



# UNITED KINGDOM

## 2016 ARTICLE IV CONSULTATION—PRESS RELEASE; AND STAFF REPORT

June 2016

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2016 Article IV consultation with the United Kingdom, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its June 15, 2016, consideration of the staff report that concluded the Article IV consultation with the United Kingdom.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on June 15, 2016, following discussions that ended on May 13, 2016, with the officials of the United Kingdom on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on June 2, 2016.
- An **Informational Annex** prepared by the IMF staff.

The documents listed below have been or will be separately released.

### Selected Issues

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INTERNATIONAL MONETARY FUND



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### **IMF Executive Board Concludes 2016 Article IV Consultation with the United Kingdom**

On June 15, 2016, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation<sup>1</sup> with the United Kingdom.

The UK economy has performed relatively well in recent years, with economic growth consistently near the top among major advanced economies and the employment rate at a record high. However, growth has slowed somewhat in the first part of 2016, as heightened uncertainty ahead of the referendum on EU membership appears to be weighing on investment and hiring decisions.

In a baseline scenario in which the UK remains in the EU, growth is expected to recover in late 2016, as referendum-related effects wane, and to average around 2.2 percent over the medium term. Inflation is expected to rise gradually from its current low level (0.3 percent as of May 2016), as disinflationary effects from past commodity price falls dissipate and as tighter labor markets and minimum wage hikes help push up wages.

However, this broadly positive baseline scenario is subject to risks, including those related to the referendum; the current account deficit, which reached a record high in 2015; uncertainty about the degree to which productivity growth, which has been low since the crisis, will recover; and vulnerabilities associated with property markets, which have been buoyant in recent years.

Economic policy has aimed to increase resilience while maintaining steady and sustainable growth. The overall fiscal deficit has been cut to about 4 percent of GDP in FY15/16, down from a peak of over 10 percent of GDP in FY09/10. Monetary policy has stayed accommodative, with the policy rate unchanged at 0.5 percent, given subdued inflationary pressures and helping to support growth. Structural reforms have aimed to boost potential output by, for example, efforts to ease regulatory impediments to housing construction.

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<sup>1</sup> Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

Major financial sector reforms have been adopted since the crisis, helping to bolster resilience and requiring banks to increase buffers in their balance sheets. This progress was assessed in detail during this Article IV consultation as part of the IMF's Financial Sector Assessment Program (FSAP), which analyzes financial sector health and associated policies. The FSAP's findings are summarized in the accompanying Financial System Stability Assessment (FSSA).

## **Executive Board Assessment<sup>2</sup>**

Executive Directors welcomed the United Kingdom's strong economic performance in recent years and the progress made in the post-crisis repair of the economy. They expected steady growth to continue under staff's baseline scenario in which the United Kingdom remains in the EU. At the same time, Directors noted that this relatively positive outlook is subject to risks and uncertainties, including those related to the global environment, low productivity growth, a weak external position, and still-high levels of household debt. They encouraged the authorities to remain vigilant to the challenges ahead and to continue their policy efforts to promote growth and further boost resilience.

Directors viewed the upcoming EU membership referendum as the main near-term economic uncertainty. While recognizing that this choice is for U.K. voters to make and that their decisions will reflect both economic and noneconomic factors, Directors agreed that the net economic effects of leaving the EU would likely be negative and substantial. In the event of a vote to leave, Directors recommended that policies be geared toward supporting stability and reducing uncertainty. In the event of a vote to remain in the EU, Directors concurred that macroeconomic policies should focus on promoting steady growth and continuing to reduce vulnerabilities.

While recognizing the substantial fiscal consolidation efforts made to date, Directors supported the authorities' plans to further bolster the public finances and rebuild buffers through gradual deficit reduction. They also supported maintaining an accommodative monetary policy until inflationary pressures become clearer, although vigilance to financial stability risks should be maintained. Directors agreed that a policy mix of tight fiscal and accommodative monetary policies should assist external rebalancing.

Directors emphasized that policies will also need to respond flexibly to shocks. In the event of protracted demand weakness and inflation undershooting, monetary and fiscal policies should be eased, taking into account the benefits and potential costs of such a move. Conversely, monetary tightening may need to be initiated earlier than currently envisaged if core inflation or wage

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<sup>2</sup> At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: <http://www.imf.org/external/np/sec/misc/qualifiers.htm>.

growth in excess of productivity growth begins to rise sharply. Directors stressed that careful communication of policy changes will be particularly important in this environment.

Directors welcomed the notable improvement in financial sector soundness since the crisis, owing in large part to post-crisis regulatory reform. A robust and intrusive approach to prudential supervision and regulation will be essential as the financial cycle matures. Directors concurred with the findings and recommendations of the Financial System Stability Assessment, including the need to further strengthen analysis on interconnectedness, ensure close scrutiny of banks' internal models, and complete the resolution reform agenda. Directors also welcomed the authorities' efforts to deepen their understanding of the "de-risking" phenomenon and encouraged them to develop tailored responses.

Directors noted that macroprudential policy will need to remain alert to emerging risks. In particular, mortgage-related macroprudential policies would need to be tightened later this year if housing and mortgage markets remain buoyant, with similar types of limits applied also to the buy-to-let market. The authorities should actively use the countercyclical capital buffer, which may need to be increased later this year. Directors noted that ensuring that macroprudential policies are sufficiently tight would also support private-sector saving.

Directors agreed that structural reforms should continue to complement macroeconomic policy to help sustain growth, raise productivity, and strengthen external sector performance. Priorities include continued efforts to boost housing supply, increase investment in infrastructure and human capital, enhance labor force participation, reduce distortionary tax expenditures and the debt bias in the tax code, and reform pensions. Directors also encouraged the authorities to build on recent reforms to further enhance corporate transparency, including in UK overseas financial centers, and combat financial crimes.

### United Kingdom: Selected Economic Indicators, 2012–17

	2012	2013	2014	2015	2016	2017
					Projections	
<b>Real Economy</b> (change in percent)						
Real GDP	1.2	2.2	2.9	2.3	1.9	2.2
CPI, end-period	2.7	2.0	0.9	0.1	1.3	1.9
Unemployment rate (percent) 1/	8.0	7.6	6.2	5.4	5.0	5.0
<b>Public Finance</b> (fiscal year, percent of GDP) 2/						
Public sector overall balance	-6.7	-5.8	-5.0	-3.9	-2.9	-2.0
Public sector cyclically adjusted primary balance (staff estimates) 3/	-3.0	-2.7	-2.8	-2.1	-1.0	-0.1
Public sector net debt	78.9	81.1	83.4	83.5	82.6	81.5
<b>Money and Credit</b> (end-period, 12-month percent change)						
M4	-0.9	0.2	-1.1	0.3	...	...
Net lending to private sector	-0.2	0.9	1.5	2.0	3.0	4.0
<b>Interest rates</b> (percent; year average)						
Three-month interbank rate	0.8	0.5	0.5	0.6	...	...
Ten-year government bond yield	1.9	2.4	2.6	1.9	...	...
<b>Balance of Payments</b> (percent of GDP)						
Current account balance	-3.3	-4.5	-5.1	-5.2	-5.2	-5.0
Trade balance	-2.0	-2.0	-1.9	-2.0	-2.1	-2.1
Net exports of oil	-0.9	-0.6	-0.6	-0.4	-0.3	-0.3
Exports of goods and services (volume change in percent)	0.7	1.2	1.2	5.1	4.1	4.2
Imports of goods and services (volume change in percent)	2.9	2.8	2.4	6.3	3.9	3.7
Terms of trade (percent change)	0.8	1.7	1.1	0.7	-0.8	-0.2
FDI net	-1.3	-2.4	-4.5	-3.5	-2.6	-2.2
Reserves (end of period, billions of US dollars)	105.2	108.8	109.1	130.5	...	...
<b>Exchange Rates</b>						
Nominal effective rate (2010=100) 4/	103.5	101.0	107.3	114.4	...	...
Real effective rate (2010=100) 4/ 5/	106.8	105.8	113.7	121.8	...	...

Sources: Bank of England; IMF's International Finance Statistics; IMF's Information Notice System; HM Treasury; Office for National Statistics; and IMF staff estimates.

1/ ILO unemployment; based on Labor Force Survey data.

2/ The fiscal year begins in April. Data exclude the temporary effects of financial sector interventions. Debt stock data refers to the end of the fiscal year using centered-GDP as a denominator. There is a break in the series from 2014 on, reflecting the reclassification of housing associations as part of the public sector.

3/ In percent of potential output.

4/ Average. An increase denotes an appreciation.

5/ Based on relative consumer prices.



# UNITED KINGDOM

## STAFF REPORT FOR THE 2016 ARTICLE IV CONSULTATION

June 2, 2016

### KEY ISSUES

**The UK economy has performed well in recent years, but it faces important challenges and risks.** Economic growth has consistently been near the top among major advanced economies, the employment rate has risen to a record high, the fiscal deficit has been reduced, and major financial sector reforms have been adopted. Nonetheless, the economy still faces vulnerabilities, including those related to possible shocks to global growth and asset prices; property markets that have been buoyant in recent years; a wide current account deficit and low household saving rate; and uncertainty about the degree to which productivity growth will recover.

**In the near term, the largest risks and uncertainties relate to the upcoming EU referendum.** Given the importance of the referendum, this report and the accompanying *Selected Issues* paper include analysis of the referendum's potential macroeconomic implications for the UK and the global economy, while recognizing that this choice is for UK voters to make and that their decisions will reflect both economic and noneconomic factors. This analysis finds that the economic effects of an exit would likely be negative and substantial for the UK. In this event of a vote to leave the EU, policies should be geared toward supporting stability and reducing uncertainty.

**In the event the UK stays in the EU, steady growth is expected to continue over the next few years.** Growth is projected to strengthen in late 2016 as referendum-related effects, which appear to have weighed on growth so far this year, wane and then to average around 2¼ percent over the medium term. Inflation is expected to return gradually to target as effects of past commodity price falls dissipate and as low unemployment helps push up wages. However, this broadly positive baseline forecast is subject to risks, as noted above.

**Macroeconomic policies in the baseline should focus on promoting continued steady growth while reducing vulnerabilities.** In particular, monetary policy should remain on hold until inflationary pressures are clearer and to help offset headwinds from fiscal consolidation. The latter should remain sufficiently gradual to avoid overburdening monetary policy and be supported by further efforts to make the composition of fiscal consolidation more pro-growth and pro-stability. To ensure financial stability, it will be important to complete implementation of the ambitious financial supervisory reform agenda and to have a robust and intrusive approach to supervision and regulation as the financial cycle matures and memories of the crisis fade. In particular, mortgage-related macroprudential policies will need to be tightened later this year if the recent re-acceleration of housing and mortgage markets persists. Such a monetary, fiscal, and macroprudential policy mix should help maintain growth while reducing vulnerabilities, including by supporting orderly current account adjustment, and should be reinforced by structural reforms to boost productivity and incomes. Policies will also need to remain flexible, adjusting as necessary if circumstances change and risks are realized.

**Approved By**  
**Philip Gerson and**  
**Vivek Arora**

Discussions took place in London during May 3–13, 2016. The staff team comprised P. Gerson (head), K. Fletcher, A. Scott, M. Mrkaic, K. Shirono, M. Saxegaard (all EUR), R. Lalonde (LEG), and F. Vitek (MCM). D. Demekas (MCM) joined the mission to discuss the conclusions of the Financial Sector Assessment Program (FSAP). O. Ftomova and R. Vega (both EUR) supported the mission from headquarters. The Managing Director met with the Chancellor and Bank of England (BoE) Governor and held a press conference.

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## FOCUS OF THE CONSULTATION

### 1. The UK economy has performed well in recent years, but it faces important challenges and risks.

- Economic growth has consistently been near the top among major advanced economies, while the employment rate has risen to a record high.
- At the same time, economic policies have been broadly in line with past Fund advice: gradual fiscal consolidation has cut the deficit by more than half; monetary policy has remained accommodative, helping to support growth and offset headwinds from fiscal consolidation; financial sector policies have required banks to increase buffers in their balance sheets; and structural reforms have aimed to boost potential output, for example through efforts to ease regulatory impediments to housing construction.<sup>1</sup>
- Nonetheless, the economy still faces important challenges and risks: productivity growth is still well below pre-crisis rates; the current account deficit widened to a record high in 2015, driven in part by a further decline in the already-low household saving rate; and loan-to-income ratios on new mortgages are again rising.
- Perhaps most importantly, UK voters face a momentous choice on June 23, 2016, when a referendum will be held on whether the UK should remain in the EU—a choice that is expected to have important economic implications for the UK, the rest of Europe, and the global economy.

### 2. Against this background, the consultation focused on the following issues:

- How have macroeconomic conditions evolved recently?
- What is the outlook for the economy? What are the main risks?
- How can the UK's economic policies support growth and limit risks, both for the UK and globally?

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<sup>1</sup> For more detail on the authorities' response to IMF policy recommendations over the last few years, see Annex 4 of the 2015 UK Article IV report. Key macroeconomic policy changes since the last Article IV consultation include the adjustments to the fiscal path in the March 2016 budget (see subsequent discussion on fiscal policy), which were broadly in line with Fund advice for adjustment to be gradual and calibrated to economic conditions, and the raising of the countercyclical capital buffer in March (see subsequent section on financial sector policies), which was also broadly in line with past Fund advice.

## MACROECONOMIC CONTEXT

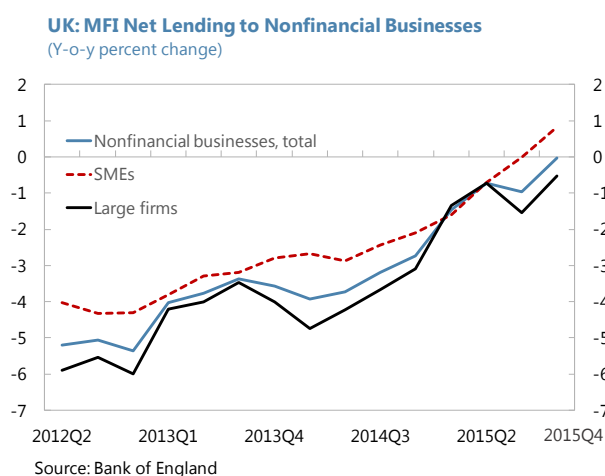
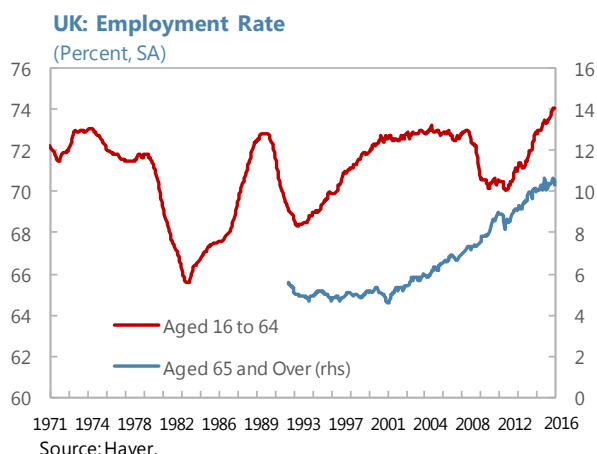
The economy continued to grow steadily in 2015, with the output gap almost closed. However, near-term uncertainty has risen substantially due to various factors—most notably the forthcoming referendum—and appears to have slowed growth somewhat this year. Under staff's baseline scenario, which assumes that the UK remains in the EU, growth is projected to recover later this year as referendum-related effects fade. Growth is then expected to average near its estimated potential rate of about 2.2 percent over the medium term. Inflation is projected to rise gradually back to the 2 percent target as effects from past commodity price falls dissipate and as wages rise in response to tighter labor markets. However, this relatively benign baseline scenario is subject to major risks, including those related to the referendum, productivity growth, the buoyant housing market and household debt, and the large current account deficit.

### A. Macroeconomic Developments and Outlook

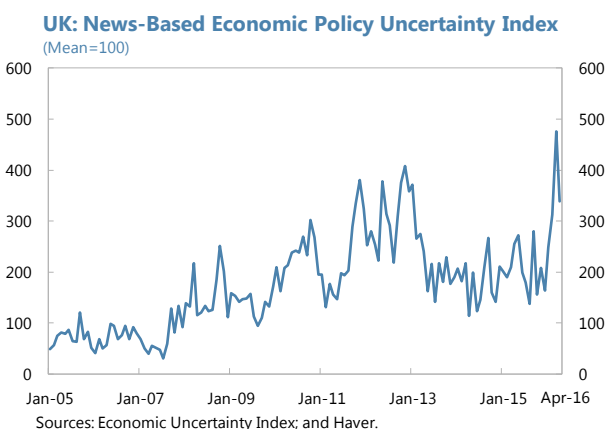
**3. The UK economy continued to expand steadily in 2015.** Output grew by 2.3 percent, the third straight year of growth in the 2–3 percent range. Growth has been driven by strong private domestic demand, which has more than offset headwinds from gradual fiscal consolidation and persistently weak external demand (Tables 1–2; Figure 1).

**4. Key indicators point to an ongoing post-crisis normalization of macroeconomic and macrofinancial conditions.**

- Standard models suggest that the *output gap* is now nearly closed, as capacity utilization and the unemployment rate have returned to pre-crisis levels (Figure 2) while the employment rate has reached a record high.
- *Credit conditions* continue to turn more expansionary, with net lending by monetary financial institutions (MFI) to nonfinancial corporates turning positive for the first time since the crisis—helping to support higher business investment in 2015—and with mortgage rates falling to new lows (Figure 3).



**5. However, several factors heightened uncertainty in the first half of 2016.** Foremost among these is the referendum on EU membership. Volatility in global financial markets in early 2016 and downgrades to the global growth outlook alongside [increasing concerns about global risks](#), such as secular stagnation in advanced economies, have further heightened uncertainty.



**6. Amidst this uncertainty, annual growth is expected to be slower in 2016.** Heightened uncertainty appears to be weighing on confidence and investment, with growth slowing to 1.6 percent (saar) in Q1 and PMI surveys suggesting a further slowdown in April. Under staff's baseline, which is based on a scenario in which the UK remains in the EU, growth is projected to rebound somewhat in the second half of 2016 as lingering referendum-related effects dissipate, with growth reaching 1.9 percent for the full-year 2016.

**7. Growth is then projected to average around 2.2 percent—approximately staff's estimate of the UK's potential growth rate—over the medium term (Table 2).** However, medium-term growth prospects are heavily dependent on the degree to which labor productivity growth recovers.

- Labor productivity growth has been very weak in the UK during the recovery, recently running around 0.8 percent (Table 2). Part of the post-crisis decline in productivity growth likely reflects temporary cyclical factors, such as the post-crisis impairment of credit markets inhibiting the flow of investment to more productive sectors (see [2015 Selected Issues](#)). As the economy nears full employment, employment growth should also ease, helping to raise productivity as tighter labor markets spur more efficient labor utilization and as employment growth is driven more by labor force growth and less by the hiring of the unemployed, who tend to have below-average productivity. However, part of the decline in productivity growth also likely reflects more permanent structural factors, given a broad-based productivity slowdown across most advanced economies that is not fully understood and may reflect factors such as changes in the nature of technological progress and/or increased difficulties in measuring it.
- As cyclical effects wane, staff projects productivity growth to rise over the medium term to around 1.6 percent but to remain well below its pre-crisis historical average of 2.2 percent (1960–2007). However, such projections are uncertain, and moderate deviations could result in substantial differences in output levels over the long run.

**8. From a demand-side perspective, a number of offsetting forces are expected to have a roughly neutral effect on growth over the next few years.** Growth in the baseline is expected to be supported by a reduction in uncertainty following a Remain vote, by the recent run-up in

residential and commercial real estate prices (encouraging investment in these sectors), and by gradually rising global growth (supporting net exports), with ongoing monetary policy accommodation and supportive financial conditions helping to offset broadly unchanged headwinds from steady fiscal consolidation (Table 3).

## 9. Inflationary pressures remain subdued.

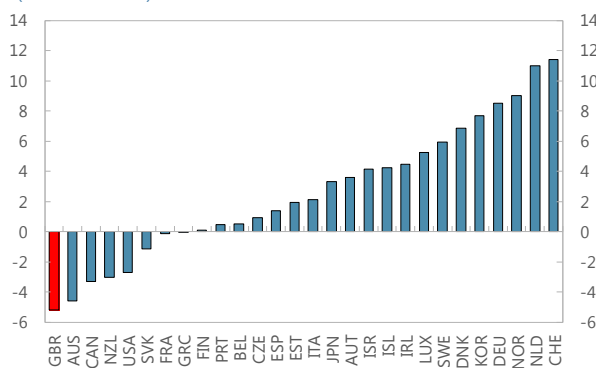
- As of April 2016, headline inflation remained low at 0.3 percent; core inflation was also subdued at 1.2 percent.
- Low headline inflation partly reflects the large drop in commodity import prices since mid-2014. However, domestic drivers of inflation have also been muted, with nominal private-sector wages growing by only 2.3 percent as of March 2016 (Figure 1). Even if productivity growth remains in the range of only 0.8 percent, this pace of wage growth would still be consistent with underlying inflation of only around 1.5 percent.
- Consequently, markets do not expect the BoE to raise its policy rate (currently 0.5 percent) for several years. Under this scenario, staff expects inflation to rise gradually to 2 percent by early 2018, as effects from past commodity price declines dissipate and assuming a gradual rise in wage growth in response to tighter labor markets. A planned gradual increase in the minimum wage of 34 percent during 2015–20 will also contribute to higher wage and price inflation.

## B. External Assessment

### 10. The current account deficit has risen substantially in recent years, reaching 5.2 percent of GDP in 2015 (Table 6)—the widest deficit among advanced economies. The increase has

been due almost entirely to a weaker income balance. Part of this decline could reflect structural factors, such as the UK's increasingly favorable corporate tax rates attracting more inward FDI, thereby reducing the stock of net FDI and in turn the income derived from it. However, part of the decline in the income balance may also be temporary, reflecting factors such as unusually low returns on British investments abroad (see [2015 Selected Issues](#) and Annex 1).<sup>2</sup>

**Current Account Balance, 2015**  
(Percent of GDP)



Source: International Monetary Fund, *World Economic Outlook*.

### 11. The current account was wider than justified by fundamentals in 2015, and sterling appeared overvalued (Annex 1).

<sup>2</sup> EU structural fund transactions have not been a main driver of the decline in the income balance.

- The EBA current account regression model yields a cyclically adjusted current account balance of -4.8 percent of GDP in 2015 and a current account norm of -0.6 percent of GDP, implying a current account gap of -4.2 percent of GDP and sterling overvaluation of 18 percent. However, the post-crisis deterioration in the income balance is not expected to be entirely permanent, suggesting a somewhat smaller underlying current account deficit and smaller current account gap than implied by the EBA current account model. Taking into account this effect, as well as the somewhat smaller gaps implied by the EBA REER models—both of which estimate overvaluation of 12 percent—and adding uncertainty around these estimates yields an estimated current account gap of -1.5 to -4.5 percent of GDP and REER overvaluation of 5–20 percent in 2015.

**UK: Estimated Exchange Rate Overvaluation under Different EBA Approaches**

Approach	Overvaluation (percent)
Current Account Regression	18
REER Index Regression	12
REER Level Regression	12

Source: IMF staff calculation.

