

CONJONCTURE

October 2019 : n°8

United Kingdom: how major banks have returned to profit

The financial crisis of 2008 left its mark on the macroeconomic, regulatory and legal environments in the United Kingdom. It was followed by a long period of consolidation in the banking sector. Although the major British banks have managed to improve their performances recently, they are now faced with fresh challenges, starting with the uncertainty surrounding Brexit. For the banks, this uncertainty will not be resolved immediately by the conclusion of the Brexit as they will still need to adjust to the loss of their European passporting rights and potentially to address a contraction in demand in their domestic market.

Laure Baquero

p.2

Net banking income on a rising trend since 2016

p.6

Improved cost-to-income ratio despite implementation of the Vickers reforms

p.8

Better capitalised, banks are cutting costs but no longer reducing assets

p.11

Improved results in the recent past and uncertainty for the near future

ECONOMIC RESEARCH DEPARTMENT

Eco
CONJONCTURE



BNP PARIBAS

The bank
for a changing
world

United Kingdom: how major banks have returned to profit

Laure Baquero

The financial crisis of 2008 left its mark on the macroeconomic, regulatory and legal environments in the United Kingdom. It was followed by a long period of consolidation in the banking sector. Although the major British banks have managed to improve their performances recently, they are now faced with fresh challenges, starting with the uncertainty surrounding Brexit. For the banks, this uncertainty will not be resolved immediately by the conclusion of the Brexit as they will still need to adjust to the loss of their European passporting rights and potentially to address a contraction in demand in their domestic market.

More than ten years after the financial crisis and as Brexit approaches, we are taking a look at the health of the UK banking industry, and more specifically that of its five main players (Barclays, HSBC, Lloyds, RBS and Standard Chartered) who between them still had 76% of the sector's total assets in 2018¹. Whilst they are very different in terms of the geographical split and make-up of their businesses, all these banks have long histories, having been active in the UK since the 18th or 19th centuries.

The British banking sector was hit hard by the 2008 crisis. Bank losses in the UK for the period from 2008 to 2012 alone amounted to nearly 10% of the country's GDP, and the government had to intervene to recapitalize the UK's third and fourth largest banks ranked by assets. The five biggest British banks then continued to post losses with the result that the period of consolidation continued until 2015-16. Since then, the British banking sector, as represented by these five banks, has seen improved results. More profitable at the cost of restructuring and cost control, they are also stronger.

They therefore appear to be better placed than they would have been a few years ago to face up to the changes now taking place as well as those that lie ahead in the short and medium term. On the legal and regulatory front, such changes include the Vickers reform, in force since 1 January 2019, and preparations to implement the *Fundamental Review of the Trading Book* (FRTB) from 2022². In the more immediate future, they must also conform to the European PSD2 directive, which more or less complements the *open banking* regulations in force in the UK since 1 January 2018 (following a Competition and Markets Authority decision in August 2016) under which banks are required to share client data with other financial services companies in order to "promote innovation that serves consumers". These last two elements are in line with the British government's desire to increase competition in the national banking market, which has led to the emergence of new, often all-digital banks, known as challenger banks or neobanks.

Lastly, both traditional and challenger banks are operating in an environment of accommodating monetary policy and face a major

source of uncertainty in Brexit, even if the institutions of the European Union (EU) and the UK have vowed to minimise the risks³. The Bank of England (BoE), believes that challenger banks would be worse hit by a disorderly Brexit than their traditional rivals. This said, there are still substantial challenges ahead for the five banks in our sample, which take different forms: for the big retail banks whose businesses are focused on the UK on the one hand, and on the other those whose portfolios are more diversified and who will thus need to rethink the structure of their business in the EU.

Net banking income on a rising trend since 2016

After several years of decline, aggregate net banking income for the five banks in our sample had fallen to GBP 97.5 bn by 2016, its lowest level since the financial crisis⁴. It has regained ground since then, rising to GBP 106.4 bn in 2018 (see Table A in the Appendix). This improvement was also confirmed in revenue figures for the first half of 2019 (up 3.1% y/y).

A marked improvement in net interest income and other operating income since 2016

The decline in net banking income from the beginning of the decade until 2016 was spread across all of its components. Although the trend in net interest income and other net operating income has reversed since then, the same is not true of net commissions. As the years go by, the structure of net operating income has shifted towards net interest income and away from net commissions. Reflecting the different business models of our five banks, and also the macroeconomic environment, this development has been driven nearly exclusively by

¹ SNL: data at end 2018 calculated on the basis of consolidated accounts of banks, savings banks, mutual companies, etc.

² The FRTB is a new chapter of banking regulation initially published in January 2016 and then updated in January 2019, with its application postponed until 2022 and the creation of a transitional period that runs to 2027. It represents a profound change in the way that banks calculate the risk arising from their market activities; it will be accompanied by adjustments to capital requirements.

³ BNP Paribas, *Brexit: The shape and scope of financial implications*, Conjoncture March 2019

⁴ Comparisons with the pre-crisis period (i.e. until the year 2008 included) are made delicate by the significant ensuing changes in the scope of the banks in our sample, notably with the acquisitions of a part of ABN Amro by RBS in 2007, of part of Lehman Brothers by Barclays in 2008 and of HBOS by Lloyds in 2008. Recalculated comparable scope data appears to be too unreliable for use here. Even after reprocessing, we do not consider the scope homogeneous enough until 2009, the year from which we start the observation period.



Lloyds and RBS, whilst Barclays and Standard Chartered have moved in the opposite direction. These latter two banks, along with HSBC, have more diversified business models and can be considered as universal banks.

Geographical and business breakdowns of net operating income shows similar profiles for Lloyds and RBS, whose businesses are concentrated almost entirely on the UK, and essentially on its retail banking segment (60% and 63% of net banking income in 2018 respectively, compared to 25% and 37% respectively from market activities). Conversely, HSBC and Standard Chartered have a much greater focus on Asia (55% and 68% of 2018 net banking income respectively) and on investment banking (54% and 56% of 2018 net banking income respectively). Lastly, Barclays has a more balanced profile, with 55% of its net banking income coming from retail banking and 52% from the UK market. Meanwhile, market activities accounted for 46% of net banking income in 2018, and the North American market for 36%.

Net interest income driven by retail banking

Net interest income now represents 57% of net banking income for our sample (from 50% in 2010) and has grown by a compound average growth rate (CAGR) of 3.6% per year since 2016, having fallen by a CAGR of 3.5% between 2010 and 2016. This increase has been driven mainly by Lloyds, where net interest income now represents nearly three-quarters of net banking income, from around half at the beginning of the decade (Chart 1). This has coincided with the refocusing of Lloyds' business on retail banking. In general, the large retail banks in our sample have a share of net interest income in proportion of their net banking income greater than their competitors.

Other operating income grew by a CAGR of 12.3% between 2016 and 2018 (having fallen by a CAGR of 11.0% between 2010 and 2016). This means that the contribution from this source of income to net banking income growth in our sample was similar to that from net interest income, despite making up a much smaller share of net banking income, at 22% in 2018 (from 26% in 2010). This trend was mainly due to the performance of HSBC (growth of 10.2% on average).

Breakdown of the net operating income of the major UK banks in 2010 and 2018

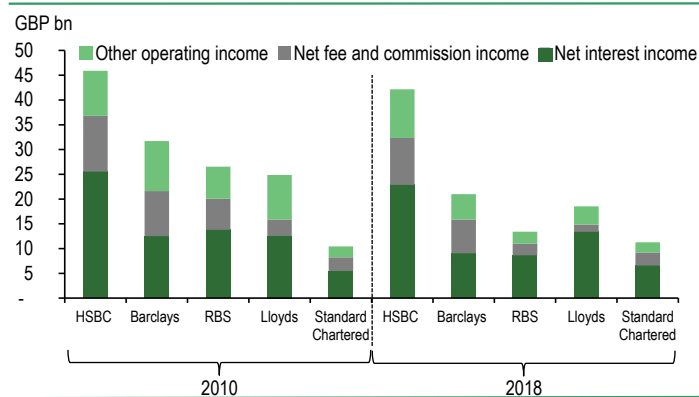


Chart 1 Source: SNL

Commissions continue to hold back the rate of growth in total net banking, reflecting a slowing of market activities

Having shrunk by an annual average of 5.7% between 2010 and 2016, net commissions struggled to recover and have continued to fall in recent years (CAGR of -0.3% between 2016 and 2018). As a result, their weight in net banking income has fallen steadily, from 23% in 2010 to 21% in 2018. This trend has come against a background of the major British banks (in common with their European counterparts) slipping down the market share league tables in the main areas of investment banking, although Barclays has held up relatively well (Table 1).

Whilst all five banks in our sample contributed to the decline in net commissions at the beginning of the decade, they have seen a divergence in their performances more recently. Commissions have grown at Standard Chartered, thanks to its activities in Asia, but stagnated at HSBC as a result of lower investment banking business volumes in Europe and North America. However, the decline has continued at RBS and Lloyds (net commissions at the latter were largely generated from account management and bank card fees rather than market activities)⁵.

This said, amongst the major European economies, the UK is the country where commissions form the lowest proportion of net banking income (Chart 2 and Charts A and B in the Appendix). The weight of net commissions in the net banking income of the British sample was already low ten years ago, but at that time the aggregate total of net commissions was then significantly higher than for similar samples of banks from other European countries⁶ (EUR 31.5 bn in the UK, compared to EUR 25.4 bn in France and EUR 15.1 bn in Germany in 2005). By 2018 this was no longer the case, as they had been overtaken by the major French banks (EUR 34 bn in France compared to EUR 25.7 bn in the UK).

