational risk nor the Credit Valuation Adjustment (CVA²¹) that takes account of counterparty risk in the over-the-counter derivatives market, have been transcribed into US law. In other words, no capital charge is explicitly required to cover these two types of risk in the standardised US approach, whereas, on average, operational risks alone account for nearly one-third of total risk-weighted assets under the advanced approaches (see Chart 6). The US advanced approaches also differ somewhat from the Basel framework. In particular, total advanced RWA for US banks are increased by a fixed 'add-on' equivalent to 6% of advanced RWA relating to credit and counterparty risk (excluding the CVA).

Overall, the advanced approaches always are less favourable for JP Morgan, Bank of America, Citigroup, Morgan Stanley, Bank of New York Mellon and Goldman Sachs (since end-2015 only for Goldman). The standardised method is systematically more constraining than internal models for Wells Fargo, US Bancorp and Northern Trust. The two approaches give virtually identical RWA figures for State Street.

A Basel 3 floor close to 75%, with a definition of the standardised approach that is closer to the Basel texts

In the final quarter of 2016, for the six AA-banks constrained by the advanced approaches, the ratio of advanced RWA to standardised RWA stood on average at 108%. We believe, however, that this ratio is inflated by the fact that the US standardised approach does not include RWA for operational risk. At the end of 2014, during the review by the Basel Committee of the implementation of Basel 3 into the US regulatory framework, American regulators took the view that although they had not introduced the standardised approach for operational risk into their domestic rules, the standardised approach for credit risk contained an "implicit" capital charge for operational risk. Even so, neither the final rule as included in the Federal Register, nor any statement from a bank has addressed this point. Thus, in the absence of any concrete proof otherwise, we consider that standardised RWA, in their US version, should be seen as Basel 3 standardised RWA excluding operational risk. We have calculated the likely ratio of advanced RWA to standardised RWA under a definition of RWA that is closer to the original Basel 3 framework. Taking account of the CVA and operational risk (on an advanced rather than standardised basis as recommended by the BCBS) would increase standardised RWA by 36%, whilst the exclusion of the 6% add-on would lower advanced RWA by an average of 3% (see Chart 7). Overall, therefore, the ratio of advanced RWA to standardised RWA would stand at 75% (see Chart 8). For the reasons given above (standardised RWA, in

the US approach, could "implicitly" integrate operational risk), this figure should no doubt be seen as a minimum.

Capital requirements are generally higher under the advanced approaches

Comparison of RWA calculated under the standardised (SA) and advanced (AA) approaches in Q4 2016

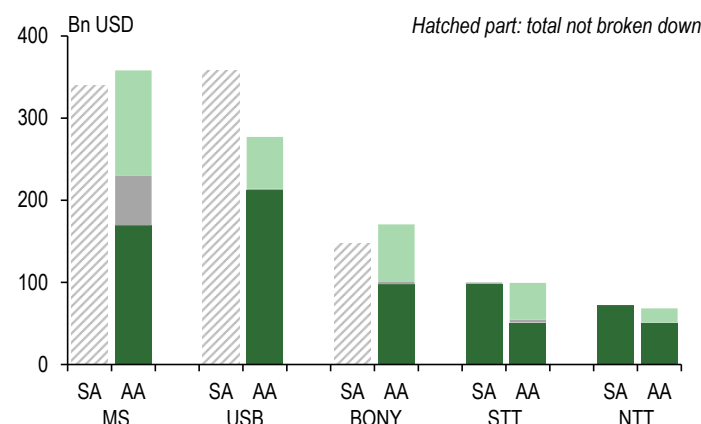
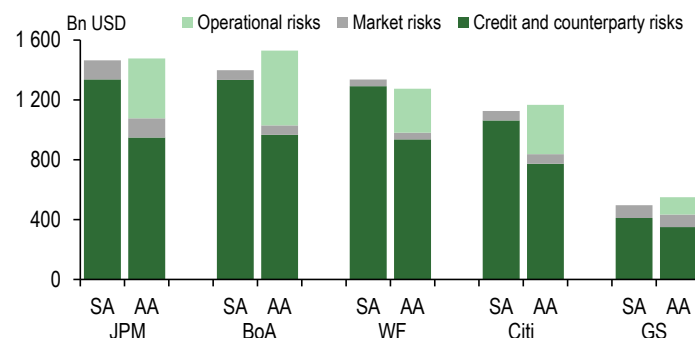


Chart 5

Sources: Annual reports

Weight of operational risk in total advanced RWA

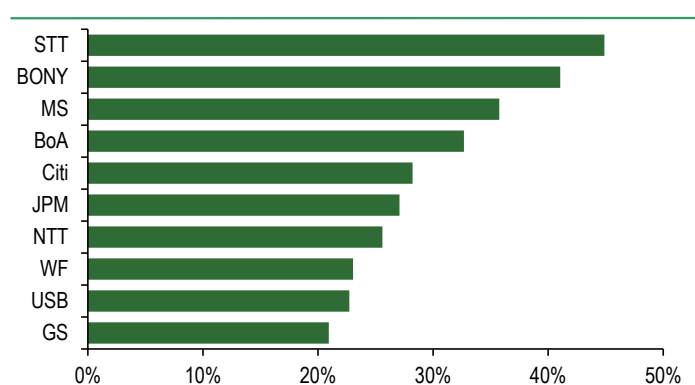


Chart 6

Sources: Annual reports

²¹ Capital charge for adjustments to the valuation of assets resulting from a deterioration in the credit rating of a counterparty.



Standardised RWA under-estimated in US version of Basel 3 standardised approach ?

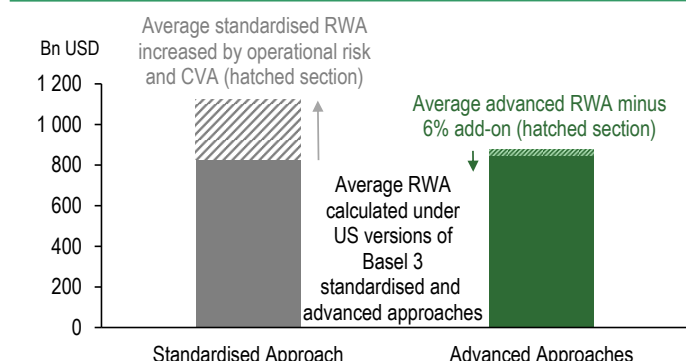


Chart 7 Sources: Annual reports, BNP Paribas calculations

Ratio of advanced RWA to standardised RWA: close to 75% in the US ?

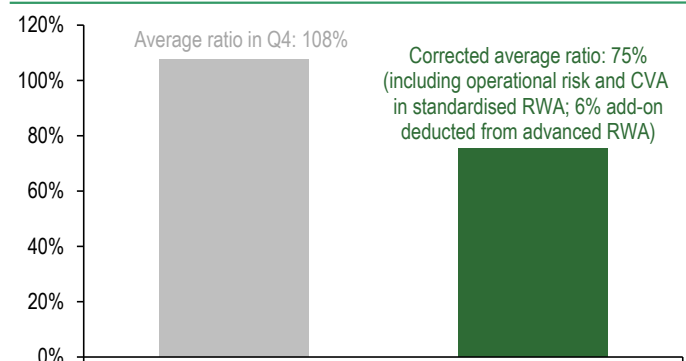


Chart 8 Sources: Annual reports, BNP Paribas calculations

Our calculations suggest that a 'purer' Basel standardised approach would still be less favourable than internal models for all AA-banks. In other words, we believe that standardised RWA, in their corrected version, represent the higher, and therefore relevant denominator for the calculation of capital ratios for all AA-banks.

The possibility of introducing a permanent floor, based on the standardised Basel 3 capital requirements, was added to the Basel Committee's agenda in the course of 2014²². No consensus on this topic has yet been established, but last December there were rumours that certain members of the Committee intended to raise to 70% or 80% the ratio of advanced RWA to standardised RWA, a level that on our assumptions and calculations would be very close to that currently observed in the US. Until the Federal Reserve suspends its participation in international regulatory bodies, it seems likely that consensus will be hard to reach. European representatives fear that the introduction of an output floor will

penalise European banks relative to their US competitors²³. The latter retain only a small proportion (less than one-third) of their mortgage loans on their balance sheets and, generally, transfer the least risky (lowest weighted) loans to GSEs (90-day default rates on mortgages on the balance sheets of US banks stood at 3.13% at end-2016, compared to 1% at Freddie Mac and 1.2% at Fannie Mae). In comparison, European banks carry the bulk of their mortgage loans on their balance sheets (with mortgages in certain countries showing default rates well below those seen in the US²⁴). Given the credit risk retained on balance sheets, US banks are therefore penalised less by the standardised approach than certain European banks.

Tougher requirements for G-SIBs

In accordance with DFA (Section 165) and the Basel recommendations, US regulators have toughened up the specific capital requirements for those banks whose failure could create a global systemic risk. However, the restrictions introduced go well beyond the Basel recommendations.

In terms of risk-weighted capital requirements

US regulators have adopted the methodology for identifying Global Systemically Important Banks (G-SIBs) developed by FSB and the Basel Committee, which is based on five criteria: size; interdependence; absence of direct substitutes or financial infrastructure for the services they supply; global cross-border activity; and complexity. Using this methodology, eight US banks have been identified as G-SIBs²⁵. However, US regulators use two methods to evaluate the additional layer of capital associated with the risk profile of each of these banks. The more severe of the two results is the one then used. The first is based on the same criteria as used in the identification of G-SIBs: using a series of bands, each bank is subject to additional capital requirements as a function of their relative score. The second method replaces the substitutability criterion with a measurement of reliance on short-term wholesale funding and favours an absolute measurement of the systemic importance of each bank. For all US G-SIBs, the second method is the most severe and results in higher capital surcharges (between 50 and 200 additional basis points) than the FSB method (see Table 3).