- However, as of April 2016, the REER had depreciated by 7 percent relative to its average 2015 level, possibly unwinding a portion of the estimated overvaluation in 2015.
- Part of the estimated current account gap (1.1 percentage points) reflects the fiscal balance currently being looser than its optimal medium-term level. Part of the gap also reflects a relatively low household saving rate, which fell to 4.3 percent in 2015 (Table 2).
- It is important to note that this external assessment and the estimated degree of overvaluation in 2015 are conditional on the baseline scenario in which the UK remains in the EU. An alternative scenario entailing higher trade barriers could reduce the equilibrium exchange rate (as a more competitive exchange rate would be required to raise demand for UK exports to offset the reduced demand from the EU due to higher barriers), implying that additional depreciation from 2015 levels—beyond that implied by staff's assessment of overvaluation in 2015—would be required to restore equilibrium in such a scenario.

**12. Some factors mitigate risks associated with the current account deficit.** In particular, the BoE's well-established inflation-targeting framework should help keep inflation expectations anchored in the event that an unwinding of the current account deficit leads to exchange rate depreciation, absent a major regime shift such as an exit from the EU, which would pose a higher risk of de-stabilizing inflation expectations. In addition, the currency composition of the net international investment position (NIIP) helps act as an automatic stabilizer, as foreign assets have a higher foreign-currency component than do foreign liabilities, such that sterling depreciation automatically improves the NIIP and income flows via valuation effects. A variety of valuation effects have also kept the NIIP at a relatively neutral level (-3.5 percent of GDP at end-2015; Table 7) despite persistent large current account deficits in recent years, and the authorities estimate that the NIIP would be higher if FDI were fully valued at market prices.

**13. Nonetheless, the high and persistent current account deficit is a source of concern.** The deficit's sheer size and its general usefulness as an indicator of underlying imbalances and heightened risks suggests some cause for caution. Although the UK has not had difficulties in

financing its deficits so far, events could change market sentiment, triggering abrupt capital outflows. Rapid outflows could in turn adversely affect domestic investment and hence growth, with negative outward spillovers via cross-border linkages. A persistent, high current account deficit is thus best avoided, and policies that assist orderly and gradual external adjustment would be helpful.

## C. Risks and Spillovers

### 14. The relatively benign baseline scenario is subject to a number of important risks.

Specific risks are elaborated upon in the Risk Assessment Matrix (Annex 2), including risks related to the current account deficit discussed above in the context of the external assessment. Other risks include the following:

#### *Globally originating risks*

- *Global downturn:* The outlook for global growth is uncertain, including because global demand may prove too weak to support solid growth, as discussed in the April 2016 WEO, and global markets remain subject to sudden movements, as seen in early 2016. A downturn in global growth would depress exports; tighter global financial conditions (i.e., higher risk premia and lower asset prices) would further depress GDP growth by weighing also on domestic consumption and investment.
- *Persistently low energy prices:* Energy prices could remain persistently low if global supply-demand imbalances last longer than expected. Persistently low energy prices would likely have modest positive net effects on growth, with the boost to consumption from higher household disposable income slightly offsetting negative effects on investment in the energy sector. Headline inflation would remain lower for longer. If this results in second-round deflationary effects, this may require more accommodative monetary policy to ensure that inflation expectations remain anchored near the target.

#### *UK-specific risks*

- *Medium-term productivity growth.* As noted above, productivity growth remains well below its pre-crisis rates, and the degree to which it will recover over the medium term is uncertain. A lack of recovery would have a major adverse effect on long-run output and would also put upward pressure on inflation, while a return to pre-crisis rates would result in substantially higher output than projected in staff's baseline.
- *Real estate market-related risks.* House-price growth has risen to more than three times income growth, and loan-to-income ratios on new mortgages are again rising. A continuation of these trends would increase households and banks' vulnerabilities to house-price, income, and interest-rate shocks (see later section for further details on recent real estate market developments and related macroprudential policies).

**15. However, the largest near-term risk relates to the referendum on EU membership.** A vote to leave the EU would create uncertainty about the nature of the UK's long-term economic

relationship with the EU and the rest of the world. It would also have the potential to crystallize some of the baseline risks noted above. Given the importance of the referendum, staff analyzes some of the possible economic effects of a decision to leave the EU in its accompanying Selected Issues paper, while recognizing that the choice of whether to remain in the EU is for UK voters to make and that their decisions will reflect both economic and noneconomic factors. Key points from staff's analysis are summarized below.

### ***Possible economic effects of an exit from the EU***

#### **16. A vote for exit would be followed by a long process with uncertain outcomes.**

- Following a decision to exit, the UK would need to negotiate the terms of its withdrawal and a new relationship with the EU—unless it abandoned single market access and relied on WTO rules, which would significantly raise trade barriers. The process governing exit from the EU is untested, and ratification of a new deal could require unanimous support depending on the nature of the agreement, making it subject to considerable political risks.<sup>3</sup>
- As EU-level agreements also cover the UK's trading relationship with 60 non-EU economies (and prospective arrangements with another 67 countries are in the works), the UK would also need to simultaneously renegotiate these arrangements, or else see them revert to WTO rules.
- These processes could last many years, given the wide range of issues and countries involved and given that relatively simple bilateral trade agreements have typically taken 3 or more years to negotiate.
- The UK could unilaterally determine the date of its exit, but a decision to exit would most likely be irrevocable. Once triggered, Article 50 of the EU Treaty provides for a two-year process for negotiating the terms of the departing state's withdrawal and its future relations with the EU, but there is no requirement for remaining EU countries to reach agreement with an exiting party. An extension to negotiations could be granted, but would require unanimous consent from other EU governments.

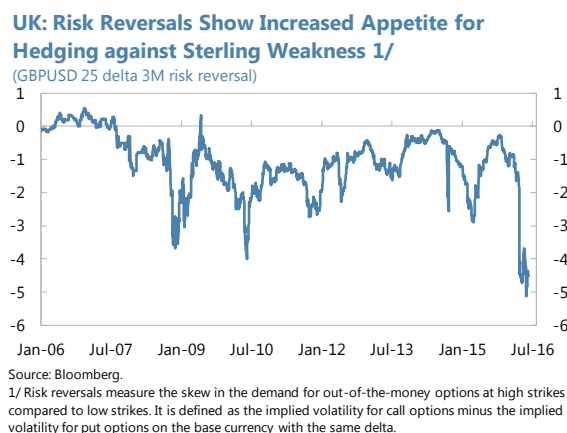
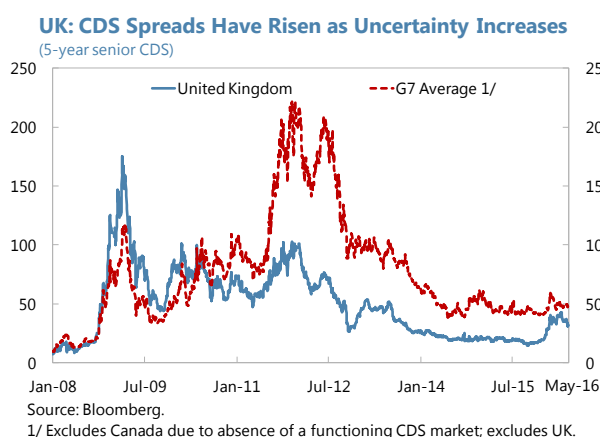
#### **17. A protracted period of uncertainty could weigh on confidence and investment and increase financial market volatility.**

- Uncertainty about the outcome of new trade, migration, and regulatory arrangements could discourage investment over the medium term and weigh on consumer sentiment. A change in the UK's EU membership status could also cause abrupt disruptions to trade and financial flows if new arrangements are not adopted in a timely and smooth manner.

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<sup>3</sup> An agreement focused solely on trade would need to be approved by the European Parliament and a qualified majority of the European Council. A broader agreement that provided for wider cooperation would need to be agreed by the European Parliament and unanimously by the European Council.

- Another risk is that markets may anticipate significant negative economic effects from an exit and bring them forward via an adverse market reaction in the immediate aftermath of an exit vote. Such a risk scenario could involve some combination of higher borrowing costs for households and individuals due to higher risk premia, downward pressure on equity and house prices, and even a sudden stop of investment inflows into key sectors such as commercial real estate and finance. The UK's record-high current account deficit and attendant reliance on external financing exacerbates these risks. Such market reactions would adversely affect economic activity, further dampening asset prices in a self-reinforcing cycle that would be only partly offset by expenditure-switching toward net exports in response to abrupt exchange rate depreciation, which could cause inflation to rise above target for some time. Contagion effects could result in spillovers to regional and global markets, though the main effects would be felt domestically.
- Indeed, such concerns may have already begun to affect UK markets in recent months. For example, in the commercial real estate market, transactions plunged about 40 percent in the first quarter of 2016. Although the residential real estate market remains buoyant, this may reflect temporary effects due to tax changes, as discussed in more detail later in this report. In financial markets, the UK's nominal effective exchange rate depreciated 9 percent between November 2015 and April 2016, UK sovereign CDS spreads have risen more sharply than the G7 average, and the cost of hedging exchange rate volatility around the time of the referendum has spiked.



- That said, uncertainty around the market reaction to a Leave vote is wide, as the historical experience with similar events is limited. At the same time, the reaction is expected to be negative and could be severe.

## 18. The potential steady-state arrangements following an exit fall within a wide range of outcomes.

- One end of the spectrum would entail being outside the EU but remaining in the European Economic Area, as is currently the case for Iceland, Liechtenstein, and Norway. However, such an arrangement would grant the UK little change in sovereignty, as the UK would still have to

maintain EU regulations governing the free movement of persons, goods, services, and capital, but with greatly reduced influence in determining these regulations.

- The other end of the spectrum would entail reverting to WTO rules for trade. However, this would significantly curtail access to the EU's single market and create other non-tariff barriers not covered by WTO rules (such as from no longer being part of the customs union).
- Between these two extremes is a range of possible outcomes. In general, there would be a trade-off between the UK's access to EU markets and the degree to which it could unilaterally set regulatory conditions.

**19. The steady-state economic effects of an exit would occur via several channels, including the following:**

- **Reduced trade and financial flows.** An exit is likely to increase barriers to trade and financial flows between the UK and EU, curtailing the benefits from such cooperation and integration, such as those resulting from economies of scale, efficient specialization, and trade-related productivity gains. Such restrictions may also reduce the attractiveness of the UK as an investment destination, including by possibly triggering some activities to relocate elsewhere in the EU. For example, UK financial firms may lose their "passport" to provide financial services to the single market, and much euro-denominated business may eventually move to the continent.<sup>4</sup> Such effects could over time erode London's status as Europe's preeminent financial center. (See Appendix II of the accompanying Financial System Stability Assessment (FSSA) and the Selected Issues paper for further discussion of the potential effects of a vote to leave the EU on the UK's financial system.)
- **Regulatory changes.** Some exit proponents argue that the UK would be able to adopt a more pro-growth regulatory policy once free of EU restrictions. However, as noted above, maintaining substantial access to the EU's single market may still require alignment of many UK regulations with those of the EU. Moreover, many EU regulations simply implement global agreements and practices (e.g., Basel III financial-sector regulations and global environmental agreements) that would most likely be maintained even after an exit. The UK also already has relatively flexible labor and product market regulations, so the scope for making these regulations more flexible and pro-growth is somewhat limited. Indeed, some of the UK's most growth-constraining regulations, such as those on housing construction, are already under domestic control. The fact that regulations heavily affected by EU rules are less restrictive than key regulations under domestic control (e.g., restrictions on housing construction) highlights that regulations could actually become more restrictive and less pro-growth after an exit, as domestic special interests may be able to more easily capture regulatory decision-making following an exit.

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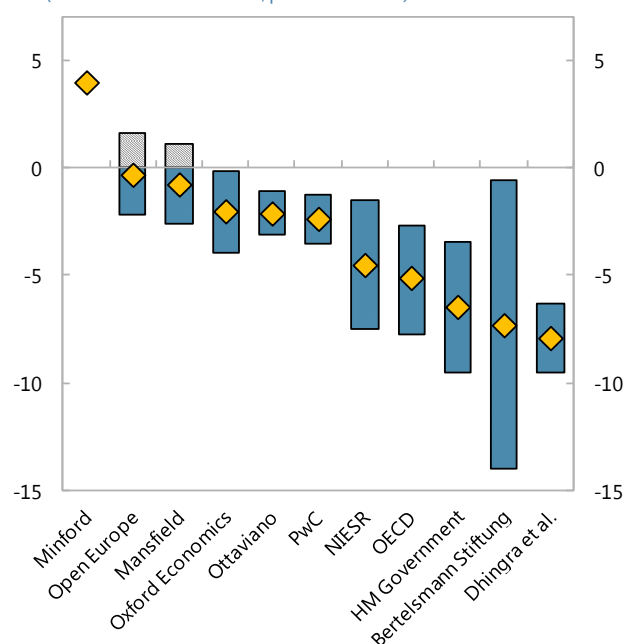
<sup>4</sup> UK banks would retain their passport if the UK were to remain a member of the EEA. In this case, however, the UK would still have to maintain EU regulations governing the free movement of persons, goods, services, and capital, but with greatly reduced influence in determining these regulations, as noted in the previous discussion.

- **Fiscal effects.** The UK would save its net contributions to the EU budget (around  $\frac{1}{3}$  percent of UK GDP) if it left the EU. It is unlikely that the UK would save more than this, as the UK budget would likely need to cover some activities currently financed by the EU, such as agricultural support, regional development, and R&D. Moreover, these savings would likely be more than offset by fiscal losses from output declines resulting from reduced trade and investment. Specifically, if steady-state output falls by just 1 percent or more (most estimates are above this—see below), the associated revenue loss would exceed the fiscal savings from not contributing to the EU budget.

**20. On balance, the net economic costs of an exit are likely negative and substantial, though there is significant uncertainty about their precise magnitude.**

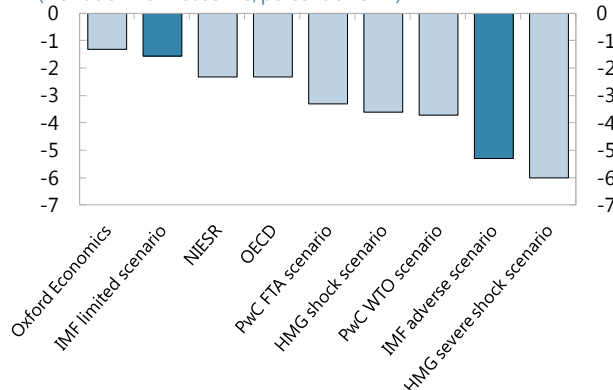
- Quantifying the effects of an exit with much certainty is difficult, including because the outcome will depend in part on the post-exit arrangements, which are unknown. Qualitatively, however, the considerations discussed above suggest that an exit is very likely to adversely affect the UK economy.
- In line with this assessment, the vast majority of quantitative estimates by various analysts point to sizeable long-run losses, as increased barriers reduce trade, investment, and productivity. The wide range of estimated losses does not represent fundamental disagreement among most experts that exit would be costly, but largely reflects differing assumptions about the UK's future economic relationships with the EU and the rest of the world.
- Several studies examine the likely short- and medium-term effects and find that they would also likely be negative. These include illustrative scenarios by IMF staff in the accompanying Selected Issues paper in which the level of output is  $1\frac{1}{2}$  percent below the baseline at its peak deviation in 2019 in a scenario of limited uncertainty effects and  $5\frac{1}{2}$  percent below the baseline in a more adverse scenario.

**Comparison of Long-Run Effects on GDP**  
(Deviation from baseline, percent of GDP)



Sources: See accompanying Selected Issues paper for references.  
Notes: bars denote ranges. Diamonds denote midpoints or point estimates.

**Comparison of Short-Run Effects on GDP**  
(Deviation from baseline, percent of GDP)



Sources: See accompanying Selected Issues paper for paper references.  
Notes: All values for 2018, except HMG scenarios, which are for fiscal year 2017/18.

**21. An exit would also have important spillovers.** Though the UK would be most affected by an exit, other EU economies would similarly experience reduced gains from trade, less efficient matching of capital and labor, and heightened uncertainty during the transition, to varying degrees depending on existing linkages with the UK. Losses from reduced trade and economic integration may rise further if a UK exit increases support for higher barriers elsewhere in Europe. Any effects on the UK financial sector and financial markets may also have outward spillovers to Europe and beyond, given the importance of London as a global financial center. For further discussion of spillovers and other issues related to the referendum, see the accompanying Selected Issues paper.

**22. On the other hand, a Remain vote could strengthen the outlook.** As noted above, staff's baseline scenario assumes that referendum-related uncertainty effects dissipate and that effects on financial markets in the run-up to the referendum reverse following a Remain vote, helping to support a rebound in growth in late 2016. Over time, effects could be stronger than assumed in staff's baseline, posing an upside risk, as enhanced institutional stability could foster stronger growth.

#### UK: Growth and Output Gap Projections

(Percent)

#### Authorities' views

#### 23. The authorities broadly shared staff's baseline outlook and list of key risks.

In March 2016, the independent Office for Budget Responsibility (OBR) revised down its 2016 growth projection from 2.5 percent to 2.0 percent, in part due to a softer global outlook. The OBR also revised down medium-term potential and actual growth by about ¼ percentage point due to continued weak productivity growth. The OBR's projections are now very close to those of IMF staff, the BoE, and consensus forecasts. Staff's external assessment was viewed as reasonable. On the referendum, the authorities agreed that this posed the largest near-term uncertainty for the outlook. HM Treasury published its [estimates of the long-term effects of an exit from the EU](#) in April 2016, while the BoE discussed how EU membership affects the BoE's ability to achieve monetary and financial stability in a [report](#) in October 2015 and discussed possible short-term implications of a vote to leave for monetary policy in its May 2016 [Inflation Report](#).

	Growth		2016 Output Gap
	2016	2020	
Consensus forecast (May 2016)	1.9	2.0	...
OBR			
November 2015 Autumn Statement	2.5	2.3	-0.4
March 2016 Budget	2.0	2.1	-0.2
May 2016 <i>Inflation Report</i> (BoE)	2.0	...	...
Staff projection	1.9	2.1	-0.2

Sources: OBR; IMF staff projections.

## POLICIES TO PROMOTE GROWTH AND STABILITY

*Under the baseline of a Remain vote, policies should focus on promoting steady growth while reducing vulnerabilities. In particular, monetary policy should remain on hold until inflationary pressures are clearer and to help offset headwinds from fiscal consolidation. The latter should remain sufficiently gradual to avoid overburdening monetary policy and be supported by further efforts to make the composition of fiscal consolidation more pro-growth and pro-stability. To ensure financial stability, it will be important to complete implementation of the ambitious financial supervisory reform agenda and to have a robust and intrusive approach to supervision and regulation as the financial cycle matures and memories of the crisis fade. Of note, mortgage-related macroprudential policies will need to tighten later this year if the recent re-acceleration of housing and mortgage markets persists. Such a monetary, fiscal, and macroprudential policy mix should help maintain growth while reducing vulnerabilities, including by supporting orderly current account adjustment, and should be reinforced by structural reforms to boost productivity and incomes. Policies will also need to remain flexible and adjust appropriately if circumstances change and risks are realized.*

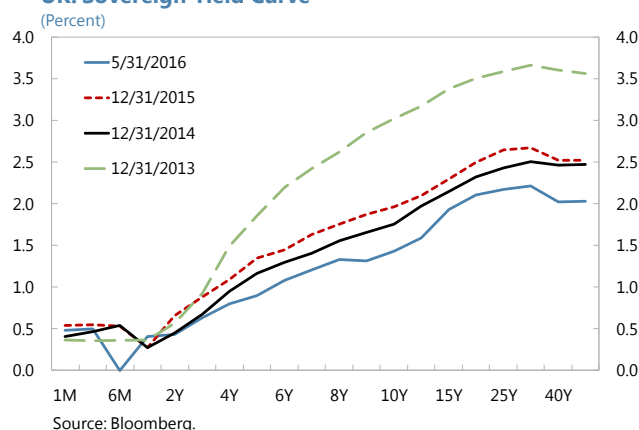
### A. Monetary Policy

**24. Monetary conditions remain accommodative.** Current monetary policy settings—a policy rate of 0.5 percent and QE assets of £375 billion (20 percent of GDP)—have been unchanged since 2012.

**25. Monetary policy should stay on hold until inflationary pressures are clearer.**

- Both headline and core inflation are below target. Forward-looking indicators—such as inflation expectations and wage growth in excess of productivity growth—are also well-contained, with market-based inflation expectations continuing to drift downward in recent months (Figure 1).
- While the output gap is nearly closed, continued monetary policy accommodation is likely to be needed to keep the output gap from re-opening, given headwinds from ongoing fiscal consolidation.
- In addition, the very low level of long-term interest rates (the 30-year yield on government bonds was 2.2 percent as of end-May) suggests that the neutral interest rate may be much lower than in the past. Consequently, the current policy rate may not be providing as much monetary stimulus as it may initially appear.

UK: Sovereign Yield Curve



- Moreover, risks to policy errors are asymmetric, as the costs associated with inflation undershooting likely exceed those of overshooting due to the increased complications related to easing monetary policy when interest rates are near the effective lower bound.
- Current monetary policy settings thus remain appropriate until inflationary pressures become stronger. However, policy should also stay data dependent and may need to adjust quickly if conditions change. If upside risks are realized, monetary tightening may need to be initiated earlier than expected, especially if core inflation or wage growth in excess of productivity growth rises quickly. On the other hand, further easing—which could take the form of policy rate cuts to at least zero, possibly in steps and followed if necessary by additional quantitative easing—is likely to be necessary if demand is weaker than expected and inflation undershooting persists.

### **Authorities' views**

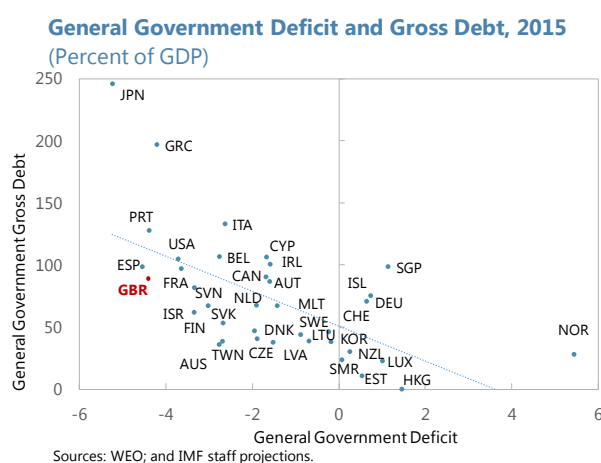
**26. Monetary policy settings were viewed as appropriate.** When the MPC judges it appropriate to raise Bank Rate, careful communication will be important to ensure a smooth lift-off. The BoE reiterated that the process of normalizing monetary policy should begin with rises in Bank Rate and proceed gradually—with the neutral rate likely to remain below levels seen prior to the financial crisis—and that QE asset sales should only be considered once Bank Rate had reached a level from which it could be cut materially in the face of a negative shock. The authorities agreed that in the event of protracted weak demand and price growth there was some scope to further ease monetary policy through cuts to policy rates, further quantitative easing, or a combination of the two.

## **B. Fiscal Policy**

### **FY15/16 outturn**

**27. The public sector fiscal deficit fell to about 4 percent of GDP in FY15/16, though the debt ratio continued to rise (Figure 4, Table 3).<sup>5</sup>**

The deficit outturn was broadly in line with projections at the time of the 2015 Autumn Statement. However, the government's debt target, which requires public sector net debt to fall as a percent of GDP in each year to FY19–20, was not met in FY15/16, in part due to downward revisions to nominal GDP. The deficit remains relatively high by international standards, as to a lesser degree does the debt ratio.



<sup>5</sup> The UK's fiscal year starts in April.

