INTERNATIONAL MONETARY FUND

IMF Country Report No. 13/210

UNITED KINGDOM

2013 ARTICLE IV CONSULTATION

July 2013

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 2013 Article IV consultation with United Kingdom, the following documents have been released and are included in this package:

- **Staff Report** for the 2013 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on May 22, 2013, with the officials of United Kingdom on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on June 28, 2013. The views expressed in the staff report are those of the staff team and do not necessarily reflect the views of the Executive Board of the IMF.
- **Informational Annex** prepared by the IMF.
- **Press Release** on the Executive Board Discussion.
- **Statement by the Executive Director** for United Kingdom.

The document listed below has been or will be separately released.

The policy of publication of staff reports and other documents allows for the deletion of market-sensitive information.

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INTERNATIONAL MONETARY FUND

UNITED KINGDOM

STAFF REPORT FOR THE 2013 ARTICLE IV CONSULTATION

June 28, 2013

KEY ISSUES

The economy remains a long way from a strong and sustainable recovery. Despite recent improvements in economic and financial conditions, recovery will be protracted. Domestic deleveraging pressures remain, while external demand is still weak. Looking ahead, activity is expected to pick up only gradually. Risks remain to the downside, with the key risk being permanent damage to the economy's productive potential.

A multi-pronged policy strategy is needed. Securing growth momentum and rebalancing the economy are vital to boost incomes and income expectations, ensure the sustainability of public debt, and support bank balance sheets. A multi-pronged policy strategy is thus needed to address both demand and supply constraints that the economy faces. In particular:

- Monetary policy will need to remain accommodative, but expectations of its effects should be tempered. In addition to further purchases of gilts, the BoE could provide reassurance that policy rates will remain low until recovery reaches full momentum.
- An expeditious repair of bank balance sheets is imperative, along with an elaboration of a clear strategy for the two state-intervened banks, including returning them to private ownership.
- It is essential to offset the drag from planned near-term fiscal tightening, notably by bringing forward capital investment, while preserving the medium-term framework.
- Structural reforms need to be accelerated to improve the economy's skills base, infrastructure, and competitiveness.

Financial sector reforms need to build on recent progress. The stability of the UK financial system is a global public good. Recent reforms are promising, but more is needed to ensure the resilience of the system. In particular:

- It is critical that coordination between the FPC and PRA is strengthened, especially in the context of planned bank stress tests, to help alleviate regulatory uncertainty.
- The PRA needs to be adequately resourced and its operational independence ensured, to support an intensive and intrusive supervision of the financial system.
- The FPC's independence should be ensured and its toolkit expanded, so that it is well equipped to deliver on its mandate of promoting financial stability.
- Structural banking reform measures need to be coordinated internationally, importantly to address the issue of "too important to fail".

Approved By
Ajai Chopra and David Marston

Discussions took place in London during May 8–22, 2013. The staff team comprised Messrs. Srinivasan (head), Scott, Abbas, Ishi, Lama, and Ms. Osorio Buitron (EUR), and Mr. Norat (MCM); a parallel MCM mission, comprising of Messrs. Lipinsky and Pancorbo, participated in discussions of financial sector reforms. The FDMD held a Press Conference. UK Executive Director Mr. Field and Mr. Perks (OED) participated in the discussions.

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THE FOCUS OF THE CONSULTATION

1. **The recovery remains fragile, held back by deleveraging, impaired credit creation, and weak external demand**. Growth is expected to be stronger in 2013 than in 2012, but nonetheless modest, and will be insufficient to substantially close the large negative output gap. The more growth disappoints, the greater the risk of permanent damage to potential growth. Hence, growth is the priority, and macroeconomic policy support for demand in the near term continues to be vital. To ensure that growth is durable and robust, over the medium term the economy needs to rebalance, away from public support to private demand, and away from reliance on the domestic consumer to external demand.

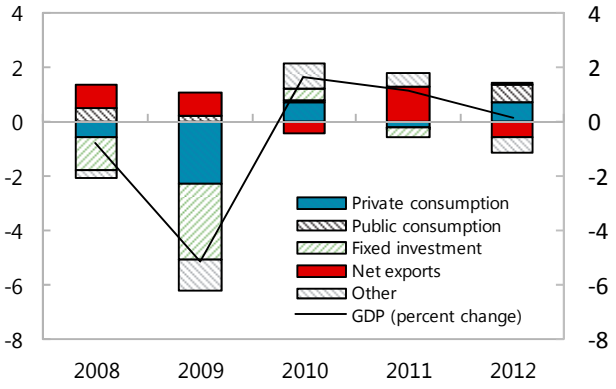
2. **The consultation focused on policies to secure strong and better balanced growth**. This report responds to two basic questions: first, what is holding back the UK economy, and, second, what policies are needed to stimulate growth and promote the necessary rebalancing?

THE RECOVERY REMAINS WEAK

Activity is still sluggish, but recent developments are encouraging

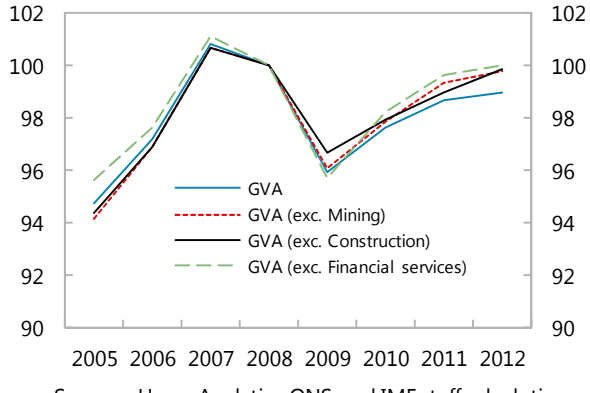
3. **Growth substantially disappointed in 2012.** The UK economy grew by about ¼ percent in 2012. Net trade reduced growth by 0.6 percentage points of GDP, the biggest drag since 2005, and well above staff projections. Domestic fixed capital investment was essentially flat, leaving household spending the main source of private demand, but still substantially below long-run potential growth. In terms of production, construction has been particularly affected by the financial crisis, and the mining sector has been experiencing a secular decline, accelerated in part by temporary shut-downs in North Sea oil extraction. Output of financial services has gradually declined, such that its share of value added is now at levels of a decade ago. But the overall trend of weak growth cannot be exclusively attributed to these factors.

Contributions to Growth
(Percent)



Sources: Haver Analytics; ONS; and IMF staff calculations.