²² It should be remembered that a Basel 1 floor of 80% accompanied the publication of the Basel 3 agreements in 2011.

²³ In Europe, most major banks calculate risk-weighted assets using a mixture of standardised, foundation and advanced approaches, whilst smaller banks use only the standardised approach. At the end of 2015, the ECB launched a targeted review of internal models (TRIM) of the banks under its aegis (68 banks use internal models) in order to examine their relevance and degree of comparability. This review is due to be completed in 2019. The Europeans remain strongly committed to maintaining risk-weighted capital requirements that are most sensitive to risk, backed by a leverage requirement.

²⁴ The net delinquency rate on mortgage loans stood at 1% in France in 2014 (Source ACPR).

²⁵ JP Morgan Chase & Co, Bank of America Corporation, Wells Fargo & Company, Citigroup Inc., Goldman Sachs Group Inc., Morgan Stanley, Bank of New York Mellon Corporation and State Street Corporation.



The Fed's calculation of additional capital requirements for G-SIBs is stricter

G-SIB surcharges at 1 January 2019
(phased in from 1 January 2016)

	BCBS methodology	Fed methodology	Basis points difference
Citigroup	2.5%	3.0%	50
JPMorgan Chase	2.5%	3.5%	100
Bank of America	2.0%	3.0%	100
Goldman Sachs	1.5%	2.5%	100
Wells Fargo	1.5%	2.0%	50
Bank of New York Mellon	1.0%	1.5%	50
Morgan Stanley	1.0%	3.0%	200
State Street	1.0%	1.5%	50

Table 3

Sources: BCBS, Fed, Annual reports

In the euro area, additional capital requirements for G-SIBs are in line with the Basel recommendations. The single supervisory body can, however, as part of the Supervisory Review and Evaluation Process (SREP), require certain banks to increase capital levels above the minimum level plus any G-SIB surcharge²⁶. On average, requirements in terms of CET1 ratios for European banks covered by the Single Supervisory Mechanism (SSM) were 10.4% in 2017 (or 8.3% if one excludes the Pillar 2 Guidance, or P2G)²⁷. The average CET1 requirement for the eight euro area G-SIBs excluding P2G (the individual levels of P2G are not published) were 8.3%, in common with the SSM banks as a whole, 130 basis points higher than the figure for the eight US G-SIBs (see Charts 9 and 10).

In terms of leverage

In the US, several leverage requirements coexist. Such rules seek to ensure that the total exposures and commitments of a bank, irrespective of the associated level of risk, do not exceed a certain multiple of its capital. All US banks are subject to a simple leverage ratio which compares Tier 1 capital to average balance sheet assets (with a minimum of 4%). Only the biggest banks (those that use the advanced approaches for the calculation of risk-weighted assets, the AA-banks) are subject to the Basel ratio in addition²⁸. For these fifteen banks, the minimum level is set at 3%, in line with the Basel recommendations. US regulators have, in addition, further tightened the requirement for the eight G-SIBs, setting the requirement at 200 basis points above the minimum level of 3%²⁹ (see box, pages 13 and 14). The G-SIB leverage surcharge, which was not initially included in the Basel Committee's recommendations, now sits alongside the output floor on the Committee's agenda.

²⁶ Swiss and British regulators have also introduced tougher requirements for their G-SIBs, over and above the surcharge recommended by the Basel Committee and the FSB.

²⁷ https://www.bankingsupervision.europa.eu/ecb/pub/pdf/srep_methodology_booklet_2016_en.pdf?486e2833820b13c740ffb49a0ee57672

²⁸ This rule takes account of off-balance sheet commitments and suggests that exposure to derivatives and securities financing transactions should be accounted for on the basis of their gross value, allowing the netting off of certain items only under a restrictive set of conditions.

²⁹ Within the framework of the Prompt Corrective Actions set out in the Federal Deposit Insurance Act, the leverage limit compatible with the "well capitalized" ranking, is set at 6% for each deposit-taking subsidiary of a G-SIB.

CET1 requirement at 1 January 2017

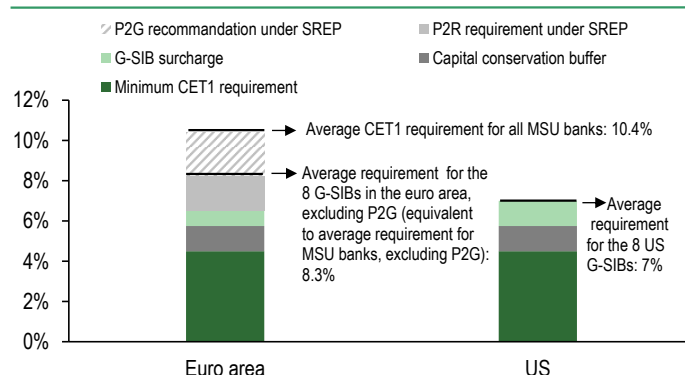


Chart 9

Sources: banks' press releases, ECB, BNP Paribas

CET1 requirement at 1 January by banks

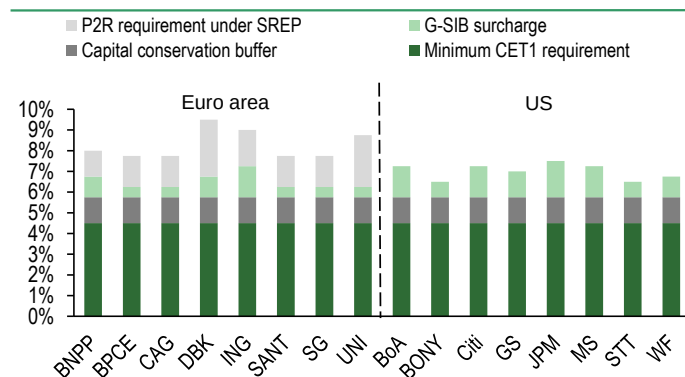


Chart 10

Source: SNL Financial

Towards a narrower scope of application of Basel 3?

We think it is unlikely that the US Congress will approve a significant relaxation of the regulatory framework. However, the scope of application of the Basel rules could be narrowed and the body of Basel rules to be applied limited. This is the direction of two current proposals for revision of the regulatory framework.

Heightened leverage requirements

The first proposal, the Financial Choice Act (FCA), brought forward by the Financial Services Committee of the House of



Representatives³⁰, suggests giving sufficiently solvent banks – those with an average leverage ratio³¹ of at least 10% – exemption from the Basel 3 solvency and liquidity ratios and the other standards set out in DFA (stress testing, short-term debt limits, living wills, etc.). Any bank, irrespective of its size or business model, with a particularly low leverage ratio, i.e. a ratio close to that seen at smaller banks since 2012 (see Chart 11), could claim this regulatory relief. For banks with a simple business model³², the leverage ratio would be the ratio of tangible equity to balance sheet assets. For banks with a more complex business portfolio it would be the ratio of tangible equity to total leverage exposure (Basel definition).

Leverage ratios

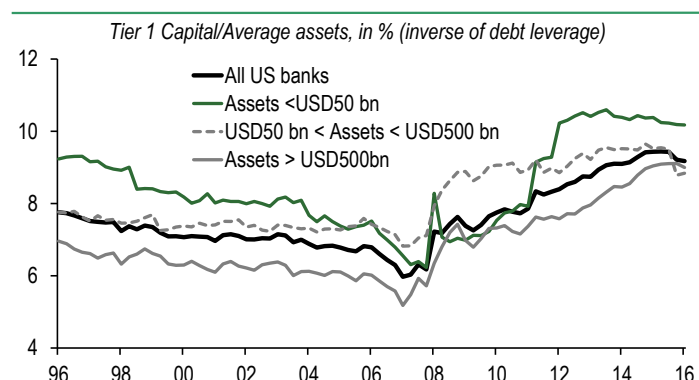


Chart 11 Source: Federal Reserve Bank of New York

Based on a sample of nearly 950 US banks subject to Basel for which SNL Financial has available data, we can see that at 31 December 2016, 40% of US banks had a leverage ratio equal to or higher than the 10% threshold set by the FCA. For half of this sample the ratio was 9.5% or above. The exemption proposed by FCA would be of particular benefit to smaller banks: in December 2016, 99% of the banks satisfying the FCA level had total assets of less than USD 50 billion, with nearly 95% of them under the USD 10 billion mark. Of banks with total assets of more than USD 100 billion, only two (Fifth Third Bancorp and Regions Financial Corporation) had leverage ratios close to 10% (9.9% and 9.6% respectively).

Over the full sample, the additional tangible equity required to reach a leverage ratio of 10% (with unchanged assets and leverage exposure) was USD 467 billion (31% of tangible equity at 31 December 2016 – see Chart 12). The bulk of this requirement was concentrated at the

³⁰ The Chairman of this Committee, Jeb Hensarling, presented the latest version of his bill (the Financial Choice Act 2.0) on 26 April. On 4 May, the Committee supported the draft bill (by 34 votes to 26), allowing to go forward for a vote by the whole House. In addition to the exemption discussed here, the FCA proposes the elimination or restriction of the powers of certain regulatory and supervisory agencies, the abandonment of the orderly liquidation process, the repeal of the Volcker rule and the modification of the calculation of operational risk. The draft bill is likely to face fierce resistance from Democrats when it comes before the Senate.

