The shock from Brexit
A sharp but short blow from a UK EU exit

- UK Prime Minister David Cameron has a knack for winning the votes that matter. However, his luck may run out with the upcoming referendum on EU membership.

- The initial suggestion was that the referendum would be held by the end of 2017, but it could come as soon as this summer if a deal is agreed on at the European Council meeting on 18 and 19 February. The assumption is that Mr Cameron can then tell the electorate that he has won a “better deal for Britain” that will convince a majority of Britons to vote in favour of keeping the UK in the EU at a June referendum.

- Irrespective of the outcome, the uncertainty that the vote will generate is likely to see a loss of momentum in the UK economy – possibly knocking around a quarter of a percent off 2016 growth. Both UK and foreign businesses are likely to take a “wait and see” approach to hiring and investment, while consumer spending and confidence could weaken modestly. The Bank of England will sit on its hands and sterling is likely to continue softening in the build-up to the vote – touching 1.32 versus the USD.

- Should the UK vote to leave, Brexit raises clear risks for trade and investment and, by implication, growth and jobs. 2017 GDP growth could slow to 1.5%, some 1.2% below what it might have been, EUR/GBP would likely move towards the 0.90 mark and the Bank of England might loosen monetary policy. This outcome could also fuel the campaign for Scottish independence, which would compound the effects.

- The damage might prove short-lived. A trade deal would need to be agreed within two years and bilateral deals agreed with non-EU countries. Once the situation stabilises, growth prospects should improve – helped by a weaker currency and low interest rates, but the BoE may be forced to subsequently tighten policy aggressively to combat inflation risks. The UK’s prospects would then be driven by what the post-Brexit Conservative government tried to do with its new found “freedoms”.

- The loss of the UK would negatively impact the EU’s own economy and runs the risk of boosting the campaigns of anti-establishment parties elsewhere. This suggests that the process of deeper European economic and political integration could reverse.

How the referendum could hit UK growth – stylised path

Assumed referendum date
UK votes to remain part of EU
UK votes to leave EU
UK votes to leave EU and then Scotland leaves the UK

Source: ING

James Knightley
Senior Economist
London +44 20 7767 6614
james.knightley@uk.ing.com

Viraj Patel
Foreign Exchange Strategist
London +44 20 7767 6405
Viraj.patel@uk.ing.com

Carsten Brzeski
Chief Economist, Germany, Austria
Frankfurt +49 69 27222 64455
c.brzeski@ing-dibia.de

Raoul Leering
Head of International Trade Research
Amsterdam +31 6 133 03 944
raoul.leering@ing.nl

Source: ING

UK versus EU GDP (YoY%)
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>3</td>
</tr>
<tr>
<td><strong>Brexit time?</strong></td>
<td>4</td>
</tr>
<tr>
<td>Background to the referendum</td>
<td>4</td>
</tr>
<tr>
<td>The economic costs and benefits of EU membership</td>
<td>7</td>
</tr>
<tr>
<td>The impact of Brexit</td>
<td>12</td>
</tr>
<tr>
<td>What does it mean for the EU?</td>
<td>17</td>
</tr>
<tr>
<td>Conclusions</td>
<td>18</td>
</tr>
<tr>
<td><strong>Disclosures Appendix</strong></td>
<td>23</td>
</tr>
</tbody>
</table>
Summary

We first published a report on the UK holding a referendum on EU membership together with the potential economic and political implications in January 2013 (Heading for Brexit?, Referendum raises prospect of EU exit, 23 January 2013). In this new and expanded follow-up, we provide a more detailed assessment of the political backdrop given the strong likelihood that the vote will be held this year. However, those readers that have been following the story more keenly may choose to skip to page 7, where we look at the relative pros and cons of ongoing UK membership of the EU.

We then go on to look at the potential direct economic and financial market effects from the referendum in both the build-up to the vote and what may happen afterwards, whether the decision is to remain or leave. If it is to leave, this could have huge implications for the EU more broadly. We will be looking at these in more detail in an upcoming report, but provide some initial thoughts on page 17.
Brexit time?

Background to the referendum

Fearing a significant loss of support to the anti-EU UK Independence Party at last May’s General Election, Prime Minister David Cameron offered a vote on the UK’s ongoing membership, hoping that this would sway wavering voters to back him. The alternative, he suggested, was supporting UKIP, hurting the Conservative vote, thereby allowing the Labour Party to form a left-wing coalition with the Scottish Nationalists that would keep the UK’s relationship with the EU unchanged.

This strategy appears to have contributed to the Conservatives’ surprise election victory, which confounded every single opinion poll suggesting some form of coalition was inevitable. Consequently, a referendum is now scheduled to happen before the end of 2017 but looks likely to be held this summer.

The campaign promise was that the UK government would look to negotiate more favourable arrangements for Britain’s continuing membership of the EU, which would then be put to the British people for their approval. If they didn’t like what was negotiated, the UK would then leave.

Last November, UK Prime Minister David Cameron sent a six-page letter to EU President Donald Tusk spelling out his key aims in the negotiations. These were listed as:

1) Economic Governance: Protecting the UK’s access to the Single Market as a non-euro member;

2) Competitiveness: Easing the burden of regulation and cutting red tape in an effort to boost competitiveness, improve productivity and create jobs;

3) Sovereignty: Exempting Britain from “ever-closer union” whilst bolstering national parliaments;

4) Immigration: Ending EU migrants’ ability to “abuse” freedom of movement with a proposal that insists people live and work in the UK for four years before qualifying for in-work benefits or social housing, while also ending the practice of sending child benefit payments overseas.

It is the last point that is the most important (at least politically) from the British perspective in negotiations with the EU. A widely-held view is that cheap EU workers have depressed the pay of low-skilled Britons, are claiming benefits they haven’t contributed to, and are putting a strain on public services, which is leading to a lower standard of living. In response to the monthly Economist/Ipsos MORI poll1 “What do you see as important issues facing Britain today?”, 49% of the population, unprompted, cite immigrants or immigration. The state of the National Health Service (34%) and the economy (27%) lag well behind.

EU expansion, combined with the EU policy of free movement of people, has resulted in significant numbers of Eastern Europeans moving to the UK in recent years. Official data shows that there are 1.1 million former EU accession state nationals living in the UK, of which Poles make up just over half, with another 1.3 million nationals of countries that were members of the EU before 2001.

---

Initially, the EU’s response was not encouraging with respect to Cameron’s list. Tusk stated on 7 December that there is “presently no consensus” on the UK’s demands, adding that we “have to overcome the substantial political differences that we still have on the issue of social benefits and free movement”. The mood did improve following the December 16-17 Brussels summit, with Tusk stating that he was “much more optimistic than before our meeting” after Cameron apparently backed down on his plans to restrict benefits for migrants to four years. There have also been words of encouragement from Poland (the source of many of the recent migrants to the UK), suggesting that it would be amenable to helping Cameron in return for support for Polish defence initiatives.

This means that the focus is now on the February 18-19 EU leaders’ summit in Brussels, about which David Cameron has said he is “hopeful” of reaching a deal. After all, no European government has ever publicly announced that it would favour a Brexit scenario. Therefore, the Summit, from the EU’s perspective, will be another attempt to accommodate David Cameron’s demands and ideas.

On the “hot” topic of immigration, the negotiations with the UK might be a welcome occasion for many European governments, including Germany’s, to tackle increasing populism in their own countries. Indeed, the migrant influx may make it easier for David Cameron to reach some kind of compromise. The Financial Times\(^2\) signalled a willingness from the Danish, Dutch, Austrian, French and German governments to back a stricter stance on immigration. While the EU, in our view, will never agree to change the principle of free labour movement in the EU, stricter rules for immigration from non-EU countries and stricter rules for access to social benefits for EU-citizens could pave the way for a compromise. A more exclusive and harmonised approach to EU citizens moving from one EU country to another without having a job is also possible.