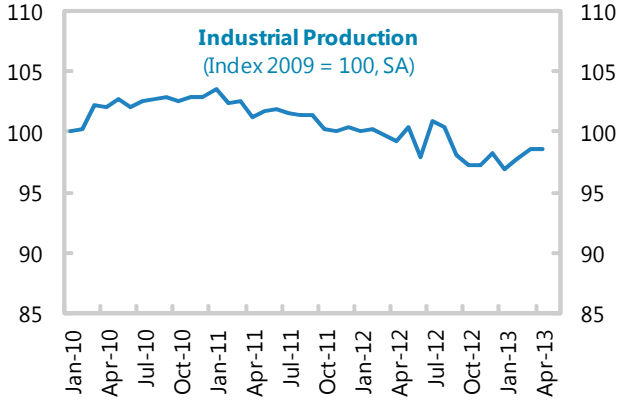
Gross Value-Added
(Index, 2007 = 100)



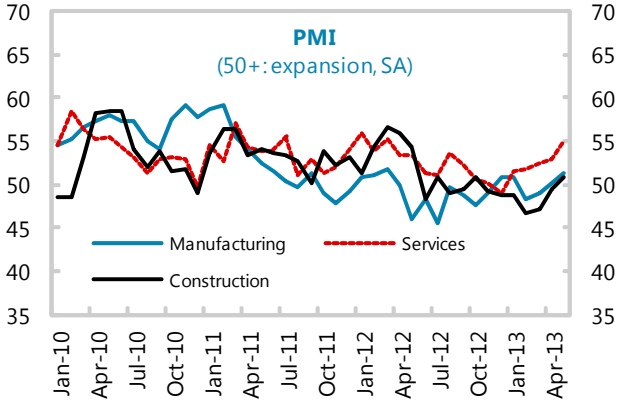
Sources: Haver Analytics; ONS; and IMF staff calculations.

Figure 1. United Kingdom: Real Sector Developments

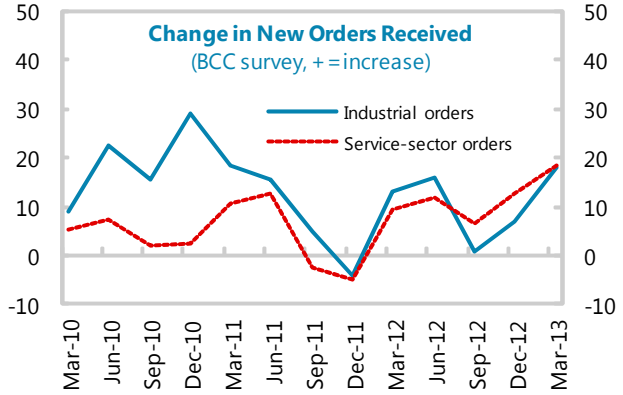
Industrial production is below pre-crisis levels, but recent data suggests a nascent recovery...



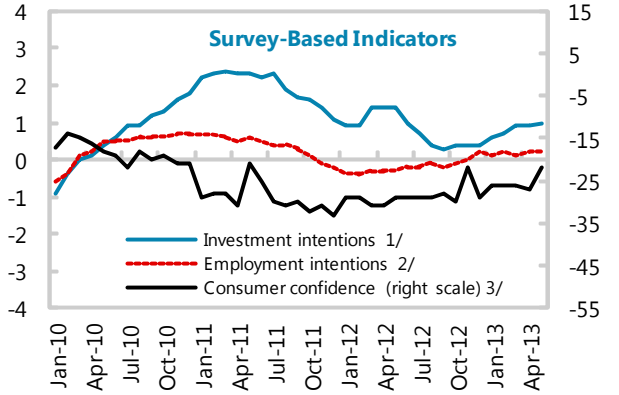
Short-term indicators point to a broad-based expansion across sectors...



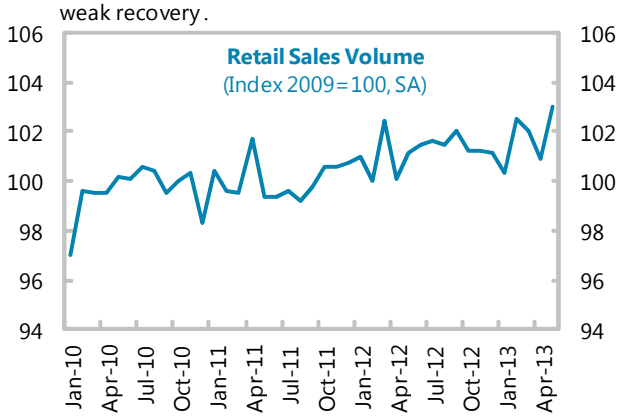
...with orders recovering at a steady pace from mid-2012.



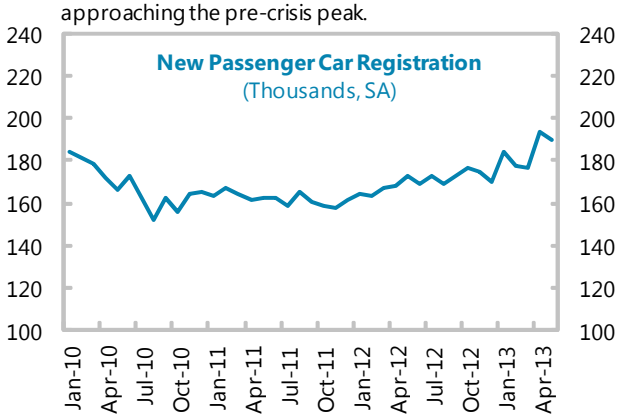
Consumer confidence is still low, but employment intentions are more positive.



Retail sales are volatile, but the trend indicates a weak recovery.



Car registrations have been increasing steadily, approaching the pre-crisis peak.

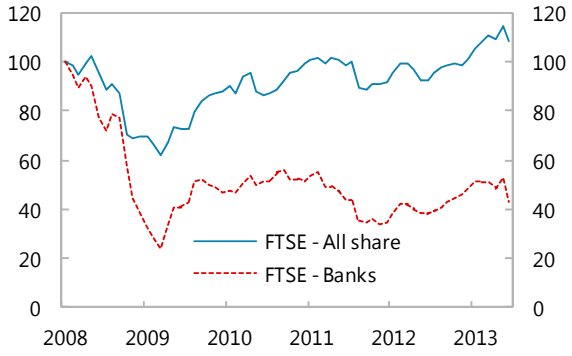


Sources: Bank of England; British Chambers of Commerce; Office for National Statistics (ONS); and IMF staff calculations.
1/ Bank of England Agents' Survey, manufacturing.
2/ Bank of England Agents' Survey, services.
3/ Gfk Consumer Confidence Barometer.

4. **Recent data suggest some improvement in economic conditions.** Purchasing indicators, demand for vehicles, and consumer and business sentiment surveys indicate an uptick in activity (see Figure 1). In addition, there are signs that the drag from construction and trade might prove to be less than last year. And there have been some upward revisions to measured output that, although small, eliminated the "double dip" in growth. Coming after disappointing growth in 2012, such promising news is encouraging.