³¹ Calculated over the last four quarters.

³² Banking organisations with no trading activities and no swap activities (except for de minimis interest rate and forex swaps).

major banks, particularly the ten AA-banks which would need colossal additional capital to qualify for the FCA exemption (see Chart 13). For these ten banks, the ratio of tangible equity to total leverage exposure was on average 6.7% at the end of 2016.

Financial Choice Act : aggregate tangible equity shortfall

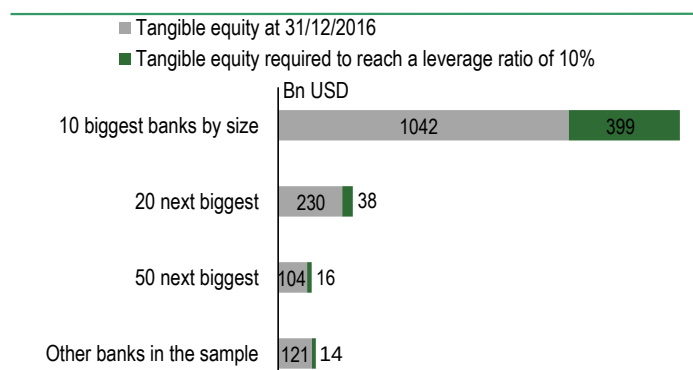


Chart 12 Sources: SNL Financial, BNP Paribas calculations

It should be hard for the AA-banks to claim the exemption offered by the FCA

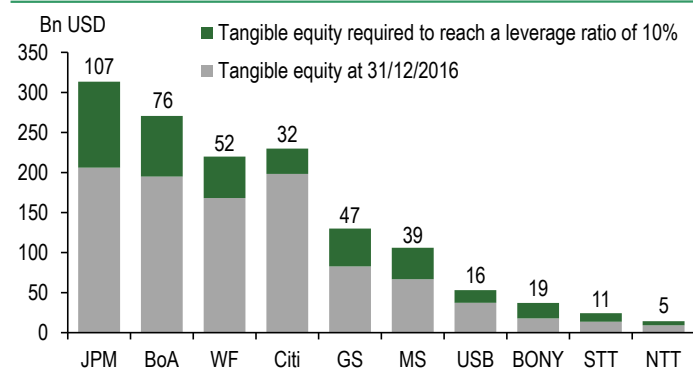


Chart 13 Sources: SNL Financial, BNP Paribas calculations

Proposed structural reforms

Meanwhile, the Vice Chairman of the FDIC, Thomas Hoenig³³, is arguing for a strengthening of the leverage requirement, which would not be simply optional, but legally enforceable. Exemptions would be granted as a function of the business model of any given bank. The banks with 'traditional' lending intermediation activities³⁴, whose ratio of capital to assets is at least 10%, would be exempt from a number of constraints that

³³ <https://www.fdic.gov/about/learn/board/hoenig/relief.html>

³⁴ No trading assets or liabilities, no derivative positions other than interest rate and foreign exchange derivatives, notional value of all derivatives exposures less than USD8 billion.



are considered complex (risk-weighted capital requirements, stress tests, reporting obligations, etc.). According to Hoenig, more than 90% of US commercial banks³⁵ can be described as 'traditional' banks. However, given the concentration of the US banking sector (the ten biggest banks account for 65% of bank assets), this group of banks only represents a small share of total bank assets. As with the FCA proposals, this exemption would mainly benefit small banks³⁶.

For banks with a mix of businesses, Hoenig proposes a reform of banking structures³⁷, inspired by the Vickers law in the UK, a recommendation that could attract support from those³⁸ arguing for a "21st Century Glass Steagall Act"³⁹. This reform would consist of separating traditional credit intermediation activities from market activities under two holding companies, managed and capitalised individually but consolidated within a single banking group. It would differ in this respect from the Glass Steagall banking activities separation act of 1933 (abolished in 1999)⁴⁰. The measure preventing banks from acting in markets for corporate debt securities no longer makes much sense to the extent that some 70% of business finance now comes through the markets. According to the Vice Chairman of the FDIC, this proposed structural reform would also provide a better framework for risks associated with 'Too Big To Fail' and make resolution plans for major groups more credible. This would be accompanied by a simplification of the regulatory framework, with banks adopting such a structure qualifying for exemptions, most notably from the Comprehensive Capital Analysis and Review (CCAR), stress tests and Basel liquidity ratios. The leverage ratio would thus become the main measure of solvency. The banking group as a whole and each of its deposit-taking subsidiaries, would be subject to a leverage ratio (Tier 1 capital over total leverage exposure) of 10%⁴¹. The group-wide requirement seems particularly severe, particularly as a segregation of businesses such as this could significantly increase the financing costs for the non-traditional intermediate holding company. Risk-weighted capital requirements could be maintained. The capital definitions to be used and the associated capital ratios have not been set out.

Conclusion

The future of financial regulation in the US remains uncertain. There have been many statements arguing for the repeal of whole sections of the Dodd-Frank Act, but it is far from certain that this will get the backing of Congress. Given their opposition to this law, the Republicans now have an opportunity if not to repeal it, then at least to limit its scope. The appointment of individuals sharing the new President's reforming ambitions to head various regulatory and supervisory agencies could contribute to this.

Some politicians and regulators believe it is necessary to simplify the regulatory framework and give a greater role to non-risk based capital requirements. A leverage ratio, which is simpler and more transparent than risk-weighted capital ratios, has always been the preferred option of American regulators. In the US, the introduction of a limit on the leverage of banks preceded the use of risk-weighted capital requirements (which were introduced by the first Basel agreements)⁴². At first sight, the leverage standard eliminates potential imperfections in the standardised methods, internal models or stress tests, as it ignores risk⁴³. In a way, it assumes systematic measurement errors (as all assets receive a 100% weighting). But the virtues of the leverage ratio's simplicity should not distract from its potential effects on the structure of risk. Making it the key determinant of portfolio choices could run the risk of encouraging an arbitrage into higher risk, more profitable assets. Despite its imperfections, the solvency ratio gives a better reflection of risk. It encourages banks to improve their information systems and their internal risk management processes. It also encourages them to select less (empirically) risky assets in order to reduce their capital requirement. Thus the leverage ratio should ideally be used as a complement to risk-weighted capital ratios, rather than a substitute for them.

Completed, 5 May 2017
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³⁵ Only 400 commercial banks (of a total of 6,400) have so-called 'non-traditional' activities (broker-dealer, investment advice, insurance, asset management, hedge fund or private equity fund sponsor, etc.).

³⁶ Of the 4,000 banks with less than USD250 million in assets, only 90 can not be described as 'traditional'. However, all banks with more than USD100 billion in assets are engaged in 'non-traditional' activities.

³⁷ <https://www.fdic.gov/news/news/speeches/spmar1317.html>

³⁸ Notably Treasury Secretary Steven Mnuchin and Gary Cohn, Director of the National Economic Council.

³⁹ In the past, other proposals for a modernisation of GSA have been rejected by Congress.

⁴⁰ The 1933 GSA was adopted by the US Congress in response to the collapse of part of the US commercial banking system following the stock market crash of 1929. It imposed a near complete separation of investment banking and deposit taking activities. Banks with a commercial banking licence were no longer authorised to subscribe, invest or trade in financial securities (other than government debt).

⁴¹ The non-traditional intermediate holding company could be subject to a lower leverage ratio.

⁴² The leverage ratio was introduced in 1907 in Texas before being extended to the whole country in the 1980s.

⁴³ See C. Choulet *The leverage ratio – the appearance of simplicity*, BNP Paribas, Conjoncture 14-06, June 2014