Net fee and commission income as a share of operating income of major international banks

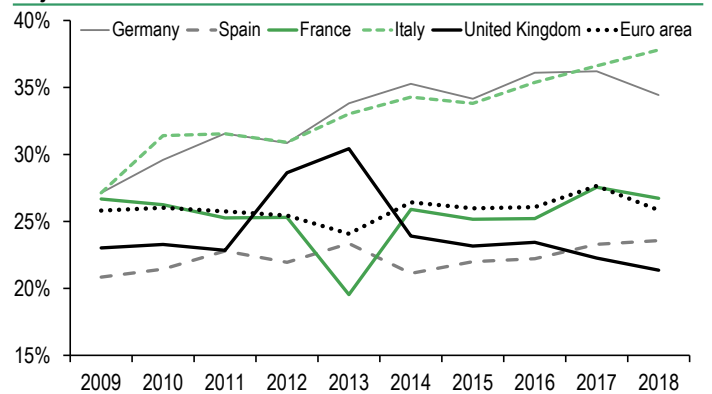


Chart 2 Source: SNL

⁵ See Lloyds 2019 Half-year results

⁶ For each country, the banking samples consist of the first five or six banks in term of Tier 1 capital on a consolidated basis. Thus, the French sample includes BPCE, BNP Paribas, Crédit Agricole, Crédit Mutuel and Société Générale.

Ranking of banks according to their global market shares by type of activity

	2007 - 2008	2017 - 2018	2007 - 2008	2017 - 2018	2007 - 2008	2017 - 2018	2007 - 2008	2017 - 2018
	Bonds		Equity		Loans		M&A	
1	JP Morgan	JP Morgan BoA - Merrill Lynch	JP Morgan	Morgan Stanley	JP Morgan	JP Morgan BoA - Merrill Lynch	Goldman Sachs Bank of America Merrill Lynch	Goldman Sachs
2	Barclays		Citi Goldman Sachs	Goldman Sachs	Citi			Morgan Stanley
3	Citi	Citi		JP Morgan	RBS	Citi	JP Morgan	JP Morgan
4	Goldman Sachs	Goldman Sachs	UBS Morgan Stanley	Citi BoA - Merrill Lynch	Bank of America	Wells Fargo	Morgan Stanley	Citi
5	Deutsche Bank	Barclays			BNP Paribas	Barclays	Citi	Barclays
6	Merrill Lynch	Morgan Stanley	Merrill Lynch	Credit Suisse	Deutsche Bank	Goldman Sachs	UBS	BoA - Merrill Lynch
7	Morgan Stanley	HSBC	Credit Suisse	UBS	Barclays	Deutsche Bank RBC Capital Markets	Credit Suisse	Lazard Ltd Evercore Partners Inc
8	Bank of America	Wells Fargo	Deutsche Bank Lehman Brothers	Deutsche Bank	Crédit Agricole		Deutsche Bank	
9	UBS	Deutsche Bank		Barclays	Goldman Sachs	HSBC	Lehman Brothers	Credit Suisse
10	HSBC	TD Securities	CICC	CICC	Credit Suisse	BNP Paribas	Lazard Ltd	Deutsche Bank
	RBS (11)	Lloyds (32)	Barclays (14)	HSBC (23)	HSBC (13)	Stan Chart (33)	RBS (12)	HSBC (21)
		Stan Chart (41)	HSBC (15)		Stan Chart (27)	Lloyds (48)	Barclays (20)	Stan Chart (138)
...		RBS (86)	RBS (38)		Lloyds (47)	RBS (93)	HSBC (21)	
			Stan Chart (61)				Stan Chart (71)	

Table 1 Source: Bloomberg

A highly competitive domestic market

The recent trends outlined above have come against a macroeconomic background of a recovery in borrowing by non-financial private agents.

Increase in borrowing by non-financial private agents

These economic agents deleveraged in the years following the crisis in a way that brought the ratio of their debt to GDP back to more sustainable levels (from 185.8% in the 3rd quarter of 2009 to 148.8% by the 1st quarter of 2016 – Chart 3). This was accompanied by an increased use by non-financial companies (NFCs) of market financing rather than bank lending (Chart C in the Appendix).

The intermediation rate is rising once again in line with the faster growth of bank financing flows than those of market debt (respectively +34% and +7% between the second quarter of 2016 and the fourth quarter of 2018).

Outstanding credit to non-financial private agents has been growing at the monthly rate of between 3.5% and 4.0% since 2016 (in a year-on-year basis). It has thus recovered and then exceeded 2018 its pre-crisis level expressed in value since November, thanks to the sustained growth of bank loans to household since 2014 (Chart 4).

International comparison of non-financial private agent's debt as a proportion of GDP

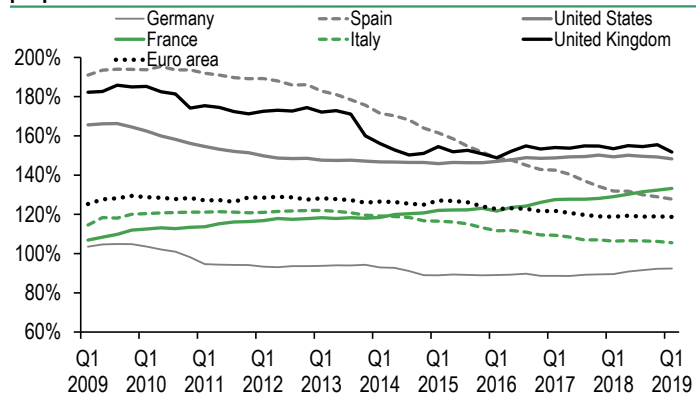


Chart 3 Source: Banque de France

Amounts banking outstanding of non-financial agents in the United Kingdom

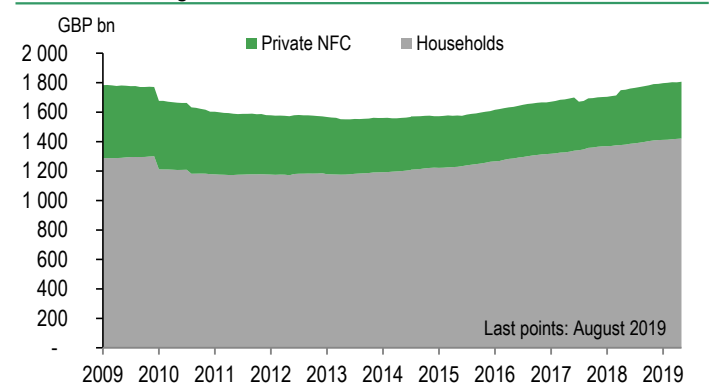


Chart 4 Source: Bank of England



Increased competition in the UK banking sector, particularly in retail banking

With the recent increase in the number of credit institutions registered in its national jurisdiction, the UK is bucking the trend seen elsewhere in the EU⁷. This increase is in line with the desire of the UK authorities to encourage the emergence of new players, in particular to limit the ‘too big to fail’ phenomenon, assuming that they take market share from the largest banks rather than from their second-tier rivals. It was also one of the recommendations of the Vickers Commission, which recommended the reforms that bear its name (see below). Shortly after the formation of this Commission, the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA) were created in 2013 with the explicit mandate, amongst other things, of promoting competition. To this end, they have simplified the process of applying for banking authorisation in the UK. By way of illustration, a survey by the Competition and Markets Authority (CMA) of retail banking between 2013 and 2017 found a number of factors limiting competition in the sector and was followed by the delivery of fifteen new banking authorisations.

Subsequently, the UK authorities have continued to promote the openness of the banking sector. This is reflected in the ‘open banking’ measures implemented on 1 January 2018. From that date, the nine biggest UK banks, including the five in our sample, have been required to allow authorised banks direct access to client data regarding current accounts. The aim has been to improve choice for consumers, although it appears that consumer awareness of the measures remains modest at best. The government continues to promote the opening up of the banking sector and indeed is looking further ahead, with ‘open banking’ giving way to ‘open finance’ to help propagate technological advances and the sharing of client data across the financial services sector rather than just in banking. This process could be helped by the application of the European PSD2 directive, even though its full application has been delayed by an FCA decision⁸.

Increasing margins improve at the expense of a slight increase in risk

British credit institutions have only partly transmitted the increases in the BoE’s policy rate since November 2017⁹ (see below). This is particularly true of new mortgage lending to individuals, for which the average rate stabilised in 2018 at 2.1%, having fallen from 4.8% in 2009 to 2.0% in 2017 (Chart D in the Appendix). By 31 August 2019, the proportion of fixed-rate mortgage loans was 72% of the outstanding loan book and 94% of new production, reflecting the recent trend

amongst borrowers to prefer fixed-rate mortgages. Conversely NFCs are increasingly borrowing at variable rates (78% of the stock of loans and 85% of new loans). Outstanding bank lending to households represents nearly 80% of total lending to the non-financial private sector (Chart 4); the characteristics of this loan book have a key effect on the sensitivity of interest margin to market rates.

Rates are fixed for a period of between two and five years. Having fallen until 2017 for new loans and until 2018 for the outstanding loan book, rates have since stabilised despite the increase in sovereign two-year and five-year rates. As a result the apparent margin, measuring the gap between benchmark sovereign rates and the fixed-rates offered, has narrowed (for both new loans and the stock of loans – Chart D in the Appendix).

Growth in the average return on assets against a background of low rates

Current monetary policy coupled with increased competition has limited margins at British banks. In common with the banking systems of other developed economies, British banks first saw margins rise in 2008-09 due to the rapid fall in the cost of bank resources. They then saw a period of margin erosion as lower yielding assets gradually replaced higher yielding assets.

The average return on assets¹⁰ of our sample has risen slightly in the recent past (2016 to 2018, Chart 5) despite the fall and then stabilisation of the rates charged by major British banks. This hides the divergence between Lloyds and RBS on the one hand, where the average return on assets has flat-lined, and Barclays, HSBC and Standard Chartered on the other, whose portfolios are more diversified (see above).