In this regard, it is worth noting that several politicians have recently made statements backing, to some extent, the British view. Deputy German Finance Minister Jens Spahn said on Bloomberg TV that Mr Cameron had raised some relevant questions, especially when it comes to immigration and social welfare systems. While he had some reservations on the specifics of the British proposals, he sees a readiness to “find a common solution on this because we don’t want social welfare migration within the European Union — that’s a common point.”

European Commission President Jean-Claude Junker is also looking at alternative measures to curb excessive migration, including deploying an “emergency brake”

---

\(^2\) http://www.ft.com/cms/s/0/801e6408-bcf6-11e5-9fd8-87b8d15baec2.html#axzz3xmZDkNO
mechanism if public services are at risk of being overwhelmed\(^3\). This means that there is the potential for a stop-gap deal that would slow the migrant flow. After all, it is important to remember that a key reason for EU migrants coming to the UK is the relatively strong economy. As Europe’s economy continues to recover these migration flows from the EU might reverse – former UK Prime Minister Sir John Major suggested it might be a “short-term problem”.

Despite the fact that a compromise is feasible, it is very hard to tell where the negotiations are at. As these negotiations are highly technical, it is hard to see how any result – even if presented as a victory for David Cameron – would be so compelling to the British people that they would lose their EU-scepticism. The latest Eurobarometer\(^4\) public opinion survey shows just 30% of Britons have a “generally positive” view of the EU.

When asked about whether a referendum could be held this summer, Mr Cameron replied, “that is what I would like to see, a deal in February, then a referendum that would follow”.\(^5\) The general assumption is that there will be a minimum 16-week gap between the announcement of the poll date and the date of the referendum\(^6\). There will be at least ten weeks of campaigning and then 28 days before the vote there is a purdah period, during which the government cannot use public resources to publish information that could sway the vote. Assuming that David Cameron does get a deal at the February EU leaders’ summit, this suggests that June is the earliest feasible date for the referendum.

At present, opinion polls suggest the vote is looking incredibly close. In most polls, those wanting to stay in are narrowly in front of those wanting to leave, but it is important to point out there are a large proportion of the population that is undecided, typically around 20% of the electorate. Consequently, the “deal” that David Cameron achieves, how it is explained, and possibly most significantly, how the press portrays it, will be critical to determining whether the UK stays in the EU.

The problem for Cameron is that the bulk of the UK popular press is fairly hostile to the EU. This is very different to 1975 when the last EU referendum was held. Communist newspaper *The Morning Star* was the only national newspaper to campaign against ongoing membership. This time round, we could see several of the major dailies favouring exit.

In an environment where UK households have little time for the European Union, Mr Cameron is therefore going to have to make the economic case for remaining in the EU. UK businesses and trades unions are broadly in favour of remaining and Cameron is going to need these groups to become more vocal too.

---

\(^1\) http://www.ft.com/cms/s/0/8724e406-a591-11e5-97e1-a754d5d9538c.html#axzz3x8hswksg

\(^2\) http://ec.europa.eu/COMMFrontOffice/PublicOpinion/#p=1&instruments=STANDARD

\(^3\) http://www.bbc.com/news/uk-politics-eu-referendum-35275297

\(^4\) http://commonslibraryblog.com/2015/10/21/a-brief-guide-to-the-period-before-the-eu-referendum/
The economic costs and benefits of EU membership

Trade – options for change

The EU is the UK’s largest trade partner by far, accounting for just under half of all exports, and is the origin of more than half of all the UK’s imports. While the EU share of UK trade is shrinking, due to weak growth in Europe and the growing importance of developing economies, it will continue to be the UK’s biggest trade partner for many years to come. UK exports to the EU account for 9% of British GDP – responsible for 2.3 million jobs. Consequently, if the UK were to leave the EU then it will need to negotiate a new trade agreement to prevent tariffs and other non-tariff trade barriers that would harm growth. There are three options open to the UK.

First, if the UK wants to avoid participating in trade agreements that involve significant net EU financial contributions, it could choose to operate under World Trade Organisation (WTO) rules. In this option, the UK would face so-called “Most Favoured Nation” import tariffs when exporting to the EU, just like the US. Similarly, the EU would have to pay these tariffs when exporting to the UK.

These tariffs would harm trade. The negative welfare effect of this for the UK adds up to 0.14% of GDP each year, according to a study from the London School of Economics (LSE) by Sampson, Ottaviano and Pessoa (Figure 5). In our view, the costs of tariffs make it unlikely that the UK would choose this option since it removes the advantages of free trade with the EU.

A second option is to join the European Free Trade Association (EFTA) along with Norway, Switzerland, Iceland and Liechtenstein, and sign up for the European Economic Area (EEA), which would allow the UK to participate in the single market with zero tariffs. At the same time, it would free itself from obligations related to the Common Agriculture Policy and the Common Fisheries Policy.

However, the UK would still have to make a financial contribution to the EU and adopt all EU legislation relating to the single market without having a say on these laws. Being a member of the EEA would also mean that workers from other EU member states would continue to be able to live and work in the UK. Consequently, we doubt that the UK would sign up to the EEA either.

A third option would be to follow Switzerland’s lead. It is an EFTA member, but did not sign up to the EEA. This way the UK does not have to adhere to EEA rules and can therefore try to negotiate its own immigration rules with other EU countries. However, the UK would still need to pay some contributions to the EU budget if it wants to enter into bilateral agreements with the EU on trade.

The EU is the UK’s most important trade partner

The UK could operate under WTO rules

But there would be tariffs that could harm trade

The UK could join the EEA, leaving it a member of the single market, but without any say in how it is run

It would also have to make financial contributions and would not be able to prevent EU migration

It could alternatively just agree a separate trade deal with the EU

Fig 3 UK exports of goods & services (2014) – £515bn

Fig 4 UK imports of goods & services (2014) – £550bn

Source: ONS

<table>
<thead>
<tr>
<th>Region</th>
<th>UK Exports</th>
<th>UK Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>19%</td>
<td>20%</td>
</tr>
<tr>
<td>Africa</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Australasia &amp; Oceania</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Americas</td>
<td>21%</td>
<td>13%</td>
</tr>
<tr>
<td>Other Europe</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>EFTA</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>EU</td>
<td>44%</td>
<td>53%</td>
</tr>
</tbody>
</table>

Source: ONS
Non-tariff barriers
Besides tariffs, the UK would have to deal with non-tariff barriers if it leaves the EU. Examples include product standards, anti-dumping legislation and labelling standards. Many studies show that this issue is a bigger trade obstacle than tariffs, which have been reduced steeply over recent decades. Following the LSE study, we distinguish between pessimistic and optimistic scenarios in terms of the outcome of the negotiations (Figure 5). The impact over the next ten years could be between 0.4% and 0.9% of GDP.

Moreover, by leaving the EU, the UK will miss out on the advantage that non-trade barriers tend to decline much faster between EU countries than between other OECD countries. According to a study from Méjan and Shwellnus, non-tariff barriers have been declining 40% faster. Leaving the EU could lower UK GDP by between 1.2% and 2.6% over a 10-year period.

Taking these factors together and accounting for the fiscal benefit of no longer contributing to the EU budget, the London School of Economics paper estimates that the net costs to the UK of leaving the EU will be somewhere between 1% of GDP (optimistic scenario) and 3% of GDP (pessimistic scenario) over the next ten years.