Box: The main capital and liquidity ratios currently in force

	Final rule	Scope of application	Timetable for implementation
Minimum risk-weighted capital requirements and capital conservation buffer	Restrictive definition of Common Equity Tier 1 (CET1); introduction of regulatory deductions and adjustments applied to CET1, Tier 1 and Tier 2; increase in minimum requirements; revision of the standardised approach and internal ratings-based approaches to measure credit risk, counterparty risk, market risk and operational risk; introduction of a capital conservation buffer		
Basel framework	BCBS 189, June 2011	Internationally active banks	Phase-in arrangements: 1 Jan. 2013 – 1 Jan. 2019 (1 Jan. 2016 to 1 Jan. 2019 for the capital conservation buffer)
US	Regulatory Capital Rules, Final rule, July 2013	US version of Basel 3 standardised approach: National banks, State banks, top-tier Bank Holding Companies (BHC) with assets of over USD 500 million, Savings associations, top-tier Savings and Loan Holding Companies (SLHC) without significant commercial or insurance activities US version of Basel 3 advanced approaches: Banking organisations with consolidated assets greater than or equal to USD 250 billion, with total on-balance sheet foreign exposures of at least USD 10 billion or which have elected to use the advanced approaches (AA-banks, a total of 15 BHCs) Market risk: Banking organisations with trading activities of at least USD 1 billion or 10% of total assets (43 BHCs)	Phase-in arrangements for the calculation of the numerator: 1 Jan. 2015 – 1 Jan. 2022 Minimum capital requirements and US version of Basel 3 standardised approach: 1 Jan. 2015 Capital conservation buffer: 1 Jan. 2016 – 1 Jan. 2019 Phase-in arrangements for the calculation of the numerator: 1 Jan. 2014 – 1 Jan. 2022 Minimum capital requirements and US version of Basel 3 advanced approaches: 1 Jan. 2014 US version of Basel 3 standardised approach (floor): 1 Jan. 2015 Capital conservation buffer: 1 Jan. 2016 – 1 Jan. 2019 1 Jan. 2015
European Union	CRR/CRD4, June 2013	All credit institutions	Phase-in arrangements for the calculation of the numerator: 1 Jan. 2014 – 1 Jan. 2022 Minimum capital requirements and new Basel 3 risk-weighted approaches: 1 Jan. 2014 Capital conservation buffer: 1 Jan. 2016 – 1 Jan. 2019
Basel 3 leverage ratio	Ratio of core capital (Tier 1) to total leverage exposure (balance sheet and off-balance sheet commitments). Minimum level set at 3%		
Basel framework	BCBS 270, Jan. 2014	Internationally active banks	Parallel run period: 1 Jan. 2013 – 1 Jan. 2017 Publication from 1 Jan. 2015 Incorporation in Pillar 1 from 1 Jan. 2018
US	Regulatory Capital Rules, Final rule, July 2014	Supplementary Leverage Ratio (SLR), set at 3% for the 15 AA-banks only Requirement increased to 5% (Enhanced Supplementary Leverage Ratio, or eSLR) for BHCs with consolidated assets of more than USD 700 billion or more than USD 10,000 billion of assets held in custody (8 BHCs)	Publication from 1 Jan. 2015 Requirement effective from 1 Jan. 2018 Requirement effective from 1 Jan. 2018
European Union	Delegated regulation 2015/62, Oct. 2014	All credit institutions	Publication from 1 Jan. 2015 Requirement effective from 1 Jan. 2018



Liquidity Coverage Ratio	High Quality Liquid Assets (HQLA) must be sufficient to cover net liquidity needs in the event of a 30 calendar day liquidity stress scenario		
Basel framework	BCBS 238, Jan. 2013	Internationally active banks	Minimum level set at 60% at 1 Jan. 2015, rising by 10 percentage point per year to 100% at 1 Jan. 2019
US	Liquidity Coverage Ratio, Final rule, Sept. 2014	'Complete' version AA-banks and their deposit taking subsidiaries (with consolidated assets over USD 10 billion) 'Modified' version (total amount of liquidity needs multiplied by 0.7): BHCs and SLHCs (without significant commercial or insurance activities) with consolidated assets of more than USD 50 billion but which are not AA-banks	Minimum level set at 80% at 1 Jan. 2015, rising by 10 percentage point per year to 100% at 1 Jan. 2017 Minimum level set at 90% at 1 Jan. 2016, and 100% at 1 Jan. 2017
European Union	Delegated regulation 2015/61, Oct. 2014	All credit institutions	Minimum levels set at 60% at 1 Oct. 2015, 70% at 1 Jan. 2016, 80% at 1 Jan. 2017 and 100% at 1 Jan. 2018

Source: BNP Paribas



Brexit: the field of possibilities

Catherine Stephan

The June 2016 referendum and triggering Article 50 signalled the beginning of Brexit, the UK's exit from the European Union. Brexit promises to be a long process fraught with obstacles. There are numerous sources of potential conflict, foremost of which are the so-called Brexit bill, the amount the UK must pay the European Union as part of its "divorce settlement", and the rights of EU citizens residing in the UK. Given the close ties between the UK and the European Union, the big challenge in the years ahead will be the negotiation of a new trade agreement. Yet with the UK determined to halt the free movement of people, a priori very few options are open.

David Cameron, the former prime minister and an advocate of remaining in the European Union (EU), announced in 2013 that a referendum would be held on whether or not the country should exit the EU (Brexit). The move was designed to counter the growing power of the United Kingdom Independence Party (UKIP), which favoured Brexit, and the more "Eurosceptic" members of his own party. His referendum strategy backfired. UK citizens turned out in droves to vote on 23 June 2016¹, and the victory of the "leave" vote brought to an end 43 years of shared history with the EU².

The referendum's outcome heralded a new era in relations between the UK and the EU. Yet there are still numerous unknowns. The protagonists must reach an agreement on transitional measures to ensure the UK exits smoothly while defining the shape of a new partnership. All these issues are likely to fuel fierce negotiations.

In the first part of this report, we will look at the negotiating framework and the main points of dissension. The UK wants to rapidly reach an agreement on its future relationship with the EU (by the end of the Brexit procedure in March 2019), while the Europeans intend to proceed in phases. Before starting preliminary negotiations on their future relationship, Brussels wants to make sure the UK meets the financial commitments and liabilities it made as an EU member, and to clarify the rights of EU citizens residing in the UK. In part two, we will describe the commercial ties linking the UK and the EU, which should encourage both parties to seek the least damaging agreement possible. Lastly, part three will examine the different options available for the two protagonists with regard to their respective demands and interests. Yet it is not only a matter of reaching the most beneficial trade agreement possible for both parties. For the EU, it is also important to dissuade other European member states from following a similar path. The UK must respond to the aspirations of its people, notably in terms of regaining control over its own laws, to better regulate immigration from the EU. If the UK maintains this position, it will sharply reduce the field of possibilities.

Negotiating framework

Kicking off Brexit negotiations

Triggering Article 50

The process of exiting the EU entered a new phase on 29 March when Prime Minister Theresa May, leader of the Conservative Party, officially notified the European Council of the UK's intention to leave the EU, after receiving prior approval from the UK parliament. By activating Article 50 of the Treaty of the European Union on withdrawing, she kicked off the procedure for exiting the European Union.

Article 50 of the Lisbon Treaty defines the procedures to be followed when a member state wants to withdraw from the EU. The European Council³ began by defining the negotiation guidelines. After the European Commission filed a recommendation to open negotiations, the European Council held a special meeting on 29 April and adopted all of the negotiation guidelines. The Council of the European Union⁴ is expected to adopt these guidelines and the authorisation to open negotiations on 22 May⁵. The European Commission, through its chief negotiator Michel Barnier, will then be able to start negotiations, which must be completed within a period of two years starting from the activation of Article 50.

On completion of these negotiations, the draft agreement must be adopted by a simple majority of the European Parliament members, including the UK, and a qualified majority of the Council of the EU. If the parties fail to reach an agreement, the EU treaties will cease to apply to the country leaving the EU on 29 March 2019, unless the European Council, in agreement with the UK, votes unanimously to extend the negotiations.

In the UK, only the final agreement, assuming there is one, will be submitted to the House of Commons and the House of Lords for approval, without the possibility of any amendments. Nonetheless, Parliament will be kept informed of the advancement of the negotiations

¹ The participation rate was 72.2%, higher than the 66.4% reported during the legislative elections of 2015.

² Altogether, 51.9% voted to leave the EU. There was one question on the ballot: "Should the United Kingdom remain a member of the European Union or leave the European Union?" and voters were asked to respond either "Remain a member of the European Union" or "Leave the European Union".

³ The European Council comprises the heads of state and government of the EU.

⁴ The Council of the European Union comprises the national ministers of each member country.

⁵ The Council must adopt the entire package of negotiation directives by a large qualified majority of 72% of the 27 member states, or by 20 member states representing at least 65% of the EU-27's population.



by the government, and will thus be able to influence the content of an eventual agreement.

Point of no return

There was some question about the irreversibility of triggering Article 50 of the Lisbon Treaty, especially since the UK is the first country to launch EU exit procedures. The European Commission specified, however, that it was impossible for the UK to unilaterally revoke the notification of Article 50. Similarly, the UK stated that by triggering Article 50, it had crossed a point of no return. It is in the interest of both parties to emphasize the irreversibility of the procedure and the absence of any alternatives to a negotiated agreement, so that they lend their full weight to the negotiations and reach a compromise.

The negotiating framework: a source of dissension

The negotiations from the EU's perspective

Both parties drew up a roadmap. In the negotiation directives drawn up by the European Commission and the European Council, the EU clearly intends to preserve the integrity of the single market and to reach a comprehensive agreement between the EU and the UK. This means that the negotiations cannot be split up into specific subjects or sectors. Nor will the UK be able to negotiate with individual member states. The European Commission fears that such a procedure might weaken EU unity, as certain member countries are more prone to defend one sector over another. Germany, for example, would be more inclined to defend the interests of the automobile sector, considering the sector's clout in its economy (4.5% of gross value added in 2014, according to Eurostat).

The European Commission intends to use a phased approach to negotiations. It wants to ensure an orderly withdrawal without disruptions, and to begin by settling the disentanglement of the UK from the EU. This means ensuring that the UK respects the financial commitments it has made as an EU member. This is a top priority because it also echoes the concerns of other EU member states, who may now have to contribute more to the EU budget. According to a Senate information report⁶, if the UK and the EU fail to reach an agreement, Germany's and France's contributions would increase by 5.6% and 10.8%, respectively.

The European Commission has not released a detailed bill yet. However, it will probably include commitments not yet paid, called RAL ("reste à liquider") on the EU budget, as well as investments that were approved by the member states, including the UK, but which have not yet been incorporated in the EU budget. As part of its participation in the 2014-2020 multi-year financial framework, the UK must settle the amounts committed to certain regional research and development programmes, such as the funds allocated to finance the 2014-2020 regional policy. According to a study by the Center for European Reform⁷, this amount also includes the UK's contribution to retirement pension funds for European civil servants, aid granted to Portugal and Ireland via the European Financial Stability Mechanism (EFSM), and the costs arising from the transfer of European agencies located in the

UK, such as the European Medicines Agency and the European Banking Authority. The figure of EUR 60 billion has been mentioned in February 2017. However it is an indicative amount. The amount will depend on the date at which the UK effectively leaves the EU, and will apparently fluctuate in keeping with negotiations. The European Commission also wants the EU and the UK to reach an agreement above all on the calculation method.