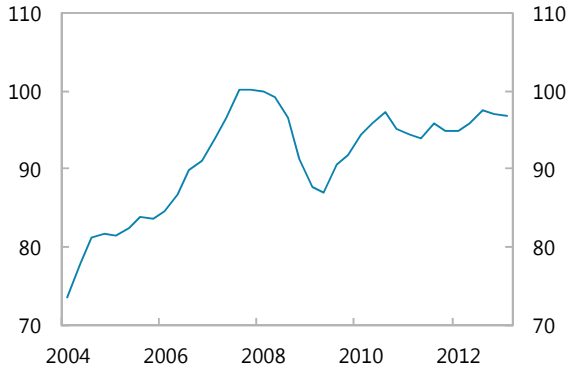
5. **Financial market conditions also improved, but volatility has returned.** Funding costs for banks and large firms had fallen significantly from the elevated levels seen during the summer of 2012. Equity markets had recovered strongly, with the FTSE All Share index nearly at the previous peak in April 2007, and prices of bank stocks rebounding. In May and June, markets have sold off, and conditions could remain volatile as markets seek direction about likely future returns and policy measures. Meanwhile, corporate bond issuance has been healthy, easing financing constraints for large firms. And the housing market is showing some signs of recovery, with house prices rebounding, reflecting a steady rise in the pace of new house orders and market transactions. Commercial real estate prices, however, remain depressed at levels last seen a decade ago, to the detriment of banks' balance sheets and firms' ability to borrow.

Share Price Indices
(Index, Jan. 2008 =100)



Sources: Datastream; Haver Analytics; and IMF staff calculations.

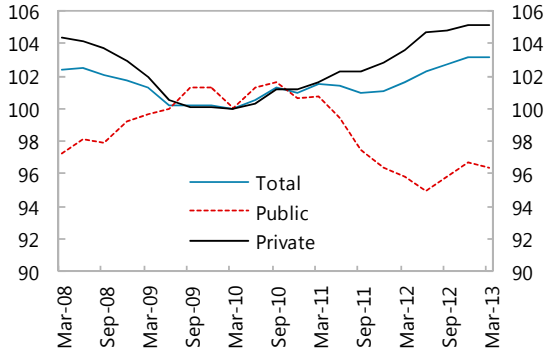
ONS House Price Index
(NSA, Index 2008Q1 = 100)



Sources: ONS; and IMF staff calculations

6. **The labor market has performed somewhat better than the goods market** (Figure 2). Employment is now slightly above its pre-crisis level, led by a notable change in the composition of the workforce—while public employment has declined by 4 percent (0.3 million workers) from its 2010 peak, private employment has increased by 5 percent (1.0 million workers) in the same period, most employment creation after 2007 is explained by a rise in part-time workers offset by a decline in full-time workers. In addition, labor market participation has increased somewhat, because of changes in marginal tax and benefit incentives and older cohorts seeking to boost retirement savings.

Employment by Sector
(Index 2010Q1 = 100, SA)

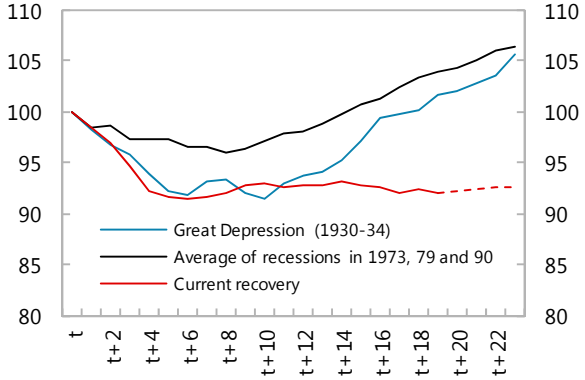


Sources: ONS; and IMF staff calculations.

Recovery will be protracted

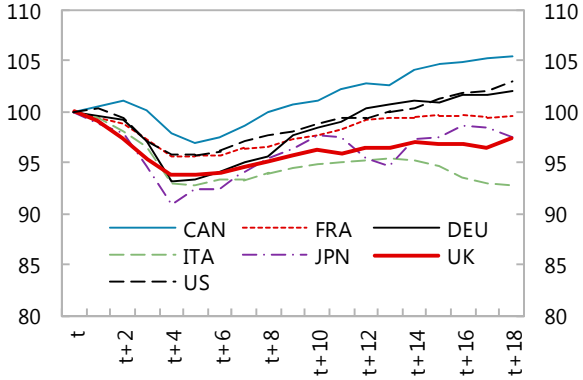
7. **But the UK economy remains a long way from a strong and sustainable recovery.** Notwithstanding the recent uptick in activity, per capita income remains 6.5 percent below its pre-crisis peak, making this the weakest recovery in recent UK history. Even with the advantages of an independent monetary policy and a flexible exchange rate regime, output has been slow to recover. And GDP is well below the level implied by the pre-crisis trend—around 14 percent in real terms. Moreover, unemployment is still elevated, at 7.8 percent, while youth unemployment is 21 percent, higher than the OECD average.

Recovery Relative to Previous Recessions
(Index = 100 at per capita output peak; *x*-axis in quarters)



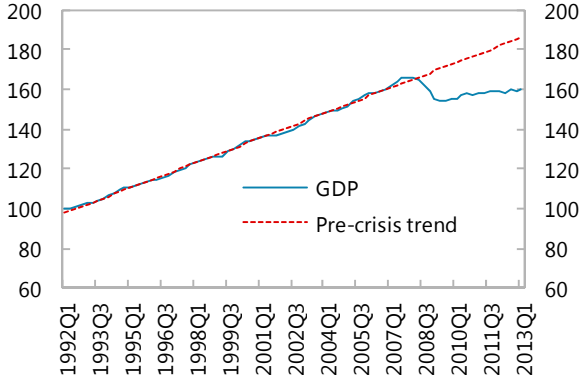
Sources: NIESR; ONS; and IMF staff calculations.

Real GDP
(Index 2008Q1 = 100 at output peak; *x*-axis in quarters)



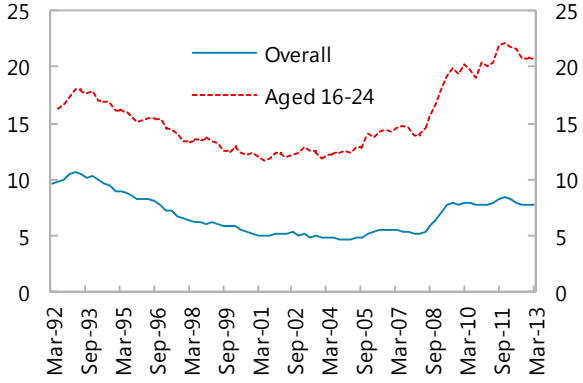
Sources: WEO; and IMF staff calculations.

Real GDP Growth
(Index, 1992Q1=100)



Sources: ONS; and IMF staff calculations.

Unemployment Rate
(Percent labor force)

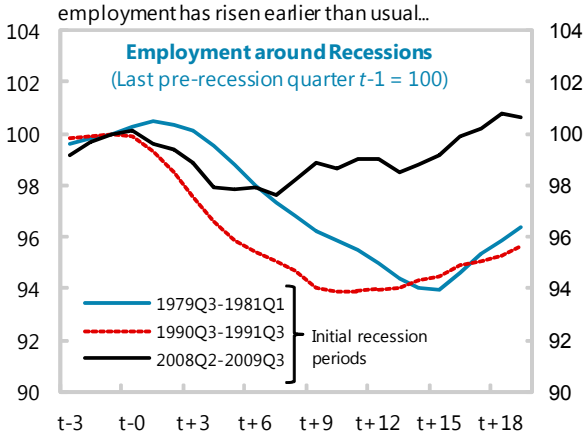


Source: ONS.