<table>
<thead>
<tr>
<th>GDP impact (%)</th>
<th>(Optimistic scenario)**</th>
<th>(Pessimistic scenario)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in tariffs for trade with EU</td>
<td>0.0</td>
<td>-0.1</td>
</tr>
<tr>
<td>Increase in non-tariff trade barriers with EU***</td>
<td>-0.4</td>
<td>-0.9</td>
</tr>
<tr>
<td>Missing out on future decline non-tariff barriers</td>
<td>-1.2</td>
<td>-2.6</td>
</tr>
<tr>
<td>Fiscal benefit</td>
<td>+0.5</td>
<td>+0.5</td>
</tr>
<tr>
<td>Total welfare effect</td>
<td>-1.1</td>
<td>-3.1</td>
</tr>
</tbody>
</table>

*In the positive scenario, tariffs on goods remain at zero. Non-tariff barriers are equal to 1/4 of the non-fixed barriers faced by US exporters to the EU. A slowdown of the observed relatively rapid reduction in intra-EU non-tariff barriers takes place (20% extra fall within the EU instead of 40%).

** In the negative scenario, tariffs on goods are the MFN tariffs imposed by the EU, such as those faced by the US. The non-tariff barriers are equal to 2/3 of the no-fixed barriers faced by US exporters to the EU and it is assumed that in the next ten years the intra-EU non-tariff barriers will fall 40% faster.


Source: The Costs and Benefits of leaving the EU, London School of Economics/ Centre of Economic Policy research, May 2014

Fig 5 10-year GDP level impact of UK leaving EU versus remaining in EU

What to do?
It is unclear as to what the UK would choose in the event of Brexit. We suspect that if the UK were to leave the EU, then the most likely option would be to sign a specific EU Free Trade Agreement and then agree as quickly as possible on bilateral deals with non-EU trade partners, as the UK would no longer come under the EU or EEA banner. This would prevent sizeable tariffs and would allow control over the number of EU migrants moving to the UK.

Thankfully, under Article 507 of the Lisbon Treaty, the UK has two years to agree to an exit deal before all treaties it has signed with the EU cease to apply. Consequently, the UK will continue to benefit from free trade until then.

We assume that the UK would be able to sign a deal with the EU within that two-year window, but it could take longer with non-EU countries. US Trade Representative Michael Froman has stated that the US is “not particularly in the market” for a free-trade deal with Britain on its own, adding that “we have no Free Trade Agreement with the UK so they would be subject to the same tariffs and other trade measures as China, Brazil or India.” This is not good news, given the US is a hugely important trade partner, sucking in £37bn in UK goods exports and £51bn of UK services. Consequently, there will potentially be

significant disruption that will hurt trade if other countries do not feel the same urgency that the UK does in getting a deal.

That said, we suspect that the US would agree to a trade deal quickly – their current public position is likely an attempt to sway the debate in favour of the UK staying in the EU, post exit the rhetoric would likely change. However, other countries could be slower and/or try to negotiate a deal that is more in their favour, at the expense of the UK. Indeed, the UK is going to be in a weaker position to set the terms of any deal relative to having been a member of the EU. For example, Chinese trade with the whole EU dwarfs that of Chinese trade with just the UK.

The counterpoint is that China is only negotiating with one country – the UK – rather than 28 EU countries together, so any agreements would be much simpler to broker. Moreover, the Chinese-EU trade agreement already in place could be used as a template for the UK that could be built upon to develop an even better deal. We doubt that most countries would want to damage trade relations with the UK, largely because most countries actually run a trade surplus with the UK.

**EU cost – savings would be minimal**

The UK is a net EU contributor, having paid around £8.5bn in 2014, although contributions are set to rise to just above 0.5% of GDP in coming years. It is a substantial amount of money, but should be compared with other government expenditure – the UK spends more than 12 times as much on pensions, for example. If the UK were to leave the EU, the money saved would do little to narrow the budget deficit, which is set to come in at around £75bn this financial year and is tiny relative to a national debt that currently stands at £1.6 trillion.

**Investment – a real threat**

The UK has been a key recipient of both portfolio and Foreign Direct Investment (FDI) over the past few decades, receiving more FDI than any other EU country, while the stock of inward FDI is second only to the US. There is clear concern that should the UK leave the EU then this situation could change, which would be bad news for growth and jobs. Note that United Nations data shows 21% of all investment spending in the UK over the past 20 years has come from FDI.

There are a number of factors that determine whether a foreign company wants to invest in the UK. These include the regulatory and tax environment, the quality and cost of

---

workers, a competitive exchange rate and the strength of the economy. However, the
decision will also be based on whether there is good access to key markets. Therefore,
even if the UK manages to negotiate a favourable trade deal with the EU, the uncertainty
that a referendum generates and the time taken to agree on a deal will likely make
foreign investors cautious.

FDI from EU countries is obviously at risk, but non-EU FDI will potentially be impacted
too. If, as a foreign (non-EU) company, your main objective is to sell into the EU market,
then it would probably make more sense to place your factory or plant in a country that is
actually a member of that economic zone and not one that is potentially subject to tariffs
or some form of restrictions. Interestingly, Toyota has said\(^9\) that it will continue to make
cars at its plant near Derby in the East Midlands of England and plans to be there in
2090, 100 years after starting production, even if the UK votes to leave the EU. However,
it is important to remember that Toyota’s European headquarters are in Brussels, not the
UK, and so future heavy investment in the UK may be brought into question. Many other
Japanese companies have their European headquarters in the UK and take a very
different view\(^10\).

The stock of FDI is less likely to be impacted in the near term, as it would be very
expensive to shut down a factory and build a new one in an EU country. However, there
may be a diminished prospect of that factory receiving ongoing investment. Furthermore,
if a global economic downturn were to hit, it would run the risk of being relatively high on
the list of plants to shut down. This emphasises why the UK government will be keen to
get a deal done in the two-year window that keeps the UK’s trade relationship with the EU
at the current level.

It is also possible that some UK companies may contemplate investing overseas rather
than in the UK, fearing that they may be at a disadvantage if they do not have an EU
base. Note that a British Chambers of Commerce Survey of 4,387 UK companies showed
60% of respondents saying they thought an EU exit would harm their business, with just
18% in favour of an entire withdrawal from the EU.

Both equity and property markets could become vulnerable in this environment, given the
international nature of these markets. If foreign buyers become more cautious on the
outlook for the UK, domestically focused companies could see share prices come under
pressure, while higher-end London properties might experience price falls.

---

\(^9\) http://www.ft.com/cms/s/0/1afa414-b81f-11e5-b151-8e15c9a029fb.html#axzz3x33hawks
\(^10\) http://www.ft.com/intl/cms/s/a/0/fdced228-b92e-11e5-bf7e-8a339b6ff7164.html#axzz3wyQvd3Wp
Regulation and financial services – still have to play by the rules

Those opposed to ongoing EU membership often cite burdensome regulation as something that holds back British business. Examples often include the working-time directive, which theoretically caps the working week at 48 hours, along with the EU’s agency worker directive, which gives temporary staff the same rights as regular employees.

It is debatable as to how much the UK is impacted. For example, UK workers can opt out of the 48-hour working week. Moreover, the UK is widely regarded as having one of the most flexible labour markets in the world. The OECD’s product market regulation index suggests that the UK is already one of the countries least burdened by regulation in the world – even less so than the US and Canada.

In any case, if the UK does leave the EU, it will still be subject to product regulations for exports to the EU. We also have to consider the fact that many of the European regulations are intended to bring benefits in terms of quality of products and services. There is also the point that the EU passes regulations in order to try and harmonise minimum standards, which should help the single market function.