Average cost of resources and average gross yield on assets of the major UK banks relative to sovereign rates

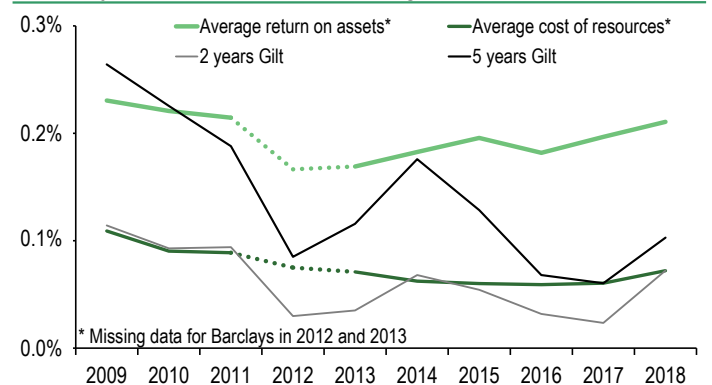


Chart 5 Source: SNL, Datastream

In addition, the gap between the average return on assets for our sample and the average cost of resources¹¹ has widened slightly since 2016 (Chart 5), helping boost the net interest margin. This has been the case at all five banks in our sample, and is particularly true of Lloyds,

⁷ ECB: Consolidated data

⁸ The PSD2 directive was adopted in January 2018, with the application of national enabling legislation expected on 14 September 2019. This required banks and payment service providers to facilitate access to client data via Application Programming Interfaces (APIs). It also seeks to improve security of access to client accounts for payments made over the internet. As the necessary preparatory work had not been completed, the FCA undertook on 13 August 2019 not to sanction any company that was not ready for implementation, provided it could prove that it had taken preparatory measures.

⁹ Bank of England, *Inflation report*, May 2019

¹⁰ The average return of the asset portfolio measures the interest received by banks in proportion of their productive assets.

¹¹ The average cost of resources measures the interests paid by banks in proportion of their productive assets.



where the fall in the average cost of resources has been significant (from 1.0% in 2016 to 0.4% in 2018) due to the interest paid being reduced by a factor of 2.5 over the period whilst the average return on assets has been stable at around 2.3%.

More recently, net interest margins at the major British banks have recovered slightly and are now at a suitable level in international comparison.

From this point of view, our sample is more or less in line with the European average (Chart 6). The margins of UK banks appear to be close to those of large banks in the euro area as a whole, despite differences between the monetary policies of the BoE and the ECB. This reflects the importance of the other factors that monetary policy to explain the levels of margins. The margins of the British sample would, however, be higher than those of the euro area if we consider them excluding the margins of the major Spanish banks¹².

Net interest margin as a share of earning assets of major international banks

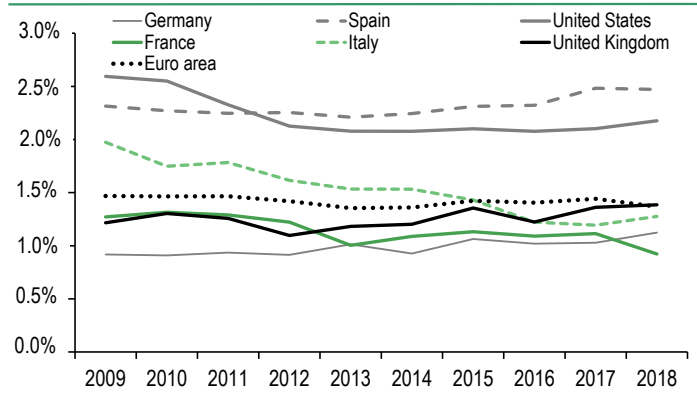


Chart 6 Source: SNL

Net interest margin as a share of earning assets of major UK banks

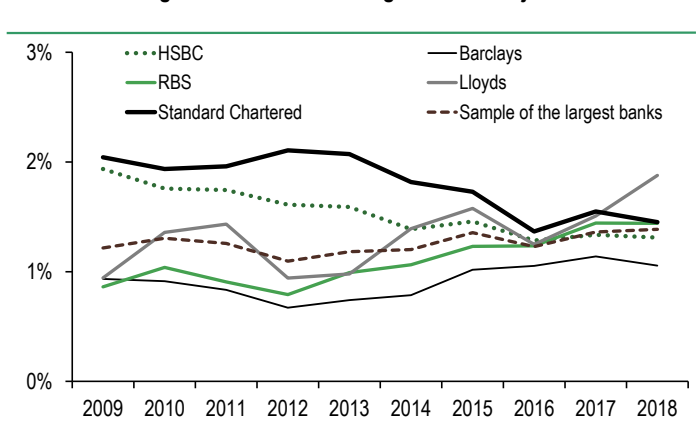


Chart 7 Source: SNL

Despite its greater exposure to UK retail banking, Lloyds is the bank in our sample that has the strongest net interest margins over recent years (Chart 7).

¹² BNP Paribas, *Spain: Banking system in convalescence*, Conjoncture Feb. 2018

Monetary policy is likely to maintain low interest rates for some time to come, but could see a tightening or loosening depending on the Brexit outcome and its consequences for the United Kingdom, and notably for the Sterling exchange rate. At the moment, inflation is running at around 2% y/y, notwithstanding the surprising drop to 1.7% (y/y) in August 2019, which was within the BoE's target range.

Improved cost-to-income ratio despite implementation of the Vickers reforms

The aggregate cost-to-income ratio¹³ for the big five UK banks was 64.5% at the end of 2018, which again puts them close to the European average (Chart 8). The ratio for our sample has deteriorated overall from 2009 to 2016, as overheads have risen faster than net banking income. Since 2016, the banks have increased efforts to control costs (-4.2% CAGR), whilst net banking income has risen (4.4% CAGR, see above) with the result that the cost-to-income ratio has fallen in recent years (Chart 9).

Cost-to-income ratio of main international banks

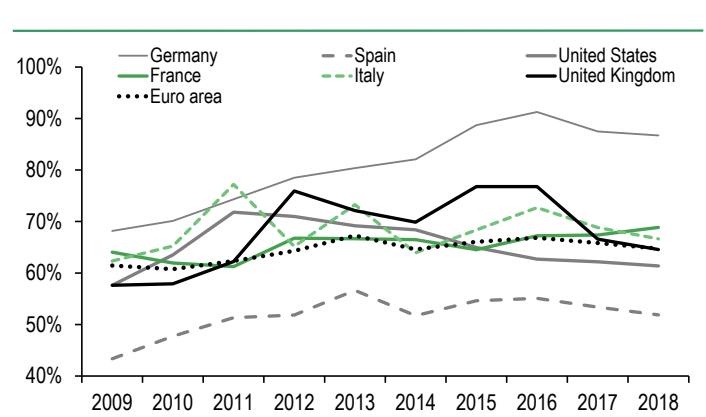


Chart 8 Source: SNL

Cost-to-income ratio of major UK banks and its components

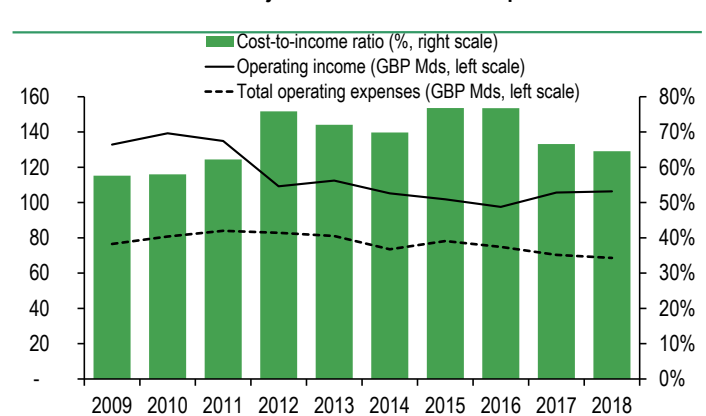


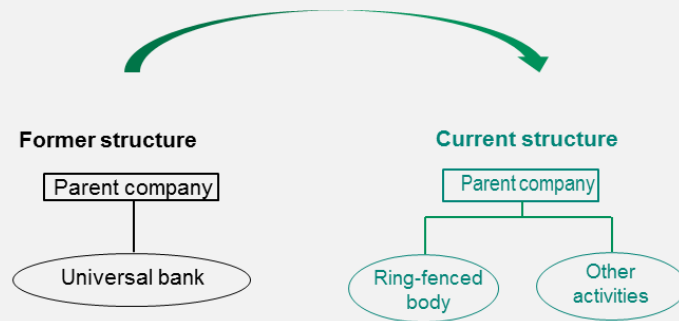
Chart 9 Source: SNL

¹³ The cost-to-income ratio measures operating expenses in relation to net banking income.

Vickers the separation of banking activities

The Vickers reforms came into force on 1 January 2019. The origins of the reforms, however, lie in the early 2010s when, in response to the crisis, the UK authorities appointed an independent commission, chaired by Sir John Vickers, to assess the operation of the UK banking sector and propose improvements.

Diagram 1: Summary of framework for banking operations before and after Vickers



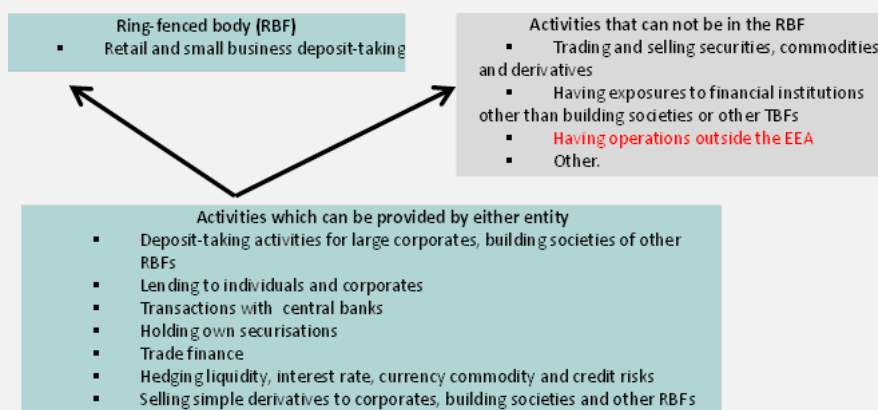
It was recommended that banks should separate their retail banking businesses from their other activities. Instead of the former structure, where a parent company sat at the head of a universal bank, banks have had to restructure so that the parent company now controls a retail bank on the one hand and a structure housing other banking activities (investment banking, asset management, etc. – see Diagram 1) on the other.