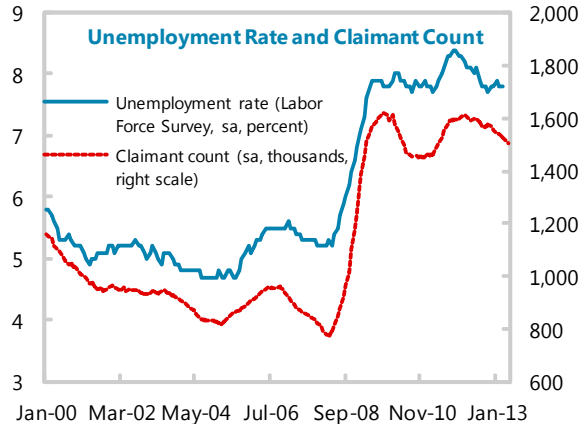
8. **Measured labor productivity growth has collapsed.** With output growth so weak and employment relatively resilient, the growth rate of output per worker has plunged. No single explanation appears to fully explain the decrease in labor productivity growth, but it reflects, at least in part, a substitution of labor for capital, given the sharp decline in real wages, and a sectoral reallocation of labor towards less productive sectors (see Annex 1).

Figure 2. United Kingdom: Labor Market Developments

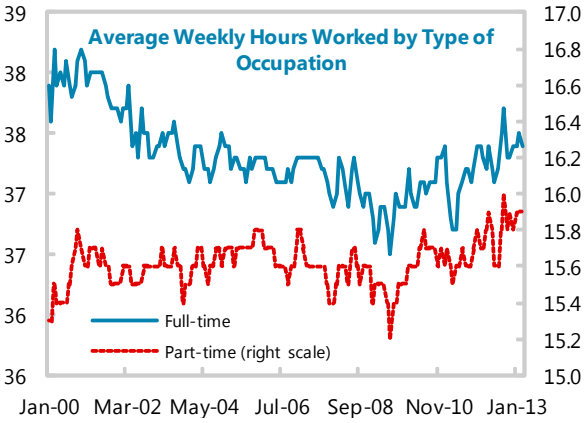
The labor market has proven relatively resilient, as employment has risen earlier than usual...



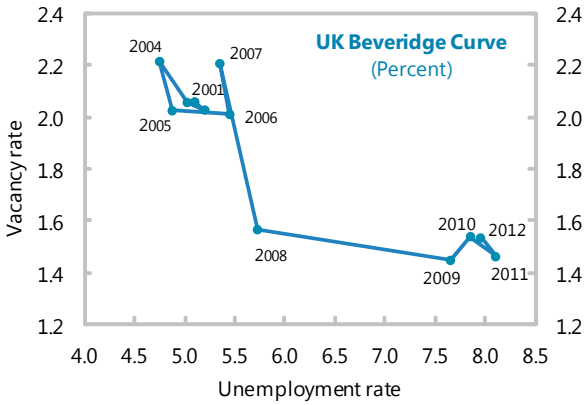
...although unemployment continues to be high...



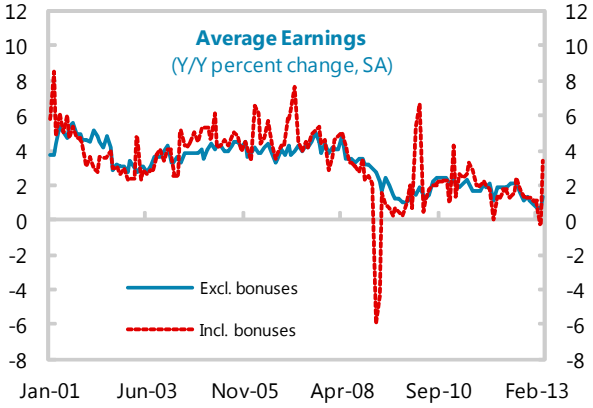
...and average hours worked have increased.



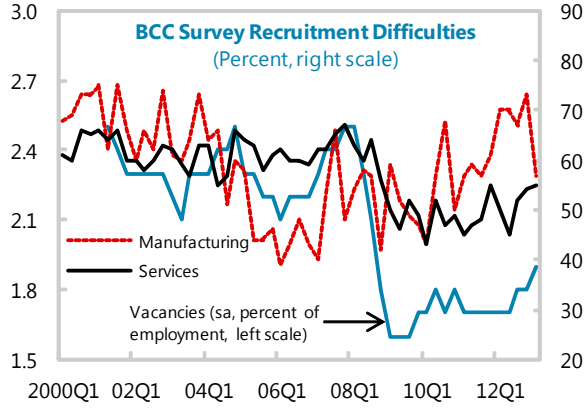
The beveridge curve continues to be downward-sloping.



Anemic wage growth has helped keep employment losses down.



Despite the labor market's resilience, both vacancy data and surveys point to continued slack.

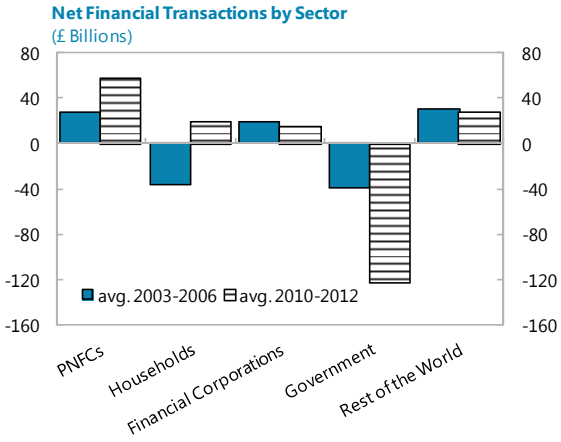


Sources: Haver Analytics; Office for National Statistics (ONS); and IMF staff calculations.
1/ Estimates based on provisional data from the International Passenger Survey.

9. **The output gap remains negative and large.** The output gap is more-than-usually difficult to quantify. Some firms report increasing shortages of skilled labor, and some sectors (notably finance and construction) might still be in the process of returning to more sustainable levels of output.[1] But still-high unemployment and weak wage growth points to an economy operating well below capacity. Staff estimates the gap to be just above 3 percent, broadly in line with other institutions' estimates.[2] The gap between the level implied by the pre-crisis trend and current output is larger than the output gap, implying that the estimated level of potential is some way below the trend line, but most of the shortfall in output is attributable to insufficient demand.