There is also the impact on the City of London to consider. Would it be able to hold onto its position as the world’s leading financial centre if the UK is perceived as becoming increasingly isolated? This is all very uncertain, with several EU countries keen to take advantage. While London might not be hugely impacted, given that financial sector regulation is increasingly monitored internationally due to the global nature of financial markets, it might potentially hurt employment in the financial services sector. This sector employs around 700,000 people in London and 2.1 million nationwide (source: CityUK).

Free movement of labour

One of the key tenets of the single market is the free movement of labour. However, since the EU’s expansion eastwards in 2004, migration has become a growing political issue, with large numbers of foreign workers entering the UK in a short period of time.

Logic dictates that a greater supply of labour, in large part caused by immigration, has helped keep a lid on wage growth. It is also probable that immigration has meant that unemployment among British workers is higher than it would otherwise have been. However, increased immigration also boosts the size of the economy, as there are more people within it. It doesn’t seem plausible that every immigrant has displaced a British worker, given what has happened to the UK’s unemployment rate in recent years. EU
The shock from Brexit January 2016

The shock from Brexit January 2016

memberhsip will also have boosted capital inflows and therefore raised the production potential of the UK.

That said, it seems fair to say that the pace of immigration is putting an immense burden on housing and infrastructure with, for example, school class sizes rising. Consequently, the standard of living is seen as being under threat and it could be argued that this is forcing a type of fiscal easing through necessitating extra government spending.

On the other side of the equation, there are 1.8 million Britons living elsewhere in the EU11 – around half of whom live in Spain. This highlights the fact that the free movement of people means the UK is experiencing two-way flows and not purely immigration. Furthermore, if the UK were to leave the EU, would these Britons then have to obtain dual citizenship in order to stay living and working in the EU, or would some of them have to return to the UK? Given that a substantial number are retired, this could significantly increase the demands on the UK’s National Health Service, thereby increasing government expenditure.

The impact of Brexit

Negative for growth, asset prices and sterling

Coming up with a single number for the impact on GDP of the UK leaving the EU is almost impossible. Gauging the effects on business and consumer confidence and how this translates into spending within the economy is difficult at the best of times. Incorporating potentially big swings in asset prices and sterling and also the uncertainty over how foreign investors and businesses will behave, it becomes even more challenging. That said, political and economic uncertainty is an unambiguous negative that we feel will be damaging to the UK growth story, particularly in the lead up to the referendum and the period just after the vote, irrespective of the outcome.

The risks associated with a Brexit will principally be reflected in GBP markets ahead of the referendum. While GBP has endured a woeful start to 2016, caution is required in overestimating the impact of Brexit-specific risks on recent price action. With the dovish BoE re-pricing story only partly liable, we note that a sharp risk-off market – characterised by falling oil prices and a sell-off in global equities – has played a heightened role in the latest bout of GBP weakness. Indeed, the UK’s large current account deficit places the GBP amongst those most vulnerable to any deterioration in risk sentiment (Figure 10).

Fig 10 Major GBP crosses vulnerable to risk sentiment

6M correlation with risk (proxied by MSCI world equity index)

Fig 11 GBP sell-off not extreme by historical standards

GBP/USD was trading at a 4%-4% risk premium ahead of the May UK general election

At best a 1.0-1.5% Brexit risk premium is currently priced

Source: ING, Bloomberg

The risks associated with a Brexit will principally be reflected in GBP markets ahead of the referendum. While GBP has endured a woeful start to 2016, caution is required in overestimating the impact of Brexit-specific risks on recent price action. With the dovish BoE re-pricing story only partly liable, we note that a sharp risk-off market – characterised by falling oil prices and a sell-off in global equities – has played a heightened role in the latest bout of GBP weakness. Indeed, the UK’s large current account deficit places the GBP amongst those most vulnerable to any deterioration in risk sentiment (Figure 10).

11http://www.ft.com/intl/cms/s/0/5cd540f9-9025-11e3-a776-00144feab7de.html#axzz3OJu3CbYW
Talk of a summer Brexit referendum has produced some early warning signs that the drivers for GBP price action are changing. These include: (a) a drop-off in correlation with rate spreads; (b) limited FX reaction to positive UK data; and (c) a steady build-up of short GBP speculative positions. Figure 12 shows a comparison with the Scottish referendum and the 2015 UK general election. One unusual aspect of the current situation is the early inception of these signals; in the two prior occasions, the market focus had only materially shifted towards the looming event risk one or two months ahead of the key date.

### Early-warning indicators for rising GBP political risk premium

<table>
<thead>
<tr>
<th></th>
<th>Scottish referendum (Sep 2014)</th>
<th>UK General Election (May 2015)</th>
<th>EU in-out referendum (tba)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drop-off in correlation with rate differentials ²</td>
<td>Aug-14 -0.28</td>
<td>Mar-15 -0.45</td>
<td>Dec-15 -0.19</td>
</tr>
<tr>
<td>Limited reaction to positive UK data</td>
<td>Aug-14 -</td>
<td>Apr-15 -</td>
<td>Jan-16 -</td>
</tr>
<tr>
<td>Increase in short GBP contracts ³</td>
<td>Aug-14 +15k</td>
<td>May-15 +9k</td>
<td>Dec-15 +19k</td>
</tr>
<tr>
<td>Risk premium derived from GBP FFV model ⁴ (%)</td>
<td>Sep-14 2.0-3.0</td>
<td>Apr-15 2.0-3.0</td>
<td>Dec-15 1.0-1.5</td>
</tr>
</tbody>
</table>

Notes: 1) Latest change in indicator as of 11 Jan 2015; 2) Defined as the peak-to-trough change in correlation preceding event risk; 3) Data from CFTC weekly Commitments of Traders report; 4) Average risk premium based on GBP/USD and EUR/GBP ING financial fair value (FFV) models.

Source: Bloomberg, CFTC, ING

Given the uncertainties surrounding: (a) the actual timing of the vote and (b) the precise terms of the EU reform deal, it is likely that any evolving Brexit risk premium has yet to be fully embedded into markets. Our short-term financial models show that a 1-1.5% risk premium is currently priced into GBP/USD – approximately half of the risk premium observed ahead of the Scottish referendum.

We see scope for further GBP downside over coming months as markets take more account of the true economic costs of a Brexit. In risk-premium terms, this could be worth more than 3.0% and, with the broader risk-off environment also likely to persist in 1H16, we think GBP/USD could fall to the low 1.30s in the run-up to the referendum.

With the UK’s status as a relative safe haven being brought into question, the UK stock market could underperform its peers in the build-up to the vote as political and economic uncertainty weighs on sentiment. As the vote approaches, market volatility is likely to be at its maximum, with asset prices and the currency reacting to poll readings being published daily.

Meanwhile, both UK and foreign corporates will likely become more cautious, leading to a slowdown in investment spending and labour hiring as they wait to see what the outcome is. Given the lack of inflationary pressures and the uncertainty that the referendum will generate, the Bank of England will be keen to leave monetary policy unchanged with, if anything, a bias to ease, given the current negative global backdrop and absence of inflation.

If the UK votes to remain in the EU, this should lead to a bounce in asset prices and GBP

If the UK votes to remain part of the EU, there is likely to be a bounce in UK asset prices, although we doubt that this will immediately make up for the losses seen prior to the referendum. After all, there is likely to be a hit to economic momentum from the uncertainty that the referendum generated.