Negotiations will also have to deal with the special case of Ireland, to avoid creating a hard border between Northern Ireland and the Irish Republic. The European Commission wants to clarify the rights of European citizens residing in the UK and of British citizens living in the EU. Lastly, for disputes occurring before Brexit, it must still be possible to request administrative or legal action from the European Commission or the Court of Justice of the EU (CJEU) after the UK exits the EU. The EU also specified that the Court of Justice of the EU is the competent authority for interpreting and applying the agreement for withdrawing from the EU, as well as any measures taken to deal with unexpected situations. Another legal authority could nonetheless intervene after the effective date of Brexit. All these subjects are a potential source of conflict between the two protagonists. The European Commission will only deal with transitional measures once these key issues have been resolved. Similarly, it does not intend to begin preliminary discussions on the future relationship between the EU and the UK, i.e. on a future trade agreement, until negotiations on the terms of Brexit have been concluded. Any such trade agreement can only be finalised and ratified once the UK is no longer a member of the EU.

The UK's perspective

The UK and the European Commission have reached an agreement-in-principle on some of the issues mentioned above. The UK wants to continue maintaining close ties with Ireland. It intends to limit obstacles to the free movement of people and trade by preserving the terms of the agreements concluded with Ireland. Notably, it wants to maintain the Common Travel Area (CTA), created in 1923, which covers the UK, Ireland, the Isle of Man and the Channel Islands, and reduces border controls for British and Irish citizens.

The UK also intends to uphold certain commitments by contributing to the European Investment and Structural Fund and to the Common Agricultural Policy (CAP). Yet the UK disputes the amount of the "divorce settlement" of EUR 60 billion it must pay to the European Union, notably its share of investments to be funded after 2019.

Above all, the UK and the EU have been struggling to reach an agreement on the negotiation procedures. The UK wants to reach an agreement on its future relationship with the EU before the end of the exit procedure stipulated in Article 50. This new relationship would define all trade ties between the UK and the EU, as well as the rights of immigrants from the EU. The UK agrees that implementation of the new agreement should be spread out over time, to allow companies to prepare for the terms of the new relationship, but it is determined not to let the end of Brexit procedures give way to a long and uncertain transition period that risks bogging down negotiations over their future relationship.

⁶ Senate Information Report no. 656, dated 1 June 2016, compiled by the senate finance committee, examines the economic and budgetary consequences of a possible Brexit.

⁷ Center for European Reform, Alex Barker, "The €60 billion Brexit bill: How to disentangle Britain from the EU budget", February 2017



Close commercial ties

To grasp the scope of the interests at stake, it is worth reviewing the commercial ties currently binding the UK and the EU before exploring the various possible solutions.

European integration, a driving force for trade

The elimination of tariffs and quotas, the reduction of non-tariff barriers, and the creation of a customs union, i.e. the implementation of common customs duties on third-country imports and the elimination of customs inspections, have been one of the main drivers of the growth in European trade over the past several decades.

European integration has been beneficial for all of the participating member states. Trade grew not only within the European Union, but also between the EU and third countries thanks to the improved competitiveness of European exporting companies. A study by Straathof et al.⁸ estimated that EU exports and imports of goods were 8% higher in 2005 than they would have been without European integration since 1960. A study by HM Treasury⁹ suggests that the single market fuelled an additional 9% increase in bloc trade between 1973 and 2004. According to the same study, the UK benefited from a 7% increase in trade with the EU due to its membership in the single market.

Trade in goods is to blame for the UK's current account deficit

The EU and the UK remain key trading partners for each other, despite the growing importance of China since its entry in the WTO in 2001. In 2016, the EU accounted for 43.9% of total UK exports and 53.4% of imports. Germany and France were its main European trading partners. The UK accounted for 18.4% of the EU-27's exports of goods and services in 2016, and 14.2% of EU imports. This makes it the biggest trading partner of the EU-27 (see charts 1 and 2).

Most of the trade between the EU and the UK is comprised of goods. Goods accounted for nearly 60% of total UK exports to the EU and 77% of imports. EU goods traded with the UK accounted for 65.3% of total exports and 56.9% of imports. Trade was largely concentrated in transport equipment and rolling stock as well as chemical products, which accounted for 42.2% and 15.5%, respectively, of exports of European goods to the UK in 2016. Similarly, they account for 35.8% and 19.8%, respectively of UK goods exports with the EU in 2016.

Trade in goods, notably with Germany and the Netherlands, largely contributed to the UK's current account deficit with the EU, which amounted to 4.8% of GDP in 2016 (see charts 3 and 4, and table 1).

⁸ Straathof, B., G.J. Linders, A. Lejour and J. Möhlmann (2008), *The Internal Market and the Dutch economy: Implications for trade and economic growth*, CPB Netherlands Bureau for Economic Policy Analysis

⁹ HM Treasury (2005). EU Membership and Trade

Exports between the United Kingdom and the EU27

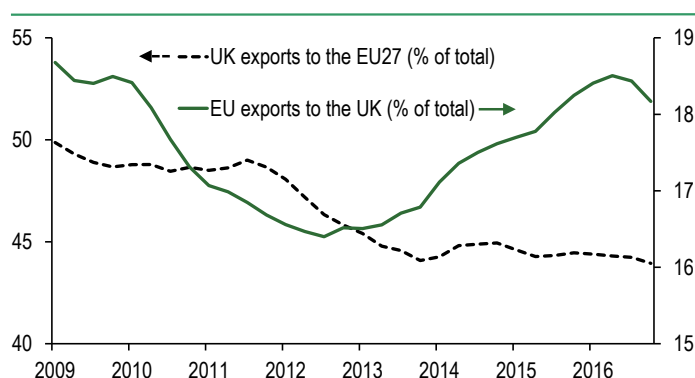


Chart 1

Sources : Office for National Statistics, Eurostat

The UK and EU27 imports

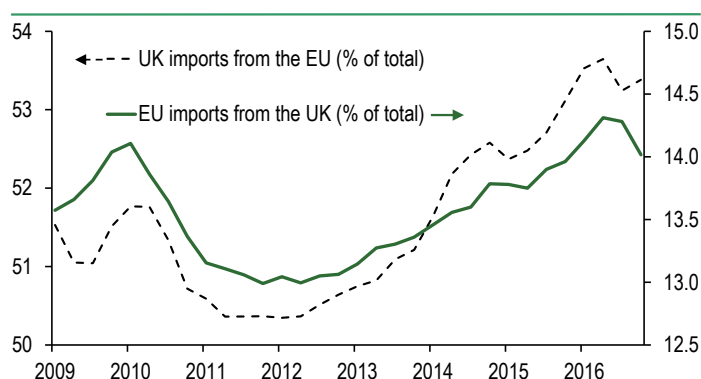


Chart 2

Sources : Office for National Statistics, Eurostat

UK financial services play a key role

The only sector that generated a current account surplus was services (+1.2% of GDP in 2016). This is mainly due to financial services, which accounted for nearly a quarter of UK exports of services to the EU. Services are mainly exported to France, Germany and the Netherlands, which accounted for 23%, 19% and 16.3%, respectively, of financial service exports to the EU in 2015.

In this area, the UK benefits fully from its EU membership and its "European financial passport", which allows it to sell financial services throughout the EU. The European passport, which is also called the "single authorisation", allows banks, payment services, electronic money services, and investment and insurance companies in the European Economic Area (EEA)¹⁰ to sell their products and services, and for companies to set up operations anywhere within the EEA once they have received authorisation from their home country's regulatory body. Financial institutions from third countries located in the UK can thus benefit from the European passport to provide financial services throughout Europe.

¹⁰ The EEA comprises the EU and Iceland, Lichtenstein and Norway.