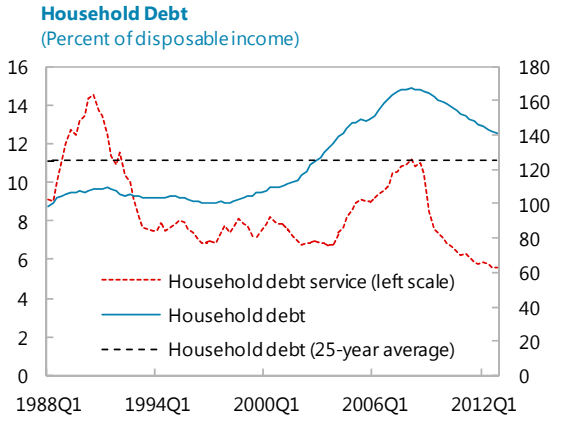
The economy is struggling to rebalance

10. **A key factor in the weakness of the recovery is the struggle to rebalance.** In the medium term, the economy needs to move away from public support toward private demand. Similarly, to ensure balanced growth, the economy also needs to rely more on external demand. Households and banks, however, currently face pressures to reduce leverage, while competitiveness problems and weak external demand are constraining external rebalancing. Hence, with the private sectors largely maintaining relatively high saving rates, the public sector consolidating, and weak export performance, the net effect in the short run is downward pressure on demand. In particular, while progress has been made in reducing the fiscal deficit, which not surprisingly has been a drag on demand, the private sector has been unable to take the baton from the government.



Sources: ONS; and IMF Staff calculations.

11. **Limited progress in domestic demand rebalancing reflects household balance sheet impairment.** Still-high household debt, diminished consumer confidence, and a squeeze of real incomes owing to high inflation have limited the recovery in private consumption. A crucial issue is how long the drag from household debt will remain. Monetary policy easing has substantially reduced the burden of debt servicing on household disposable incomes, to levels now below those in



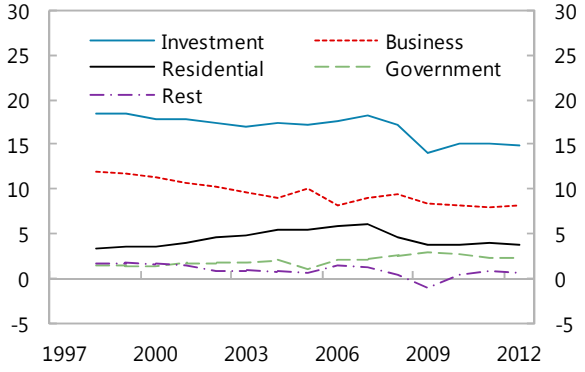
Sources: Bank of England; and Haver Analytics.

[1] For example, output of financial services has declined by 8 percent from its peak in 2009. Although this is a substantial decrease, taken as a share of gross value added, the output of the sector is still at the same level as in 2005.

[2] Other estimates include: Oxford Economics (-6.0), NIESR (-4.5), OBR (-3.6), EC (-3.2), and OECD (-2.3).

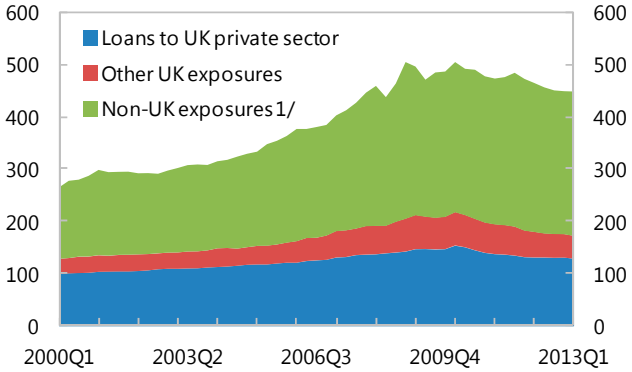
the boom years. And, as noted above, asset prices have been recovering overall. Yet it appears that the level of debt remains a significant constraint on spending for a sizeable proportion of households, especially given the uncertainty concerning future employment prospects. In aggregate, the ratio of household debt to disposable income has fallen by 26 percentage points (from 167 to 141 percent), but this level remains substantially above historical averages, suggesting that saving rates could remain elevated for perhaps 2 to 3 more years (see Annex 2).

12. **Firms have added to saving pressure, at the expense of investment.** Corporate balance sheets were relatively healthy overall going into the crisis, and corporate savings have increased further thereafter.[3] Concomitantly, business investment has fallen substantially during the crisis: total investment as a share of GDP has fallen from 18 to 14 percent of GDP since 2007.[4]



Investment
(Percent of GDP)

Sources: Haver Analytics; and IMF staff calculations.



Total Assets of UK-resident MFIs
(Percent of GDP)

Sources: Bank of England; and IMF staff calculations.
1/ UK (non-UK) exposures are proxied by sterling (foreign currency) assets.

13. **The financial sector has also attempted to reduce leverage following the crisis.** The Funding for Lending Scheme and European policy actions have reduced bank funding costs, mitigating emerging problems on the liabilities side of bank balance sheets (see Annex 5). But problems remain with poor asset quality (particularly associated with commercial real estate) and significant lender forbearance. Banks with such problems are reluctant to lend, especially to firms and households with poor collateral. Hence banks lie at the heart of the paradox of thrift—as weakness in the real economy persists, banks reduce leverage further, constraining lending and activity.

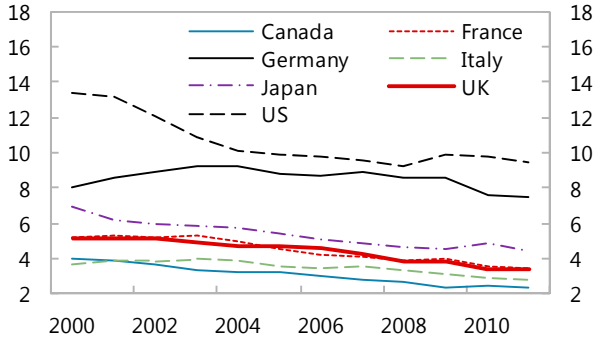
14. **External rebalancing is being held back by competitiveness problems and other structural weaknesses, amplified by cyclical factors.** Rebalancing toward export-led growth

[3] Some of the measured increase in non-financial corporate saving balances might in fact be attributable to activities by financial firms, but it appears that this cannot account for all of it. The increase is also corroborated by increases in working capital (see Annex 4).

[4] At face value, the nominal share of business investment in total expenditures is at a post-war low. However, comparisons of nominal data are complicated by the trend decline in relative prices of investment goods.