Such an outcome would suggest that the EU has made concessions and therefore the UK-EU relationship is on a new, sounder footing that should boost confidence in prospects for trade and investment. Furthermore, companies that delayed investment and/or hiring in the lead up to the referendum might now have the confidence to go and spend. This suggests to us that 2017 GDP growth should be stronger than in 2016. We would then expect growth to fluctuate around long-term trends.
The shock from Brexit January 2016

Inflation could climb, requiring relatively swift BoE policy action

This positive “pent up” growth story, coupled with a tight labour market and lagged effects of a weak sterling exchange rate, means there is the potential for inflation to rise swiftly in 2017 (remember sterling has fallen 7% already since November). Consequently, the Bank of England could end up tightening monetary policy more quickly through 2017/18 than financial markets are currently anticipating. Nonetheless, given our view on euro undervaluation, EUR/GBP is likely to continue grinding higher.

Brexit risks may not be completely over though

One concern though is that, as with the Scottish referendum, there will be lingering uncertainty that another Brexit referendum could be called if the UK doesn’t like what is agreed at any upcoming treaty negotiations.

The reverse will happen if it votes to leave – uncertainty over what it means being the key issue

If the UK votes to leave we may see plunging UK asset prices, with business confidence weakening too

While a deal on zero-trade tariffs might be agreed on relatively swiftly with the EU, this cannot be taken for granted. Furthermore, the UK will potentially lose out on a deepening of the single market, which would reduce non-tariff barriers. The process might take longer with non-EU countries, with numerous bilateral deals having to be negotiated. Here too, we suspect that similar terms can eventually be agreed, but there is likely to be some trade disruption. Nonetheless, given the UK will have up to two years before formally leaving the EU, the immediate impact on trade may not be too serious.

BoE policy easing would also be likely

Given the lack of inflationary pressures in the global economy, the Bank of England will have plenty of room to leave monetary policy ultra-accommodative and may well decide...
The shock from Brexit January 2016

to loosen policy further if activity does deteriorate as we expect. Indeed, the BoE admitted last year that 0.5% is no longer viewed as the “effective lower bound” for the Bank Rate, due to the improved health of the UK’s financial system and the fact that negative interest rates are in operation in many parts of Europe. BoE Chief Economist, Andrew Haldane, even raised the possibility of negative UK interest rates. We doubt that the Bank Rate would turn negative, but a level of 0 or 0.25% seems probable for end-2016.

In the event of a Brexit, the implications for GBP are likely to operate via three channels: (i) the uncertainty channel; (ii) the monetary channel; and (ii) the fundamental channel.

While GBP markets are likely to inherently discount the likelihood of a Brexit in the build-up to the referendum, we think that an uncertainty premium will persist – and most likely increase – should the UK vote to leave the EU. In addition to concerns over how UK-EU trade relations will evolve, Scotland’s case for independence is also likely to gain traction, making the uncertainty factor unambiguously negative for GBP.

Easier monetary conditions in the UK relative to its major trading partners will add downward pressure on GBP. BoE policy expectations are likely to be neutral ahead of the referendum and a Brexit should see a dovish re-pricing at the short-end of the curve. Recent risk-off episodes have highlighted GBP’s vulnerability to hot money outflows.

From an economic perspective, the UK’s net foreign asset position will come under scrutiny and a Brexit is likely to weigh on GBP’s medium-term fundamental value. Any immediate trade and investment impact might prove to be small. Direct investment tends to be sticky and we suspect that any exodus of capital from the UK might not materialise until after the post-Brexit corporate environment has become clearer. The Conservative government would likely be in disarray, with the Prime Minister probably standing down (see next section), but they would presumably try to create a more pro-business economic environment at the following Budget announcement.

Taking these channels together, we suspect the first two will dominate in the near-term and heightened speculative pressure could see EUR/GBP spike to 0.90 by end-2016. However, as uncertainty begins to diminish, we think the overshoot in EUR/GBP would partially correct and see 0.85 as the medium-term equilibrium level in a Brexit scenario. Indeed, concerns about another Scottish independence vote resulting from Brexit (see next section) will keep sterling relatively weak in the medium term.

The situation will likely settle in 2017, helped by loose monetary policy and a very competitive exchange rate in an environment of improving external demand. Thereafter, the UK’s prospects will be driven by what it can do with its new found “freedoms”. One potential course of action could be sweeping tax changes designed to encourage investment and job creation in the UK. These could well offset the negative impacts highlighted in the LSE study regarding the drag on UK trade from leaving the EU. Consequently, growth could actually turn out to be stronger in 2018-20 than the hypothetical forecast of no referendum, but this is far from certain, and also depends on the implementation of bilateral trade deals with non-EU economies. If it is, then the collapse in sterling is likely to create inflation and prompt BoE rate hikes.

There are other uncertainties, such as what will happen to the nearly 2 million Britons living and working in the EU? Will people either have to leave and possibly sell property that they own in Europe or take second citizenship? Will European citizens in the UK have to do the same? Will work permits have to be introduced and will there be longer queues at passport control? These are all issues that could harm growth.

---

The shock from Brexit January 2016

The political fallout of Brexit

David Cameron has suggested that he would remain Prime Minister should the UK vote to leave, but the hit to his credibility might make his position untenable and he would likely face pressure to stand aside. The Conservatives would maintain their majority in the House of Commons, but it would require the party to elect a new leader, who would also become prime minister. The contest to take over would likely be between the Chancellor, George Osborne, outgoing London Mayor, Boris Johnson, and Home Secretary, Theresa May. Note that Conservative MPs hold a preliminary ballot, leaving two candidates that are then put to the full party membership for election.

At the same time, the future of the UK Independence Party would be brought into question, given that its aim of pulling the UK out of the EU would have been achieved. The general perception is that the majority of its support is right of centre in their beliefs, but UKIP has also made inroads into the Labour (left of centre) heartlands in recent years. Nonetheless, with UKIP’s 15% of the vote up for grabs, the Conservatives may be looking to elect a leader than can try and bring the majority of the UKIP support over to their party. This could partially explain why Boris Johnson is being rather vague in his position on EU membership.

Like the Conservatives, the main UK opposition party, Labour, may find itself divided by the Brexit vote given the differing views on their front bench. Therefore, they may find it difficult to capitalise on any Conservative weakness, making it likely that we will see a more right-wing Conservative government in charge until 2020. This could see more emphasis on austerity and pro-business policies.

We have to consider the possibility of a renewed push for Scottish Independence. The Scottish parliament has elections on 5 May and opinion polls suggest that the Scottish Nationalist Party will take the majority of seats, after winning 56 out of the 59 Scottish seats available in last May’s General Election. This is a remarkable turnaround after their defeat in 2014’s Independence referendum, which was labelled a “once in a generation vote”. However, SNP leader (and First minister of Scotland) Nicola Sturgeon suggested that another independence referendum could be called if something “material changed”. SNP officials have suggested that should a majority of voters in Scotland vote to remain in the EU (Scotland in general appears more pro-EU than England), but the UK in total votes to leave, this would be a “material change” and that they would push ahead with another independence referendum.

Opinion polls now suggest that if there was another Scottish independence vote held, it would be much closer than the 55-45 outcome in September 2014. We suggest that if the oil price hadn’t collapsed, raising fiscal viability concerns regarding an independent Scotland, then we could be seeing a majority in favour of splitting up the UK. Therefore, if Brexit occurs and oil prices move higher over the next twelve months, there could be calls for another independence referendum in 2017. This would add to the economic malaise and could see sterling and UK assets come under even further pressure, intensifying the short-term downside risks for UK growth (see Figure 13). However, since Scottish independence would likely reinforce the Conservative Party’s dominance in Westminster, markets might welcome the prospect of a more stable producer-business policy climate.
What does it mean for the EU?