In 2015 (Billions of pounds)

The main current account balance by countries		The main trade balance by sector of activity		The main services balances by sector of activity	
Total EU	-110.0	Total EU	-86.4	Total EU	20.9
Germany	-32.4	Machinery and transport equipment	-45.2	Financial	19.1
Netherlands	-10.9	Road Vehicles	-28.6	Other business services	6.1
Belgium	-10.0	Foods & live animals	-15.0	Intellectual property	1.8
Spain	-9.9	Chemicals & related products	-11.3	Telecommunications, computer and information services	1.6
France	-7.8	Manufactured goods	-10.3	Travel	-11.5

Table 1

Source: Office for National Statistics, HM Revenue & Customs

The UK Current account balance

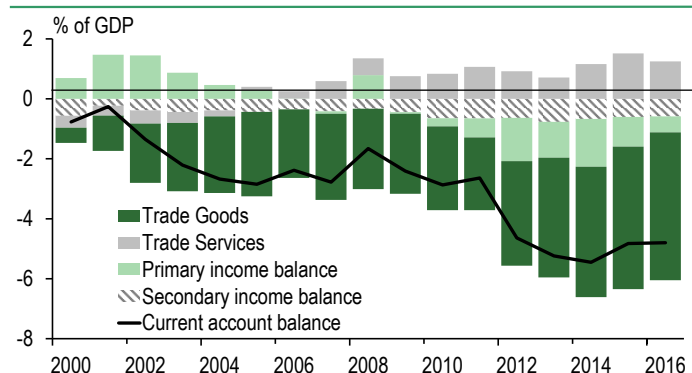


Chart 3

Source: Office for National Statistics

The current account balance in detail

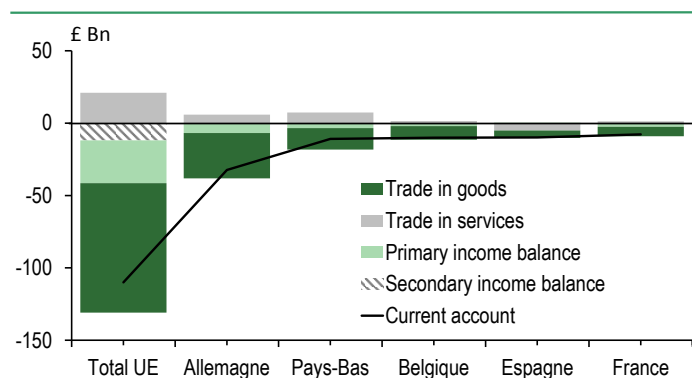


Chart 4

Source: Office for National Statistics

Direct investment between the UK and the EU has kept pace with the boom in trade. In 2015, 21.2% of the stock of European foreign direct investment (FDI) was invested in the UK, and the UK held 18.5% of the stock of foreign direct investment in Europe (see charts 5 and 6). As to the EU, it accounts for nearly 40% of the stock of foreign direct investment held by the UK, and of the stock of foreign direct investment invested in the UK.

Main investments in the EU 27 in 2015 (Direct investment, in % of total)

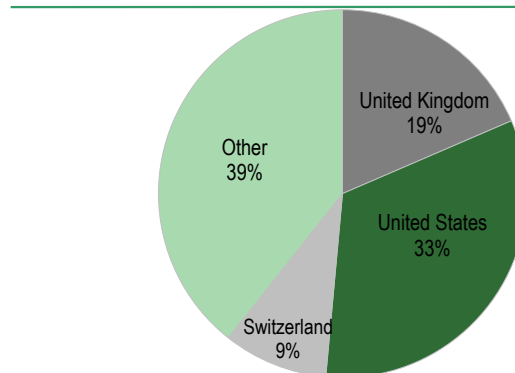


Chart 5

Source: Eurostat

Main investments in UK in 2015 (Direct investment, % of total)

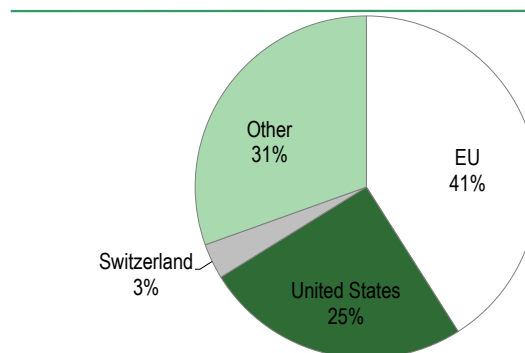


Chart 6

Sources: Office for National Statistics, Eurostat

As a result, value chains are highly integrated between the UK and the rest of the EU. According to the OECD, the import content of exports, all trading partners combined, was 22.9%, 25.6% and 25%, respectively for the UK, Germany and France in 2011. China and the USA compete with other EU member countries in the UK. Nonetheless, 41.5% of the foreign value added contained in UK exports was derived from EU

member states in 2011, with Germany and France accounting for 10.9% and 5.7%, respectively, of this value added. For French and German exports, the foreign value-added share originating in the UK was 6.4% and 5.9%, respectively. For these three countries, the transport sector is the most highly integrated sector (see table 2).

Origin of Value Added in gross exports (% of total)

	United Kingdom	Germany	France
Origin of Value Added			
European union	41.5	48.2	48.1
United Kingdom		6.4	5.9
Germany	10.9		14.5
France	5.7	6.8	
United States	11.6	8.2	8.7
China	5.7	5.2	5.9

Table 2

Source: OECD

Mobility of European workers

Exchanges between the UK and the EU are not limited to goods and services. Individuals also move freely from one side of the Channel to the other. The UK is not part of the Schengen area¹¹, which allows all citizens to move freely without internal border controls, but as an EU member, it complies with the free movement of people.

Net immigration from the EU began rising in the early 2000s. This movement regained strength as of 2013, after a brief pause following the 2008 crisis. It was fuelled by the increase in net immigration from the EU-15 (excluding the UK)¹², and from the EU-2¹³ as of 2014, once travel restrictions were lifted for Bulgaria and Romania (see chart 7). At year-end 2015, 3.2 million Europeans were living in the UK and accounted for 57% of foreign nationals. This is why it is so important for the EU to guarantee that its citizens and their families continue to have access to the job market, that their professional qualifications are recognised, and that they have the right to permanent residency after a 5-year period of legal residence. The EU may even request that they continue to benefit from EU rights after Brexit. It also would like to ensure that all citizens of the EU-27 will benefit from the same treatment.

A large number of UK citizens also reside in Europe (around 1.2 million). However they do not have the same profile as European citizens residing in the UK. Most of the Europeans residing in the UK went there to work (41% in 2015), particularly in whole selling, retailing, financial services and corporate services¹⁴, to job hunt (31.5%) or to study (14.7%). No data have been collected on the reasons why the British migrate to Europe. However we have data based on their age. We can

¹¹ The Schengen area comprises the EU member countries with the exception of Bulgaria, Croatia, Romania, Cyprus, Ireland and the UK. It also includes four countries that are not EU members, notably Iceland, Liechtenstein, Norway and Switzerland.

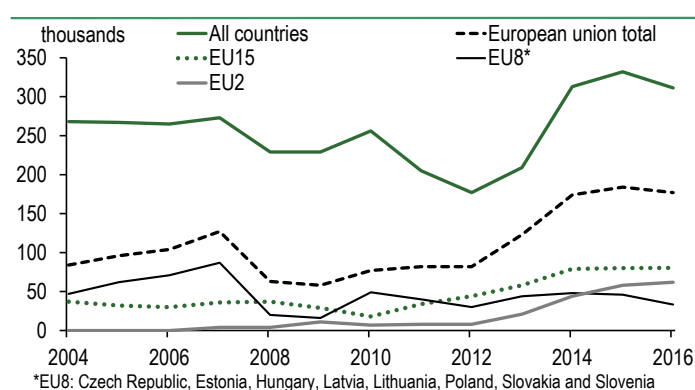
¹² The EU-15 comprises Austria, Belgium, Germany, Denmark, Finland, France, Greece, Italy, Luxembourg, the Netherlands, Portugal, Ireland, Spain, Sweden, and the UK.

¹³ The EU-2 comprises Bulgaria and Romania.

¹⁴ In 2016, 23.3% of Europeans worked in whole selling and retailing, 17.5% in financial and corporate services, and 16.6% in public administration, education and health services according to the ONS.

thus assume that most are inactive. According to Eurostat, in Spain, which alone hosts around a quarter of the British living in Europe, nearly 40% are over age 65. The percentages are lower in Ireland and Germany (14.4% and 15.1%, respectively), but are still much higher than the percentage of Europeans in this age group living in the UK (7.1% in 2016). As it seeks to reduce net immigration, the UK must take into account its own expatriates, to ensure that they can continue to live in the EU and notably to access the continent's healthcare systems under the best conditions possible.

Annual net immigration to the United Kingdom



*EU8: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia

Chart 7

Source: Office for National Statistics

After Brexit, what types of relationships are possible between the UK and EU?

The intensity of commercial, financial and human relations between the UK and the EU should encourage both parties to try to negotiate the least harmful trade agreement possible. Yet the UK's determination to limit immigration from the EU, i.e. to halt the free movement of people, nonetheless restricts its manoeuvring room. The indivisibility of the single market's four freedoms – the free movement of goods, services, capital and people – means that the UK must leave the single market. As a result, it is hard to discern what form the future UK-EU relationship might take after the separation process.

The limits of existing partnerships

EFTA/EEA membership

The European Economic Area (EEA), which comprises the EU member states and three of the four members of the European Free Trade Association (EFTA)¹⁵, namely Iceland, Norway and Liechtenstein, could meet some of the UK's demands. With the exception of agricultural products and fish, goods can move freely without customs duties. The EEA also provides access to the European passport for financial

¹⁵ EFTA is an inter-governmental agency created in 1960 to promote free trade. It comprises four member states, namely Iceland, Liechtenstein, Norway and Switzerland.



services¹⁶. Created in 1994, the EEA is not a customs union. EFTA/EEA members are excluded from European Union trade agreements with third countries, and are free to determine their own customs tariffs and trade policies with these countries.

Yet the UK's net contribution to the European budget is high, at 0.4% of gross national income in 2015¹⁷, and joining EFTA/EEA would not generate much savings. Assuming the UK joined EEA under similar conditions to Norway¹⁸, the savings would be equivalent to a little less than 0.1% of gross national income. According to a study by the Centre for European Reform¹⁹, the UK's net contribution to the EU budget would narrow by 9%. In this case, however, the UK would have little influence over EU decision making. Under the EEA agreement, member countries must integrate all legislation adopted by the EU pertaining to the internal market, once it has been examined by an EEA mixed committee comprised of representatives of the EU and EFTA/EEA member states. It is hard to imagine the UK accepting membership under these conditions, especially since the size of its contribution to the EU budget, and regaining control over certain powers delegated to Brussels were major themes during the Brexit campaign. Lastly and most importantly, the UK's determination to regulate immigration a priori excludes any prospects of joining EFTA/EEA: the agreement requires all signing parties to comply with the single market's four fundamental freedoms.