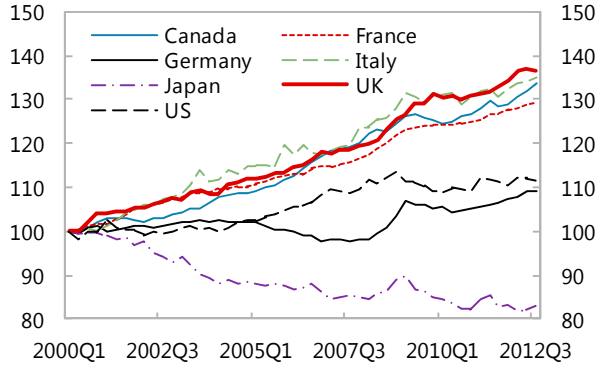
has been disappointing, especially given the 18 percent depreciation in sterling since the start of 2007.[5] Limited progress in external rebalancing reflects structural weaknesses in the economy—including poor diversification of exports and export markets and a large reliance on financial services. This has been amplified by cyclical factors, including a decline in the terms of trade, weak external demand, and a lack of competitiveness (as indicated by relatively high unit labor costs), owing to a decline in productivity (see Annex 3). Previous historical episodes of external rebalancing in the UK and OECD countries have been associated with increases in labor productivity growth—suggesting that it will be difficult for the UK to improve its external balance unless there is an improvement in productivity and competitiveness.

Goods and Services Export Market Shares
(Percent of world exports)



Sources: IMF's Direction of Trade Statistics; World Trade Organizaiton; and IMF staff calculations.

Unit Labor Costs in G-7 Countries
(Index, 2000Q1 = 100)



Sources: Eurostat; and IMF staff calculations.

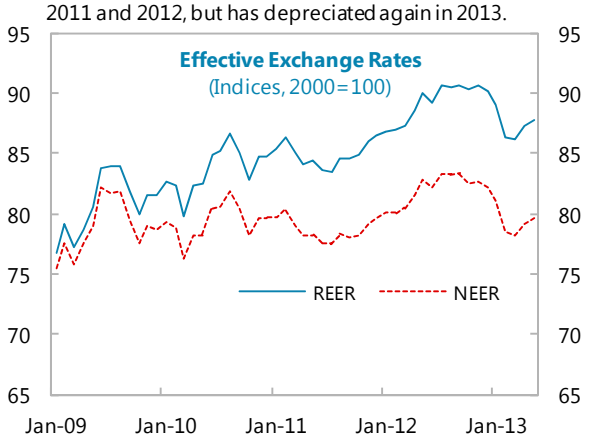
15. **The exchange rate appears moderately overvalued.** Staff estimates sterling to be overvalued by about 5–10 percent. After depreciating strongly in 2007 and 2008, sterling gradually appreciated (see Figure 3), and at the time of the 2012 Article IV consultation was assessed to be moderately overvalued. Since then, the nominal exchange rate has depreciated, but inflation in the UK has been higher than in trading partners, implying that a modest overvaluation remains. This assessment is broadly consistent with model-based estimates of medium-term fundamentals of the exchange rate and current account.[6] A further depreciation of 5–10 percent would be consistent with narrowing the current account deficit from its current level of nearly 4 percent of GDP to a level consistent with medium-term fundamentals. However, although nominal exchange rate depreciation could facilitate a useful shift in the terms of trade, a durable restoration of competitiveness will require increasing productivity growth.

[5] During the period 1992–96—a notable previous episode of external adjustment—the exchange rate depreciated and stabilized (see Annex 3). By contrast, the exchange rate has been less stable during 2008–11. In particular, following the steep depreciation of sterling in 2007 and 2008, "safe haven" inflows of capital during the euro area crisis resulted in a small appreciation of the sterling. This appreciation may have raised uncertainty about future terms of trade and mitigated the effects of the earlier depreciation. Subsequently, the exchange rate has depreciated again during 2013.

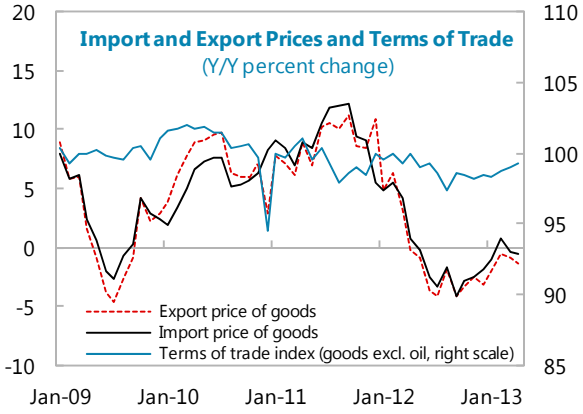
[6] The EBA estimates imply that the current account is currently 2.3 percent weaker than implied by medium-term fundamentals, but that the real exchange rate is 2.8 percent undervalued. The CGER methodology indicates an exchange rate overvaluation of up to 12 percent using the external sustainability and macroeconomic balance approaches, and a 10 percent undervaluation using the REER approach.

Figure 3. United Kingdom: External Sector Developments

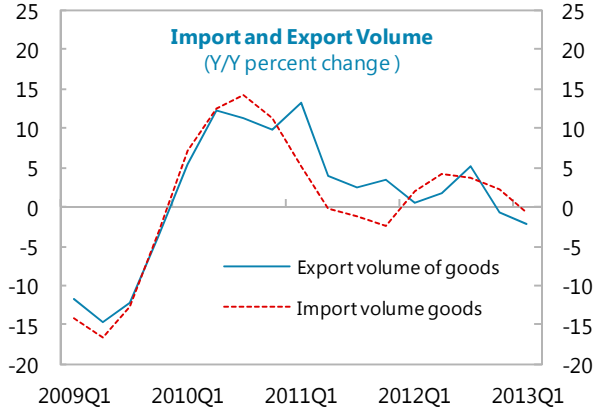
The exchange rate appreciated gradually during 2011 and 2012, but has depreciated again in 2013.



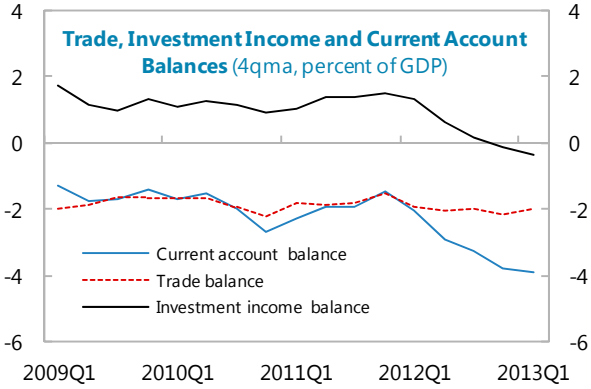
Terms of trade have worsened gradually over the past three years.



Exports grew faster than imports in 2011, but import demand rebounded in 2012...



...such that net trade was a drag on growth. Falling investment income has also contributed to the recent deterioration in the current account balance.



Sources: Haver Analytics; IMF's International Financial Statistics; Office for National Statistics (ONS); and IMF staff calculations.