Just as trying to predict the impact on the UK, trying to quantify the potential impact of Brexit on the rest of Europe is immensely difficult. We will provide a detailed examination of the implications for broader Europe in an upcoming report, but below we list and provide a brief summary of our thoughts on some key issues:

1) **The end of the EU?** The political implications could be greater than the perceived economic threat from Brexit. Rather than the loss of a “difficult” reluctant member being the catalyst for closer European integration, the UK’s exit could potentially lead to thoughts of a broader fragmentation of the EU. With anti-establishment parties gaining increased traction ahead of upcoming European elections due to the weak recovery and worries over migration, the sight of the UK acquiring complete control over its own borders along with economic and domestic policy could give the broader anti-EU movement more momentum. At the very least, pressure from nationalist parties could deter mainstream parties from moving on with deeper integration and instead campaign for more devolvement of powers to member states. Additionally, if Scottish independence also comes about, then separatist movements such as in Catalonia, could gain confidence and support.

2) **EU balance of power.** Even if the UK’s departure doesn’t lead to catastrophe, it could still upset the political balance. Without the UK and its advocacy of free trade, the influence of more interventionist European countries, led by France, would become greater. It could also impact the EU-US negotiations on the Transatlantic Trade and Investment Partnership. The pro-TTIP group would lose a major supporter if the UK left, with a recent Eurobarometer survey showing 62% of Britons in favour, compared to an EU average of 53%.

3) **Trade.** Around 10% of EU exports go to the UK, with the majority of EU countries running trade surpluses with the UK. Even if a trade deal is agreed within the two-year window, our expectations of a sharply weaker EUR/GBP exchange rate in an environment of weaker UK demand means that exports to the UK are likely to suffer. Sterling devaluation also means UK exports to Europe become cheaper, potentially taking market share from intra-EU trade. Ireland, the Netherlands, Belgium and Germany have the greatest exposure to the UK, while diverging regulatory and product standards could exert a negative influence. The euro could come under pressure against other (non-sterling) major currencies, which might provide some support, while uncertainty means European stock markets could well weaken in the short-term.

4) **The EU budget.** The UK is a net financial contributor to the EU and so the loss of revenue means either lower spending on the poorer Eastern and Southern EU states or higher contributions from the likes of the Netherlands, Finland and Sweden. We estimate that Germany might need to pay an extra €2.5bn.

5) **Foreign direct investment.** European companies with FDI in the UK could take a loss on currency revaluations, while weaker EUR/GBP means profits from UK operations would be lower in euro terms. However, non-EU corporates may switch investment plans from the UK to EU member states.

6) **Financial services.** The UK may find it increasingly difficult to be the centre of excellence for financial services to the rest of the EU, meaning increasing business for other European Financial centres, so boosting employment, incomes and taxation revenue.

7) **Free movement of workers.** If Brexit occurs, will the 2.4 million EU workers residing in the UK be forced to leave? Likewise, what will happen to the 2 million Britons living...
and working in the EU? Will we see huge reverse migration flows? Brexit might provide political cover across the EU for more restrictive action in the wake of the current refugee crisis.

8) **International influence.** Although the EU would be smaller in size post-Brexit, it is unlikely that the EU would lose significant influence at institutions such as the IMF and the UN given that it is mostly represented by the individual member states. However, the loss of the UK from the EU umbrella could potentially hurt at the margin.

9) **Longer term.** European Union demographic projections show that the UK is the country with the fastest growing population, which is expected to be larger than both France and Germany in around 25 years. At the same time, the EU’s population is projected to shrink. This suggests higher taxes will be required in the EU relative to the UK, to cover the costs (healthcare, pensions, etc) of an ageing population.

**Conclusions**

With most EU countries preferring to keep the UK as a member, we feel that there is scope for a deal to be done at the February EU leaders’ summit. Migration is likely to be the main stumbling block, with the EU refusing to allow anything that would be seen to break the principle of free movement of people. However, there does seem to be growing momentum behind the idea of doing something to prevent “benefit tourism”. Moreover, the migrant crisis in Continental Europe and the rise of populist parties there suggest something more substantial may be agreed. If a deal is done that Mr Cameron feels that he can sell to the electorate then he will campaign for the UK to remain in the EU.

Ahead of the vote, business might become more cautious on hiring and investment in the UK, resulting in slower growth while asset prices and sterling are likely to come under selling pressure, falling to the low 1.30s versus the USD. Mr Cameron’s pro-EU campaign will have the support of the majority of business leaders, trade unions and other political parties (except UKIP and a substantial number of his own MPs), and we would expect the country to narrowly vote to remain within the EU. This should see sterling and UK asset prices recover, but they may not recover all of their declines immediately, given the likelihood of some loss of momentum in the economy caused by economic and political uncertainty. Nonetheless, the UK-EU relationship is likely to be stronger as a result of the new agreement and a pro-EU vote.

However, if the UK were to vote in favour of leaving, it would have significant ramifications for both the UK and the EU. The uncertainty that this would generate would hurt confidence and likely lead to a retrenchment in activity. We see 2017 UK GDP growth coming in at around 1.5% YoY in such a scenario, versus 2.7% if the UK votes to stay. Sterling’s plunge would push up medium-term inflation risks, but we suspect that the Bank of England would try to loosen monetary and financial conditions in this environment, with the Bank Rate being cut soon after the results are known. Sterling could therefore test its 2011 lows, with EUR/GBP possibly touching 0.90 later this year.

The UK and EU would then have to thrash out a separation deal. In terms of trade, we suspect that the most likely outcome would be for the UK to join EFTA, but not to sign up to EEA, just like Switzerland. This is simply because the big issue for the UK is the free movement of people and if it signs up to the EEA, it would still have to allow this. At the same time, this would mean that the UK would not have full access to the single market. Instead, it would have to quickly agree on a separate trade deal with the EU and then set up bilateral deals with other countries.

UK-EU trade would not be immediately threatened given the two-year window for negotiating EU withdrawal under the Lisbon Treaty. However, the UK will continue to be subject to EU product regulations and may not benefit in the future from the EU removing...
The shock from Brexit
January 2016

But non-EU countries may not have the same sense of urgency in agreeing UK trade deals

We have doubts that the UK would suddenly become more competitive outside of the EU

UK growth, sterling and asset price risks skewed to the downside by risk of a renewed Scottish Independence campaign

In the longer term, a weaker currency, looser BoE policy and the use of “freedoms” may provide support...

...and the greater sense of British sovereignty may make the public feel that the economic risk is worth it

UK departure could lead to an “integration versus disintegration” debate on the EU.
## Research analyst contacts