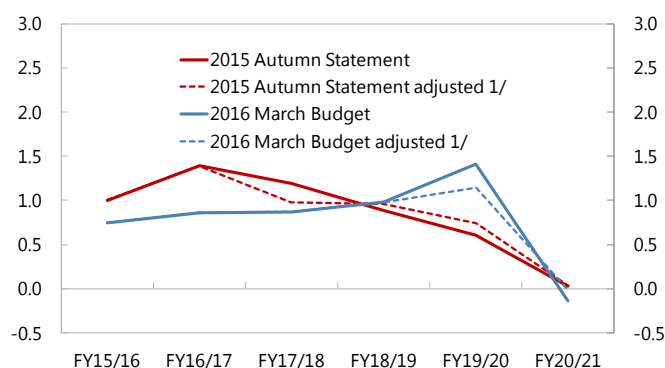
## March 2016 budget

### 28. The March 2016 budget continues to target consolidation, but further smoothes the pace.

- The March budget avoided undertaking additional tightening in the near term to offset lower revenue projections, following the growth downgrade by the OBR. This lack of an active near-term response implied a modest easing of the pace of structural fiscal adjustment in FY16/17, given that part of the growth downgrade was deemed to be structural.
- Instead, additional adjustment was backloaded to FY19/20. This allowed the budget to remain consistent with the government's main fiscal rule, which is to achieve and maintain a budget surplus starting in FY19/20, unless the economy is hit by a significant negative shock, defined as projected real GDP growth of less than 1 percent on a rolling 4 quarter-on-4 quarter basis.
- Under the new fiscal path, the pace of consolidation is now broadly constant at around 1 percentage point of GDP per year through FY19/20, especially after adjusting for the effects of shifts in the timing of corporation tax payments (blue dotted line in the text chart), which affects the officially measured pace of adjustment but is unlikely to have substantive effects on economic activity. Public sector net debt is projected to start declining as a percent of GDP from FY16/17 onward (Table 3).

#### UK: Pace of Fiscal Consolidation

(Change in cyclically-adjusted primary balance (CAPB), percent of GDP)



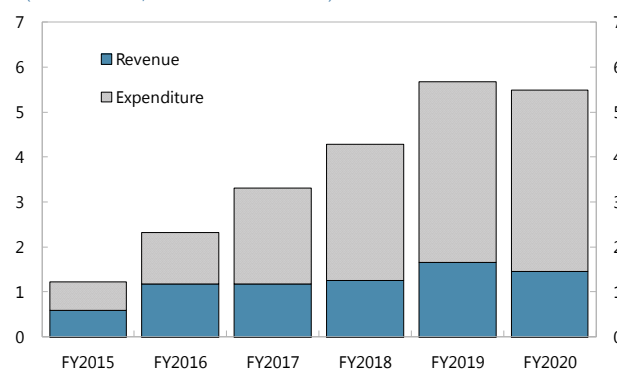
Sources: Office for Budget Responsibility; and IMF staff calculations.

1/ The CAPB is adjusted by taking out the effect of the change in corporation tax payment dates for companies with taxable profits over £20 million.

- ### 29. Consolidation remains mostly expenditure-based, with new measures in the 2016 budget having only modest fiscal effects.
- Notable measures include higher taxes on commercial property, tighter restrictions on tax avoidance, lower business taxes, and accelerated infrastructure spending. Admirably, the budget continues to maintain foreign development assistance at 0.7 percent of gross national income in an environment of significant overall spending restraint. However, new measures in the March budget do not address some of the deeper reform needs highlighted in past Article IV reports, such as reforming distortionary tax expenditures.

#### UK: Changes in Primary Balance

(Percent of GDP, cumulative from FY2014)



Sources: National Authorities; and IMF staff calculations.

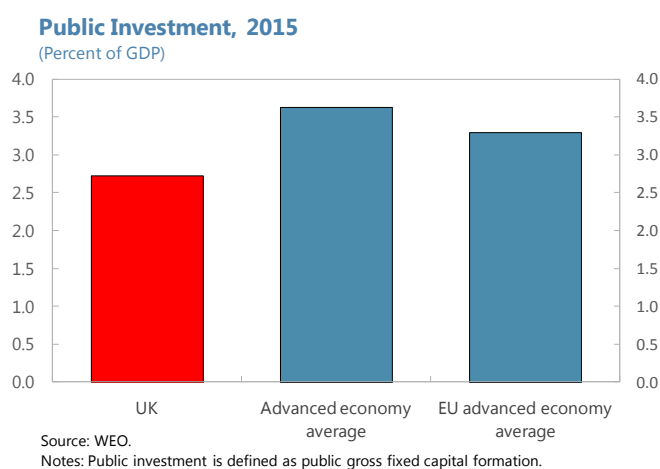
**30. The smoothing of the adjustment path and increased backloading of consolidation was appropriate.** The lack of additional discretionary tightening in the near term in response to larger deficit projections was appropriate given the weaker near-term outlook, the need to support demand, and the heightened near-term uncertainty. This new pace of structural adjustment, which is essentially unchanged from last year, is appropriate in a baseline in which growth strengthens later this year following a Remain vote, given that the output gap is essentially closed, the employment rate is at a record high, and financial conditions continue to ease in line with stronger bank balance sheets. Moderate fiscal consolidation in such a scenario will help rebuild fiscal buffers to allow a more forceful countercyclical response during the next downturn. More generally, the pace of consolidation should be broadly calibrated to cyclical conditions.

**31. In this context, the UK has fiscal space to ease further if this becomes necessary.** The UK has room to ease in the sense that, in the baseline of a Remain vote, a moderate fiscal easing is unlikely to trigger a significant rise in sovereign bond yields. In the event of an extended period of sluggish demand growth and inflation undershooting, the government should use this fiscal space and the flexibility in its fiscal framework to halt structural adjustment and, if necessary, move to stimulus.<sup>6</sup> Automatic stabilizers should also be allowed to operate freely and symmetrically. In addition, the envisaged reductions in some categories of expenditure remain sizable, and the government may need to show flexibility in finding alternative fiscal measures if anticipated spending efficiency gains fail to materialize.

### ***Structural fiscal reforms***

**32. Pro-growth and pro-stability aspects of the consolidation could be further strengthened.** Specific reform options include the following:

- **Boosting infrastructure.** Spending on infrastructure has been increased in recent budgets, but further efforts could be made in this direction, given that needs in this area are still high and given that public investment is still below the average in other advanced economies. Higher infrastructure spending could be funded by reforms such as those below.



<sup>6</sup> See the 2015 Article IV report for further discussion of the government's fiscal framework.

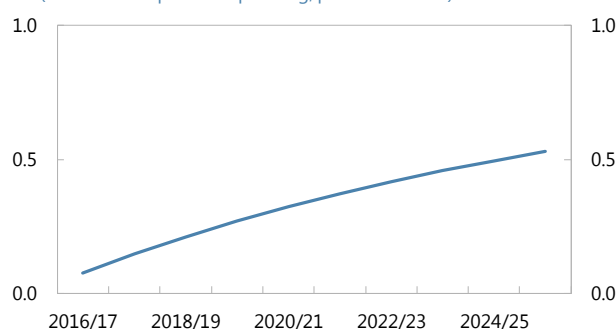
- **Reforming taxes**

- Scaling back distortionary tax expenditures (e.g., nonstandard zero VAT rates) could improve efficiency, increase tax neutrality, and free up resources for growth-enhancing expenditure.<sup>7</sup>
- Property tax reform, along the lines recommended in the *Mirrlees Review*, could help reduce vulnerabilities in the housing market by easing supply constraints. For example, rebalancing taxation away from transactions and towards property values could boost mobility and encourage more efficient use of the housing stock. The 2016 budget announced reforms to transaction taxes on commercial properties that aim to eliminate cliff-edges in marginal tax rates, in line with recent reforms to transaction taxes on residential properties. These reforms helpfully reduce some distortions in the current system, but the fundamental problem of high reliance on transaction taxes remains (see [2015 Selected Issues](#)).
- Reducing the tax code's bias toward debt could also promote financial stability. This could be achieved by, for example, adopting an [Allowance for Corporate Equity](#), with offsetting changes in other corporate tax parameters to ensure revenue neutrality.

- **Reforming pensions.** State pensions are currently subject to a “triple-lock” guarantee, which requires that they rise each year by the highest of CPI inflation, wage inflation, or 2.5 percent. This approach is costly, poorly targeted to those most in need, and inconsistent with international best practice, which is generally to maintain a constant real income in retirement via indexation only to the CPI. Staff simulations suggest that moving to CPI indexation could save over 0.5 percent of GDP by the end of a 10-year horizon, enough to increase gross public investment by 20 percent.

#### CPI Indexation vs. Triple Lock

(Difference in pension spending, percent of GDP)



Sources: IMF staff calculations.

Note: This chart shows the difference in pension spending under the triple lock scheme and CPI indexation, based on simulated mean growth rates under the two different indexation schemes. The simulation does not take account of changes in cohorts/ demographics or changes in the pension system.

### Authorities' views

#### 33. The authorities viewed their fiscal plans as key to bolstering buffers against shocks.

They emphasized that responsible fiscal policy requires building buffers while growth rates remain near potential and the output gap is closed, in order to provide flexibility to allow the automatic stabilizers to operate freely in the event of future shocks. In this context, they agreed with the need to maintain fiscal flexibility in the event of large shocks and noted that their fiscal framework requiring a budget surplus starting in FY19/20 provides for such flexibility, given both its “comply or

<sup>7</sup> The government estimates that [total tax expenditures](#) equal about 6.5 percent of GDP, though many of these have some economic justification and not all are distortionary.

explain” nature and its explicit escape clause in the event that the economy is hit by a significant negative shock. On the composition of consolidation, the authorities viewed their plans as supporting growth by facilitating a competitive, lower-tax economic environment while prioritizing spending in key areas such as health, science, education, and infrastructure investment, as well as foreign development assistance.

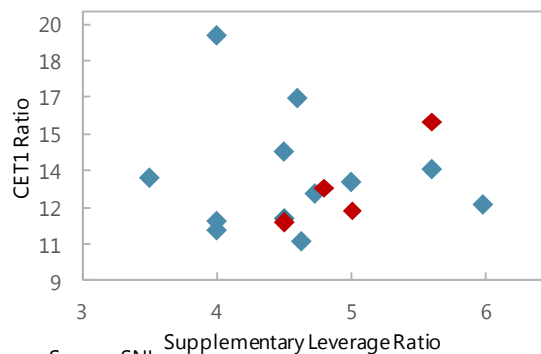
### C. Financial Sector Policies

**34. The UK has a large, complex, and globally interconnected financial sector.** Total financial assets of UK domiciled banks and nonbank financial institutions are about ten times UK GDP. Four banks and two insurers in the UK are classified as globally systemically important. The UK insurance sector is the largest in Europe and the third largest globally. The UK hosts the largest fund management industry and many of the most important equity trading platforms in Europe, as well as two of the largest central counterparties (CCPs) in the world. As such, effectively monitoring and mitigating risks impinging on and emanating from the UK’s financial sector is of crucial domestic and global importance. Against this background, IMF staff undertook an assessment of the UK’s financial sector in 2016 under the IMF’s Financial Sector Assessment Program (FSAP), following up on the previous FSAP assessment in 2011. The main findings of the FSAP are summarized in the accompanying FSSA.

**35. The accompanying FSSA finds that the balance sheets of UK banks continue to strengthen, in line with tougher regulatory capital and liquidity requirements.**

- Since the global financial crisis, UK banks have significantly strengthened their capital ratios and liquidity positions (text table below, Figure 5). Indeed, the major UK banks had an aggregate common equity Tier 1 capital ratio of 12.6 percent and an aggregate Basel III leverage ratio of 4.8 percent at end-2015, both well above regulatory minima.<sup>8</sup> Capital ratios of UK banks were also broadly in line with those of their European peers. UK banks had an aggregate nonperforming loan ratio of 1.4 percent at end-2015, about a third of its post-crisis peak.

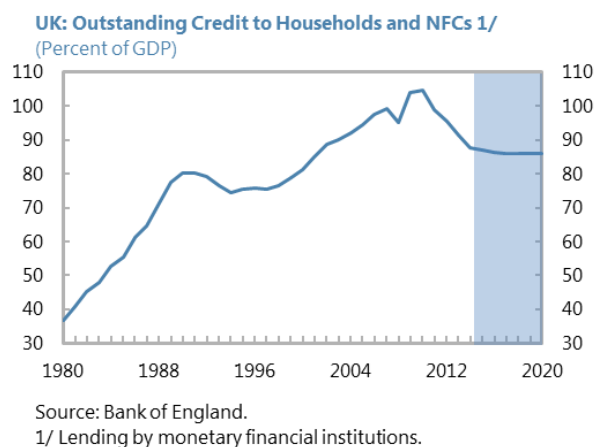
**European G-SIBs: CET1 and Leverage Ratios, 2015:Q4**  
(Percent; selected UK banks in red 1/)



Source: SNL.  
1/ UK Banks include Barclays, LBG, RBS, and HSBC.

<sup>8</sup> Specific regulatory minima for CET1 and leverage ratios differ across banks, depending on their systemic importance.

- As such, UK banks' balance sheets are better able to support the real economy, with bank credit growth continuing to normalize and projected to converge to nominal GDP growth over the medium term (Table 2), now that the bank credit-to-GDP ratio has returned near pre-boom levels (i.e., circa 2000). Accommodative monetary policy has helped support this recovery in credit growth.



- Nevertheless, the profitability of UK banks remains low relative to historic levels, due to lower trading income, lower net interest income, and still-high legacy misconduct costs. As a result, the major UK banks were not immune to the reductions in equity prices and rises in CDS spreads that hit European banks on profitability concerns in early 2016.

**Financial Soundness Indicators for Major UK Banks 1/**  
(Percent)

	2000-06	2011	2012	2013	2014	2015 2/
<b>Capital adequacy</b>						
Basel III common equity Tier 1 capital ratio	...	7.2	8.4	10.0	11.3	12.6
Simple leverage ratio	4.8	5.1	5.1	5.6	5.9	6.7
Basel III leverage ratio (2014 proposal)	...	...	...	...	4.4	4.8
<b>Asset quality 1/</b>						
Non-performing loans net of provisions to capital	...	16.1	13.9	9.5	5.4	4.5
Non-performing loans to total gross loans	...	4.0	3.6	3.1	1.8	1.4
<b>Profitability</b>						
Return on assets before tax	1.1	0.4	0.2	0.3	0.5	0.4
Price-to-book ratio	224.6	57.0	81.0	106.0	96.0	76.0
<b>Liquidity</b>						
Loan-to-deposit ratio	113.1	108.9	103.1	99.1	95.9	96.7
Short-term wholesale funding ratio	...	18.8	16.4	14.1	12.5	10.4
Average senior CDS spread	...	2.7	1.5	1.0	0.6	0.8

Sources: BoE FPC Core Indicators, IMF Financial Soundness Indicators.

1/ The coverage of banks is as defined in the BoE's December Financial Stability Report, except for asset quality indicators, for which the coverage is as defined in the IMF's Financial Soundness Indicators.

2/ 2015 latest available data.

### 36. Recent stress tests suggest that the main subsectors of the UK financial sector are individually resilient to severe but plausible shocks:

- Banks.** Solvency stress tests conducted by the BoE in 2015 and by the IMF FSAP team in 2016 indicate that the major UK banks would continue to simultaneously satisfy regulatory capital requirements and domestic bank credit demand under severe but plausible adverse scenarios. The BoE stress test scenario considered a global macroeconomic downturn with financial market

disruptions concentrated in emerging Asia and the euro area, while the IMF FSAP scenario featured a disorderly normalization of the stance of US monetary policy triggering abrupt asset price falls in the UK. Liquidity stress tests conducted in 2016 also indicate that the major UK banks are resilient to sizeable withdrawals of funding.

- *Nonbank financial sector.* Though not as detailed or comprehensive as the bank stress tests, separate analyses by the BoE, PRA, FCA, EU financial authorities, and the FSAP paint a relatively reassuring picture of the underlying strength and resilience of U.K. insurers, asset managers, and CCPs. In each of these areas, however, there is scope to improve the set of available data, analytical models, and supervisory risk monitoring tools.

In spite of this individual resilience to shocks, interconnectedness across these subsectors of the UK financial sector has the potential to amplify and propagate destabilizing effects. Further developing analytical tools to assess risks due to interconnectedness should therefore be a priority.

**37. This apparent resilience of the UK financial sector largely reflects extensive regulatory reforms in the wake of the global financial crisis.** These regulatory reforms were designed to increase the resilience of the UK financial sector by reducing the likelihood that financial institutions fail, while lowering the cost of failure to the economy and taxpayer. They have generally been aligned with the global regulatory reform agenda, in which the UK has played a leading role. They were also complemented by steps to enhance the governance of financial firms—a crucial step for restoring the confidence of the British public to the financial system—as well as to ring-fence retail banking operations from other, riskier activities. These reforms are well established in law—many are embedded in EU Directives and Regulations—although key components, such as ring-fencing, will require more time to be fully implemented.

**38. Key specific elements of the post-crisis regulatory reform agenda include reforms to strengthen macroprudential and microprudential oversight:**

- *Macroprudential oversight.* A new macroprudential framework, centered on the Financial Policy Committee (FPC), assigns clear roles and responsibilities, provides adequate powers and accountability, and promotes effective coordination across agencies. This institutional setup is well designed and has an encouraging, albeit still short, track record. Notable steps taken by the FPC include measures in mid-2014 to reduce risks related to the housing market and household debt (see next section on real estate markets for details). More recently, in March 2016 the FPC raised the countercyclical capital buffer (CCB) from 0 to 0.5 percent, effective one year later. This CCB increase will not raise overall regulatory capital buffers for most banks in 2017 due to offsetting reductions in Pillar 2 supervisory capital buffers judged to cover overlapping risks. Rather, the FPC justified the CCB increase as desirable to improve the transparency of existing buffers rather than being needed to increase overall capital levels. Going forward, it will be important to continue tightening the CCB pro-actively in line with the financial cycle. In this regard, further tightening will likely be needed later this year if near-term uncertainty is resolved and macro-financial conditions remain stable, as assumed in staff's baseline scenario. More generally, as the financial cycle shifts, external resistance to action is likely to rise, and resources

for financial stability issues could face competing demands. The authorities need to maintain their focus and willingness to act on financial stability risks, as well as continue their efforts to promote a better understanding by the general public of the FPC's role and responsibilities.

- *Microprudential oversight.* The microprudential supervision of banks, insurers, and large investment firms was consolidated under the Prudential Regulation Authority (PRA) in the BoE, while the Financial Conduct Authority (FCA) is responsible for the microprudential supervision of other financial institutions and is the conduct supervisor for all financial institutions. The focus of supervisory effort and resources on the resilience of the most important firms is appropriate from a systemic perspective. However, it inevitably implies less individual attention to small and mid-size companies, for which supervisors rely more on data monitoring, thematic reviews, and outlier analysis. This tradeoff warrants constant vigilance, because the business models of smaller firms tend to be correlated and, regardless of their systemic impact, failures of even small firms can be a source of reputational risk for the supervisor. Going forward, it will be important to have a robust and intrusive approach to supervision as the financial cycle matures. This includes continuing to take a prudent approach to reviewing dividend payouts, intensifying on-site inspections and the scrutiny of asset quality on less systemically important banks, broadening and intensifying the supervisory review of banks' internal models, and seeking international agreement on maintaining effective standards for risk-weights.

**39. The regulatory reform agenda has also focused on ensuring that financial institutions can fail in the UK without threatening financial stability or exposing taxpayers to losses:**

- The special resolution regime was overhauled in a series of steps, most recently through the transposition of the EU Bank Recovery and Resolution Directive into UK law, and is now broadly aligned with international standards. The available resolution powers and tools are now much stronger than before the crisis, as are the coordination arrangements for crisis management, both domestically and cross-border. But remaining differences with resolution regimes in other jurisdictions could still impede orderly cross-border resolution, and the UK authorities are playing a leading role internationally in addressing this issue.
- The key challenge now is to complete the implementation of the revamped bank resolution framework in the UK, involving the introduction of ring-fencing requirements for the core retail activities of large banks, as well as the phasing-in of minimum requirements for own funds and eligible liabilities (MREL) for all banks. Going forward, continuous efforts will be required to ensure the resolvability of large, complex, and globally interconnected financial institutions as their business models evolve. Towards this end, the authorities should build on current arrangements to develop operational principles for funding of firms in resolution and should work with international partners to develop an effective resolution regime for insurance firms that could be systemically significant at the point of failure.

**40. The authorities should continue to improve their understanding of the scale and drivers of the “de-risking” phenomenon.** Based on this analysis, the authorities should also develop tailored responses to mitigate potential adverse effects (Box 1).

### Box 1. De-risking in the UK

**Global banks, including those based in the UK, have been scaling back correspondent banking relationships (CBRs).** While the number of CBRs has been declining, there are some indications that the global volume of transactions may be rising overall. Nonetheless, the curtailment of CBRs could potentially impair cross-border financial intermediation (including remittance transfers and trade finance) with certain jurisdictions and may cause customers and/or activities to migrate to less transparent and unregulated service providers.

**As part of this trend, UK global banks have been reviewing their customer base and business lines.** As a result, certain categories of customers have had accounts terminated, notably money transmitters, non-profit organizations, FinTech firms, defense-related firms, and politically-exposed persons. Loss of accounts by money transmitters and non-profit organizations could potentially impair remittances, notably across the Somalia-UK corridor, and aid flows to conflict zones, creating spillover risks.

**The potential drivers behind the withdrawal of financial services are multiple.** These drivers may relate to business strategy and/or cost-benefit analysis, including in the context of enforcement of regulatory obligations (e.g., capital and liquidity rules), AML/CFT, economic and trade sanctions, and tax transparency. In some instances, the withdrawal of services has been the result of conflicting regulations between jurisdictions (e.g., between data privacy and AML/CFT) that prevent correspondent banks from conducting adequate customer due diligence. Banks cited as a further factor the unevenness in the way international standards are applied and enforced globally, rather than the lack of clarity in the laws that implement the standards.

**The authorities have taken steps to understand the scale and drivers of these trends and have engaged with concerned stakeholders.** Going forward, the authorities should continue these efforts to understand the issue and use this information to develop responses to mitigate potential adverse impacts, including by further promoting dialogue with stakeholders; encouraging banks to further work with their customers (e.g., respondent banks, money transmitters) on strengthening their AML/CFT controls; clarifying regulatory expectations, notably in regard to the management of higher risk customers; enhancing AML/CFT supervision of money transmitters; and working with other jurisdictions to resolve conflicting regulations that impede cross-border information-sharing between correspondent banks and their respondents.

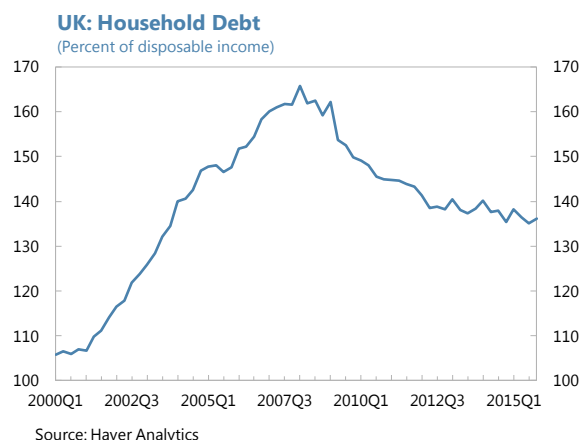
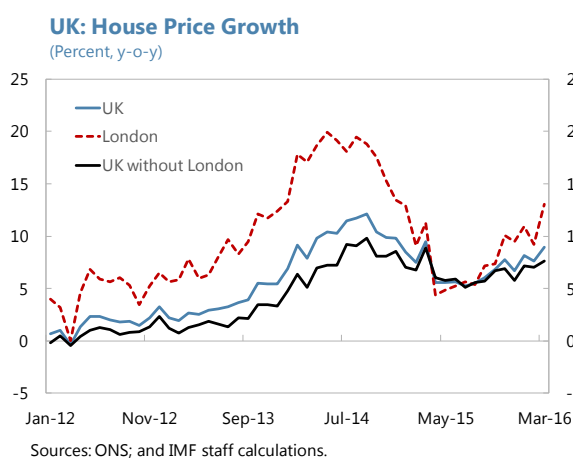
### Authorities' Views

**41. The authorities welcomed the analysis in the FSAP and broadly agreed with its main recommendations.** They agreed that post-crisis reforms had significantly bolstered financial sector resilience, though challenges remain and financial sector supervision and regulation would need to remain vigilant as the financial cycle matured. The FPC expected to gradually raise the countercyclical capital buffer over time, as it considered a buffer of 1 percent to be the appropriate level for the normal phase of the financial cycle. The authorities also noted that non-traditional risks, such as those related to cyber-security, were gaining prominence and required close attention. On "de-risking," the authorities agreed that it was important to better understand the drivers of this phenomenon and were undertaking substantial analysis in this area.