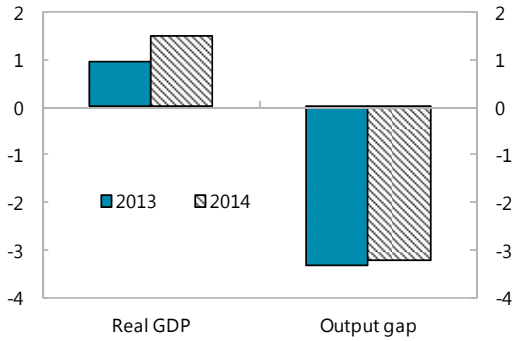
OUTLOOK AND RISKS

Recovery will be gradual, with risks tilted to the downside

16. **The economy is projected to recover slowly, under current policy settings.** Staff expects growth of around 0.9 percent in 2013, and an annual average of about 1¾ percent over the medium-term. This projection assumes that the crisis in the euro area will not re-intensify, that overall external demand gradually strengthens, and that credit conditions will improve. Nonetheless, ongoing headwinds from fiscal consolidation, private-sector deleveraging, and depressed demand from the euro area and some emerging markets will limit the pace of recovery. Domestic demand is expected to continue to contribute to positive growth, while net trade, after acting as a small drag in 2013, makes a modest contribution to growth over the medium term (see Table 2).

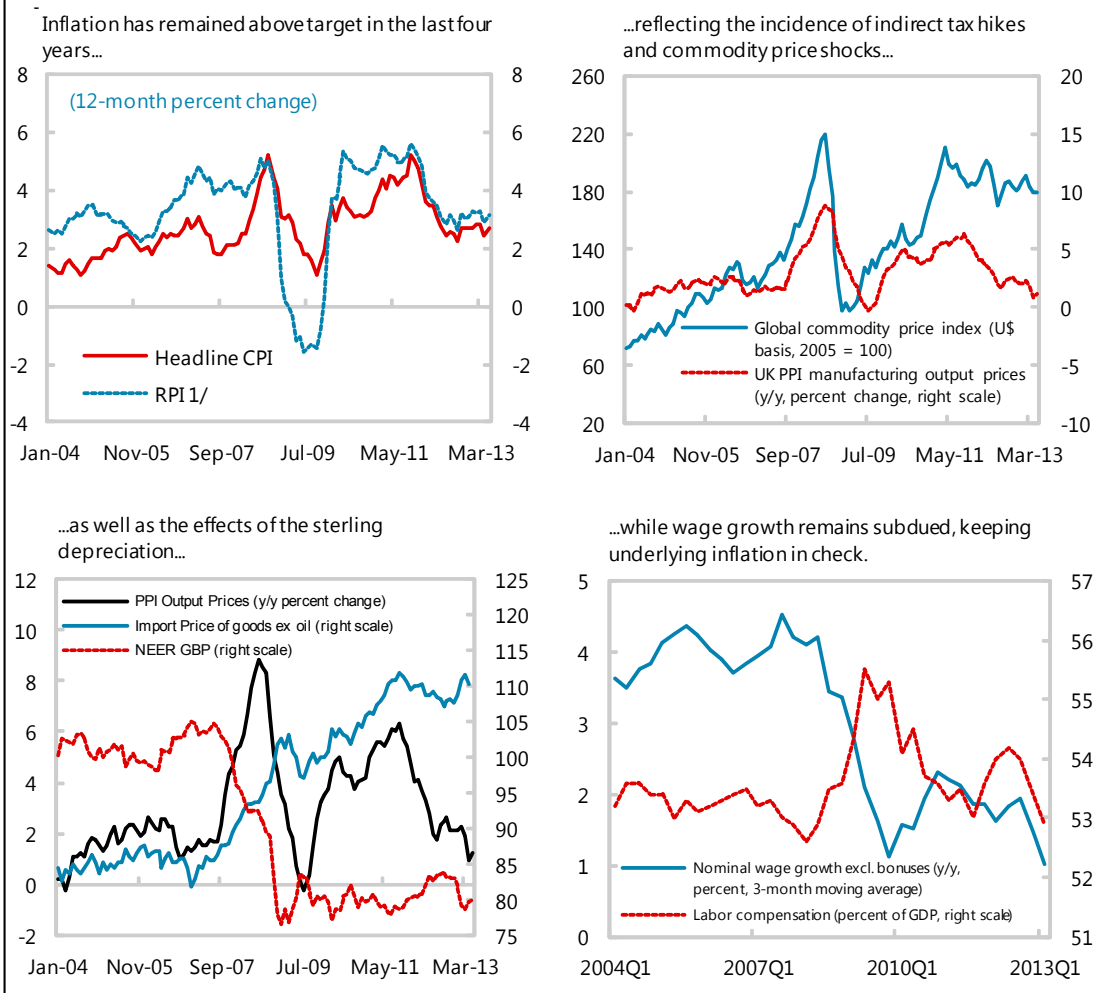
17. **The output gap is expected to remain substantial, raising the risk of hysteresis effects.** With weak growth projected in the medium term, the output gap is projected to persist for several years, remaining around 2 percent in 2018, a profile similar to that projected by the Office for Budget Responsibility. The projection assumes that the negative output gap does not generate hysteresis effects on potential, which would imply less flexibility for loose monetary conditions and a larger structural fiscal deficit.[7]

Real GDP Growth and Output Gap, 2013–2014
(Percent)



Source: IMF staff estimates.

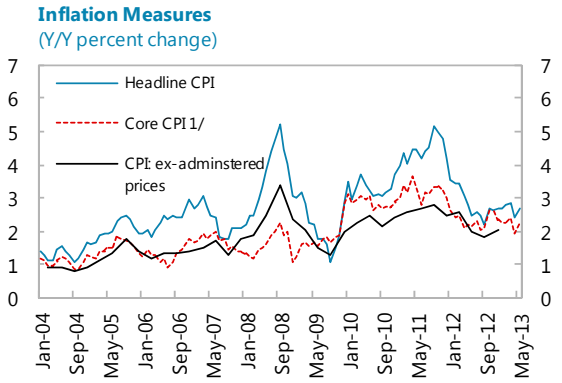
Figure 4. United Kingdom: Price Developments



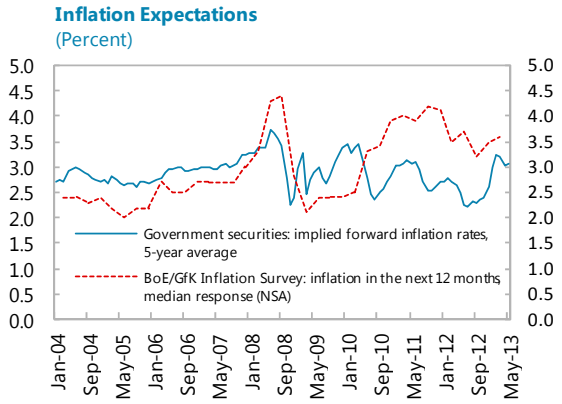
Sources: Bank of England; Haver Analytics; Office for National Statistics (ONS); and IMF staff calculations.
1/ Retail Price Index; contains cost of housing.

[7] See also Annex 1, "Estimating Hysteresis effects", and Annex 3, "Effects of Delaying Consolidation in the Presence of Hysteresis Effects", from the 2012 UK *Staff Report*.