### Developed Markets

<table>
<thead>
<tr>
<th>City</th>
<th>Analyst Name</th>
<th>Title</th>
<th>Telephone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>Mark Cliffe</td>
<td>Head of Global Markets Research</td>
<td>44 20 7767 6283</td>
<td><a href="mailto:mark.cliffe@uk.ing.com">mark.cliffe@uk.ing.com</a></td>
</tr>
<tr>
<td></td>
<td>Rob Carnell</td>
<td>Chief International Economist</td>
<td>44 20 7767 6909</td>
<td><a href="mailto:rob.carnell@uk.ing.com">rob.carnell@uk.ing.com</a></td>
</tr>
<tr>
<td></td>
<td>James Knightley</td>
<td>Senior Economist, UK, US, $ Bloc</td>
<td>44 20 7767 6614</td>
<td><a href="mailto:james.knightley@uk.ing.com">james.knightley@uk.ing.com</a></td>
</tr>
<tr>
<td></td>
<td>James Smith</td>
<td>Economist, Developed Markets</td>
<td>44 20 7767 1038</td>
<td><a href="mailto:james.smith@uk.ing.com">james.smith@uk.ing.com</a></td>
</tr>
<tr>
<td></td>
<td>Chris Turner</td>
<td>Global Head of Strategy and Head of EMEA and LATAM Research</td>
<td>44 20 7767 1610</td>
<td><a href="mailto:christopher.tumer@uk.ing.com">christopher.tumer@uk.ing.com</a></td>
</tr>
<tr>
<td></td>
<td>Petr Kcpare</td>
<td>Foreign Exchange Strategian</td>
<td>44 20 7767 6561</td>
<td><a href="mailto:petr.kpata@uk.ing.com">petr.kpata@uk.ing.com</a></td>
</tr>
<tr>
<td></td>
<td>Viraj Patel</td>
<td>Foreign Exchange Strategian</td>
<td>44 20 7767 6405</td>
<td><a href="mailto:viraj.patel@uk.ing.com">viraj.patel@uk.ing.com</a></td>
</tr>
<tr>
<td></td>
<td>Padhraic Ganvey</td>
<td>Global Head of Rates and Debt Strategy</td>
<td>44 20 7767 8057</td>
<td><a href="mailto:padhraic.ganvey@ingbank.com">padhraic.ganvey@ingbank.com</a></td>
</tr>
<tr>
<td></td>
<td>Aengus McMahon</td>
<td>Head of European High Yield Research</td>
<td>44 20 7767 8044</td>
<td><a href="mailto:aengus.mcmahon@uk.ing.com">aengus.mcmahon@uk.ing.com</a></td>
</tr>
<tr>
<td></td>
<td>Nicholas Smallwood</td>
<td>Senior Emerging Markets Credit Analyst</td>
<td>44 20 7767 1045</td>
<td><a href="mailto:nicholas.smallwood@uk.ing.com">nicholas.smallwood@uk.ing.com</a></td>
</tr>
<tr>
<td>Amsterdam</td>
<td>Maarten Leen</td>
<td>Head of Macro Economics</td>
<td>31 20 563 4406</td>
<td><a href="mailto:maarten.leen@ing.nl">maarten.leen@ing.nl</a></td>
</tr>
<tr>
<td></td>
<td>Teunis Brosens</td>
<td>Senior Economist, Eurozone</td>
<td>31 20 563 6167</td>
<td><a href="mailto:teunis.brosens@ing.nl">teunis.brosens@ing.nl</a></td>
</tr>
<tr>
<td></td>
<td>Bert Colijn</td>
<td>Senior Economist, Eurozone</td>
<td>31 20 563 4926</td>
<td><a href="mailto:bert.colijn@ing.nl">bert.colijn@ing.nl</a></td>
</tr>
<tr>
<td></td>
<td>Dimitri Fleming</td>
<td>Senior Economist, Netherlands</td>
<td>31 20 563 9497</td>
<td><a href="mailto:dimitry.fleming@ing.nl">dimitry.fleming@ing.nl</a></td>
</tr>
<tr>
<td></td>
<td>Raoul Leering</td>
<td>Head of International Trade Research</td>
<td>31 20 563 4407</td>
<td><a href="mailto:raoul.leering@ing.nl">raoul.leering@ing.nl</a></td>
</tr>
<tr>
<td></td>
<td>Anke Martens</td>
<td>Senior Economist, International Trade</td>
<td>31 20 563 5030</td>
<td><a href="mailto:anke.martens@ing.nl">anke.martens@ing.nl</a></td>
</tr>
<tr>
<td></td>
<td>Daniel Bosgraaf</td>
<td>Economist, International Trade</td>
<td>31 20 576 4039</td>
<td><a href="mailto:daniel.bosgraaf@ing.nl">daniel.bosgraaf@ing.nl</a></td>
</tr>
<tr>
<td></td>
<td>Jeroen van den Broek</td>
<td>Head of DM Strategy and Research</td>
<td>31 20 563 8959</td>
<td><a href="mailto:jeroen.van.den.broek@ingbank.com">jeroen.van.den.broek@ingbank.com</a></td>
</tr>
<tr>
<td></td>
<td>Maureen Schuller</td>
<td>Head of Covered Bond Strategy and Financials Research</td>
<td>31 20 563 8941</td>
<td><a href="mailto:maureen.schuller@ingbank.com">maureen.schuller@ingbank.com</a></td>
</tr>
<tr>
<td></td>
<td>Martin van Vliet</td>
<td>Senior Rates Strategist</td>
<td>31 20 563 8801</td>
<td><a href="mailto:martin.van.vliet@ingbank.com">martin.van.vliet@ingbank.com</a></td>
</tr>
<tr>
<td></td>
<td>Quentin Gilletta de Saint Joel</td>
<td>Debt Strategist</td>
<td>31 20 563 8957</td>
<td><a href="mailto:quentin.gilletta.de.saint.joel@ing.nl">quentin.gilletta.de.saint.joel@ing.nl</a></td>
</tr>
<tr>
<td></td>
<td>Hamza Khan</td>
<td>Head of Commodities Strategy</td>
<td>31 20 563 8958</td>
<td><a href="mailto:hamza.khan@ingbank.com">hamza.khan@ingbank.com</a></td>
</tr>
<tr>
<td></td>
<td>Suvi Kosonen</td>
<td>Senior Credit Analyst, Banks</td>
<td>31 20 563 8029</td>
<td><a href="mailto:suvi.kosonen@ingbank.com">suvi.kosonen@ingbank.com</a></td>
</tr>
<tr>
<td></td>
<td>Nadège Tillier</td>
<td>Senior Credit Analyst, Utilities and Energy</td>
<td>31 20 563 8943</td>
<td><a href="mailto:nadeg.tillier@ingbank.com">nadeg.tillier@ingbank.com</a></td>
</tr>
<tr>
<td></td>
<td>Hendrik Wiersma</td>
<td>Senior Credit Analyst, TMT</td>
<td>31 20 563 8961</td>
<td><a href="mailto:hendrik.wiersma@ing.nl">hendrik.wiersma@ing.nl</a></td>
</tr>
<tr>
<td></td>
<td>Job Veenendaal</td>
<td>Credit Analyst, Consumer Products and Retail</td>
<td>31 20 563 8965</td>
<td><a href="mailto:job.veenendaal@ingbank.com">job.veenendaal@ingbank.com</a></td>
</tr>
<tr>
<td></td>
<td>Roelof-Jan van den Akker</td>
<td>Head of Technical Analysis</td>
<td>31 20 563 8178</td>
<td><a href="mailto:roelof-jan.van.den.akker@ingbank.com">roelof-jan.van.den.akker@ingbank.com</a></td>
</tr>
<tr>
<td>Brussels</td>
<td>Peter Vanden Houte</td>
<td>Chief Economist, Belgium, Eurozone</td>
<td>32 2 547 8009</td>
<td><a href="mailto:peter.vandenhoute@ing.be">peter.vandenhoute@ing.be</a></td>
</tr>
<tr>
<td></td>
<td>Julien Manceaux</td>
<td>Economist, France, Belgium, Switzerland</td>
<td>32 2 547 3350</td>
<td><a href="mailto:julien.manceaux@ing.be">julien.manceaux@ing.be</a></td>
</tr>
<tr>
<td></td>
<td>Philippe Ledent</td>
<td>Economist, Belgium, Luxembourg</td>
<td>32 2 547 3161</td>
<td><a href="mailto:philippe.ledent@ing.be">philippe.ledent@ing.be</a></td>
</tr>
<tr>
<td></td>
<td>Anthony Baert</td>
<td>Economist, Ireland, Slovenia, Portugal</td>
<td>32 2 547 3995</td>
<td><a href="mailto:anthony.baert@ing.be">anthony.baert@ing.be</a></td>
</tr>
<tr>
<td></td>
<td>Geoffrey Minne</td>
<td>Economist, Spain</td>
<td>32 2 547 3386</td>
<td><a href="mailto:geoffrey.minne@ing.be">geoffrey.minne@ing.be</a></td>
</tr>
<tr>
<td>Germany</td>
<td>Carsten Brzeski</td>
<td>Chief Economist, Germany, Austria</td>
<td>49 69 27 222 64455</td>
<td><a href="mailto:c.brzeski@ing-biba.de">c.brzeski@ing-biba.de</a></td>
</tr>
<tr>
<td></td>
<td>Inga Burk</td>
<td>Economist, Germany, Austria</td>
<td>49 69 27 222 66131</td>
<td><a href="mailto:i.burk@ing-biba.de">i.burk@ing-biba.de</a></td>
</tr>
<tr>
<td>Milan</td>
<td>Paolo Pizzoli</td>
<td>Senior Economist, EMU, Italy, Greece</td>
<td>39 02 55226 2468</td>
<td><a href="mailto:paolo.pizzoli@ing.it">paolo.pizzoli@ing.it</a></td>
</tr>
<tr>
<td>Emerging Markets</td>
<td>Title</td>
<td>Telephone</td>
<td>Email</td>
<td></td>
</tr>
<tr>
<td>New York</td>
<td>Gustavo Rangel</td>
<td>Chief Economist, LATAM</td>
<td>1 646 424 6464</td>
<td><a href="mailto:gustavo.rangel@ing.com">gustavo.rangel@ing.com</a></td>
</tr>
<tr>
<td>London</td>
<td>Dorothee Gasser-Châteauvieux</td>
<td>Chief Economist, EMEA</td>
<td>44 20 7767 6023</td>
<td><a href="mailto:dorothee.gasser@uk.ing.com">dorothee.gasser@uk.ing.com</a></td>
</tr>
<tr>
<td></td>
<td>Deanie Haugaard Jensen</td>
<td>EM Economist, Baltics, Croatia, Serbia</td>
<td>44 20 7767 5340</td>
<td><a href="mailto:deanie.hauggaard@uk.ing.com">deanie.hauggaard@uk.ing.com</a></td>
</tr>
<tr>
<td>Czech Rep</td>
<td>Jakub Seidler</td>
<td>Senior Economist, Czech Republic</td>
<td>420 257 47 4432</td>
<td><a href="mailto:jakub.seidler@ing.cz">jakub.seidler@ing.cz</a></td>
</tr>
<tr>
<td>Hungary</td>
<td>Andras Balatoni</td>
<td>Senior Economist, Hungary</td>
<td>36 1 255 5581</td>
<td><a href="mailto:andras.balatoni@ingbank.com">andras.balatoni@ingbank.com</a></td>
</tr>
<tr>
<td>Philippines</td>
<td>Joey Cuyegkeng</td>
<td>Economist, Philippines</td>
<td>632 479 8855</td>
<td><a href="mailto:joey.cuyegkeng@asia.ing.com">joey.cuyegkeng@asia.ing.com</a></td>
</tr>
<tr>
<td>Poland</td>
<td>Rafal Benecki</td>
<td>Chief Economist, Poland</td>
<td>48 22 820 4696</td>
<td><a href="mailto:rafal.benecki@ingbank.pl">rafal.benecki@ingbank.pl</a></td>
</tr>
<tr>
<td></td>
<td>Jakub Rybacki</td>
<td>Economist, Poland</td>
<td>48 22 820 4078</td>
<td><a href="mailto:jakub.rybacki@ingbank.pl">jakub.rybacki@ingbank.pl</a></td>
</tr>
<tr>
<td>Romania</td>
<td>Ciprian Dascalu</td>
<td>Chief Economist, Romania</td>
<td>40 31 406 8990</td>
<td><a href="mailto:ciprian.dascalu@ing.ro">ciprian.dascalu@ing.ro</a></td>
</tr>
<tr>
<td></td>
<td>Silviu Pop</td>
<td>Junior Economist, Romania</td>
<td>40 31 406 8991</td>
<td><a href="mailto:silviu.pop@ing.ro">silviu.pop@ing.ro</a></td>
</tr>
<tr>
<td>Russia</td>
<td>Dmitry Polevoy</td>
<td>Chief Economist, Russia and CIS</td>
<td>7 495 771 7994</td>
<td><a href="mailto:dmitry.polevoy@ingbank.com">dmitry.polevoy@ingbank.com</a></td>
</tr>
<tr>
<td></td>
<td>Egor Fedorov</td>
<td>Senior Credit Analyst, Russia and CIS</td>
<td>7 495 755 5480</td>
<td><a href="mailto:egor.fedorov@ingbank.com">egor.fedorov@ingbank.com</a></td>
</tr>
<tr>
<td>Singapore</td>
<td>Tim Condon</td>
<td>Head of Research &amp; Chief Economist, Asia</td>
<td>65 6232 6020</td>
<td><a href="mailto:tim.condon@asia.ing.com">tim.condon@asia.ing.com</a></td>
</tr>
<tr>
<td></td>
<td>Prakash Sakpal</td>
<td>Economist, Asia</td>
<td>65 6232 6181</td>
<td><a href="mailto:prakash.sakpal@asia.ing.com">prakash.sakpal@asia.ing.com</a></td>
</tr>
<tr>
<td>Turkey</td>
<td>Muhammet Mercan</td>
<td>Chief Economist, Turkey</td>
<td>90 212 329 0751</td>
<td><a href="mailto:muhammet.mercan@ingbank.com">muhammet.mercan@ingbank.com</a></td>
</tr>
</tbody>
</table>
This page is left blank intentionally
Disclosures Appendix