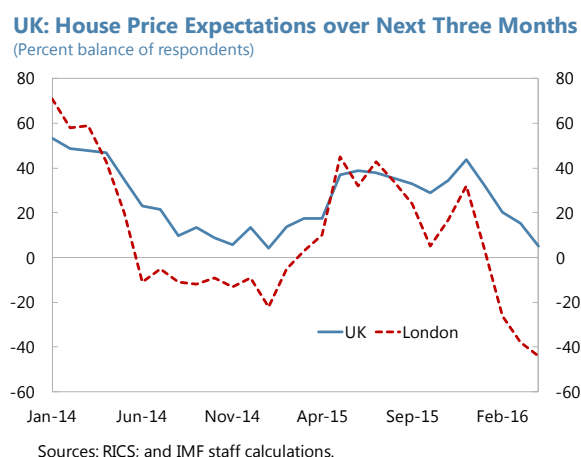
## D. Real Estate Markets and Related Macroprudential Policies

### 42. Housing and mortgage markets have re-accelerated since mid-2015.

- Between mid-2014 and mid-2015, house-price growth decelerated somewhat, and the percentage of new mortgages with high loan-to-value (LTV) or high loan-to-income (LTI) ratios declined (Figure 3). This moderate deceleration in housing and mortgage markets may have partly reflected policy actions in mid-2014, including tougher mortgage lending requirements (the FCA's Mortgage Market Review) and an FPC restriction that no more than 15 percent of a lender's new mortgages be at or above a loan-to-income ratio of 4.5. Though the latter restriction was not binding for the vast majority of lenders, it may have had a signaling effect that prompted them to reduce high loan-to-income mortgages.
- In recent months, however, house-price growth has re-accelerated, reaching 9 percent in March 2016—more than three times income growth. The share of new mortgages at high LTI ratios has also started to tick back up (Figure 3) and remains well above pre-boom levels (i.e., circa 2000), as does the aggregate household debt-to-income ratio, which is above the levels in other G-7 countries and whose rate of decline has recently slowed. Such high leverage significantly exposes banks and households to interest-rate, income, and house-price shocks.



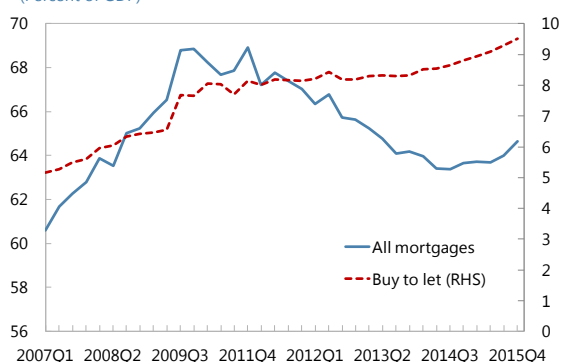
**43. However, the recent acceleration in housing markets could partly be a temporary response to tax changes.** In particular, the acceleration may reflect an increased urgency to purchase dwellings before the April 1, 2016, implementation of a three percent stamp duty surcharge on properties that are not primary residences (e.g., buy-to-let properties). This view is supported by RICS data on expected house prices, which suggest a cooling of house prices going forward.



**44. Macroprudential policies will need to be tightened later this year if the acceleration does not prove temporary.** Given the uncertainty regarding the effects of recent tax changes and the referendum on EU membership on the housing market, it is prudent to wait for greater clarity on market conditions before taking further macroprudential tightening. However, if mortgage markets remain buoyant beyond this period, further macroprudential tightening (tighter LTI and/or LTV limits on new mortgages) will be needed later this year. Priority should also be given to the consolidation of household-level credit data to allow a shift from LTI limits to debt-to-income ones, which cannot be evaded by taking out multiple loans. Ensuring that macroprudential policies remain sufficiently tight to support financial stability should also promote higher household saving and current account adjustment.

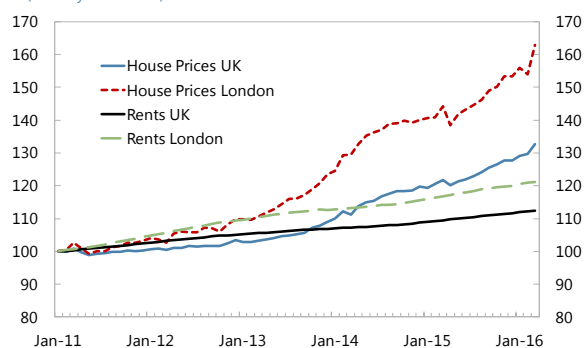
**45. The buy-to-let (BTL) segment, which has grown rapidly in recent years, needs to be put on an equal regulatory footing with the owner-occupied segment.** Since 2012, the stock of outstanding BTL mortgages has grown approximately four times as fast as the stock of mortgages in the owner-occupied segment, with BTL accounting for more than one-third of gross mortgage growth since 2012. The segment is dominated by small-scale landlords (owning 3 properties or less), who are significantly more sensitive to interest-rate increases than owner occupiers. The decline in rental yields, shown by the divergence between rents and house prices, magnifies this sensitivity, as BTL borrowers tend to rely on rental income to cover mortgage payments. Studies also find that the probability of default on BTL mortgages is higher than for owner-occupied mortgages and that BTL mortgages are typically extended on interest-only terms ([BoE, 2015](#); [McCann, 2014](#); [HMT, 2015](#)).

**UK: Outstanding Mortgage Balances**  
(Percent of GDP)



Sources: Council of Mortgage Lenders; and IMF staff calculations.

**UK: House Prices vs Rents**  
(January 2011=100)



Sources: Haver Analytics; and IMF staff calculations.

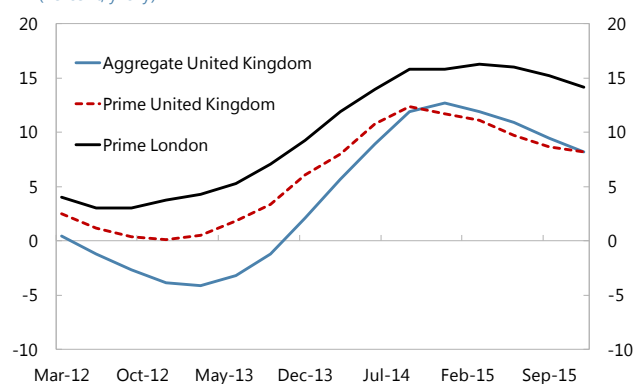
Against this background, the authorities should extend the FPC's powers of direction to the BTL market, as proposed by a recent Treasury consultation paper, to avoid biasing the market toward the BTL segment. The powers of direction should mirror those the FPC currently has over the owner-occupied market. Minimum underwriting standards for BTL mortgages should also be strengthened, as proposed by a recent PRA consultation paper. The proposed standards would include guidelines for testing the affordability of interest payments, including a minimum stressed interest rate to be used when lenders conduct affordability tests. Finally, the authorities should work to disseminate data on rental prices that are differentiated by region and the type of rented property in order to advance the analysis of the rental market, buy vs. rent decisions, and the extent of house price overvaluation.

**46. Efforts should also continue to address supply constraints.** A key cause of persistent high growth in house prices is constrained supply due to restrictive planning and the post-recession loss of building capacity. Increased housing supply would support near-term growth, reduce the need for excessive household leverage, and promote social cohesion by lessening wealth inequality. The government should thus build upon the recently undertaken initiatives to boost housing supply by further exploring ways in which mobilization of unused publicly-owned lands and property tax reform (see fiscal section above and 2015 Selected Issues) could ease supply constraints.

**47. The commercial real estate (CRE) market warrants careful monitoring.** Price growth was rapid during 2014–15, especially in prime London locations, where indicators point to some CRE overvaluation. Some indicators suggest a marked slowdown in early 2016, with transactions falling by 40 percent, though this likely reflects at least in part referendum-related uncertainty. CRE prices have important macro-financial implications, because many firms use CRE as collateral to support their borrowing. A fall in prices could thus tighten corporate credit constraints and reduce business investment and economic activity. A sharp reversal of CRE prices could also adversely affect financial stability via banks' exposure to commercial real estate, though this channel has been lessened by a post-crisis rebalancing of CRE funding away from domestic banks towards international investors and nonbanks. However, this implies that adverse shocks to CRE may have significant negative outward spillovers via the sector's cross-border financial linkages.

**UK: Commercial Real Estate Price Growth**

(Percent, y-o-y)



Sources: Haver Analytics; Bank of England; and IMF staff calculations.

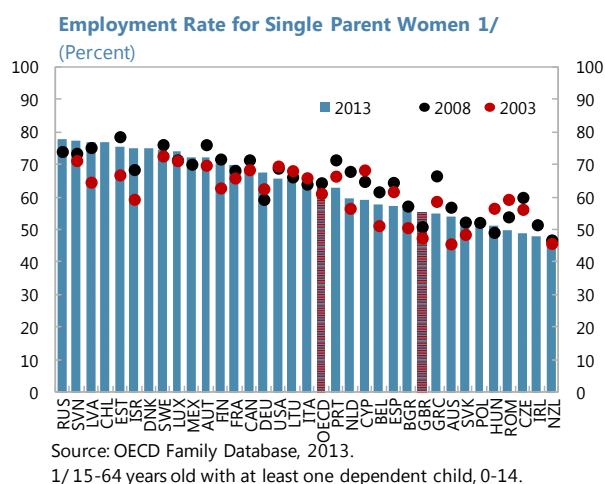
### **Authorities' Views**

**48. The authorities noted that they continue to monitor real-estate related financial stability risks closely and will take further action as warranted.** The authorities emphasized that the recent stamp duty change, action by the PRA (e.g., its consultation on BTL underwriting standards), and possible referendum-related effects made it difficult to ascertain underlying trends in the residential and commercial real estate markets and that the picture may clarify later this year. On the BTL market, the FPC has requested powers of direction. Following its recently completed consultation on the matter, the Treasury expected to publish a consultation response document, including final legislation, in the coming months. The PRA also expected to follow-up soon on its consultation on minimum underwriting standards for BTL mortgages.

## E. Structural Reforms

**49. Structural reforms are an important complement to other macroeconomic policies.** UK goods and labor markets are some of the most competitive among advanced economies, with few major barriers to entry. Nevertheless, structural reforms in certain key areas could help boost potential growth, improve competitiveness and thus assist external adjustment, and help address regional disparities. Structural reform priorities include the following:

- **Fiscal structural reforms.** As elaborated upon in the fiscal section, priorities include tax reform, pension reform, and boosting investment in infrastructure. On the latter, transport bottlenecks constraining domestic regional development and external trade are especially notable. Recent efforts to boost infrastructure spending, including the formation last year of a nonpartisan National Infrastructure Commission, whose mandate is to lay out long-term plans for northern connectivity, London transport, and energy policy and to depoliticize the process, are thus welcome.
- **Housing supply.** As elaborated upon in the section on real estate market developments, efforts should continue to further boost housing supply, including by easing planning restrictions, mobilizing unused publicly-owned lands for construction, and reforming property taxes to encourage more efficient use of the housing stock. Boosting housing supply is an important macroeconomic objective, because it supports growth by fostering construction, lubricates the labor market by facilitating mobility, and bolsters financial stability by increasing home affordability, thereby reducing households' need to take on high debt.
- **Vocational training.** Only four-fifths of those aged 15–19 are enrolled in education, below the OECD average and indicating scope for boosting human capital. For example, further expanding vocational training could help reduce double-digit youth unemployment and make growth more inclusive. In this regard, recent support for apprenticeship programs is welcome.
- **Female labor force participation.** Ongoing efforts to increase labor force participation for single women with children, which has been increasing in recent years but is still below the OECD average, should continue, including increased support for childcare.



### ***Corporate transparency***

**50. The government recently adopted a comprehensive set of reforms to enhance corporate transparency and combat tax evasion, corruption, and other financial crimes but more should be done.** Among other measures, these reforms include the establishment of a register of people with significant control (i.e., beneficial ownership) of UK companies and limited liability partnerships and a new initiative for the automatic sharing of beneficial ownership information between countries. These reforms should be complemented by enhancing AML/CFT regulatory compliance among trust and company service providers, lawyers, and accountants, including by strengthening the effectiveness of their AML/CFT supervision.

**51. The government should further engage the Crown Dependencies (CDs) and British Overseas Territories (BOTs) on enhancing corporate transparency and access to beneficial ownership information.** In setting their financial services and AML/CFT regulation, the CDs and BOTs with financial centers have committed to establishing central beneficial ownership registries, or equivalent systems, for entities incorporated in their jurisdictions. The government has also concluded arrangements with these CDs and BOTs on the effective and unrestricted access to this information by law enforcement and tax authorities. Key to the success of these initiatives will be ensuring the quality of beneficial ownership information contained in these registries, or equivalent systems, including by making them publicly accessible, through adequate enforcement, and by pursuing similar initiatives with respect to trusts.

### ***Authorities' Views***

**52. The authorities broadly agreed with staff's structural reform priorities and noted that significant actions had been taken in many of these areas.** For example, the recently formed National Infrastructure Commission was expected to further strengthen the quality of infrastructure investment; much had already been done to boost housing supply, including significant reforms to the planning system, with the authorities committed to going further; childcare benefits had been adjusted in the 2015 Autumn Statement to support those on low incomes; and apprenticeship opportunities had been expanded. On enhancing transparency of beneficial ownership, the authorities noted that major reforms had been adopted over the past year, putting the UK at the forefront of such efforts. And, while the authorities were actively engaging with CDs and BOTs to strengthen transparency also in these jurisdictions, the authorities stressed that it was important to recognize that CDs and BOTs set their own their financial services and AML/CFT regulation, in line with self-governance arrangements.

## **F. Contingency Planning**

**53. Macroeconomic policies will need to remain flexible and adjust if circumstances change.** Specific policy adjustments will need to be tailored to the specific scenario (Appendix II), as in, for example, the following scenarios:

- *An exit from the EU.* If exit occurs, policies should be geared toward supporting stability and reducing uncertainty. If markets reacted sharply and adversely, it would be important to ensure that the financial system has adequate liquidity. In this regard, the BoE has appropriately announced plans to hold additional liquidity auctions in the weeks around the referendum. There may also be a need to activate swap facilities with other major central banks in the event of a shortfall of foreign exchange liquidity. The implications for macroeconomic policies are not clear cut, as the authorities may face a trade-off between stabilizing inflation and output: the scope for macroeconomic policies to cushion a fall in economic activity will depend on an assessment of supply and demand and the extent to which longer-run inflation expectations remain well-anchored. At the same time, plans for additional medium-term budget consolidation may need to be developed to offset the longer-run adverse fiscal effects.
- *Protracted demand shortfall and hysteresis.* In the event of a protracted shortfall in aggregate demand and weakening of potential output due to hysteresis effects, further demand support should be provided by cutting interest rates, restarting quantitative easing, and using the flexibility in the fiscal framework to halt structural fiscal adjustment (and, if necessary, move to stimulus). Structural reform efforts, along the lines proposed in the previous section, should also be redoubled to boost potential output.

### **Authorities' Views**

**54. The authorities stand ready to provide tailored responses to a wide range of shocks.** In the event of a vote to leave the EU, the macroeconomic response would depend on the relative magnitudes of supply and demand effects, which the authorities view as difficult to judge beforehand, and on the impact of the expected currency depreciation on prices and inflation expectations. As such, they may face a trade-off between stabilizing inflation on the one hand and, on the other, stabilizing output and employment. Similarly, the response to a protracted period of slow growth would depend on whether this appeared to be mainly a result of deficient demand or continued weak productivity growth. If the latter, tightening may be required to contain inflation pressures and adjust to the adverse fiscal effects resulting from lower potential output.

## **STAFF APPRAISAL**

**55. The UK economy has performed well in recent years.** Economic growth has consistently been near the top among major advanced economies, the employment rate has risen to a record high, the fiscal deficit has been reduced, and major financial sector reforms have been adopted.

**56. Steady growth is expected to continue over the next few years under the baseline scenario, with inflation gradually returning to target.** Under staff's baseline, which assumes that the UK votes to remain in the EU, growth is projected to strengthen in late 2016 as referendum-related effects wane and then to average near the potential rate over the medium term, given that the output gap appears nearly closed. Inflation is expected to return gradually to target as effects of

past commodity price falls dissipate and as low unemployment and minimum wage increases help push up wages.

**57. However, this broadly positive baseline forecast is subject to notable risks.** Key vulnerabilities include possible shocks to global growth and asset prices; a low household saving rate and still-high levels of household debt, despite a substantial reduction in the latter since the crisis; a possible reversal of recently buoyant residential and commercial real estate markets; a wide current account deficit; and risks that productivity growth may remain low for an extended period.

**58. In the near-term, the largest risks and uncertainties relate to the upcoming EU referendum.**

- This year's Article IV consultation occurs as the British people prepare to make a momentous decision. Given the importance of the EU membership referendum, staff has analyzed its potential macroeconomic implications, while recognizing that the choice of whether to remain in the EU is for UK voters to make and that their decisions will reflect both economic and noneconomic factors.
- While there is much uncertainty about the precise economic effects of an exit from the EU, they are likely negative and substantial. An exit would precipitate a protracted period of heightened uncertainty that could weigh on confidence and investment and increase financial market volatility, as negotiations on new arrangements could remain unresolved for years. The long-run effects on UK output and incomes would also likely be negative and substantial, as increased barriers would reduce trade, investment, and productivity. In addition, markets may bring forward such medium- and long-term negative effects via an adverse reaction in the immediate aftermath of a vote. Contagion effects could result in spillovers to regional and global markets, although the primary impact would be felt domestically.
- In the event of a Leave vote, policies should be geared toward supporting stability and reducing uncertainty.

**59. In the baseline of a vote to remain in the EU, macroeconomic policies should focus on promoting steady growth while reducing vulnerabilities.** Monetary policy should remain accommodative to support demand, while fiscal consolidation—which will help rebuild buffers—should remain sufficiently gradual to avoid overburdening monetary policy. In this context, the decision in the March budget to avoid near-term tightening was appropriate given the present growth weakness and heightened uncertainty. At the same time, macroprudential policies should remain sufficiently tight to mitigate financial stability risks that could arise if financial conditions turn overly expansionary. In particular, mortgage-related macroprudential policies (e.g., LTI/LTV limits) will need to be tightened later this year if housing and mortgage markets remain buoyant, with similar limits applied also to the buy-to-let market. In addition, the authorities should actively use the countercyclical capital buffer, which may well need to be increased later this year.

**60. Macroeconomic policies will also need to respond flexibly to any shocks.** In the event of protracted demand weakness and inflation undershooting, monetary and fiscal policies should be eased. Conversely, monetary tightening may need to be initiated earlier than currently envisaged if core inflation or wage growth in excess of productivity growth begins to rise sharply.

**61. It will be imperative to have a robust and intrusive approach to prudential supervision and regulation as the financial cycle matures and memories of the crisis fade.** Financial sector soundness has improved notably since the crisis, owing in large part to a wave of welcome post-crisis regulatory reforms, and stress tests suggest that the major elements of the financial system appear resilient to shocks. Ensuring the safety of the UK financial sector is not only a domestic concern, but is also critical to maintaining global financial stability, given the UK's importance as a global financial center. In line with the recommendations of the accompanying FSSA, priorities include the following:

- Interconnectedness across financial system sectors has the potential to amplify shocks and turn sector-specific distress systemic. One priority is thus to further strengthen analysis and data on interconnectedness and related risks.
- Further efforts are also needed to complete the resolution reform agenda. In particular, the authorities should build on current arrangements to develop operational principles for funding of firms in resolution and work with international partners to develop an effective resolution regime for insurance firms that could be systemically significant at the point of failure.
- The authorities should also ensure close scrutiny of banks' internal models and seek international agreement on maintaining effective standards for risk weights.

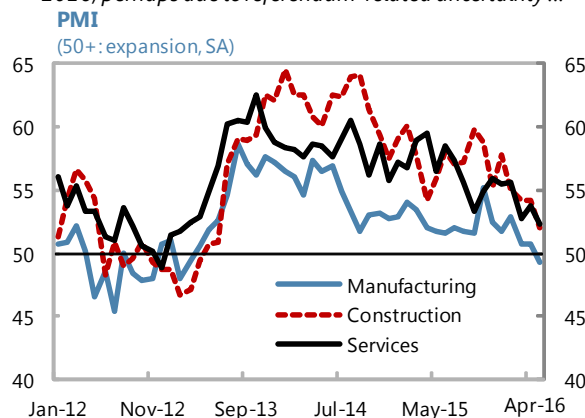
**62. The authorities should continue efforts to deepen their understanding of the “de-risking” phenomenon and develop tailored responses.** Such responses could include further promoting dialogue with stakeholders; clarifying regulatory expectations, notably in regard to the management of higher risk customers; and enhancing AML/CFT supervision of money transmitters.

**63. Further structural reforms are necessary to complement the macroeconomic policy mix and promote growth and stability.** One priority is to boost housing supply, including by further easing planning restrictions, mobilizing unused publicly-owned land for construction, and reforming property taxes to encourage more efficient use of the housing stock. Other priorities including increasing investment in infrastructure, reducing distortionary tax expenditures and the debt bias in the tax code, boosting skills by further expanding vocational training, raising labor force participation through increased childcare support, and building on recent reforms to further enhance corporate transparency and combat financial crimes.

**64. It is recommended that the next Article IV consultation be held on the standard 12-month cycle.**

**Figure 1. United Kingdom: Recent Macroeconomic Developments**

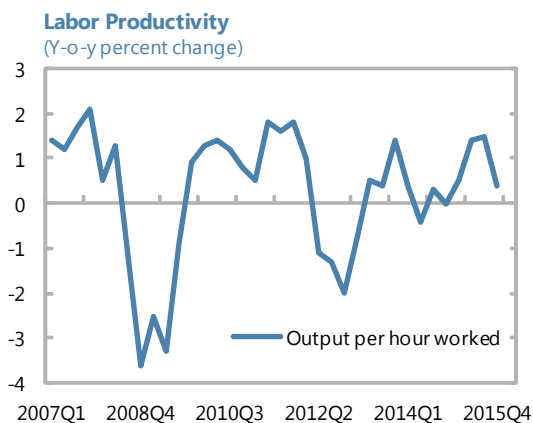
Leading indicators suggest some slowing of growth in H1 2016, perhaps due to referendum-related uncertainty...



... with staff projecting growth to stabilize near the trend rate from next year in a baseline that assumes the UK remains in the EU.