Bilateral agreements between Switzerland and the UK

Switzerland is an EFTA member, but did not join the EEA. To date, it has concluded nearly 120 bilateral agreements with the EU, including a free trade agreement (FTA)²⁰ and two major sector agreements, which were accompanied by the alignment of a large part of Swiss law with EU legislation, which took effect when the agreements were signed.

A relationship built on bilateral agreements would offer the UK greater latitude. Its net contribution to the EU budget would diminish by 55% according to CER. Under this type of arrangement, however, the UK and the EU would have to renegotiate their agreements with each change in European legislation. As in Switzerland, these agreements might cover only part of the services sector. In particular, banks and other financial institutions²¹ might not benefit from the European passport. The free movement of people is also an issue that is likely to

jeopardise this kind of agreement. A good illustration is the outcome of negotiations between the EU and Switzerland after the latter voted in favour of introducing annual immigration quotas in February 2014. At year-end 2016, Switzerland had to renounce the introduction of annual quotas on non-Swiss citizens, and a light version was proposed giving preference to Swiss workers. Under this proposal, Swiss residents are given priority in hiring in sectors with a higher than average unemployment rate, but employers are free to refuse candidates sent by the Swiss employment agency without justifying their refusal²².

Customs union between the EU and Turkey

A customs union like the one that has governed the relations between the EU and Turkey since 1 July 1996 does not seem very likely either, because the UK intends to regain full sovereignty. Turkey does not contribute to the EU budget, but under this customs union, which is based on the free movement of goods other than agricultural products, coal and steel²³, it is required to align with the EU's common customs tariffs and trade policies. With third countries, it must apply the same customs duties as the EU and implement the EU's preferential agreements, without benefiting from the trade agreements concluded between the EU and third countries, which may continue to levy customs duties on Turkish exports. Turkey must also comply with European standards in the sectors in which it benefits from access to the single market, without being able to influence their elaboration.

The free trade agreement between the EU and Canada: the best model to follow?

Considering the restrictions imposed by the existing relationships described above, the UK and the EU seem more inclined to opt for a free trade agreement. The Comprehensive Economic and Trade Agreement (CETA) between the EU and Canada is often cited as an example. This ambitious trade agreement does not include the free movement of people. It will ultimately eliminate 99% of customs duties on industrial goods and eliminate numerous non-tariff barriers. The agreement also provides for the mutual recognition of compliance certificates in a number of fields,²⁴ including electrical appliances, electronics, toys, machinery and measuring devices. CETA will also facilitate the temporary entry of certain skilled workers into Canada and the EU. The agreement also guarantees greater liberalisation of the services market²⁵ and the opening of their respective public markets. CETA also provides for an Investment Court System (ICS) to settle disputes between the states and investors. This is an innovative approach compared to the traditional systems, with an independent, impartial and permanent court. The investment court system will be

¹⁶ *Understanding equivalence and the single passport in financial services -Third-country access to the single market*, European Parliament, February 2017

¹⁷ In 2015, the UK paid in EUR 18.21 billion to the European Union budget (after a rebate of EUR 6.08 billion), or 0.72% of 2015 gross national income. In 2015, the UK received from the EU the equivalent of 0.3% of gross national income.

¹⁸ The EFTA members of the EEA contribute to the EU's operating expenses. The contribution of these members depends on the relative weight of their GDP with respect to the EEA's total GDP and the EU's total operating expenses. They also participate in administrative expenses. Every year, each programme is the subject of negotiations. The EFTA/EEA member states also provide the European Commission with human resources which they remunerate.

¹⁹ *The economic consequences of leaving the EU* The final report of the CER Brexit Commission 2016, April 2016

²⁰ Thanks to this agreement, merchandise, with the exception of certain agricultural products, can circulate customs free between Switzerland and the EU member states, if they originated in these countries. The FTA forbids any quantitative restrictions (contingents) and other measures with a similar effect.

²¹ In Switzerland, freedom of establishment is offered solely for casualty insurance.

²² Swiss companies are required to notify the ORP, the regional employment office, of any vacancies and they are also required to give priority to jobseekers from the local area.

²³ Preferential agreements cover coal and steel products.

²⁴ Canada agreed to protect a number of geographical indications (GI) (143), i.e. specialty food and beverage products from specific cities or regions of the EU. Limited quotas will be set for a small number of sensitive products, including beef, pork, and sweet corn for the EU, and dairy products for Canada. CETA will not open the European or Canadian markets for poultry and eggs, and it will comply with the European entry-price system.

²⁵ The main services that are excluded are public education and health care, as well as other social services.



comprised of professional, independent judges named by the EU and Canada for a specified term²⁶. The EU and Canada will also create an appeals court.

This kind of free trade agreement would meet many of the UK's demands. Moreover, it might not take as long to negotiate as this type of partnership usually requires. The UK has been trading freely with the EU for years, and it has integrated EU legislation. It should thus be easier to adopt the mutual recognition of professional qualifications and standards.

Yet two years seems like a very short timeframe for the European Commission and the UK to reach an agreement on the exit terms and a future trade relationship, given the time generally needed to conclude such agreements. Canada and the EU, for example, began trade talks in May 2009, but CETA negotiations were not completed until October 2013. The European Parliament did not approve the agreement until 15 February 2017, and it must now be ratified by the national parliaments, a requirement for mixed agreements that include measures that are not specifically trade related. Agreements that are exclusively trade related need the approval of "only" the European Council and the European parliament, since the EU has exclusive power over trade policy. Ratification of an EU-UK trade agreement similar to CETA would probably fall under the powers of member states as well, which would only add to the time needed to fully implement an agreement.

In sectors in which the UK has a trade deficit, such as automobiles and chemicals, and in those with interdependent supply chains, such as aeronautics, it could be fairly easy to reach an agreement offering access to the single market under similar conditions to those currently in place. Yet the interests of the UK and the EU will probably diverge depending on the sector of activity and whether it generates a trade surplus or deficit, which also risks dragging out negotiations.

This type of relationship is also likely to be less advantageous and more restrictive, especially for the UK. It would probably have to ensure a minimum level of protection for workers and compliance with certain health and environmental regulations. The UK would also have to continue complying with European standards. The EU and the UK would have to establish rules of origin, i.e. the criteria that defines where a product was made. These rules would be used to determine which products were made in the UK and which in the EU, and thus eligible to benefit from preferential tariff treatment. These factors could strain the supply chain when traded goods incorporate a high proportion of imported products.

If negotiations fail, WTO rules would govern trade relations

In the absence of a trade agreement, trade between the UK and the EU would be governed by World Trade Organisation (WTO) rules and regulations. WTO members must comply with a certain number of agreements on trade of goods, services, and intellectual property, as

well as the rules concerning the settlement of disputes. These rules prohibit dumping, the practice of exporting products at prices that are lower than the normal domestic price, i.e. the price practiced "as part of normal trade operations for a similar product designated for consumption in the exporter's home country". The UK would also have to comply with certain international standards currently in effect, namely those of the International Standards Organisation (ISO). On the other hand, it would no longer have to comply with European standards.

It would be easier for the UK and the EU to reintroduce non-tariff barriers (technical regulations, standards and compliance assessments, and sanitary and phytosanitary measures, etc.) and customs duties, as long as they comply with the most favoured nation clause, i.e. that a WTO member cannot discriminate between its trading partners. In other words, the EU's customs duties on imports from the UK cannot be higher than those levied on imports from countries benefiting from most-favoured nation status. Based on the most-favoured nation clause, this is equivalent to the EU imposing an average customs duty of about 5%. Yet sectors with the highest exposure to the European market could be hit by higher customs duties. They could range from 4.5% for chemical products to 15% for agricultural goods, 10% for cars, and 5% for automotive parts. Another major inconvenience of this type of relationship is that the WTO agreements do not provide much of a framework for trade in services.

Brexit's impact on trade

It is hard to measure within any precision the impact of a new relationship, given the current uncertainty over the form it might take. We can however propose a few areas of reflection.

Higher administrative costs

The elimination of a customs union and the reintroduction of border inspections will be accompanied by higher administrative costs. Costs will be even higher if the EU implements non-tariff barriers or must ensure compliance with the rules of origin when goods cross borders. According to a CEPR study²⁷, these rules alone would increase trade costs by 4% to 15%. In general, administrative costs as a whole could account for almost 25% of the value of traded goods according to an OECD study²⁸. Similarly, Brexit could increase distribution and coordination costs for companies on both side of the Channel.

Smaller economies of scale

The reduction in the size of export markets will place a particularly heavy strain on the UK's competitiveness. There will be fewer possibilities for economies of scale, the spread of innovation and technology, and factor productivity. In the absence of an agreement, European and British legislation could gradually drift apart, further straining future trade.

²⁶ A member of the court will not be able to work simultaneously as a legal counsellor and expert on other investment disputes. Cases will be heard by three members selected randomly.

²⁷ Centre for Economic Policy Research, *Estimating the Economic Impact on the UK of a Transatlantic Trade and Investment Partnership (TTIP) Agreement between the European Union and the United States*, study produced for HMG, (2013).