The two must be separate from a financial, managerial and governance point of view. Retail business is thus housed in a ring-fenced structure, which must meet liquidity and solvency requirements independently of the rest of the banking group.

Certain business areas may be included in one or other of these structures at the discretion of the parent company. This is the case, for instance, for lending to large companies (investment banking), or certain hedging businesses (Diagram 2). The Vickers reforms also stipulate that retail activities conducted with agents within the European Economic Area (EEA) may be included in the ring-fenced business, unlike similar activities conducted with non-EEA resident entities. However, these reforms were designed before the Brexit referendum.

The withdrawal of the UK from the EEA could give rise to further adjustments on this point even though in practice, and according to the PRA, most activities conducted by UK banks with EEA agents are not included in the ring-fenced structures.

Diagram 2: Distribution of bank activities in accordance with the Vickers reforms



Box

Source: Bank of England



The efforts since 2016, focused on reducing cost relating to other operating costs (including, for example, amortisation and depreciation of tangible and intangible assets, communication and marketing expenses, etc., average contribution of -3.2%), rather than staff costs which have seen smaller reductions (average contribution of -1.1%). Recent efforts, particularly with respect to staff costs, have been all the more notable as they have come at a time when British banks have had to implement the restructuring required by the Vickers reforms (see box below). They were due to be ready by January 2019 and by then, amongst other requirements, to have duplicated certain support functions (IT, HR, etc.), implying additional costs.

Better capitalised, banks are cutting costs but no longer reducing assets

Cost of risk under good overall control

The cost of risk ratio (cost of risk divided by net banking income) at our sample of the biggest UK banks is amongst the lowest in Europe, having fallen almost continuously over the past 10 years (Chart 10). In recent years (2016-2018), the fall in the cost ratio has come alongside the banks increasing their provision cover to comply with IFRS 9, which came into force on January 2018¹⁴. Within our sample of UK banks, cost of risk ratios are now fairly similar (Chart 11), despite the diversity of their sources of revenue in terms of business area and the geographical regions covered.

Cost of risk ratio of major international banks (provisioning / operating income)

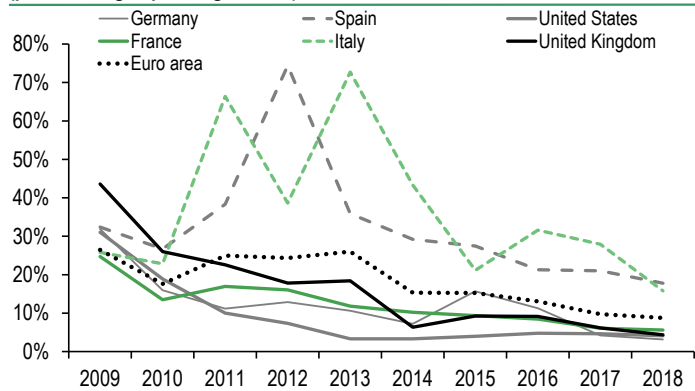


Chart 10

Source: SNL

The diverse nature of the portfolios is reflected less in the proportions of non-performing loans, which are fairly similar, than in provisioning rates, which differ widely from one bank to the next.

¹⁴ BNP Paribas, *The effects of the initial adoption of IFRS 9 on southern European banks*, Conjoncture Nov. 2018

Cost of risk ratio of the largest UK banks (provisioning / operating income)

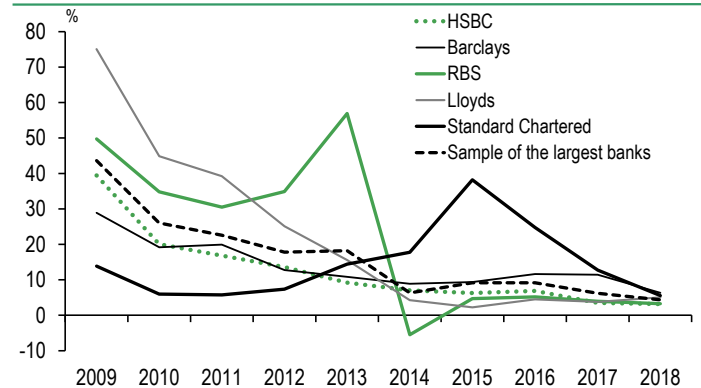


Chart 11

Source: SNL

Good-quality loan books

The sample has a low level of non-performing loans, and this has been the case for a number of years now. The sample stands apart, however, from those of other European banking industries with similar such levels in its higher rate of loan coverage (Chart 12)¹⁵, suggesting a higher level of expected losses, but this does not affect the loans deemed performant. Examination of the various indicators for each bank shows that Standard Chartered sets itself apart from its peers by its high and rising level of coverage of non-performing loans (57.2% in June 2018, from 54.0% in December 2017), even though its rate of non-performing loans is close to the sample average and on a downward trend (1.9% for Standard Chartered, compared to 1.5% for the sample in June 2018 – Chart 13), and by its stock of financial assets classified as in phases 2 and 3 of IFRS 9¹⁶.

Non-performing loans and their coverage ratio in Europe in June 2018

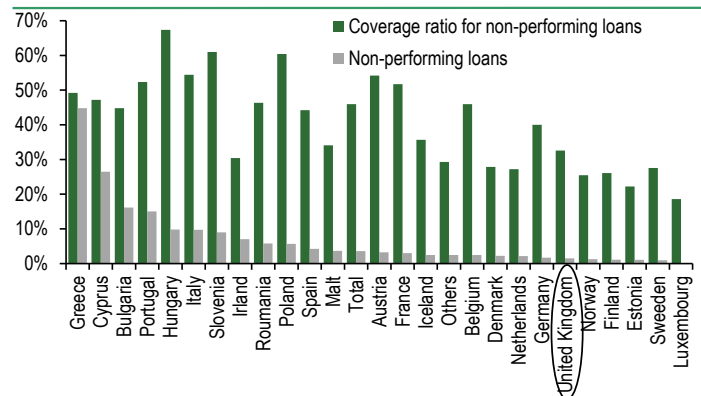


Chart 12

Source: EBA

¹⁵ The EBA sample includes the five banks in our sample plus Nationwide. However, the figures for the latter do not significantly modify the EBA figures cited here.

¹⁶ *Standard Chartered Annual report 2018*.



Non-performing loans and their coverage ratio in the United Kingdom in June 2018

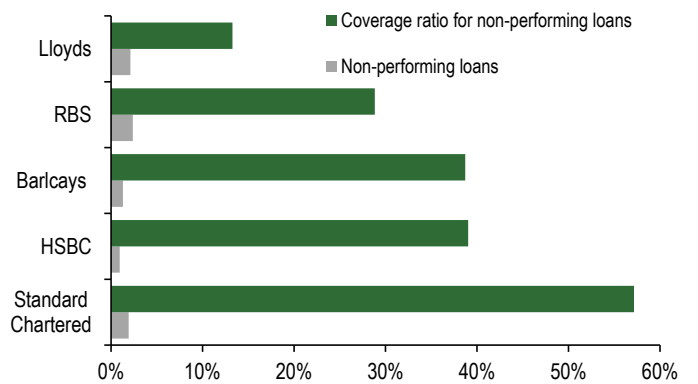


Chart 13 Source: EBA

The significant disparities between coverage rates of non-performing loans practiced by the five banks in our sample can be explained by the very different structures of their loan books. Thus, provisions against non-performing exposure at Standard Chartered relate mainly (89%) to loans to Non-Financial Companies (NFCs). This is also true of HSBC (76%), whose level of exposure to non-performing assets in this segment is, however, lower than that at Standard Chartered (1.83% vs. 5.65%). Conversely, RBS and Lloyds have higher levels of non-performing loans (2.4% and 2.1% respectively, across their entire loan books), but these seem to be linked mainly to their loans to households, which accounted for 61% and 46% respectively of provisions against non-performing assets. The mortgage lending business, which dominates loans to households, sees generally higher recovery rates than other categories of loans, which helps explain the differences observed between the coverage rates at the banks in our sample.

The proportion of so-called at-risk loans is slowly rising on a national level

Statistics on mortgage lending to private UK individuals by all of the monetary financial institutions in the market – rather than just our sample of five banks – show some significant changes over recent years. For example, loans are increasingly made to couples rather than individuals. In an environment of lastingly low interest rates, favouring inflation in real estate prices, this allows borrowers to acquire higher-priced properties. But it also results in an increase in the proportion of borrowers considered as ‘at-risk’ (i.e. those for whom the ratio of loan value to income is above 3 for a couple and 4 for an individual borrower – Chart 14). Passing on this increase in risk through higher interest rates has, however, been made harder by stiff competition (see above). In the end, this might result in an increase in the cost of risk over the next few years.

In an effort to preserve both volumes and margins, credit institutions have broadened the distribution of their loans to riskier profiles. This change can be seen through the loan to value ratio, which relates the loan origination amount to the value of the financed property. The profile of a borrower is even more risky as his loan to value is high. However, the share of new home loans whose loan to value exceeds 90%

increased from 3.3% in the first quarter of 2018 to 4.5% a year later and 5.5% in the second quarter of 2019, the highest level since the end of 2008.