ANALYST CERTIFICATION
The analyst(s) who prepared this report hereby certifies that the views expressed in this report accurately reflect his/her personal views about the subject securities or issuers and no part of his/her compensation was, is, or will be directly or indirectly related to the inclusion of specific recommendations or views in this report.

IMPORTANT DISCLOSURES
Company disclosures are available from the disclosures page on our website at http://research.ing.com.

The remuneration of research analysts is not tied to specific investment banking transactions performed by ING Group although it is based in part on overall revenues, to which investment banking contribute.

Securities prices: Prices are taken as of the previous day’s close on the home market unless otherwise stated.

Conflicts of interest policy. ING manages conflicts of interest arising as a result of the preparation and publication of research through its use of internal databases, notifications by the relevant employees and Chinese walls as monitored by ING Compliance. For further details see our research policies page at http://research.ing.com.

Research analyst(s): The research analyst(s) for this report may not be registered/qualified as a research analyst with the NYSE and/or NASD. The research analyst(s) for this report may not be an associated person of ING Financial Markets LLC and therefore may not be subject to Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by the research analyst's account.

FOREIGN AFFILIATES DISCLOSURES
Each ING legal entity which produces research is a subsidiary, branch or affiliate of ING Bank N.V. See back page for the addresses and primary securities regulator for each of these entities.
This report constitutes “investment research” for the purposes of the Markets in Financial Instruments Directive and as such contains an objective or independent explanation of the matters contained herein. Any recommendations contained in this report are to be relied on as investment advice based on the recipient’s personal circumstances. If further clarification is required on words or phrases used in this report, the recipient is recommended to seek independent legal or financial advice. Investment research is not intended to be investment advice based on the recipient’s personal circumstances. The recipient is recommended to seek independent legal or financial advice. Investment research is not intended to be investment advice based on the recipient’s personal circumstances. The recipient is recommended to seek independent legal or financial advice.

ING Securities SA, Ul. Powsińska 2, Warsaw, Poland, 02-556. Financial Information Authority