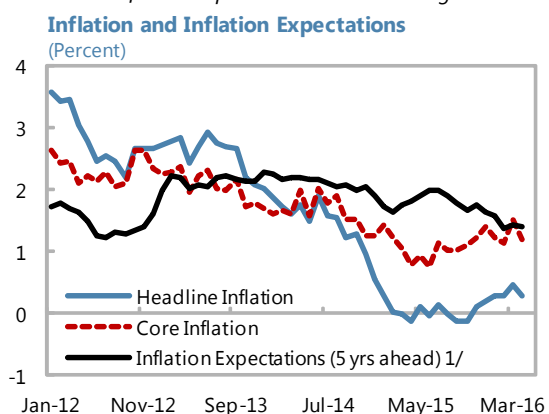
Labor productivity growth remains weak...



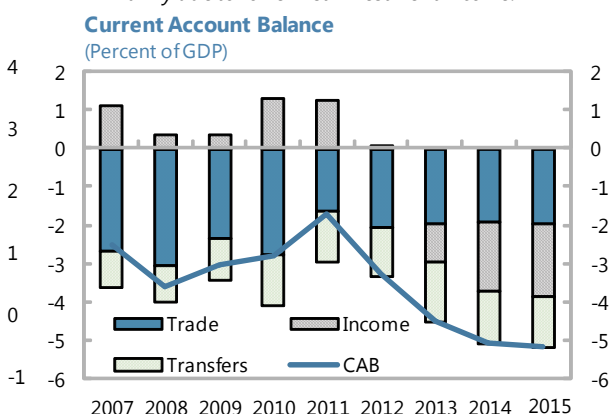
... but nominal wage growth also remains well below pre-crisis levels...



... which has helped keep core inflation and inflation expectations below the target.



The current account has widened substantially since 2011, mainly due to lower net investment income.

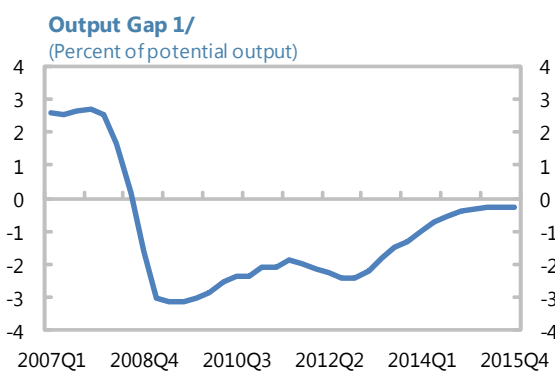


Sources: Haver; ONS; World Economic Outlook; Bank of England; and IMF staff calculations.

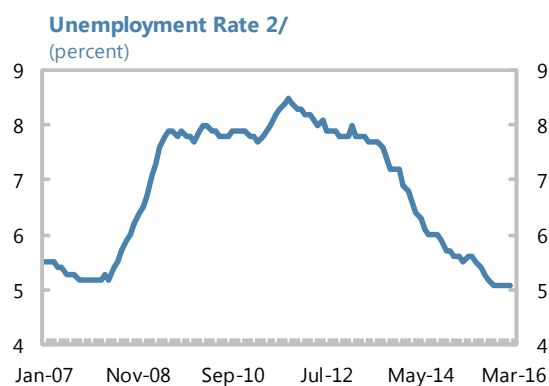
1/ Implied forward CPI inflation rate, 5 years ahead on inflation-indexed bonds, assuming RPI inflation exceeds CPI inflation by 1 percentage point.

**Figure 2. United Kingdom: Indicators of Spare Capacity**

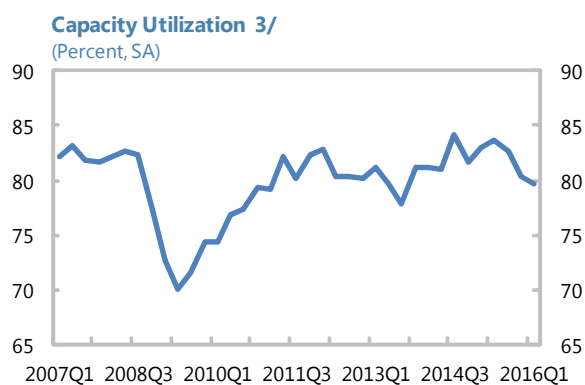
*The output gap is now essentially closed based on standard models ...*



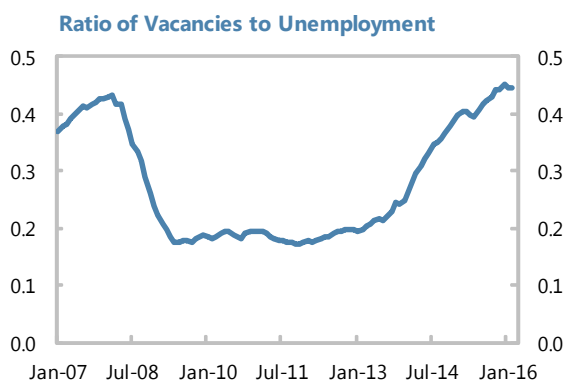
*... as is the unemployment gap.*



*Similarly, capacity utilization is back to pre-crisis levels...*



*... as is the ratio of vacancies to unemployment ...*



*... which has helped real earnings to rise.*



*However, there could still be some slight slack from underemployment of part-time workers.*

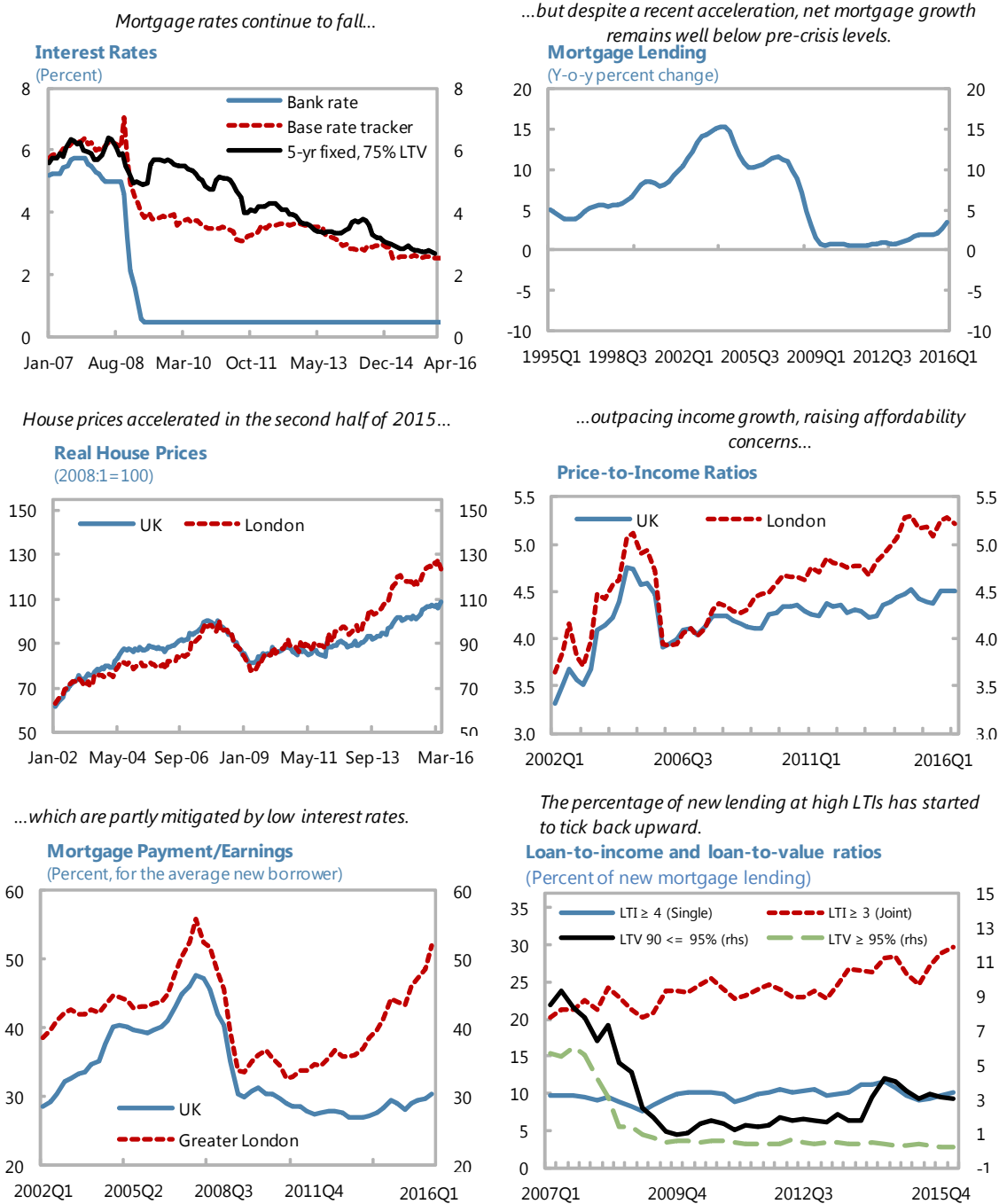


Sources: European Commission; Haver; ONS; and IMF staff calculations.

1/IMF staff estimate.

2/3-month centered moving average.

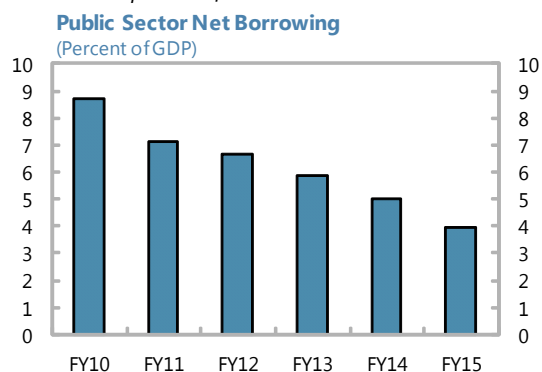
3/European Commission.

**Figure 3. United Kingdom: Housing Market Developments**

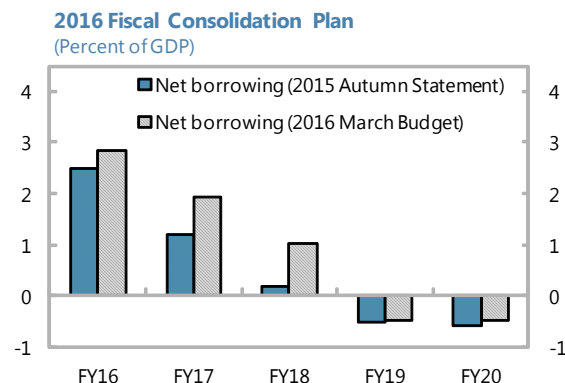
Sources: Haver; and IMF staff calculations.

**Figure 4. Fiscal Developments**

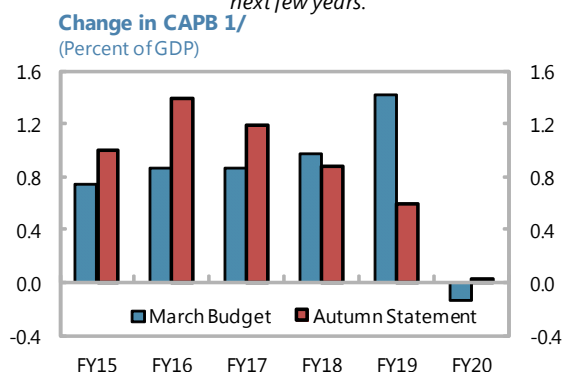
*Fiscal consolidation continues, with the deficit falling to about 4 percent of GDP in FY15.*



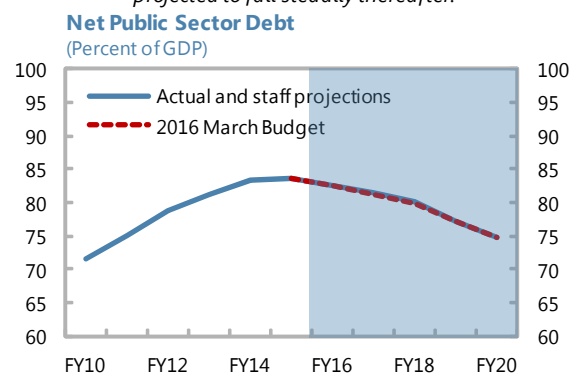
*However, the 2016 budget envisages higher near-term deficits than previously envisaged due to weaker growth prospects...*



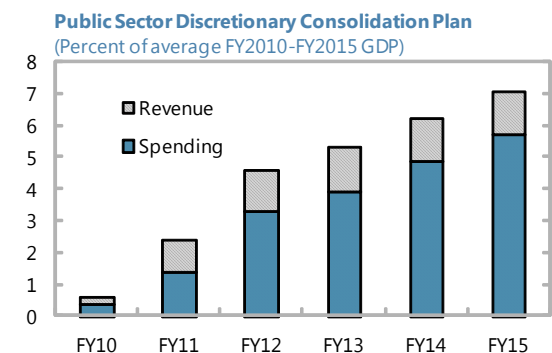
*...with a slower pace of structural adjustments in the next few years.*



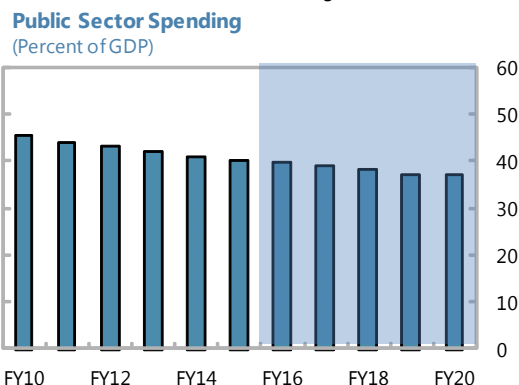
*The debt ratio is estimated to rise slightly in FY15, but projected to fall steadily thereafter.*



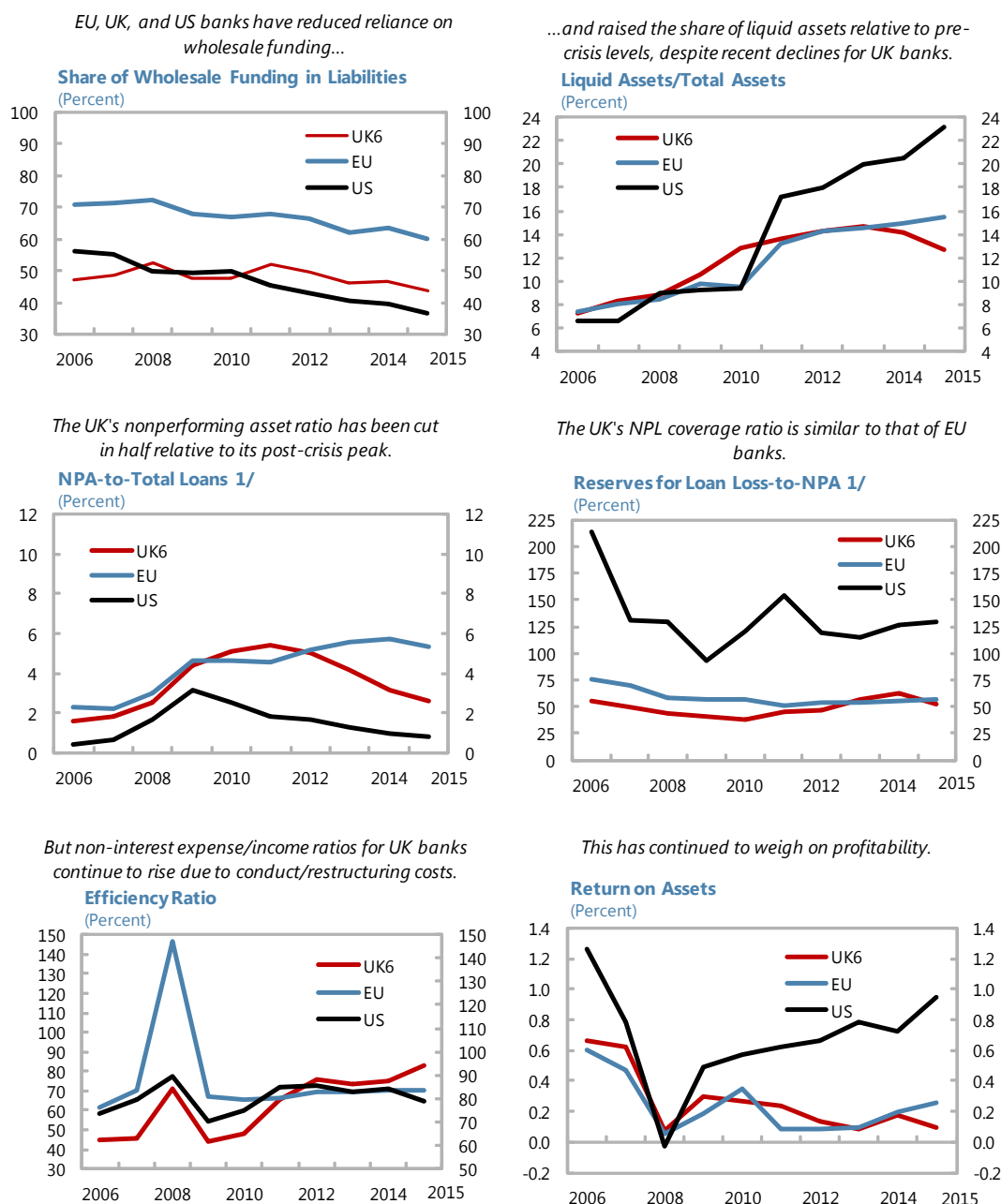
*The consolidation so far has been mainly driven by expenditure measures...*



*... and more spending cuts are planned with some sizable cuts in some categories.*



Sources: National authorities; and IMF staff projections.  
1/CAPB = Cyclically adjusted primary balance. OBR estimates.

**Figure 5. United Kingdom: Comparison of UK, EU, and US Banks**

Sources: Bloomberg; and IMF staff calculations.

Note: Ratios shown are not adjusted for accounting differences across regions (such as GAAP for US vs. IFRS for UK). UK refers to the average for HSBC, Barclays, RBS, LBG, Standard Chartered, NBS. EU and US indicators are weighted averages (by total assets) of the following major banks. *EU banks*: Cooperatieve Centrale Raiffeisen-Boerenleenbank, BNP Paribas, Credit Agricole, Societe Generale, Bayerische Landesbank, Commerzbank, Deutsche Bank, DZ Bank AG Deutsche Zentral-Genossenschaftsbank, LBBW, Credit Suisse Group, UBS, Banca Monte dei Paschi di Siena, Intesa Sanpaolo, UniCredit, Unione di Banche Italiane, Banco Bilbao Vizcaya Argentaria, Banco Popular Espanol, Banco Santander, Danske Bank, DNB, Nordea Bank, Skandinaviska Enskilda Banken, Svenska Handelsbanken and Swedbank. *US banks*: Bank of America, Bank of New York Mellon, BB&T, Citigroup, Goldman Sachs, JPMorgan Chase, Morgan Stanley, State Street Corp., SunTrust Banks and Wells Fargo.

1/ For US banks, FDIC series on commercial banks for "non-recurrent loans to total loans", and "coverage ratio" were used as proxies for the NPA-to-total loans and loan loss reserves to NPA, respectively.

**Table 1. United Kingdom: Selected Economic Indicators, 2012–17**

	2012	2013	2014	2015	2016	2017
					Projections	
<b>Real Economy</b> (change in percent)						
Real GDP	1.2	2.2	2.9	2.3	1.9	2.2
Private final domestic demand	2.1	2.3	3.4	3.1	2.4	2.5
CPI, end-period	2.7	2.0	0.9	0.1	1.3	1.9
Unemployment rate (in percent) 1/	8.0	7.6	6.2	5.4	5.0	5.0
Gross national saving (percent of GDP)	12.9	12.1	12.3	12.0	13.1	13.6
Gross domestic investment (percent of GDP)	16.2	16.6	17.4	17.2	18.4	18.6
<b>Public Finance</b> (fiscal year, percent of GDP) 2/						
Public sector overall balance	-6.7	-5.8	-5.0	-3.9	-2.9	-2.0
Public sector cyclically adjusted primary balance (staff estimates) 3/	-3.0	-2.7	-2.8	-2.1	-1.0	-0.1
Public sector net debt	78.9	81.1	83.4	83.5	82.6	81.5
<b>Money and Credit</b> (end-period, 12-month percent change)						
M4	-0.9	0.2	-1.1	0.3	...	...
Net lending to private sector	-0.2	0.9	1.5	2.0	3.0	4.0
<b>Interest rates</b> (percent; year average)						
Three-month interbank rate	0.8	0.5	0.5	0.6	...	...
Ten-year government bond yield	1.9	2.4	2.6	1.9	...	...
<b>Balance of Payments</b> (percent of GDP)						
Current account balance	-3.3	-4.5	-5.1	-5.2	-5.2	-5.0
Trade balance	-2.0	-2.0	-1.9	-2.0	-2.1	-2.1
Net exports of oil	-0.9	-0.6	-0.6	-0.4	-0.3	-0.3
Exports of goods and services (volume change in percent)	0.7	1.2	1.2	5.1	4.1	4.2
Imports of goods and services (volume change in percent)	2.9	2.8	2.4	6.3	3.9	3.7
Terms of trade (percent change)	0.8	1.7	1.1	0.7	-0.8	-0.2
FDI net	-1.3	-2.4	-4.5	-3.5	-2.6	-2.2
Reserves (end of period, billions of US dollars)	105.2	108.8	109.1	130.5	...	...
<b>Fund Position</b> (as of May 31, 2016)						
Holdings of currency (in percent of quota)						82.5
Holdings of SDRs (in percent of allocation)						70.2
Quota (in millions of SDRs)						20,155.1
<b>Exchange Rates</b>						
Exchange rate regime						Floating
Bilateral rate (May 31, 2016)					US\$1 = £0.6870	
Nominal effective rate (2010=100) 4/	103.5	101.0	107.3	114.4	...	...
Real effective rate (2010=100) 4/ 5/	106.8	105.8	113.7	121.8	...	...

Sources: Bank of England; IMF's International Finance Statistics; IMF's Information Notice System; HM Treasury; Office for National Statistics; and IMF staff estimates.

1/ ILO unemployment; based on Labor Force Survey data.

2/ The fiscal year begins in April. Data exclude the temporary effects of financial sector interventions. Debt stock data refers to the end of the fiscal year using centered-GDP as a denominator. There is a break in the series from 2014 on, reflecting the reclassification of housing associations as part of the public sector.

3/ In percent of potential output.

4/ Average. An increase denotes an appreciation.

5/ Based on relative consumer prices.