Breakdown of mortgage loans by level of risk associated with borrowers (couples and singles combined)

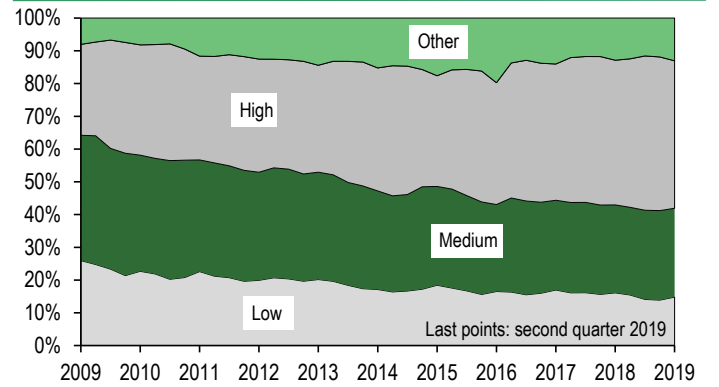


Chart 14 Source: Bank of England

Compared with the situation just after the outbreak of the 2008 financial crisis, these strategies are today partly undermined by the tightening of the additional margin associated with a loan whose loan to value exceeds 90% compared to a loan whose loan to value is between 75% and 90%. This reflects the intensification of competition in retail banking, including this type of riskier segment.

CET1 ratios have stabilised thanks to retained earnings

Since 2011, the big five UK banks have largely relied on retained earnings, rather than capital increases, to meet the Basel criteria (Chart 15). This is in keeping with the practice seen on a broader scale by the Bank for International Settlements (BIS)¹⁷.

Retained earnings and total equity of major UK banks (Annual variation cumulated since 2009)

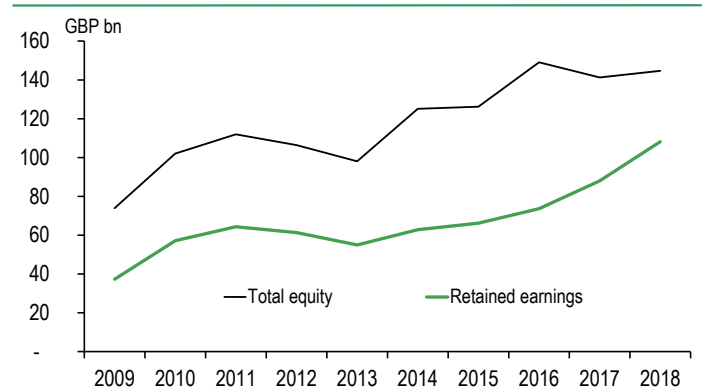


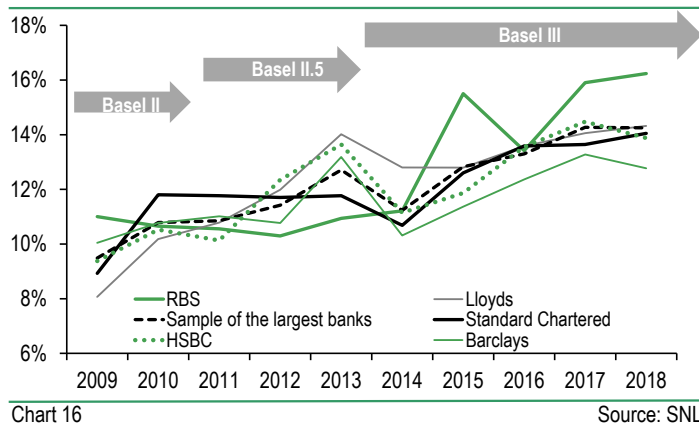
Chart 15 Source: SNL

¹⁷ BIS, *How have banks adjusted to higher capital requirements?* 2013



Furthermore, the major British banks also felt that the application of the IFRS 9 accounting standard would be likely to alter their CET1 ratios. Ultimately, their aggregate ratio was 14.0% at end-2018, from 14.3% at end-2017, (fully loaded and with risk-weighted assets; Chart 16) which allowed them to satisfy the stress tests conducted by the BoE in 2018. These took into account the G-SIB surcharges applied to HSBC, Barclays and Standard Chartered as well as the various capital cushions allocated to all of the banks in our sample. This success was, however, for some of the banks, dependent on the assumptions made by the BoE: (i) non-static balance sheets, which is to say that banks are allowed to carry out action plans to reorganise their businesses in order to absorb the shock; and (ii) the possibility of converting “other Additional Tier 1” (AT1) capital to strengthen capital in the event that it is excessively affected by significant stress. Whilst Standard Chartered and RBS passed the BoE test in 2018 with or without these conditions in place, the same cannot be said of HSBC, Barclays and Lloyds, whose CET1 ratio after the test were below the minimum levels required by the BoE in the absence of these conditions¹⁸.

Evolution of the CET1 ratio for largest UK banks



The time of deleveraging is over

At the beginning of the decade, the UK had one of the world’s biggest banking sectors as a proportion of GDP, with total assets of more than 500% of GDP in 2011 (Chart 17). By way of comparison, this figure was 344% at that time for the euro zone as a whole, where funding is less disintermediated than in the UK. According to the BoE, this was in line with the country’s pre-eminent position in the global financial sector and was not particularly different from the proportions seen in other countries with the same specialisation in this sector^{19,20}.

Since then, the UK has retained its pre-eminent position in the international financial sector despite the decline seen in market activities (see above), while recording a reduction in the value of its

assets²¹ to reach 358% in 2015 and then 377% in 2018, a level similar to that of France.

Total asset weights of Monetary and Financial Institutions (excl. Central Bank) as a share of GDP in the major economies of the EU

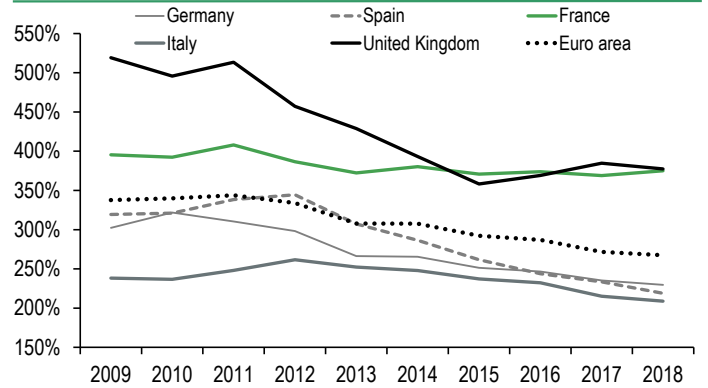


Chart 17 Source: ECB, Eurostat

After having decreased continuously between 2012 and 2016, the aggregate balance sheet of the UK Monetary Financial Institutions²² (MFIs, excluding central bank) is rising again from 2017 (Chart E in the Appendix). This reversal of trend was driven an increase in outstanding with non-residents (the contraction in interbank lending was partly offset by the rise in reserves from the BoE inherent, in particular, in the BoE’s asset purchase transactions (Chart 18).

Change in assets of Monetary and Financial Institutions (excl. Central Bank) in the United Kingdom by counterpart agent

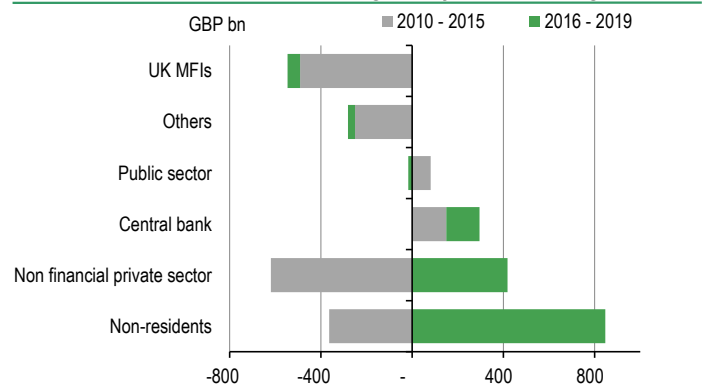


Chart 18 Source: BoE

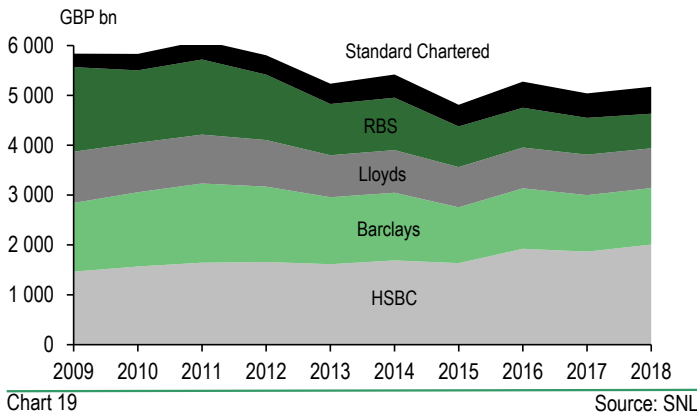
The end of deleveraging observed across the sector²³ is valid on both a social and consolidated basis²⁴. With the exception of RBS, the trend

¹⁸ BNP Paribas, *Large UK banks could withstand a major shock under certain conditions*, Eco Flash Dec. 2018
¹⁹ BoE *Why is the banking system so big and is that a problem?* Dec. 2014
²⁰ BoE *Mapping the UK financial system*, 2015 Q2

²¹ Figures from the ECB on a non-consolidated basis indicate that a minor share of this reduction was due to the disposal of assets, suggesting that the valuation effect is dominant.
²² The MFIs sector includes the central bank, credit institutions and monetary UCITS. The data considered here exclude the central bank.
²³ BoE data for aggregated balance sheets of credit institutions registered in the UK.
²⁴ The comparison between the data at a national level and for our sample of banks is weakened by the difference in their scope. The data for the sample in

now seems to be one of stabilisation (for Barclays or Lloyds), or expansion of the balance sheet (for HSBC and Standard Chartered – Chart 19).