²⁸ A summary report, OECD Trade Policy Paper No. 150 by Evdokia Moïse and Florian Le Bris, *Trade costs: What have we learned?*



A less mobile labour force

Apparently Brexit will result in a reduction in immigration from the EU. The British are exploring several solutions, such as the creation of a specific work permit for EU workers, or controls on the jobs they are allowed to take. Yet this kind of migrant policy is unlikely to respond effectively to the needs of the economy. It is hard to identify the labour needs of an economy with any exactitude. Moreover, the policy would probably be accompanied by more cumbersome administrative procedures, which would increase the cost of labour for employers. It would also have other consequences that are hard to quantify, such as reducing the spread of skills and know how. Reducing immigration thus risks hampering labour supply and the growth potential of the UK economy.

Decline in trade

A study by HM Treasury²⁹ attempts to evaluate the impact of the UK's withdrawal from the EU on trade and activity. This is a difficult task given the lack of a precedent. The study makes a number of assumptions. It estimates the impact of Brexit over a 15-year period, the time it will take for the UK and the EU to define a new relationship, to lift uncertainty, and to make the necessary adjustments to their respective economies. It assumes that the UK will preserve the existing trade relations with non-EU countries, and that the functioning of the EU will remain the same. In other words, it does not take into account the advantages the UK would have benefited from if it had remained an EU member due to greater integration of the European markets for services, digital services and energy, or to any new trade agreements that the EU might conclude in the future, including potential losses.

If the UK leaves the EU to join the EEA, after 15 years GDP would be 3.4% to 4.3% lower than it would have been if it had remained an EU member. Under a bilateral trade agreement, GDP would be 4.6% to 7.8% lower, and if trade is governed by WTO regulations, then GDP would be 5.4% to 9.5% lower.

This study concurs with OECD calculations³⁰. Although less pessimistic than HM Treasury, the OECD nonetheless estimates that by 2030, UK GDP would decline by 2.7% under a best-case scenario, by 5.1% in its central scenario, and by 7.7% in a worst-case scenario.

EU member countries will also be affected by Brexit and the reduction in trade with the EU, in particular the countries that currently have strong trade relations with the UK. Ireland will be particularly hard hit, and Luxembourg and Belgium to a lesser extent. According to the Bertelsmann Foundation³¹, per capita GDP in Ireland, Belgium and Luxembourg would decline by 2.7%, 0.96% and 0.8%, respectively, by 2030, without a trade agreement with the UK. Germany and France will be less affected, with per capita GDP contracting only 0.33% and 0.27%, respectively.

²⁹ HM Government, *HM Treasury analysis: the long-term economic impact of the EU membership and the alternatives*, London, April 2016

³⁰ *The economic consequences of Brexit: A taxing decision*, OECD Economic Policy Paper, April 2016, no. 16

³¹ Bertelsmann Foundation; *Brexit – potential economic consequences if the UK exits the EU*, 2015/05

Uncertainty over UK trade trends with non-EU countries

The UK's exit from the EU will also influence its relationship and trade with third countries. The UK will no longer benefit from the free trade agreements signed between the EU and these countries.

The UK, which cannot sign new trade agreements until it has effectively left the EU, hopes to benefit from the growing importance of certain trading partners, such as China, and to promote trade with the United States and the Commonwealth countries. Once freed from the EU, the UK hopes it will no longer have to make compromises with the other member countries, and that it will have greater latitude to negotiate with third countries. Yet given the UK's economic weight, it will be hard to negotiate from a position of strength. As the world's tenth largest economy, the UK alone accounts for only 2.4% of world GDP³² in purchasing power parity (PPP), and 4% of world imports³³. This is much less than the EU-28, the world's second largest economic bloc (17.1% of world GDP in PPP and 32% of world imports in 2015), which gives it greater clout during trade negotiations.

The UK is taking the risk of entering long negotiations without any certainty that the agreements it reaches will be any more advantageous than those it benefited from as an EU member. It may even have to agree to lower customs duties in the most vulnerable sectors, at the risk of fuelling social unrest.

Spotlight on a few key sectors

Certain sectors are more of a concern due to their respective weight in trade or their integration in European supply chains.

Loss of European passport threatens to shake up the financial services sector

Half of the world's financial institutions have located their European offices in London. The City offers numerous advantages for non-resident investors, including market infrastructure, expertise and the use of English. UK financial and insurance activities alone account for nearly 7% of the UK's gross value added. Moreover, the financial industry generates nearly a quarter of its revenue from business with the EU. According to TheCityUK, a private organisation that defends the interests of the London marketplace, 46% of EU equity funds are raised in London, and 75% of EU currency operations take place in the UK. As an EU member, the UK has the right to carry out transactions in the single currency, and maintains very strong relations with the eurozone. In February 2017, 21% of the assets of UK monetary financial institutions (MFI) were denominated in euros, and 38% in other foreign currencies. Consequently, the nature of the future agreement between the UK and the EU is extremely important.

There are several possible scenarios for the UK financial industry. The UK could benefit from an equivalence regime and continue to offer financial services within the EEA, as long as the regulations comply with

³² World Bank data, 2015

³³ World Bank data, 2015 (current USD)



European standards. Any losses would be limited. According to a study conducted by TheCityUK³⁴, revenues generated by wholesale financial services would decline by 2%. Yet the London financial market would evolve in a more uncertain environment. The European Commission could revoke its authorisation at any moment, if it were to esteem that UK regulations were drifting away from those in vigour in the EU.

In contrast, if the UK were to opt for WTO regulations alone, i.e. it would no longer systematically benefit from a regulation equivalence regime with the EU, the losses could be substantial. Under these scenario, financial revenues from EU-related activities would decline by 40% to 50% according to the same study.

However it is difficult to estimate losses attributed to the elimination of the European financial passport. Indeed the implications of a Brexit are widespread. The UK will no longer benefit from the signed agreement between the EU and third countries, and fully from skilled labour from Europe. In addition, less integrated financial activities will generate fewer economies of scale. Finally, the loss of revenue in the financial sector will also have an impact on related activities (rating agencies, consulting and auditing firms, etc.) and on the rest of the economy. Many effects, which are hard to evaluate because they are more diffuse.

An opportunity for the EU?

Certain entities might decide to relocate other activities, in addition to those hit directly by the loss of the financial passport, in order to avoid an excessive segmentation of their various lines of business and fewer economies of scale.

Yet any loss of business for the UK does not necessarily mean a similarly-sized gain for EU members. Some third country establishments could outsource only part of their services to subsidiaries located in the EU, or they might repatriate some services to their home country due to the costs engendered by relocating business or greater segmentation. In particular, certain financial institutions might not want to deal with different sets of regulations.

The automobile sector

The European automobile industry, which is highly integrated, will be hard hit as a whole by Brexit. The UK industry in particular will be strained by tariff measures, since nearly three quarters of its automobile exports are geared for the European market. One CEPII study³⁵ predicts that automobile production would decline by 1.8% if UK and EU negotiations result in a regional trade agreement and the return of non-tariff barriers. Under this scenario, nearly 500 jobs would be destroyed and British consumers would be hit by a 3% price increase for imported cars.

In the absence of an agreement, losses would be even more substantial. The study assumes that the UK would continue to benefit from trade agreements concluded between the EU, Turkey, and Mexico, but that the automobile sector would be hit by customs duties under the most-favoured nation clause. In this case, UK automobile production would

fall by about 4%. Nearly a thousand jobs would be destroyed and consumer prices would increase by roughly 6%.

Aeronautics and space industry

Other sectors will also be affected, including the aeronautics industry, which is Europe's largest. The EU accounts for nearly half of its export market. Moreover, the supply chain is spread throughout Europe. Airbus, for example, is the fruit of close collaboration between the UK, Spain, France and Germany.

Similarly, without a new security agreement, UK companies would no longer be able to sign contracts to operate the Galileo satellite navigation system, a European Space Agency project developed by the EU.

The airlines

UK airlines, which are currently allowed to operate flights anywhere in Europe, fear that they will have to give up their air traffic rights. Moreover, airworthiness certificates issued by the Civil Aviation Authority might no longer be recognised by the European Aviation Safety Agency (EASA).

Conclusion

The UK and the EU will soon engage in negotiations that promise to be laborious at the least. The protagonists are struggling to agree on the procedures. The UK would like to begin right away on negotiations on a new relationship that would define all trade relations between the UK and the EU, as well as the rights of EU citizens residing in the UK. Before entering preliminary talks on their future relationship, the EU first wants to deal with the special case of Ireland; to ensure that the UK respects the financial commitments it made as an EU member; and to clarify the rights of European citizens residing in the UK.

All of these issues are likely to strain the negotiating process. Yet negotiations on a new relationship will be a huge challenge, especially since the UK has few options if it intends to control immigration from the EU. Halting the free movement of people would rule out membership in the EFTA/EEA or the conclusion of a bilateral agreement similar to the one between the EU and Switzerland. If the EU and the UK should be heading towards a comprehensive free trade agreement modelled more along the lines of CETA, the free trade agreement recently signed between the EU and Canada, concluding such an agreement would take some time, given the large number of themes that must be covered. The UK and the EU currently have very close trade relations, and it is in the interest of both parties to reach an agreement if they want to avoid seeing their trade relations governed by WTO regulations by default.

16 May 2017

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³⁴ Olivier Wyman, *The impact of the UK's exit from the EU on the UK-based financial services sector*, 2016

³⁵ CEPII, Thierry Mayer, *Brexit, Trumpit: the end of regional agreements? Consequences for the automobile industry*, n°371, November 2016



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