**Table 2. United Kingdom: Medium-Term Scenario, 2012–20**  
(Percentage change, unless otherwise indicated)

	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Projections								
Real GDP	1.2	2.2	2.9	2.3	1.9	2.2	2.2	2.1	2.1
Q4/Q4 1/	1.0	2.8	2.8	2.1	1.9	2.2	2.2	2.1	2.1
Real domestic demand	2.3	2.6	3.2	2.8	1.9	2.1	2.1	2.1	2.2
Private consumption	1.8	1.9	2.5	2.7	2.2	2.2	2.2	2.2	2.2
Government consumption	1.8	0.5	2.5	1.5	0.0	0.6	0.5	0.2	0.7
Fixed investment	1.5	2.6	7.3	4.1	2.6	3.7	3.6	3.7	4.1
Public	-6.8	-5.1	5.8	0.5	-2.0	1.7	-0.4	-0.2	6.7
Residential	-2.9	5.7	11.7	3.9	3.3	3.3	4.0	4.0	4.0
Business	5.1	2.3	4.7	5.2	2.9	4.7	5.0	5.0	4.0
Stocks 2/	0.4	0.7	0.2	-0.2	0.4	0.0	0.0	0.0	0.0
External balance 2/	-0.7	-0.5	-0.4	-0.5	-0.1	0.0	0.0	0.0	-0.1
Exports of Goods and Services	0.7	1.2	1.2	5.1	4.1	4.2	3.8	3.9	3.9
Imports of Goods and Services	2.9	2.8	2.4	6.3	3.9	3.7	3.5	3.6	4.0
Current account 3/	-3.3	-4.5	-5.1	-5.2	-5.2	-5.0	-4.9	-4.6	-4.7
CPI Inflation, period average	2.8	2.6	1.5	0.1	0.8	1.9	2.0	2.0	2.0
CPI Inflation, end period	2.7	2.0	0.9	0.1	1.3	1.9	2.0	2.0	2.0
GDP deflator, period average	1.6	2.0	1.8	0.3	1.6	1.7	1.8	1.9	2.0
Output gap 4/	-2.3	-1.7	-0.7	-0.2	-0.2	0.0	0.0	0.0	0.0
Potential output	1.5	1.5	1.8	1.9	1.8	2.0	2.2	2.2	2.1
Employment and productivity									
Employment	1.1	1.2	2.3	1.5	1.3	0.6	0.6	0.5	0.5
Unemployment rate 5/	8.0	7.6	6.2	5.4	5.0	5.0	5.1	5.3	5.3
Productivity 6/	0.1	1.0	0.6	0.8	0.6	1.6	1.6	1.6	1.6
Memorandum items:									
Private final domestic demand	2.1	2.3	3.4	3.1	2.4	2.5	2.6	2.6	2.5
Household saving rate 7/	8.8	6.3	5.4	4.3	4.7	4.6	4.4	4.3	4.3
Private saving rate	17.4	14.9	15.0	13.3	13.3	12.8	12.5	11.8	11.6
Credit to the private sector	-0.2	0.9	1.5	2.0	3.0	4.0	4.0	4.1	4.2

Sources: Office for National Statistics; and IMF staff estimates.

1/ Percentage change in quarterly real GDP in the fourth quarter on four quarters earlier.

2/ Contribution to the growth of GDP.

3/ In percent of GDP.

4/ In percent of potential GDP.

5/ In percent of labor force, period average; based on the Labor Force Survey.

6/ Whole economy, per worker.

7/ In percent of total household available resources.

**Table 3. United Kingdom: Public Sector Operations, 2010/11–20/21<sup>1/</sup>**  
(Percent of GDP, unless otherwise indicated)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
	2016 March Budget										
Revenue	36.6	36.8	36.3	36.0	35.7	36.3	36.9	36.9	37.0	37.5	37.4
Taxes	27.5	27.6	26.9	26.8	26.7	27.2	27.5	27.4	27.5	28.0	27.7
Social contributions	6.2	6.2	6.2	6.1	6.0	6.1	6.5	6.6	6.6	6.6	6.6
Other revenue	2.9	2.9	3.1	3.0	3.0	3.0	2.9	2.9	2.9	2.9	3.0
Of which: Interest income	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5
Expenditure	45.3	43.9	42.9	41.8	40.8	40.2	39.7	38.8	38.0	37.0	36.9
Expense	43.3	42.4	41.3	40.5	39.5	39.1	38.6	37.8	37.2	36.3	35.9
Consumption of fixed capital	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Interest	2.7	2.7	2.4	2.3	2.0	2.0	2.0	2.1	2.2	2.2	2.1
Others	38.5	37.6	36.7	36.1	35.4	34.9	34.4	33.5	32.8	32.0	31.6
Net acquisition of nonfinancial assets	2.0	1.5	1.7	1.3	1.3	1.1	1.2	1.0	0.8	0.7	1.0
Gross operating balance	-6.7	-5.6	-5.0	-4.5	-3.8	-2.7	-1.7	-0.9	-0.2	1.2	1.5
Net lending/borrowing (overall balance)	-8.7	-7.1	-6.7	-5.8	-5.0	-3.8	-2.9	-1.9	-1.0	0.5	0.5
Current balance 2/	-5.9	-5.0	-4.9	-4.0	-3.1	-2.1	-1.0	-0.2	0.6	1.9	2.3
Primary balance	-6.4	-4.7	-4.6	-3.9	-3.4	-2.2	-1.1	-0.1	0.9	2.2	2.1
Cyclically adjusted overall balance	-6.7	-5.2	-4.7	-4.3	-4.3	-3.6	-2.7	-1.9	-1.0	0.5	0.5
Cyclically adjusted current balance 2/	-3.9	-3.1	-2.9	-2.5	-2.4	-1.8	-0.9	-0.2	0.5	2.0	2.4
Cyclically adjusted primary balance (CAPB)	-4.4	-2.9	-2.6	-2.4	-2.6	-1.9	-1.0	-0.1	0.8	2.3	2.1
General government gross debt 3/	77.0	82.6	84.7	86.6	87.4	88.9	88.3	87.1	85.6	83.0	80.3
Public sector net debt 4/	71.7	75.2	78.9	81.1	83.3	83.7	82.6	81.3	79.9	77.2	74.7
Output gap (percent of potential)	-2.6	-2.8	-2.9	-2.0	-0.7	-0.3	-0.1	0.1	0.0	0.0	0.0
Real GDP growth (percent)	1.9	1.8	1.2	2.5	2.8	2.1	2.0	2.2	2.1	2.1	2.2
Nominal GDP (in billions of pounds)	1575.4	1628.9	1677.9	1755.9	1832.0	1876.0	1943.0	2021.0	2106.0	2189.0	2281.0
Potential GDP growth (percent)	1.2	2.0	1.3	1.6	1.6	1.7	1.8	2.0	2.2	2.1	2.2
	Staff projections										
Revenue	36.6	36.8	36.3	36.0	35.8	36.2	36.7	36.8	36.9	37.4	37.2
Taxes	27.5	27.6	26.9	26.8	26.7	27.1	27.4	27.3	27.4	27.8	27.6
Social contributions	6.2	6.2	6.2	6.1	6.0	6.1	6.5	6.6	6.6	6.6	6.6
Other revenue	2.9	2.9	3.1	3.0	3.0	3.0	2.9	2.9	2.9	2.9	3.0
Of which: Interest income	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5
Expenditure	45.3	43.9	42.9	41.8	40.8	40.2	39.6	38.8	38.0	36.9	36.8
Expense	43.3	42.4	41.3	40.5	39.5	39.0	38.4	37.7	37.2	36.2	35.8
Consumption of fixed capital	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Interest	2.7	2.7	2.4	2.3	2.0	2.0	2.0	2.1	2.2	2.2	2.1
Other	38.5	37.6	36.7	36.1	35.4	34.9	34.3	33.5	32.8	31.9	31.5
Net acquisition of nonfinancial assets	2.0	1.5	1.7	1.3	1.3	1.1	1.2	1.0	0.8	0.7	1.0
Gross operating balance	-6.7	-5.6	-5.0	-4.5	-3.7	-2.8	-1.7	-1.0	-0.3	1.2	1.5
Net lending/borrowing (overall balance)	-8.7	-7.1	-6.7	-5.8	-5.0	-3.9	-2.9	-2.0	-1.1	0.5	0.5
Current balance 2/	-5.9	-5.0	-4.9	-4.0	-3.1	-2.2	-1.0	-0.2	0.5	1.9	2.3
Primary balance	-6.4	-4.7	-4.6	-3.9	-3.3	-2.3	-1.1	-0.2	0.8	2.2	2.1
Cyclically adjusted overall balance	-6.9	-5.6	-5.1	-4.7	-4.5	-3.7	-2.7	-1.9	-1.1	0.5	0.5
Cyclically adjusted current balance 2/	-4.2	-3.5	-3.3	-2.9	-2.6	-2.0	-0.9	-0.2	0.5	1.9	2.3
Cyclically adjusted primary balance (CAPB)	-4.6	-3.3	-3.1	-2.8	-2.8	-2.1	-1.0	-0.1	0.8	2.2	2.1
CAPB (percent of potential GDP)	-4.5	-3.2	-3.0	-2.7	-2.8	-2.1	-1.0	-0.1	0.8	2.2	2.1
General government gross debt 3/	77.0	82.6	84.7	86.6	87.4	87.8	87.0	85.8	84.2	81.4	78.7
Public sector net debt 4/	71.7	75.2	78.9	81.1	83.4	83.5	82.6	81.5	80.0	77.3	74.8
Output gap (percent of potential)	-2.3	-2.0	-2.0	-1.2	-0.3	-0.3	-0.1	0.0	0.0	0.0	0.0
Real GDP growth (percent)	1.9	1.8	1.2	2.5	2.8	2.2	1.9	2.2	2.2	2.1	2.1
Nominal GDP (in billions of pounds)	1575.4	1628.9	1677.9	1755.9	1831.9	1884.6	1965.7	2047.5	2135.5	2228.4	2328.1
Potential GDP growth (percent)	1.2	1.5	1.5	1.6	1.9	1.9	1.8	2.1	2.2	2.2	2.1

Sources: HM Treasury; Office for National Statistics; and IMF staff estimates.

1/ Excludes the temporary effects of financial sector interventions, as well as the one-off effect on public sector net investment in 2012/13 of transferring assets from the Royal Mail Pension Plan to the public sector, unless otherwise noted.

The data reflect the reclassification of housing associations as part of the public sector starting from 2014/15.

2/ Includes depreciation.

3/ On a Maastricht treaty basis. Includes temporary effects of financial sector intervention.

4/ End of fiscal year using centered-GDP as the denominator.

**Table 4. United Kingdom: General Government Operations, 2008–14**  
(Percent of GDP)

	2008	2009	2010	2011	2012	2013	2014
Revenue	41.5	38.8	39.1	39.2	38.4	39.2	38.2
Taxes	29.4	26.6	27.4	27.8	27.1	27.0	26.6
Social contributions	8.1	8.1	8.0	7.9	7.9	7.8	7.6
Other	4.0	4.1	3.7	3.5	3.5	4.5	4.0
Expense	46.6	49.6	48.8	46.9	46.8	44.9	43.9
Expense	44.9	47.8	47.2	45.6	45.7	44.0	42.9
Compensation of employees	10.6	11.2	11.1	10.6	10.3	9.6	9.5
Use of goods and services	11.6	12.6	12.1	11.5	11.4	11.3	11.1
Consumption of fixed capital	1.4	1.5	1.5	1.6	1.6	1.6	1.6
Interest	2.2	1.9	2.9	3.2	2.9	2.9	2.7
Subsidies	0.6	0.6	0.6	0.5	0.5	0.5	0.6
Social benefits	12.9	14.7	14.6	14.5	14.8	14.5	14.1
Other	5.6	5.3	4.4	3.8	4.2	3.6	3.3
Net acquisition of nonfinancial assets	1.6	1.8	1.6	1.3	1.1	0.9	1.0
Consumption of fixed capital	-1.4	-1.5	-1.5	-1.6	-1.6	-1.6	-1.6
Gross operating balance	-2.0	-7.4	-6.5	-4.8	-5.7	-3.2	-3.1
Net operating balance	-3.4	-9.0	-8.1	-6.4	-7.3	-4.7	-4.7
Net lending/borrowing (overall balance)	-5.1	-10.8	-9.7	-7.7	-8.3	-5.7	-5.7
Net financial transactions	-5.6	-10.3	-10.1	-7.6	-8.1	-5.8	-5.6
Net Acquisition of Financial assets	4.5	3.7	0.2	0.7	0.7	-1.3	0.7
Currency and deposits	0.8	0.2	-0.8	0.7	0.2	0.3	0.4
Securities other than shares	0.3	-0.5	0.4	0.5	0.1	-0.2	0.3
Loans	1.5	0.8	0.6	-0.2	0.3	0.1	0.3
Shares and other equity	0.6	2.4	0.0	-0.1	0.1	-1.7	-0.5
Insurance technical reserves	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial derivatives	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Other accounts receivable	1.3	0.2	0.1	-0.3	0.0	0.2	0.1
Monetary gold and SDRs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Incurrence of Liabilities	10.2	14.1	10.2	8.2	8.8	4.5	6.3
Currency and deposits	1.3	0.5	-0.3	0.5	-0.2	-0.4	1.0
Securities other than shares	7.4	14.8	10.5	8.0	6.6	4.6	4.8
Loans	0.6	-2.0	-0.1	-0.1	0.1	0.0	0.1
Shares and other equity	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Insurance technical reserves	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Financial derivatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other accounts receivable	0.8	0.1	0.0	-0.3	2.2	0.2	0.3

Source: IMF's International Finance Statistics.

**Table 5. United Kingdom: General Government Stock Positions, 2008–14**  
(Percent of GDP)

	2008	2009	2010	2011	2012	2013	2014
Net worth	...	...	...	...	...	...	...
Nonfinancial assets	...	...	...	...	...	...	...
Net financial worth	-40.8	-50.4	-54.8	-70.2	-72.4	-70.7	-82.4
Financial assets	25.0	28.9	35.8	33.9	35.4	32.7	32.2
Currency and deposits	4.1	4.4	4.1	4.7	4.7	4.6	4.5
Securities other than shares	2.7	2.0	3.0	3.3	3.2	2.8	3.0
Loans	3.8	4.7	9.5	9.0	9.0	8.6	8.5
Shares and other equity	9.6	11.8	12.7	11.1	12.8	11.3	11.0
Insurance technical reserves	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Financial derivatives	-0.2	0.0	0.1	0.2	0.2	0.2	0.1
Other accounts receivable	4.5	4.8	5.0	4.4	4.3	4.2	4.1
Monetary gold and SDRs	0.4	1.1	1.2	1.2	1.2	0.9	0.9
Liabilities	65.8	79.3	90.6	104.2	107.8	103.3	114.7
Currency and deposits	8.0	8.6	8.2	8.4	8.0	7.3	7.9
Securities other than shares	44.6	59.2	72.6	86.0	88.9	85.6	96.2
Loans	4.0	1.9	1.7	1.7	1.6	1.6	1.6
Shares and other equity	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Insurance technical reserves	6.6	6.2	4.8	5.2	4.4	3.6	3.1
Financial derivatives	0.0	0.0	0.2	0.2	0.1	0.1	0.1
Other accounts payable	2.5	2.6	2.5	2.0	4.2	4.5	5.2

Source: IMF's International Finance Statistics.

**Table 6. United Kingdom: Balance of Payments, 2012–20**  
(Percent of GDP)

	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Projections								
<b>Current account</b>	-3.3	-4.5	-5.1	-5.2	-5.2	-5.0	-4.9	-4.6	-4.7
Balance on goods and services	-2.0	-2.0	-1.9	-2.0	-2.1	-2.1	-2.1	-2.0	-2.1
Trade in goods	-6.4	-6.6	-6.8	-6.7	-6.8	-7.0	-7.0	-7.0	-7.1
Exports	18.3	17.7	16.2	15.3	15.0	15.4	15.6	15.8	15.9
Imports	-24.7	-24.3	-22.9	-22.0	-21.8	-22.4	-22.6	-22.8	-23.0
Trade in services	4.4	4.7	4.9	4.8	4.7	4.9	4.9	5.0	5.0
Exports	11.9	12.4	12.1	12.1	12.1	12.4	12.5	12.7	12.8
Imports	-7.5	-7.7	-7.2	-7.4	-7.4	-7.5	-7.6	-7.7	-7.8
Primary income balance	0.1	-1.0	-1.8	-1.9	-1.8	-1.6	-1.4	-1.3	-1.3
Secondary income balance	-1.3	-1.5	-1.4	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3
<b>Capital and financial account</b>	-2.7	-4.0	-5.6	-5.1	-5.2	-5.0	-4.9	-4.6	-4.7
Capital account	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
Financial account	-2.7	-4.0	-5.6	-5.0	-5.2	-5.0	-4.8	-4.6	-4.7
Direct investment	-1.3	-2.4	-4.5	-3.5	-2.6	-2.2	-2.1	-2.1	-2.1
Abroad	0.5	-1.1	-2.9	-1.5	-0.5	0.0	0.2	0.3	0.4
Domestic	1.8	1.4	1.6	2.0	2.1	2.2	2.3	2.4	2.5
Portfolio investment	12.8	-2.9	-6.3	-14.4	0.0	0.0	0.0	0.0	0.0
Financial derivatives	-1.8	0.8	-0.8	-1.8	-0.6	-0.8	-0.6	-0.8	-0.8
Other investment	-12.8	0.3	5.7	13.6	-2.4	-2.5	-2.6	-2.2	-2.3
Change in reserve assets	0.5	0.3	0.4	1.1	0.5	0.5	0.5	0.5	0.5
Net errors and omissions	0.6	0.5	-0.5	0.1	0.0	0.0	0.0	0.0	0.0

Sources: Office for National Statistics; and IMF staff estimates.

**Table 7. United Kingdom: Net International Investment Position, 2010–15 <sup>1/</sup>**  
(Percent of GDP)

	2010	2011	2012	2013	2014	2015
Net investment position	-8.2	-7.5	-20.9	-14.1	-23.7	-3.5
Assets	654.5	688.0	632.3	558.2	560.9	531.5
Liabilities	662.7	695.5	653.1	572.3	584.7	535.0
Net direct investment	21.3	19.2	6.3	3.1	-8.1	2.9
Direct investment abroad	81.8	80.1	81.0	73.1	67.5	73.8
Direct investment in the UK	60.5	60.9	74.6	69.9	75.7	70.9
Net Portfolio investment	-27.1	-23.8	-10.9	-2.1	-4.2	-8.6
Portfolio investment abroad	137.8	131.6	141.0	140.8	140.1	138.0
Portfolio investment in the UK	164.9	155.3	151.9	142.9	144.4	146.6
Net financial derivatives	4.4	3.9	1.7	2.7	1.2	-0.6
Assets	190.5	223.4	183.8	139.7	155.7	130.4
Liabilities	186.1	219.5	182.1	137.0	154.4	130.9
Net other investment	-9.9	-10.3	-21.6	-21.4	-16.3	-2.0
Other investment abroad	241.3	249.4	222.9	201.0	193.9	184.6
Other investment in the UK	251.1	259.7	244.5	222.4	210.2	186.6
Reserve assets	3.2	3.5	3.7	3.5	3.7	4.7
Memorandum items:						
Change in the net investment position	6.4	0.3	-13.6	6.0	-10.3	19.6
Current account balance	-2.8	-1.7	-3.3	-4.5	-5.1	-5.2

Source: Office for National Statistics.

<sup>1/</sup> Data correspond to the end of the indicated period, expressed as a percent of the cumulated GDP of the four preceding quarters.

Table 8. Monetary Survey, 2011–15 <sup>1/</sup>

	2011	2012	2013	2014	2015
	Billions of GBP				
<b>Bank of England contribution to consolidated MFIs' balance sheet</b>					
Net foreign assets	-7.6	-25.6	-9.2	-9.6	-12.5
Net domestic assets	181.3	295.1	320.8	319.8	317.8
Net claims on public sector	281.3	396.4	374.5	406.2	399.7
Net claims on private sector	-51.7	-52.6	-55.8	-53.7	-57.2
Other items, net	-48.2	-48.7	2.1	-32.8	-24.7
Base money	227.1	336.8	365.8	370.9	386.0
Notes and coins in circulation	63.1	65.6	68.6	72.4	75.8
Bank reserves	164.0	271.1	297.2	298.5	310.1
<b>MFIs' consolidated balance sheet (excluding Bank of England)</b>					
Net foreign assets	176.1	206.1	145.7	245.2	285.9
Net domestic assets	-349.9	-475.7	-457.4	-555.4	-591.1
Net claims on public sector	92.2	66.1	92.7	116.0	113.1
Net claims on private sector	371.0	273.8	180.4	74.7	28.3
Other items, net	-813.0	-815.6	-730.5	-746.1	-732.6
Deposits	7269.1	6945.2	6622.9	6280.0	6149.9
Sterling	3113.3	3160.2	3193.5	2888.4	2915.1
Foreign currency	4155.8	3785.0	3429.4	3391.5	3234.8
<b>MFIs' consolidated balance sheet</b>					
Net foreign assets	168.5	180.5	136.6	235.6	273.4
Net domestic assets	-168.5	-180.5	-136.6	-235.6	-273.4
Net claims on public sector	373.4	462.6	467.2	522.2	512.7
Net claims on private sector	319.3	221.2	124.6	21.0	-28.9
Other items, net	-861.3	-864.3	-728.3	-778.8	-757.2
Broad money (M4)	2089.8	2091.5	2106.3	2104.9	2118.8
<b>Memorandum items</b>					
MFI lending to individuals	1133.7	1148.5	1157.8	1191.4	1232.2
Total lending to individuals	1364.3	1383.5	1396.4	1426.2	1458.2
Secured on dwellings	1202.7	1225.2	1236.7	1255.9	1278.1
Consumer loans	161.6	158.3	159.7	170.2	180.1
Nonfinancial corporations -- total liabilities	1393.9	1472.0	1403.1	1363.2	1382.6
Loans	1056.6	1111.5	1021.7	1003.2	1027.3
Debt securities	337.3	360.5	381.4	360.0	355.2
Central government total international reserves	60.5	65.0	65.8	69.9	88.1
Central government foreign currency reserves	32.1	37.0	40.0	46.2	64.2
	(percent change)				
Base money	17.6	48.3	8.6	1.4	4.1
Broad money (M4)	-3.1	0.1	0.7	-0.1	0.7
MFI lending to individuals	0.0	1.3	0.8	2.9	3.4
Total lending to individuals	-0.6	1.4	0.9	2.1	2.2
Secured on dwellings	0.3	1.9	0.9	1.6	1.8
Consumer loans	-7.0	-2.0	0.9	6.6	5.8
Nonfinancial corporations -- total liabilities	1.1	5.6	-4.7	-2.8	1.4
Loans	-1.5	5.2	-8.1	-1.8	2.4
Debt securities	10.4	6.9	5.8	-5.6	-1.3
Deposit growth	1.7	-4.5	-4.6	-5.2	-2.1
	(percent of GDP, unless otherwise noted)				
Broad money (M4)	129.0	125.6	121.4	115.8	113.6
MFI lending to private sector	135.2	135.7	125.6	120.8	121.2
Total lending to private sector	170.3	171.5	161.4	153.5	152.3
Broad money Velocity (GDP/M4)	0.77	0.80	0.82	0.86	0.88
Money multiplier (M4/base money)	9.2	6.2	5.8	5.7	5.5

1/ Source: Haver Analytics and Fund staff calculations.