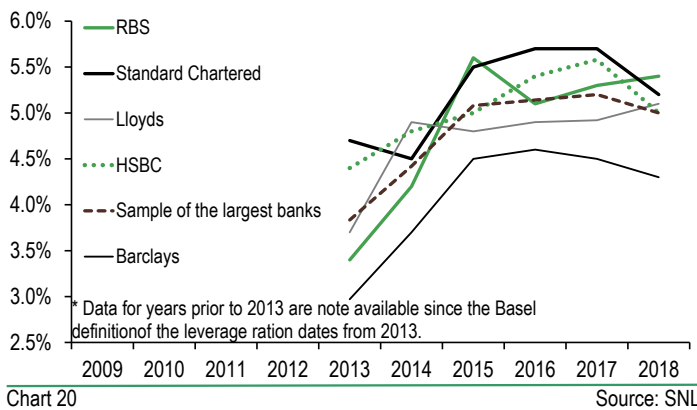
Total assets of the largest UK banks



In 2013, the Basel Committee recommended that banks have a leverage ratio greater than 3%²⁵. At that time Lloyds and Barclays were left in the wake of HSBC and RBS, with leverage ratios showing fairly pronounced increases up until 2015. This was the result of the deleveraging that took place between 2009 and 2015 (see above, Chart 19) alongside increases in capital (see above, Chart 15).

The relative stability of leverage ratios in the recent past masks different situations at the banks in our sample. RBS has set itself apart, pursuing a substantial deleveraging that reflects its efforts to restructure around its core businesses (Chart 20).

Leverage ratio of largest banks (fully loaded, Basel definition)*



this report are calculated on a consolidated basis, which is not the case for the national data.

²⁵ The Basel definition of the leverage ratio compares Tier 1 equity to exposure calculated on the basis of the balance sheet and off balance sheet commitments valued on a prudential approach.

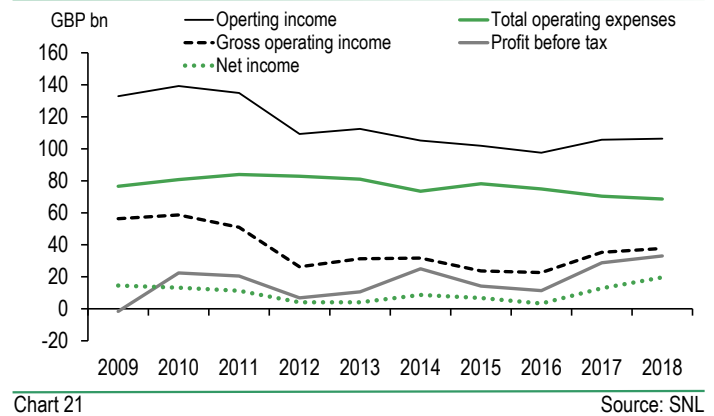
Improved results in the recent past and uncertainty for the near future

For the first year since 2008, none of the five major UK banks has posted a loss in 2018

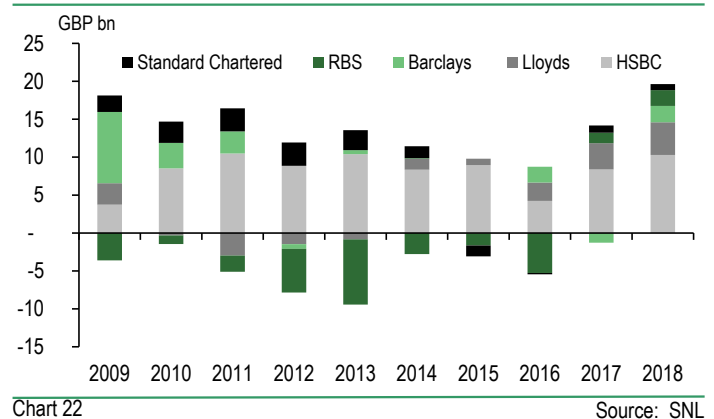
Earnings rise again

Lastly, net income at our sample of major UK banks returned to strong growth since 2016 (Chart 21 and see aggregate figures in the Appendix). In 2018, for the first time since 2008, all of the five banks in our sample posted positive net income (Charts 22). In the first half of 2019, some saw further growth whilst the others at least stabilised, in comparison with the first half of 2018.

Intermediate balances of the aggregate income statement of the largest UK banks



Net income of the largest UK banks



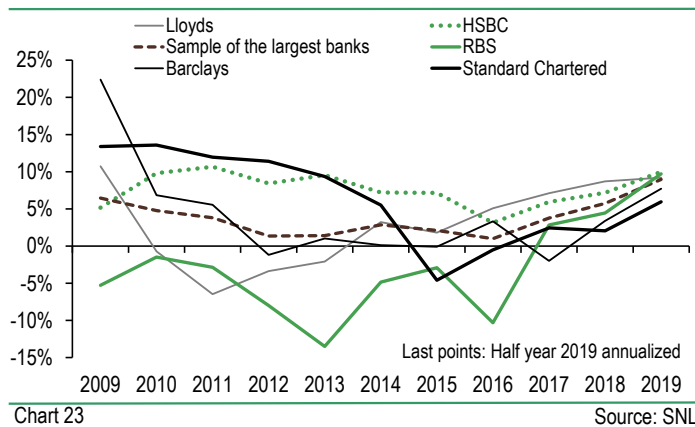
Some grey area in perspective

The financial profitability of the big five UK banks is approaching their target levels

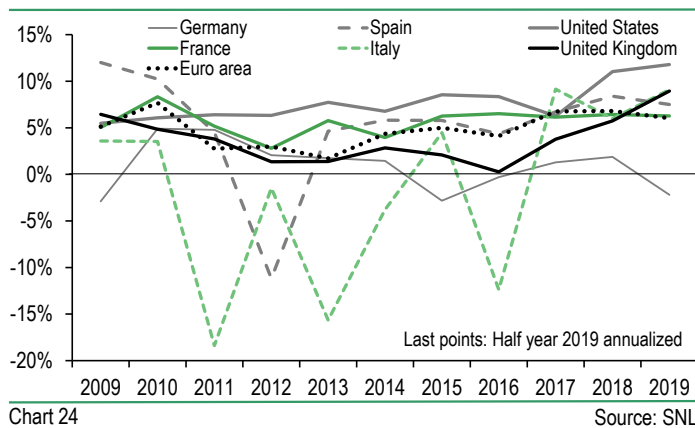
The good performances mentioned above have contributed to improved return on equity (RoE) at the five biggest UK banks. The average RoE of our sample rose to 5.7% in 2018 and 9.0% in the first half of 2019²⁶ (compared to 1.0% in 2016 –Chart 23).

This fits with a general background of lower profitability in investment banking relative to retail banking according to BoE calculations²⁷, confirmed by the RoE figures by business line published in the annual reports of the five banks of our sample in 2018.

Return on equity of largest UK banks



Return on equity of major international banks



²⁶ The RoE for the first half of 2019 has been annualized in order to facilitate the comparison with the annual data for 2009 – 2018. In the half-year, the RoEs report the amount of net interest income in the first half of 2019 multiplied by two, to the average of shareholders' equity excluding minority interest between December 31, 2018 and June 30, 2019.

²⁷ BoE, *Financial Stability Report*, Nov. 2016

This recovery can also be seen in other major western economies. The performances recorded in the first half of 2019, however, allow the British sample to become one of the leaders in comparison with the major European banks^{28,28} (Chart 24).

When it comes to financial profitability target, the banks in our sample now communicate more broadly on their return on tangible equity (RoTE, that is to say after deduction of depreciation, goodwill, etc.) rather than on their RoE. Recent performances have been encouraging relative to the targets set for 2019, 2020 or in some cases 2021 (see Table B in the Appendix), which are fairly close to those of major banks in other European countries. But the increasingly complex environment has led several banks in our sample to take a step back from their target for macroeconomic and geopolitical reasons like HSBC and Standard Chartered (Sino-US tensions), or for more punctual ground for Lloyds (see below).

British banks caught out by Payment Protection Insurance

Payment Protection Insurance (PPI) was taken out by private agents during the 1990s and 2000s to insure consumer loans and mortgages in the event of illness or unemployment. It emerged later that some of these policies had been mis-sold, that is to say without customers being given adequate information or with unclear terms and conditions. The scandal exploded in 2011 and has already cost the UK banking sector nearly GBP 40 bn in provisions, although this has proved inadequate. The FCA set 29 August 2019 as the deadline for customer claims. The number of claims increased significantly in the final weeks in August, leading the big banks in our sample to increase their associated provisions. RBS made additional provisions of GBP 0.6 bn to GBP 0.9 bn, taking the total to GBP 6 bn. Similarly Barclays added GBP 1.6 bn, taking total provisions to GBP 11.2 bn. Lastly, Lloyds, the leading lender in the UK, has been the worst affected. Having already made provisions of GBP 20 bn by the end of 2018, it plans an additional sum of between GBP 1.8 bn and GBP 2.5 bn for 2019. This resulted in it suspending its share repurchase programme in early September and cutting its RoTE target to under 12% for this year.

Brexit remains a major source of uncertainty

The UK economy already appears to be suffering from Brexit, even though it has not yet taken place. Initially expected on 29 March, but then successively on 12 April and on 31 October 2019, it has been postponed again until January 31, 2020, without the risk of a no-deal Brexit being completely ruled out. The ensuing uncertainty is depressing economic activity in the UK. This can be seen in the 0.2% contraction in GDP in the second quarter of 2019 (after growth of 0.6% in the first, both q/q), the first negative figure since 2012, with a negative contribution to growth from investment. Whilst avoiding a technical recession, the UK economy is likely to remain sluggish, growing by 1.1% in 2019, then 0.6% in 2020 (after 1.4% in 2018 and 1.8% in 2017, y/y). Against this background, banks operating in the country could face less helpful business conditions. This is true of the retail banking sector, although lending to the non-financial private sector has remained on good trends so far (see above), as well as of market activities –

²⁸ The RoE of the French sample in the first half of 2019, based on partial data (temporary unavailability of data for Group Credit Mutuel) is likely to be revised.



particularly those linking UK actors with those from other EEA countries²⁹, given uncertainties over the effective date of Brexit and the future legal framework for trade in goods and services between the EU and UK. For the time being nothing has been negotiated on this topic, with the result that they will default to the equivalence regime (less broad and less stable than the European passport and not immediate)³⁰. However, European and British authorities will ensure that contracts already in force are not disrupted, even in the event of a no-deal Brexit, helping to avoid an abrupt halt in business. Whatever happens, Brexit will not settle the issue of the autonomy of UK prudential regulations relative to those in the EU. After the UK's withdrawal from the EU, the banks will certainly no longer have to follow the letter of European regulations, but it remains to be seen whether the national regulatory framework will continue to be based on that in force in the EU or if it will diverge in a bid to increase attractiveness, for example. This choice will be at the discretion of UK authorities but the room for manoeuvre on the regulatory front will be limited by the recommendations under Basel III, which is likely to serve as a common platform independent of the outcome of Brexit. In the meantime, the major UK banks have indicated that they are vigilant and prepared, whether through the transfer of existing subsidiaries' activities to within the EU or the authorisation to develop new activities within the bloc (which would nevertheless engender costs that would not be incurred without Brexit).