## Annex I. External Sector Assessment

	United Kingdom	Overall Assessment
<b>Foreign asset and liability position and trajectory</b>	<p><b>Background.</b> The net international investment position (NIIP) stood at -3.5 percent of GDP at end-2015. Staff projections for the current account and GDP suggest that the official NIIP to GDP ratio would fall moderately over the medium term, though the importance of uncertain valuation effects implies significant uncertainty to these estimates.<sup>1/</sup> Gross assets and liabilities are more than 500 percent of GDP, reflecting the international activities of large financial institutions.</p> <p><b>Assessment.</b> The NIIP and sustainability issues are not yet a concern. But fluctuations in the underlying gross positions are a source of external vulnerability to the extent that they could lead to large changes in the net position.</p>	<p><b>Overall Assessment:</b></p> <p><i>The external position in 2015 was weaker than implied by medium-term fundamentals and desirable policy settings.</i></p> <p>External deficits reflect insufficient public and private saving rates. The REER depreciation that has occurred in early 2016 goes in the direction of reducing overvaluation. However, uncertainty about the outcome of the forthcoming referendum and its possible effects on growth, trade flows, and the labor market have created a wider range of uncertainty in assessing the external position.</p> <p><b>Potential policy responses:</b></p> <p>Sustaining strong and durable growth in the UK requires rebalancing toward greater reliance on external demand. The current fiscal</p>
<b>Current account</b>	<p><b>Background.</b> During the recovery from the crisis, the CA balance deteriorated from -1.7 percent of GDP in 2011 to -5.1 percent of GDP in 2014. The decline in the CA balance was accounted for primarily by a lower income balance, reflecting a fall in earnings on the UK's foreign direct investment abroad, notably earnings on investment exposed to the euro area. In contrast, the trade balance has been stable at around -2 percent of GDP. In 2015, the current account balance stayed broadly unchanged at -5.2 percent of GDP. Terms of trade effects have been negligible.</p> <p>From a savings-investment perspective, the current account deficit partly reflects a relatively high general government deficit (4.4 percent of GDP in 2015) and a low household saving rate (4.3 percent in 2015).</p> <p><b>Assessment.</b> The EBA CA regression approach estimates a CA gap of -4.2 percent of GDP for 2015. However, the post-crisis deterioration in the income balance is not expected to be all permanent, suggesting a smaller underlying CA deficit and smaller CA gap than implied by the EBA model. <sup>2/</sup> In comparison to previous years, the CA assessment is also subject to a wider margin of uncertainty due to uncertainty about the outcome of the June 2016 referendum on EU membership and its possible effects on projected current accounts and the CA norm. Taking this and other factors (such as the CA gaps implied by the REER regressions discussed below) into account, staff assesses the 2015 cyclically-adjusted CA balance to be 1.5 to 4.5 percent of GDP weaker than the current account norm.</p>	

<b>Real exchange rate</b>	<p><b>Background.</b> The UK's average REER for 2015 was 15 percent more appreciated than in 2013. This appreciation may reflect the UK's relatively strong domestic demand and differences in interest rates (both current and prospective) between the UK and many advanced economies. However, as of April 2016, the REER had depreciated 7 percent relative to its average for 2015, which may reflect some unwinding of the overvaluation in 2015, as well as heightened uncertainty ahead of the June 2016 referendum.</p> <p><b>Assessment.</b> For 2015, the EBA exchange rate assessment implied by the EBA CA regression model indicates an overvaluation of 18 percent. Both EBA REER regressions estimate an overvaluation of 12 percent. Staff assesses the 2015 REER as 5 to 20 percent above the level consistent with fundamentals and desirable policy settings; this assessment is informed by and consistent with the staff's CA assessment.</p>	<p>consolidation plan implemented within a medium-term framework and an accommodative monetary policy stance contribute to the goal of external rebalancing. Further structural reforms focused on broadening the skill base and investing in public infrastructure will boost productivity, improving the competitiveness of the economy. Ensuring that macroprudential policies remain sufficiently tight to maintain financial stability should also support private-sector saving.</p>
<b>Capital and financial accounts</b>	<p><b>Background.</b> Given the UK's role as an international financial center, portfolio investment and financial derivatives are the key components of the financial account.</p> <p><b>Assessment.</b> Large fluctuations in capital flows are inherent to financial transactions in countries with a large financial services sector. This volatility is a potential source of vulnerability.</p>	
<b>FX intervention and reserves level</b>	<p><b>Background.</b> The pound has the status of a global reserve currency.</p> <p><b>Assessment.</b> Reserves held by the UK are typically low relative to standard metrics, and the currency is free floating.</p>	
<b>Technical Background Notes</b>	<p>1/ The official NIIP data might understate the true position—attempts to value FDI at market values suggest a higher NIIP. Market value estimates of FDI assets assume that values move in line with equity market indices in the UK and abroad. These estimates are uncertain, as actual FDI market values could evolve differently from equity markets.</p> <p>2/ The income balance is expected to rise somewhat as net returns on foreign investments rise as unusually low returns partially mean-revert. See the February 2016 UK Selected Issues paper for further discussion.</p>	

Annex II. Risk Assessment Matrix<sup>1</sup>

Source of Risks and Relative Likelihood	Expected Impact of Risk	Policy Recommendation if Risk Occurs
<p><b>High</b></p> <p><b>British voters elect to leave the EU</b> in their June 23rd referendum, with subsequent renegotiation of cross-border trade, financial, and migration relationships. A period of elevated financial volatility and heightened uncertainty could ensue, with potential contagion. The economic performance of affected countries could also diminish in the long run due to increased barriers. Support for eurosceptic parties and resistance to economic integration may also increase.</p>	<p><b>High</b></p> <ul style="list-style-type: none"> <li>• An exit could pose major challenges for the UK and the rest of Europe, with potential contagion elsewhere.</li> <li>• In the short run, an exit could trigger an adverse market reaction, with sterling depreciating, UK asset prices falling, and borrowing costs for firms and households rising.</li> <li>• Over the medium term, heightened uncertainty due to protracted negotiations on new arrangements could weigh on confidence and investment.</li> <li>• In the long run, economic performance would also likely diminish due to increased barriers that lessen the benefits from economic integration.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to allow liquidity policies to be a backstop against market volatility.</li> <li>• The scope for macroeconomic policies to cushion a fall in economic activity will depend on an assessment of supply and demand and the extent to which longer-run inflation expectations remain well-anchored.</li> <li>• Re-double efforts to secure benefits of economic cooperation and trade.</li> </ul>

<sup>1</sup> The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly.

<p style="text-align: center;"><b>Medium</b></p> <p><b>Tighter or more volatile global financial conditions:</b></p> <ul style="list-style-type: none"> <li>• <b>Sharp asset price decline and decompression of credit spreads</b> as investors reassess underlying risk and respond to unanticipated changes in growth and financial fundamentals in large economies, Fed policy rate path, and increases in U.S. term premia, with poor market liquidity amplifying volatility (short-term).</li> </ul>	<p style="text-align: center;"><b>High</b></p> <ul style="list-style-type: none"> <li>• Tightened financial conditions and market discontinuity.</li> <li>• Depressed investment, consumption, and GDP growth due to increased uncertainty.</li> <li>• Sharp reduction in asset and house prices (including from reduced demand from foreigners), suppressing aggregate demand.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue with accommodative monetary policy—including, if necessary, rate cuts and restarting QE—to offset market volatility.</li> <li>• Allow automatic fiscal stabilizers to operate; ease fiscal path if growth slows sharply.</li> <li>• Continue to allow liquidity policies to be a backstop against market volatility.</li> </ul>
<p style="text-align: center;"><b>Low-Medium / Medium / High-Medium</b></p> <p><b>Sharper-than-expected global growth slowdown:</b></p> <ul style="list-style-type: none"> <li>• <b>Significant China slowdown</b>, triggered by corporate distress that propagates through shadow banks, precipitating deleveraging, uncertainty and capital outflows. Weak domestic demand further suppresses commodity prices, roils global financial markets, and reduces global growth (<b>low</b> in short-term, <b>medium</b> thereafter)</li> <li>• <b>Significant slowdown in other large EMs/frontier economies.</b> Turning of the credit cycle and fallout from excess household and corporate leverage (incl. in FX) as investors withdraw from EM corporate debt, generating disorderly deleveraging, with potential spillbacks to advanced economies (<b>medium</b> in short-term)</li> <li>• <b>Structurally weak growth in key advanced and emerging economies.</b> Weak demand and persistently low inflation from a failure to fully address crisis legacies and undertake structural reforms, leading to low medium-term growth and persisting financial imbalances in the Euro area and Japan (<b>high</b> likelihood).</li> </ul>	<p style="text-align: center;"><b>Medium</b> (China or EM slowdown) / <b>High</b> (structurally weak growth in key advanced economies)</p> <ul style="list-style-type: none"> <li>• Slowdown in GDP growth.</li> <li>• Persistently low real interest rates complicating the operation of monetary policy due to effective lower bound problems.</li> <li>• Widening of the current account deficit.</li> <li>• A China slowdown's effects via trade may be limited, as China accounts for only 3½ percent of UK exports. Financial sector linkages are somewhat stronger. However, the BoE's stress tests released in December 2015 indicate that the UK banking system's core functions can withstand a severe downturn in China and EMs along with lower growth in the euro area.</li> </ul>	<ul style="list-style-type: none"> <li>• Ease monetary policy to support demand, including via further use of unconventional tools if necessary.</li> <li>• Allow automatic fiscal stabilizers to operate; ease fiscal path if growth slows sharply.</li> <li>• Implement structural policies to boost investment, productivity and competitiveness.</li> <li>• Continue to allow liquidity policies to be a backstop against market volatility.</li> </ul>

Easy global financial conditions coming to an end and insufficient reform progress undermine medium-term growth in emerging markets and suppress commodity prices ( <b>medium</b> likelihood).		
<b>High</b> <b>Persistently lower energy prices</b> , triggered by supply factors reversing only gradually.	<b>Low</b> <ul style="list-style-type: none"><li>Lower energy prices may boost disposable income and consumption, but weigh on investment in the energy sector.</li><li>Headline inflation may be lower for longer.</li></ul>	<ul style="list-style-type: none"><li>If persistently low energy prices produce second-round effects that depress medium-term inflation expectations and core price-setting behavior, monetary policy may need to be accommodative for longer.</li></ul>
<b>Medium</b> <b>Protracted period of stagnant productivity:</b> <ul style="list-style-type: none"><li>The incipient recovery in productivity growth halts, followed by further protracted stagnation.</li></ul>	<b>High</b> <ul style="list-style-type: none"><li>Increase in unit labor costs, causing inflation to rise faster than expected.</li><li>Loss of competitiveness.</li><li>Slowdown of GDP growth.</li></ul>	<ul style="list-style-type: none"><li>Accelerate the implementation of productivity-enhancing structural reforms.</li><li>Tighten monetary policy if earnings increase ahead of productivity.</li></ul>
<b>Medium</b> <b>Financial stability risks arising from the housing market:</b> <ul style="list-style-type: none"><li>A rapid rise in house price-to-income ratios driven by increased leverage would raise the vulnerability of banks and households to adverse shocks to house prices, income, and interest rates.</li></ul>	<b>High</b> <ul style="list-style-type: none"><li>Increased household leverage.</li><li>Rapid growth of mortgage credit.</li><li>Higher exposure of the financial system to the housing market.</li></ul>	<ul style="list-style-type: none"><li>Tighten macroprudential policy (e.g., LTI and LTV limits).</li><li>Tighten parameters of Help-to-Buy by restricting the qualification criteria.</li></ul>
<b>Medium</b> <b>The current account deficit does not decline over the medium term:</b> <ul style="list-style-type: none"><li>Yields on foreign investments could remain depressed, hampering adjustment of the net income balance, and</li></ul>	<b>Low</b> <ul style="list-style-type: none"><li>A build-up of large external imbalances would raise risks of abrupt capital outflows that could reduce business investment and economic activity.</li></ul>	<ul style="list-style-type: none"><li>If the current account fails to adjust, re-double efforts to boost productivity through structural reforms and raise saving via the fiscal</li></ul>

<p>external adjustment arising from the policy mix of tight fiscal and loose monetary might not be adequate to offset this.</p>	<ul style="list-style-type: none"> <li>• Large external imbalances also raise risks of a sharp currency depreciation that yields a burst of inflation. However, this risk is mitigated by the BoE's inflation-targeting framework and by well-anchored inflation expectations, which should allow the BoE to mostly look through the inflationary effects of a one-off depreciation.</li> <li>• Aggregate balance sheet effects of sterling depreciation should also be positive, but dislocations could occur in specific sectors/institutions.</li> </ul>	<p>and monetary mix (i.e., further tighten fiscal policy; this would allow looser monetary policy, thereby facilitating adjustment of sterling overvaluation and external imbalances). Ensuring that macroprudential policies are sufficiently tight to maintain financial stability should also support private sector saving.</p>
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## Annex III. Debt Sustainability Analysis<sup>1</sup>

Public sector gross debt stands at about 92 percent of GDP in FY15/16 and is projected to decline steadily to around 78 percent of GDP by FY21/22. Fiscal consolidation will need to continue in the medium term to ensure the debt ratio stays on a downward path and to rebuild buffers over time. All debt profile vulnerabilities are below early warning benchmarks, but the projected debt trajectory is susceptible to various shocks, especially a negative real GDP growth shock.

### Baseline and Realism of Projections

- **Macroeconomic assumptions.** Real GDP in FY16/17 is projected to grow by 1.9 percent, supported by private domestic demand. In subsequent years, growth is projected to stay around 2.1 percent. Inflation is projected to gradually rise closer to 2.0 percent in the medium term. Short-term interest rates are projected to start rising several years from now, gradually increasing by a total of 70 basis points by FY21/22.
- **Fiscal adjustment.** The authorities aim to eliminate the overall budget deficit by FY19/20. In staff's baseline projections, the primary balance strengthens over the medium term from a deficit of 1.0 percent of GDP in FY16/17 to a surplus of 2.3 percent of GDP in FY21/22.
- **Heat map and debt profile vulnerabilities.** Risks from the debt level are deemed high by DSA standards, as the level of debt exceeds the benchmark of 85 percent of GDP under the baseline and stress scenarios. However, gross financing needs—estimated at around 11 percent of GDP in FY15/16—remain comfortably below the benchmark of 20 percent of GDP, and all debt profile vulnerability indicators are below early warning thresholds.<sup>2</sup> Interest rates and CDS spreads also suggest that markets view debt vulnerabilities as low.
- **Realism of baseline assumptions.** The median forecast errors for real GDP growth and inflation (actual minus projection) during FY07/08–FY15/16 are -0.2 percent and -0.4 percent, respectively, suggesting a slight upward bias in staff's past projections. The median forecast error for the primary balance is -0.3 percent of GDP, suggesting that staff projections have been slightly optimistic. The cross-country experience suggests that the envisaged CAPB adjustment of about 3.5 percentage points of GDP in FY17/18–FY19/20 appears to be slightly ambitious. However, given the authorities' commitment to fiscal consolidation, the path appears credible provided that output continues to grow in line with the baseline projections.

<sup>1</sup> The data are presented on fiscal year (April–March) basis with ratios calculated using fiscal year GDP (not centered-fiscal year GDP). Public debt series include housing associations starting from FY08/09.

<sup>2</sup> Gross financing needs are defined as overall new borrowing requirement plus debt maturing during the year (including short-term debt).

## Shocks and Stress Tests

The DSA suggests that medium-term debt dynamics are not highly sensitive to interest rate shocks given the long average maturity of government debt (about 14 years), but remain susceptible to growth shocks.

- **Growth shock.** In this scenario, real output growth rates are lowered by one standard deviation in FY17/18 and FY18/19 (the cumulative growth shock is nearly as much as the cumulative growth shock in the adverse scenario in the accompanying Selected Issues paper, though the latter contains additional effects beyond GDP shocks). The primary balance improves more slowly than in the baseline, reaching a surplus of 0.4 percent of GDP only in FY19/20. Under these assumptions, the debt-to-GDP ratio rises to about 93 percent of GDP by FY18/19 and declines only gradually thereafter. Gross financing needs rise slightly to about 11 percent of GDP by FY18/19 and stays at a similar level through FY21/22.
- **Primary balance shock.** This scenario assumes that fiscal consolidation stalls between FY16/17 and FY17/18, with no change in the primary balance. The debt-to-GDP ratio falls more slowly than the baseline, reaching about 81 percent of GDP by FY21/22, roughly 3 percentage points of GDP higher than the baseline. Gross financing needs also rise to around 10 percent of GDP by FY17/18.
- **Interest rate shock.** In this scenario, a 215 basis points increase in interest rates is assumed from FY17/18 on. The effective interest rate edges up to 3.2 percent by FY21/22, but only ½ percentage points higher than the baseline. The impacts on debt and gross financing needs are expected to be mild.
- **Combined macro-fiscal scenario.** This scenario aggregates shocks to real growth, the interest rate, and the primary balance. Under these assumptions, the debt-to-GDP ratio reaches close to 95 percent of GDP in FY18/19 and declines only gradually to around 91 percent of GDP by FY21/22. Gross financing needs would rise to 12 percent by FY21/22.
- **Contingent fiscal shock.** This scenario assumes, hypothetically, that a banking crisis leads to one-time bail out of the financial sector, raising non-interest expenditure by 3 percent of banking sector assets in FY17/18. Real GDP is also reduced by one standard deviation for two years. Under this hypothetical scenario, the debt-to-GDP ratio would rise to 103 percent of GDP in FY18/19, and gross financing needs would reach 20 percent of GDP at their peak.
- **Stagnant growth and low inflation scenario.** This scenario assumes that real growth would slow and remain stagnant while inflation also stays well below the inflation target throughout the projection period. This event could be triggered by globally weak demand and persistently low inflation in advanced economies. With subdued growth rates, the revenue-to-GDP ratio would be lower than in the baseline by one percentage point of GDP. Debt would not be put on a clear downward path, with the debt ratio staying above the FY16/17 level. Gross financing needs would hover around 10 percent of GDP.

# United Kingdom Public Sector Debt Sustainability Analysis (DSA) – Baseline Scenario

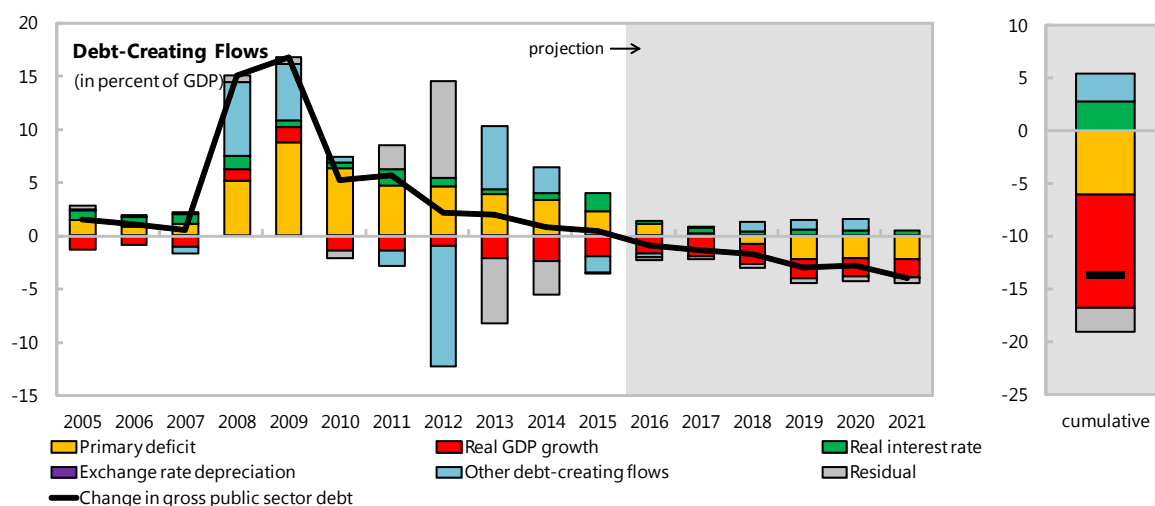
(In percent of GDP, unless otherwise indicated) <sup>1/</sup>

## Debt, Economic and Market Indicators <sup>2/</sup>

	Actual		Projections								As of March 24, 2016		
	2005-2013 <sup>3/</sup>	2014	2015	2016	2017	2018	2019	2020	2021				
Nominal gross public debt	67.3	91.1	91.5	90.6	89.2	87.5	84.5	81.7	77.8		Sovereign Spreads		
Public gross financing needs	10.4	11.6	10.7	9.7	9.1	8.5	6.8	7.6	7.4		EMBIG (bp) 3/		
Real GDP growth (in percent)	1.2	2.8	2.2	1.9	2.2	2.2	2.1	2.1	2.1		5Y CDS (bp)		
Inflation (GDP deflator, in percent)	2.5	1.5	0.3	1.9	1.6	1.9	1.9	2.0	2.0		Ratings		
Nominal GDP growth (in percent)	3.7	4.3	2.5	3.8	3.9	4.2	4.1	4.2	4.2		Moody's		
Effective interest rate (in percent) <sup>4/</sup>	4.2	2.3	2.3	2.2	2.2	2.4	2.6	2.7	2.7		S&Ps		
											Fitch		
											Foreign		
											Local		
											AAA		
											AA+		

## Contribution to Changes in Public Debt

	Actual		Projections									
	2005-2013	2014	2015	2016	2017	2018	2019	2020	2021	cumulative	debt-stabilizing	
Change in gross public sector debt	5.6	0.8	0.4	-0.9	-1.4	-1.7	-3.0	-2.8	-3.9	-13.7	primary	
Identified debt-creating flows	4.9	4.0	0.5	-0.6	-1.1	-1.3	-2.6	-2.3	-3.4	-11.3	balance <sup>9/</sup>	
Primary deficit	4.1	3.3	2.3	1.1	0.2	-0.8	-2.2	-2.1	-2.3	-6.1	-1.2	
Primary (noninterest) revenue and grants	36.5	35.5	36.0	36.5	36.5	36.6	37.0	36.8	36.8	220.2		
Primary (noninterest) expenditure	40.6	38.9	38.2	37.7	36.7	35.8	34.8	34.7	34.5	214.1		
Automatic debt dynamics <sup>5/</sup>	0.1	-1.8	-0.2	-1.4	-1.4	-1.5	-1.2	-1.2	-1.2	-7.9		
Interest rate/growth differential <sup>6/</sup>	0.1	-1.8	-0.2	-1.4	-1.4	-1.5	-1.2	-1.2	-1.2	-7.9		
Of which: real interest rate	0.9	0.7	1.7	0.2	0.5	0.4	0.5	0.5	0.5	2.7		
Of which: real GDP growth	-0.7	-2.4	-1.9	-1.7	-2.0	-1.9	-1.8	-1.7	-1.7	-10.7		
Exchange rate depreciation <sup>7/</sup>	0.0	0.0	0.0	...	...	...	...	...	...	...		
Other identified debt-creating flows	0.6	2.4	-1.5	-0.4	0.2	0.9	0.9	1.1	0.0	2.7		
Cash adjustments incl. privatization(-)	0.6	2.4	-1.5	-0.4	0.2	0.9	0.9	1.1	0.0	2.7		
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual, including asset changes <sup>8/</sup>	0.7	-3.2	-0.1	-0.3	-0.3	-0.3	-0.4	-0.5	-0.5	-2.3		



Source: IMF staff.

1/ In percent of fiscal year GDP, different from Table 3 where centered-fiscal year GDP is used.

2/ Public sector is defined as consolidated public sector.

3/ Based on available data.

4/ Long-term bond spread over German bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as  $[(r - \pi(1+g) - g + ae(1+r))/(1+g+\pi+gr)]$  times previous period debt ratio, with  $r$  = interest rate;  $\pi$  = growth rate of GDP deflator;  $g$  = real GDP growth rate;  $a$  = share of foreign-currency denominated debt; and  $e$  = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as  $r - \pi(1+g)$  and the real growth contribution as  $-g$ .

7/ The exchange rate contribution is derived from the numerator in footnote 5 as  $ae(1+r)$ .

8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

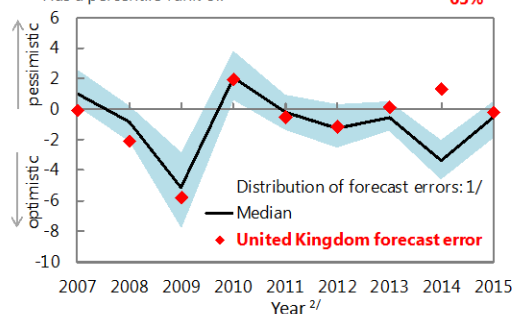
## United Kingdom Public DSA – Realism of Baseline Assumptions

### Forecast Track Record, versus surveillance countries

#### Real GDP Growth

(in percent, actual-projection)

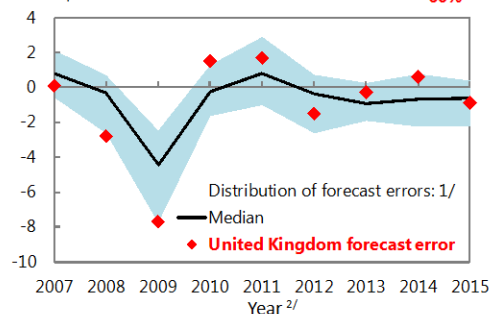
United Kingdom median forecast error, 2007-2015: **-0.21**  
Has a percentile rank of: **63%**



#### Primary Balance

(in percent of GDP, actual-projection)

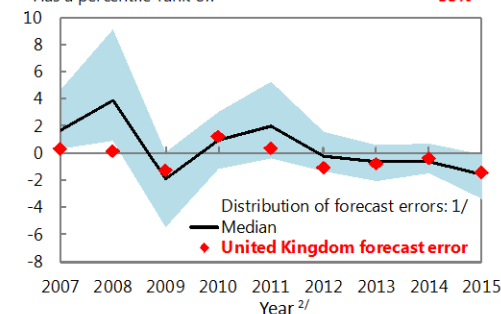
United Kingdom median forecast error, 2007-2015: **-0.28**  
Has a percentile rank of: **60%**



#### Inflation (Deflator)

(in percent, actual-projection)

United Kingdom median forecast error, 2007-2015: **-0.37**  
Has a percentile rank of: **33%**

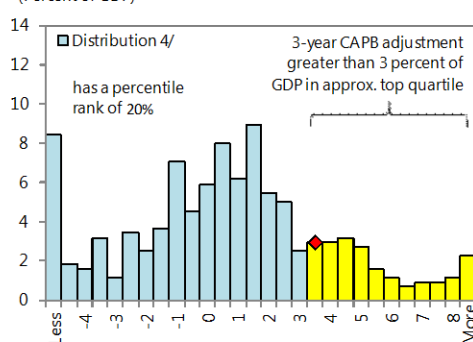


### Assessing the Realism of Projected Fiscal Adjustment

#### 3-Year Adjustment in Cyclically-Adjusted

##### Primary Balance (CAPB)

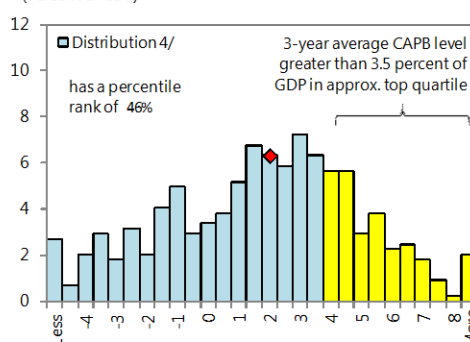
(Percent of GDP)



#### 3-Year Average Level of Cyclically-Adjusted

##### Primary Balance (CAPB)

(Percent of GDP)

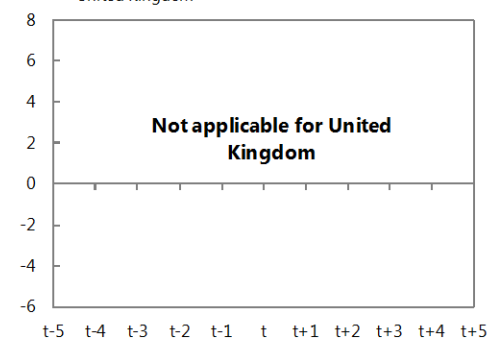


### Boom-Bust Analysis <sup>3/</sup>

#### Real GDP growth

(in percent)

— United Kingdom



Source : IMF Staff.

1/ Plotted distribution includes surveillance countries, percentile rank refers to all countries. Shaded blue is the range from the 25th percentile to the 75th percentile.

2/ Projections made in the spring WEO vintage of the preceding year.

3/ Not applicable for United Kingdom, as it meets neither the positive output gap criterion nor the private credit growth criterion.

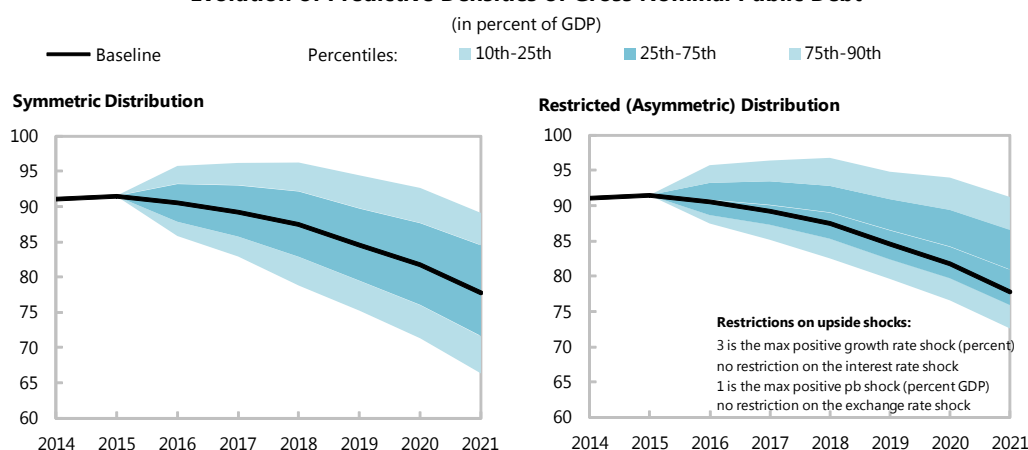
4/ Data cover annual observations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis.

## United Kingdom Public DSA Risk Assessment

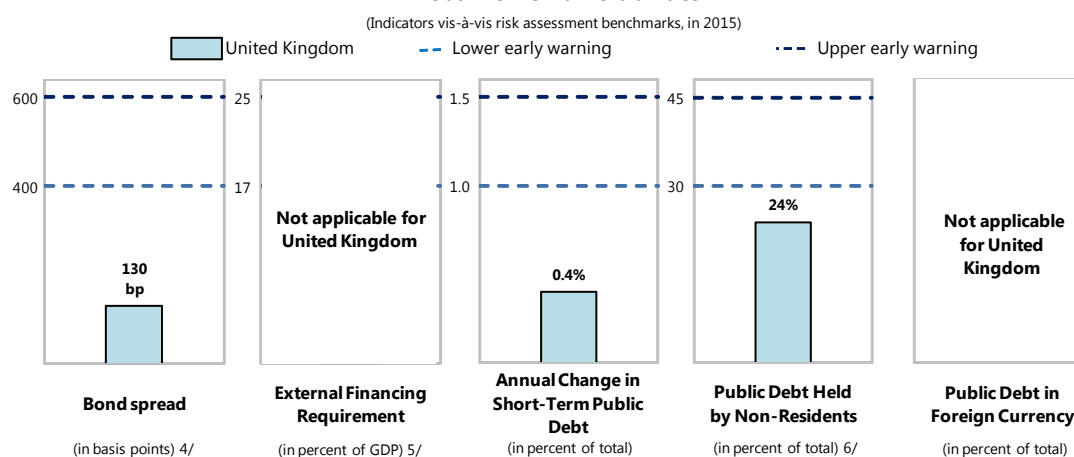
### Heat Map

Debt level <sup>1/</sup>	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs <sup>2/</sup>	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile <sup>3/</sup>	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

### Evolution of Predictive Densities of Gross Nominal Public Debt



### Debt Profile Vulnerabilities



Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 85% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 20% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white. Lower and upper risk-assessment benchmarks are:

400 and 600 basis points for bond spreads; 17 and 25 percent of GDP for external financing requirement; 1 and 1.5 percent for change in the share of short-term debt; 30 and 45 percent for the public debt held by non-residents.

4/ Long-term bond spread over German bonds, an average over the last 3 months, 25-Dec-15 through 24-Mar-16.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

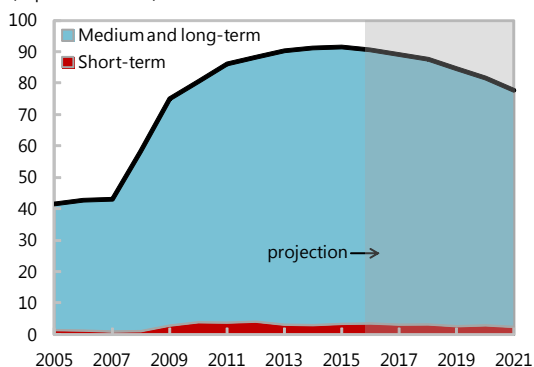
6/ Overseas holding of gilts.

## United Kingdom Public DSA – Composition of Public Debt and Alternative Scenarios

### Composition of Public Debt

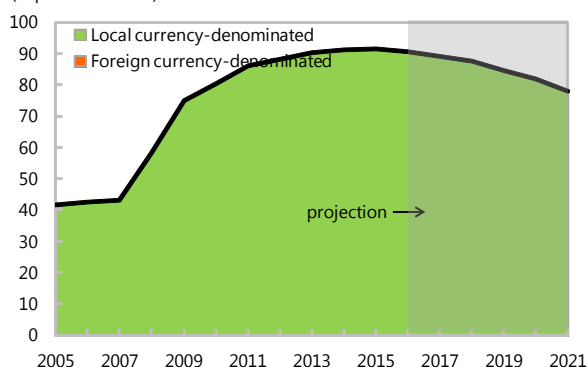
#### By Maturity

(in percent of GDP)



#### By Currency

(in percent of GDP)



### Alternative Scenarios

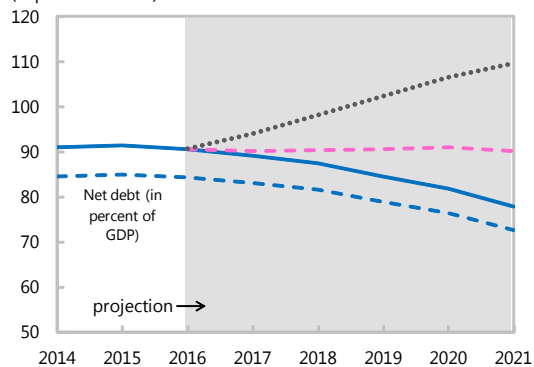
— Baseline

..... Historical

--- Constant Primary Balance

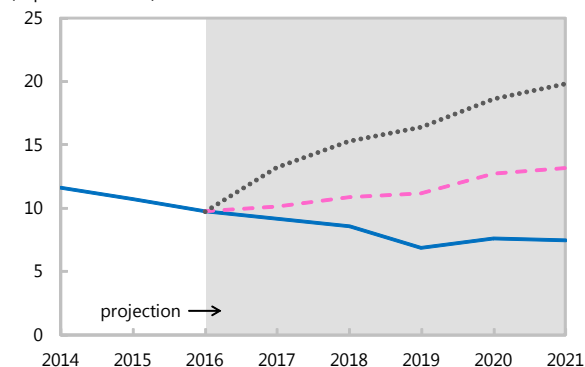
#### Gross Nominal Public Debt

(in percent of GDP)



#### Public Gross Financing Needs

(in percent of GDP)



### Underlying Assumptions

(in percent)

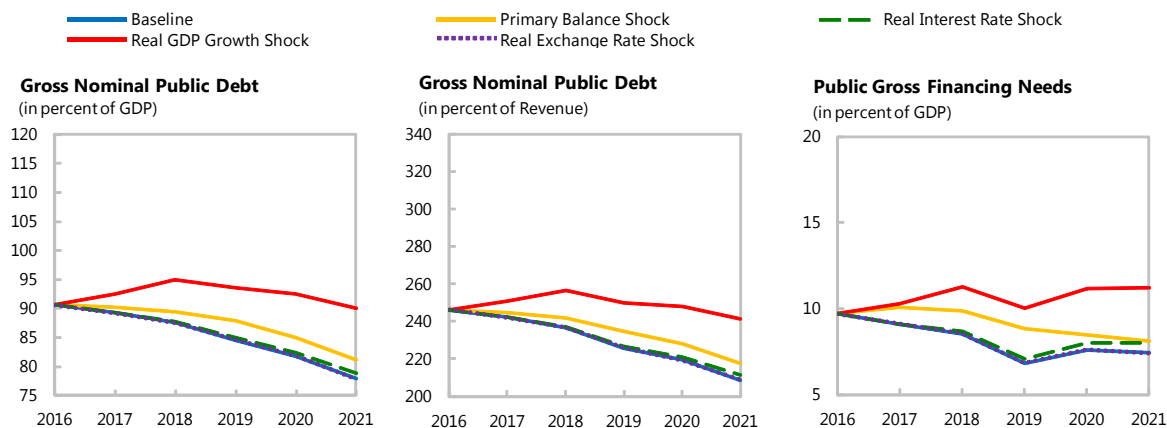
Baseline Scenario	2016	2017	2018	2019	2020	2021
Real GDP growth	1.9	2.2	2.2	2.1	2.1	2.1
Inflation	1.9	1.6	1.9	1.9	2.0	2.0
Primary Balance	-1.1	-0.2	0.8	2.2	2.1	2.3
Effective interest rate	2.2	2.2	2.4	2.6	2.7	2.7
<b>Constant Primary Balance Scenario</b>						
Real GDP growth	1.9	2.2	2.2	2.1	2.1	2.1
Inflation	1.9	1.6	1.9	1.9	2.0	2.0
Primary Balance	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Effective interest rate	2.2	2.2	2.4	2.6	2.6	2.6

Historical Scenario	2016	2017	2018	2019	2020	2021
Real GDP growth	1.9	1.2	1.2	1.2	1.2	1.2
Inflation	1.9	1.6	1.9	1.9	2.0	2.0
Primary Balance	-1.1	-4.1	-4.1	-4.1	-4.1	-4.1
Effective interest rate	2.2	2.2	2.5	2.7	2.8	2.8

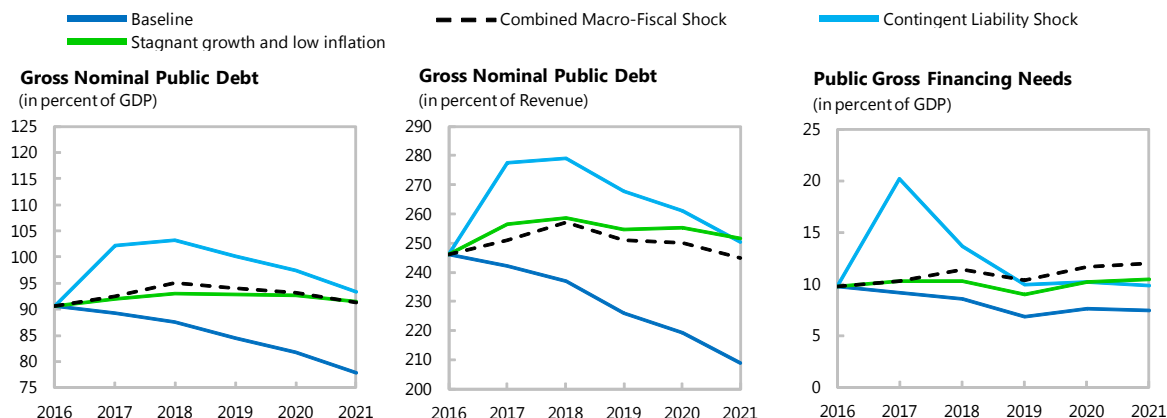
Source: IMF staff.

## United Kingdom Public DSA – Stress Tests

### Macro-Fiscal Stress Tests



### Additional Stress Tests



### Underlying Assumptions (in percent)

Primary Balance Shock							Real GDP Growth Shock						
	2016	2017	2018	2019	2020	2021		2016	2017	2018	2019	2020	2021
Real GDP growth	1.9	2.2	2.2	2.1	2.1	2.1	Real GDP growth	1.9	0.2	0.2	2.1	2.1	2.1
Inflation	1.9	1.6	1.9	1.9	2.0	2.0	Inflation	1.9	1.1	1.4	1.9	2.0	2.0
Primary balance	-1.1	-1.1	-0.2	0.8	2.1	2.1	Primary balance	-1.1	-1.1	-1.1	0.4	0.3	0.5
Effective interest rate	2.2	2.2	2.4	2.6	2.7	2.7	Effective interest rate	2.2	2.2	2.4	2.6	2.7	2.6
Real Interest Rate Shock							Real Exchange Rate Shock						
	2016	2017	2018	2019	2020	2021		2016	2017	2018	2019	2020	2021
Real GDP growth	1.9	2.2	2.2	2.1	2.1	2.1	Real GDP growth	1.9	2.2	2.2	2.1	2.1	2.1
Inflation	1.9	1.6	1.9	1.9	2.0	2.0	Inflation	1.9	1.6	1.9	1.9	2.0	2.0
Primary balance	-1.1	-0.2	0.8	2.2	2.1	2.3	Primary balance	-1.1	-0.2	0.8	2.2	2.1	2.3
Effective interest rate	2.2	2.2	2.6	2.9	3.1	3.2	Effective interest rate	2.2	2.2	2.4	2.6	2.7	2.7
Combined Shock							Contingent Liability Shock						
	2016	2017	2018	2019	2020	2021		2016	2017	2018	2019	2020	2021
Real GDP growth	1.9	0.2	0.2	2.1	2.1	2.1	Real GDP growth	1.9	0.2	0.2	2.1	2.1	2.1
Inflation	1.9	1.1	1.4	1.9	2.0	2.0	Inflation	1.9	1.1	1.4	1.9	2.0	2.0
Primary balance	-1.1	-1.1	-1.1	0.4	0.3	0.5	Primary balance	-1.1	-11.0	0.8	2.2	2.1	2.3
Effective interest rate	2.2	2.2	2.6	2.9	3.1	3.2	Effective interest rate	2.2	2.3	2.6	2.8	2.9	2.9
Stagnant growth and low inflation													
	2016	2017	2018	2019	2020	2021							
Real GDP growth	1.9	1.2	1.2	1.1	1.1	1.1							
Inflation	1.9	0.6	0.9	0.9	1.0	1.0							
Primary balance	-1.1	-1.2	-0.2	1.2	1.1	1.3							
Effective interest rate	2.2	2.2	2.4	2.6	2.7	2.7							

Source: IMF staff.



# UNITED KINGDOM

## STAFF REPORT FOR THE 2016 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

June 2, 2016

Prepared By

European Department

### CONTENTS

FUND RELATIONS	2
STATISTICAL ISSUES	4

## FUND RELATIONS

(Data as of April 30, 2016)

**Membership Status:** Joined December 27, 1945; accepted Article VIII.

### General Resources Account

	SDR Million	Percent Quota
Quota	20,155.00	100.00
Fund holdings of currency	16,614.27	82.43
Reserve position in Fund	3,541.01	17.57
New arrangement to borrow	1,672.44	

### SDR Department

	SDR Millions	Percent Allocation
Net cumulative allocations	10,134.20	100.00
Holdings	7,115.59	70.21

### Outstanding Purchases and Loans: None

### Financial Arrangements: None

### Projected Payments to Fund (SDR million; based on present holdings of SDRs):

	Forthcoming				
	2016	2017	2018	2019	2020
Principal					
Charges/Interest	1.07	1.86	1.86	1.86	1.86
Total	1.07	1.86	1.86	1.86	1.86

### Exchange Rate Arrangement:

The UK authorities maintain a free floating regime.

The UK accepted the obligations of Article VIII, Sections 2, 3, and 4 on February 15, 1961. It maintains an exchange system free of multiple currency practices and restrictions on payments and transfer for current international transactions, except for exchange restrictions imposed solely for the preservation of national or international security. The UK notifies the Fund of the maintenance of measures imposed solely for the preservation of national and international security under Executive Board Decision No. 144–(52/51). The last of these notifications was made on January 9, 2012 (EBD/12/2).

**Article IV Consultation:**

The last Article IV consultation was concluded on February 24, 2016. The UK is on the standard 12-month consultation cycle.

**FSAP**

The FSAP update was completed at the time of the 2011 Article IV Consultation. A mandatory FSAP has also been conducted in time for the 2016 Article IV consultation, in line with the five-year cycle for members or members' territories with financial sectors that are determined to be systemically important pursuant to Decision No. 15495-(13/111), adopted December 6, 2013.

**Technical Assistance: None**

**Resident Representatives: None**

## STATISTICAL ISSUES

Economic and financial data provided to the Fund are considered adequate for surveillance purposes. The UK subscribes to the Special Data Dissemination Standard (SDDS) and meets the SDDS specifications for the coverage, periodicity, and timeliness of data. SDDS metadata are posted on the Dissemination Standard Bulletin Board (DSBB). The UK has adopted the European System of National and Regional Accounts 2010 (ESA 2010) and the Balance of Payment and International Investment Position Manual, sixth edition (BPM6).

The UK government has commissioned a review of the UK's current and future statistical needs and the capacity to meet those needs, prompted by increasing difficulty in measuring output and productivity and a perception that official data could be improved.

An interim report, published in December 2015, found that conventional statistical measures and methods are increasingly challenged as the UK economy becomes more service oriented, as businesses operate more across national borders, as digitization of economic activities increases, and as the boundaries between market and home production become more blurred. These issues are relevant to a number of advanced and transition economies. The interim report recommends a number of specific steps, such as greater integration of data sources and use of administrative data, addressing shortcomings to national accounts and flow of funds measures, and improvements to UK trade, construction, and CPI statistics. Staff welcomes these recommendations.

The final report was published on March 11, 2016. The report made six strategic recommendations regarding measuring the economy, ONS capability and performance, and governance of statistics. The recommendations are as follows:

- Address established statistical limitations.
- Become more agile in the provision of statistics that properly reflect the changing structure and characteristics of the economy.
- Refocus the culture of ONS towards better meeting user needs.
- Make the most of existing and new data sources and the technologies for dealing with them.
- Become better at understanding and interrogating data.
- Strengthen the governance framework so as to help support the production of high-quality economic statistics.

**Table of Common Indicators Required for Surveillance**  
(As of May 19, 2016)

	Date of latest observation	Date received	Frequency of Data <sup>7</sup>	Frequency of Reporting <sup>7</sup>	Frequency of Publication <sup>7</sup>
Exchange Rates	Same day	Same day	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities <sup>1</sup>	March 2016	04/29/2016	M	M	M
Reserve/Base Money	May 18, 2016	05/19/2016	W	M	M
Broad Money	March 2016	04/29/2016	M	M	M
Central Bank Balance Sheet	May 18, 2016	05/19/2016	W	W	W
Consolidated Balance Sheet of the Banking System	March 2016	04/29/2016	M	M	M
Interest Rates <sup>2</sup>	Same day	Same day	D	D	D
Consumer Price Index	April 2016	04/12/2016	M	M	M
Revenue, Expenditure, Balance and Composition of Financing <sup>3</sup> – General Government <sup>4</sup>	Q4 2015	03/16/2016	Q	Q	Q
Revenue, Expenditure, Balance and Composition of Financing <sup>3</sup> – Central Government	March 2016	04/21/2016	M	M	M
Stocks of Central Government and Central Government-Guaranteed Debt <sup>5</sup>	March 2016	04/21/2016	M	M	M
External Current Account Balance	Q4 2015	03/31/2016	Q	Q	Q
International Investment Position <sup>6</sup>	Q4 2015	03/31/2016	Q	Q	Q
Exports and Imports of Goods and Services	March 2016	05/10/2016	M	M	M
GDP/GNP	Q4 2015	03/31/2016	Q	Q	Q
Gross External Debt	Q4 2015	03/31/2016	Q	Q	Q

<sup>1</sup> Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.

<sup>2</sup> Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.

<sup>3</sup> Foreign, domestic bank, and domestic nonbank financing.

<sup>4</sup> The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

<sup>5</sup> Including currency and maturity composition.

<sup>6</sup> Includes external gross financial asset and liability positions vis-à-vis nonresidents.

<sup>7</sup> Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).