Apart from the implementation of Basel III, which has also affected other major banking systems, British banks have had to adapt to major, purely national changes such as the Vickers reforms and the introduction of open banking. They have integrated these developments only to immediately see new challenges emerge, with Brexit topping the list. The interconnection of international financial activities is such that Brexit has, and will continue to have, repercussions for other countries, but British banks will be the most affected. They say they are ready to meet these challenges and that their overall position is more solid and less high-risk than was the case three or four years ago, making them better placed to face this turbulence. This is borne out by improvements in their accounts, the stop of the restructuring of balance sheets for most of them³¹ and the meeting of their targets in terms of the consolidation of capital. Examined more closely, retail banking remains their main source of recurrent revenue. However, this continues to be influenced by monetary policy – which will therefore have to be watched closely as Brexit reaches its denouement – as well as by the different business models operated by the major UK banks.

Laure Baquero
Laure.baquero@bnpparibas.com

²⁹The EEA consists of the European Union, Norway, Iceland and Liechtenstein. It was created in 1994 with a view to deepening the relationship between the EU and three of the four members of the European Free Trade Association (EFTA), the fourth being Switzerland. Switzerland rejected EEA membership in a referendum.

³⁰BNP Paribas, *Brexit: the shape and scope of financial implications*, Conjoncture March 2019

³¹ This item reflects the performances recorded by the banks until the first half of 2019 and does not include the new restructurings envisaged by HSBC, announced at the presentation of its results for the third quarter of 2019.



Appendix 1

Aggregated profit and loss account of major UK banks

GBP bn	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	1S 18	1S 19
Net operating income	132.9	139.2	134.9	109.2	112.5	105.2	101.9	97.5	105.7	106.4	53.4	55.0
o/w Net interest income	65.3	69.9	68.9	57.1	55.7	57.8	58.1	56.4	58.0	60.6	28.9	28.6
o/w Net fee and commission income	30.6	32.5	30.8	31.4	34.0	25.1	23.6	22.9	23.5	22.7	11.7	11.5
o/w Other operating income	37.0	36.9	35.2	20.8	22.4	22.3	20.1	18.3	24.2	23.1	12.8	14.9
Total operating expenses	76.6	80.8	84.0	82.9	81.0	73.5	78.2	74.9	70.4	68.6	32.9	33.0
o/w Staff expenses	39.4	44.4	44.6	44.9	45.0	36.9	37.4	37.4	36.5	35.8	17.9	18.4
o/w Other operating expenses	37.1	36.3	39.3	37.9	36.0	36.6	40.8	37.4	33.8	32.8	15.0	14.6
Gross operating income	56.3	58.5	51.0	26.4	31.4	31.7	23.7	22.7	35.3	37.7	20.5	22.0
Cost of risk	57.9	36.2	30.5	19.4	20.5	6.6	9.3	8.9	6.5	4.7	1.7	3.0
Pre-tax income	-1.6	22.2	20.5	7.1	10.9	25.1	14.3	13.7	28.8	33.1	18.8	19.0
Other nonrecurring income and expenses	19.1	-0.8	-1.6	3.8	1.4	-8.2	-0.6	-1.8	-4.7	-3.4	-2.7	1.0
Corporate income tax	0.1	7.0	5.7	5.8	6.9	6.6	4.8	7.0	9.8	8.7	4.4	4.0
Minority interests	2.9	1.2	1.8	1.6	2.0	1.6	2.2	1.6	1.4	1.3	0.6	0.9
Net income	14.5	13.2	11.3	4.1	4.1	8.7	6.7	3.3	12.9	19.6	11.1	15.1

*Sample of Barclays, HSBC, Lloyds, RBS and Standard Chartered. In 2018, they together account for 77% of the total balance sheet of all UK credit institutions.

Table A

Source: SNL

Return on tangible equity (RoTE) : levels and targets

	Levels on 1 st semester 2019	Targets
Barclays	9.3%	10% in 2020
HSBC*	11.2%	> 11% in 2020*
Lloyds	11.5%	12% in 2019**
RBS	12.1%	12% in 2020
Standard Chartered	8.4	>10% in 2021

*Target pushed back without date objective reported without date specification when announcing the results for the third quarter of 2019.

** Target initially set at 14% but reduced to 12% in September 2019

Table B

 Source: financial reports 1st semester 2019


Appendix 2

Net interest income as a share of operating income for major international banks

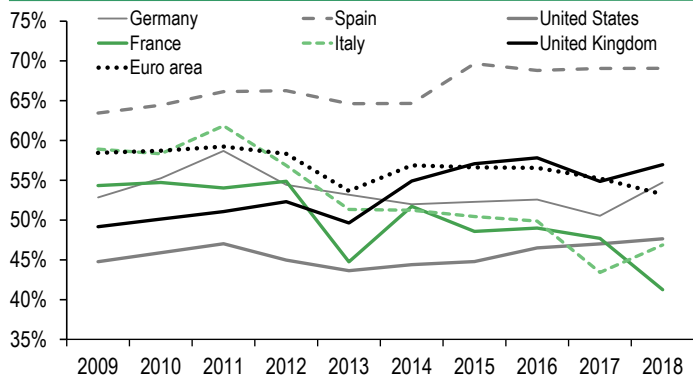


Chart A Source: SNL

Fixed rates charged by MFIs in mortgage loans and sovereign rates in the United Kingdom

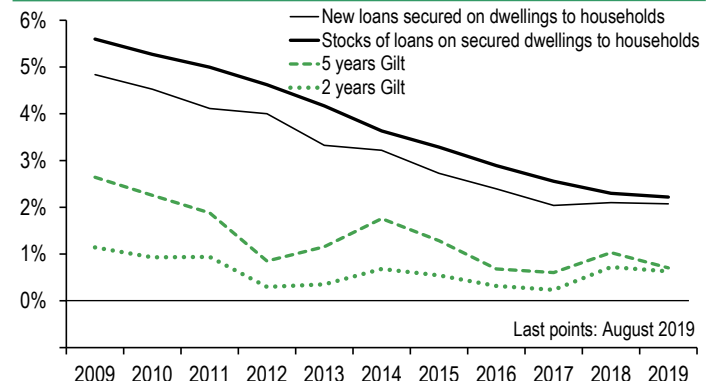


Chart D Source: BoE

Other operating income as a share of operating income for major international banks

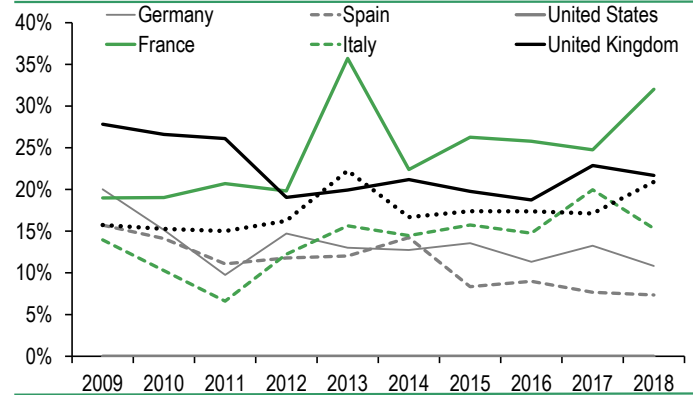


Chart B Source: SNL

Breakdown of total assets held by MFIs in the United Kingdom by currency

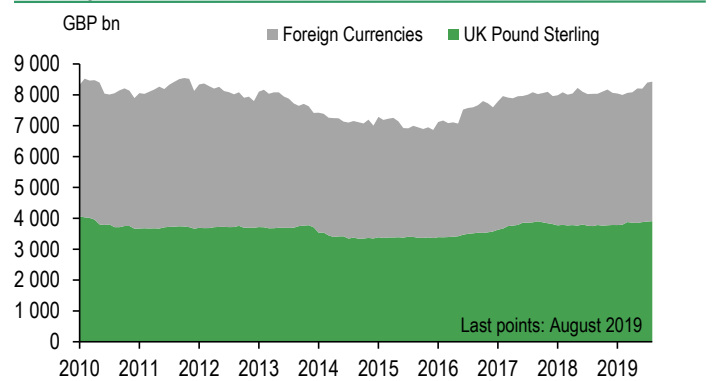


Chart E Source: BoE

Intermediation rate in the United-Kingdom

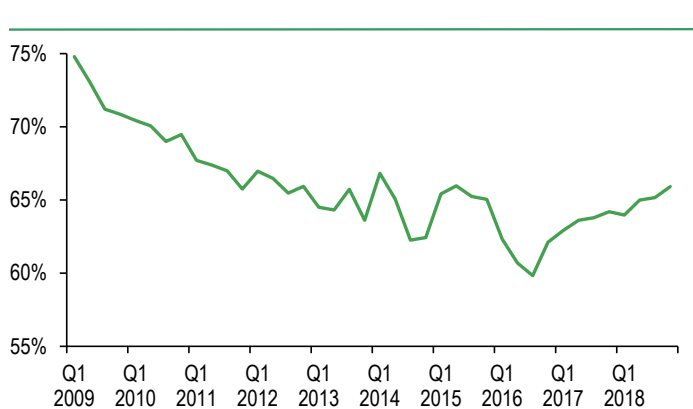


Chart C Source: ONS

GROUP ECONOMIC RESEARCH

William De Vijlder
Chief Economist

+33 1 55 77 47 31 william.devijlder@bnpparibas.com

ADVANCED ECONOMIES AND STATISTICS

Jean-Luc Proutat

Head – United States, United Kingdom

+33 1 58 16 73 32 jeanluc.proutat@bnpparibas.com

Hélène Baudchon

France – Labour markets

+33 1 58 16 03 63 helene.baudchon@bnpparibas.com

Louis Boisset

European Central Bank watch, Euro area global view, Japan

+33 1 57 43 02 91 louis.boisset@bnpparibas.com

Frédérique Cerisier

Euro area (European governance and public finances), Spain, Portugal

+33 1 43 16 95 52 frederique.cerisier@bnpparibas.com

Raymond Van Der Putten

Germany, Netherlands, Austria, Switzerland – Energy, climate – Long-term projections

+33 1 42 98 53 99 raymond.vanderputten@bnpparibas.com

Tarik Rharrab

Statistics

+33 1 43 16 95 56 tarik.rharrab@bnpparibas.com

BANKING ECONOMICS

Laurent Quignon

Head

+33 1 42 98 56 54 laurent.quignon@bnpparibas.com

Laure Baquero

+33 1 43 16 95 50 laure.baquero@bnpparibas.com

Céline Choulet

+33 1 43 16 95 54 celine.choulet@bnpparibas.com

Thomas Humblot

+33 1 40 14 30 77 thomas.humblot@bnpparibas.com

EMERGING ECONOMIES AND COUNTRY RISK

François Faure

Head, Argentina, Turkey, Ukraine, Central European countries

+33 1 42 98 79 82 francois.faure@bnpparibas.com

Christine Peltier

Deputy Head – Greater China, Vietnam, South Africa

+33 1 42 98 56 27 christine.peltier@bnpparibas.com

Stéphane Alby

Africa (French-speaking countries)

+33 1 42 98 02 04 stephane.alby@bnpparibas.com

Sara Confalonieri

Africa (Portuguese & English-speaking countries)

+33 1 42 98 43 86 sara.confalonieri@bnpparibas.com

Pascal Devaux

Middle East, Balkan countries

+33 1 43 16 95 51 pascal.devaux@bnpparibas.com

Hélène Drouot

Korea, Thailand, Philippines, Mexico, Andean countries

+33 1 42 98 33 00 helene.drouot@bnpparibas.com

Salim Hammad

Latin America

+33 1 42 98 74 26 salim.hammad@bnpparibas.com

Johanna Melka

India, South Asia, Russia, Kazakhstan, CIS

+33 1 58 16 05 84 johanna.melka@bnpparibas.com

CONTACT MEDIA

Michel Bernardini

+33 1 42 98 05 71 michel.bernardini@bnpparibas.com



BNP PARIBAS

The bank
for a changing
world

OUR PUBLICATIONS



CONJONCTURE

Structural or in news flow, two issues analysed in depth



EMERGING

Analyses and forecasts for a selection of emerging economies



PERSPECTIVES

Analyses and forecasts for the main countries, emerging or developed



ECOFASH

Data releases, major economic events. Our detailed views...



ECOWEEK

Weekly economic news and much more...



ECOTV

In this monthly web TV, our economists make sense of economic news



ECOTV WEEK

What is the main event this week? The answer is in your two minutes of economy

The information and opinions contained in this report have been obtained from, or are based on, public sources believed to be reliable, but no representation or warranty, express or implied, is made that such information is accurate, complete or up to date and it should not be relied upon as such. This report does not constitute an offer or solicitation to buy or sell any securities or other investment. It does not constitute investment advice, nor financial research or analysis. Information and opinions contained in the report are not to be relied upon as authoritative or taken in substitution for the exercise of judgement by any recipient; they are subject to change without notice and not intended to provide the sole basis of any evaluation of the instruments discussed herein. Any reference to past performance should not be taken as an indication of future performance. To the fullest extent permitted by law, no BNP Paribas group company accepts any liability whatsoever (including in negligence) for any direct or consequential loss arising from any use of or reliance on material contained in this report. All estimates and opinions included in this report are made as of the date of this report. Unless otherwise indicated in this report there is no intention to update this report. BNP Paribas SA and its affiliates (collectively "BNP Paribas") may make a market in, or may, as principal or agent, buy or sell securities of any issuer or person mentioned in this report or derivatives thereon. BNP Paribas may have a financial interest in any issuer or person mentioned in this report, including a long or short position in their securities and/or options, futures or other derivative instruments based thereon. Prices, yields and other similar information included in this report are included for information purposes. Numerous factors will affect market pricing and there is no certainty that transactions could be executed at these prices. BNP Paribas, including its officers and employees may serve or have served as an officer, director or in an advisory capacity for any person mentioned in this report. BNP Paribas may, from time to time, solicit, perform or have performed investment banking, underwriting or other services (including acting as adviser, manager, underwriter or lender) within the last 12 months for any person referred to in this report. BNP Paribas may be a party to an agreement with any person relating to the production of this report. BNP Paribas may, to the extent permitted by law, have acted upon or used the information contained herein, or the research or analysis on which it was based, before its publication. BNP Paribas may receive or intend to seek compensation for investment banking services in the next three months from or in relation to any person mentioned in this report. Any person mentioned in this report may have been provided with sections of this report prior to its publication in order to verify its factual accuracy.

BNP Paribas is incorporated in France with limited liability. Registered Office 16 Boulevard des Italiens, 75009 Paris. This report was produced by a BNP Paribas group company. This report is for the use of intended recipients and may not be reproduced (in whole or in part) or delivered or transmitted to any other person without the prior written consent of BNP Paribas. By accepting this document you agree to be bound by the foregoing limitations.

Certain countries within the European Economic Area:

This report has been approved for publication in the United Kingdom by BNP Paribas London Branch. BNP Paribas London Branch is authorised and supervised by the Autorité de Contrôle Prudentiel and authorised and subject to limited regulation by the Financial Services Authority. Details of the extent of our authorisation and regulation by the Financial Services Authority are available from us on request.

This report has been approved for publication in France by BNP Paribas SA. BNP Paribas SA is incorporated in France with Limited Liability and is authorised by the Autorité de Contrôle Prudentiel (ACP) and regulated by the Autorité des Marchés Financiers (AMF). Its head office is 16, boulevard des Italiens 75009 Paris, France.

This report is being distributed in Germany either by BNP Paribas London Branch or by BNP Paribas Niederlassung Frankfurt am Main, a branch of BNP Paribas S.A. whose head office is in Paris, France. BNP Paribas S.A. – Niederlassung Frankfurt am Main, Europa Allee 12, 60327 Frankfurt is authorised and supervised by the Autorité de Contrôle Prudentiel and it is authorised and subject to limited regulation by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin).

United States: This report is being distributed to US persons by BNP Paribas Securities Corp., or by a subsidiary or affiliate of BNP Paribas that is not registered as a US broker-dealer. BNP Paribas Securities Corp., a subsidiary of BNP Paribas, is a broker-dealer registered with the U.S. Securities and Exchange Commission and a member of the Financial Industry Regulatory Authority and other principal exchanges. BNP Paribas Securities Corp. accepts responsibility for the content of a report prepared by another non-U.S. affiliate only when distributed to U.S. persons by BNP Paribas Securities Corp.

Japan: This report is being distributed in Japan by BNP Paribas Securities (Japan) Limited or by a subsidiary or affiliate of BNP Paribas not registered as a financial instruments firm in Japan, to certain financial institutions defined by article 17-3, item 1 of the Financial Instruments and Exchange Law Enforcement Order. BNP Paribas Securities (Japan) Limited is a financial instruments firm registered according to the Financial Instruments and Exchange Law of Japan and a member of the Japan Securities Dealers Association and the Financial Futures Association of Japan. BNP Paribas Securities (Japan) Limited accepts responsibility for the content of a report prepared by another non-Japan affiliate only when distributed to Japanese based firms by BNP Paribas Securities (Japan) Limited. Some of the foreign securities stated on this report are not disclosed according to the Financial Instruments and Exchange Law of Japan.

Hong Kong: This report is being distributed in Hong Kong by BNP Paribas Hong Kong Branch, a branch of BNP Paribas whose head office is in Paris, France. BNP Paribas Hong Kong Branch is registered as a Licensed Bank under the Banking Ordinance and regulated by the Hong Kong Monetary Authority. BNP Paribas Hong Kong Branch is also a Registered Institution regulated by the Securities and Futures Commission for the conduct of Regulated Activity Types 1, 4 and 6 under the Securities and Futures Ordinance.

Some or all the information reported in this document may already have been published on <https://globalmarkets.bnpparibas.com>

© BNP Paribas (2015). All rights reserved.

YOU WANT TO RECEIVE OUR PUBLICATIONS?

SUBSCRIBE ON OUR WEBSITE
<http://economic-research.bnpparibas.com>

AND

FOLLOW US ON LINKEDIN
<https://www.linkedin.com/showcase/bnp-paribas-economic-research/>
OR TWITTER
https://twitter.com/EtudesEco_BNPP



© BNP Paribas (2015). All rights reserved.

Prepared by Economic Research – BNP PARIBAS

Registered Office: 16 boulevard des Italiens – 75009 PARIS

Tel: +33 (0) 1.42.98.12.34 – www.group.bnpparibas.com

Publisher: Jean Lemierre. Editor: William De Vijlder



BNP PARIBAS

The bank
for a changing
world