18. **Headline inflation is high, but is expected to gradually decline to the 2 percent target.** CPI inflation has remained stubbornly above the 2 percent target (currently 2.7 percent), owing largely to increases in administered and policy-driven prices (such as energy and tuition). But underlying inflation is modest—exempting administered prices, inflation is below the target, and nominal wage growth remains very weak. Inflation expectations do not indicate substantial risks to price stability: market-based expectations are in line with levels seen before the crisis, and survey-based expectations have fallen after having risen from 2009 to 2011. Although the impact of new administered price increases could take some time to work through, staff projects that headline inflation will fall below the target of 2 percent by 2017, assuming an unchanged monetary and fiscal policy stance.



Sources: Bank of England; and ONS.
1/ Excludes energy, food, alcohol and tobacco.



Sources: Bank of England; and ONS.

19. **Risks to the outlook remain to the downside.**

- *The key risk is that persistent slow growth permanently damages medium-term growth prospects.* This could arise if private sector deleveraging is larger than expected, credit conditions fail to improve, external demand does not pick up, and the drag from fiscal consolidation is greater than anticipated. Longer-than-anticipated weakness in aggregate demand could lead to further declines in investment in capital goods and human capital, implying lower growth for an extended period.

- *Risk remains that financial stress in the euro area re-emerges and there is a protracted period of slower growth.* Despite recent market calm, growth in the euro area is likely to be weak, and the re-emergence of market tensions cannot be ruled out, with the potential for continued spillovers to the UK from depressed exports, higher bank losses and funding costs, and reduced confidence.

Box 1. United Kingdom: Risk Assessment Matrix[1]

	Relative likelihood	Impact	Policy response
Damage to medium-term growth prospects, arising from larger-than anticipated drag from deleveraging, credit conditions, fiscal consolidation, and private sector confidence.	Medium	High	Demand support from further unconventional monetary policy. Discretionary fiscal stimulus, as well as substantive changes in the composition of fiscal policy.
Financial stress in the euro area re-emerges.	Medium	High	Supply measures including incentives to boost private investment; increased public infrastructure expenditures.
Protracted period of slower European growth.	High	High	
Bank balance sheets worse than expected.	Medium	High	Require banks to build capital buffers, notably through capital raising.

1/ The Risk Assessment Matrix shows events that could materially alter the central scenario, which is the scenario most likely to materialize in the view of the staff.

POLICY IMPLICATIONS

A multi-pronged policy strategy is needed

20. **Restoring growth momentum and rebalancing the economy is vital.** Strong growth is needed to restore incomes, ensure the sustainability of public debt, and support bank balance sheets. For long-term prosperity and resilience against future shocks, the economy has to be diversified and not reliant on domestic consumption. These imperatives have supply as well as demand dimensions—after five years of relatively weak activity, additional measures are needed to raise long-term expectations of potential growth, while rebalancing necessitates a transformation to a high-investment and more export-oriented economy.

21. **Policy remedies to restore growth and rebalance the economy are not straightforward.** Monetary policy is effectively at the zero bound; banks' health needs strengthening through building capital buffers, but in a way that does not reduce credit; and public debt is rising, but the consolidation to address this will be a drag on growth. This implies that no one policy lever will be sufficient; hence, there is a need for a coordinated multi-pronged strategy to guide the economy to greater and more balanced growth.

22. **Appropriate policies could have important benefits for other economies as well as the UK.** Simulations of a package of complementary and balanced policies—monetary and fiscal support for demand, including targeted expenditures on public investment, and structural reforms to raise productivity and the labor force—show that there are important potential gains to the UK and other countries. Importantly, although monetary easing is likely associated with

sterling depreciation, the net demand effect dominates, and all economies experience increases in their own incomes, even if their exchange rates appreciate.[8]

MONETARY AND CREDIT EASING POLICIES

Notwithstanding bold action, transmission of monetary policy has been weak

23. **Monetary policy in the UK has appropriately been highly accommodative.** The Bank of England (BoE) has implemented a number of measures:

- The BoE lowered the policy rate aggressively (currently at 0.5 percent), despite headline inflation being above target for an extended period.
- From January 2009, the BoE has engaged in Quantitative Easing (now amounting to £375 billion, about ¼ of nominal GDP), bypassing the banking system to lower long-term rates and stimulate asset prices.
- In July 2012, the BoE, jointly with Her Majesty's Treasury (HMT), initiated the Funding for Lending Scheme (FLS), aimed at lowering funding costs for banks and boosting credit supply. In April 2013, the scheme's duration was extended by one year, to January 2015, and its pricing structure modified to strengthen incentives for banks and nonbanks to lend to SMEs.

24. **The March 2013 Budget provided a new remit for the Monetary Policy Committee** (MPC). The remit reaffirms that the central objective of monetary policy is to meet the inflation target of 2 percent per year. It also clarifies the government's expectations of the MPC about communicating the tradeoffs between inflation and growth, explicitly permits the use of unconventional policies, and requests the BoE to explore the use of thresholds to guide policy (see Box 2).

25. **The transmission of monetary policy has, however, been weak.**

- Notwithstanding ample and cheap liquidity, the transmission to retail rates has only been partially successful. Mortgage rates have fallen considerably, lowering household debt servicing costs. However, spreads of other assets classes remain elevated or even higher than before the crisis, notably for lending to SMEs, as they are unable to post high-quality collateral as security.[9]
- Despite a substantial increase in broad money (excluding intermediate other financial corporations), the transmission to lending has been unusually weak. Patterns in lending, rates

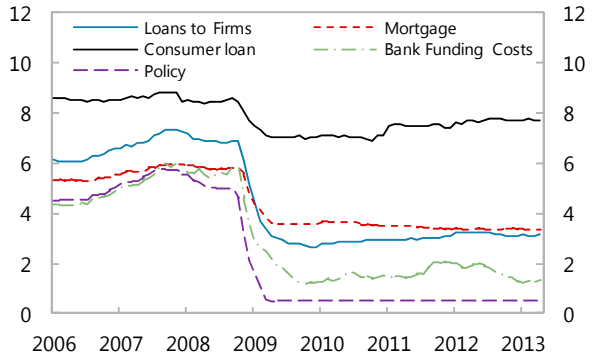
[8] See Annex 7. A fuller discussion of spillovers is contained in the 2013 *Spillover Report*.

[9] SMEs currently account for 99.9 percent of private sector businesses, about 60 percent of private sector employment, and 50 percent of private sector turnover.

and spreads, as well as surveys of lenders and borrowers indicate that demand and supply problems are both important in credit markets. Banks have endeavored to reduce leverage—while some non-core deleveraging has been desirable, credit more generally has also suffered, with reduced risk appetite particularly affecting riskier borrowers. But, just as importantly, borrowers have been deterred from drawing on credit by weak growth expectations and, anecdotally, increased caution about the stability of prospective relationships with banks. Firms have notably relied increasingly on retained earnings and built up unusually high levels of working capital, at a cost to investment (see Annex 4).

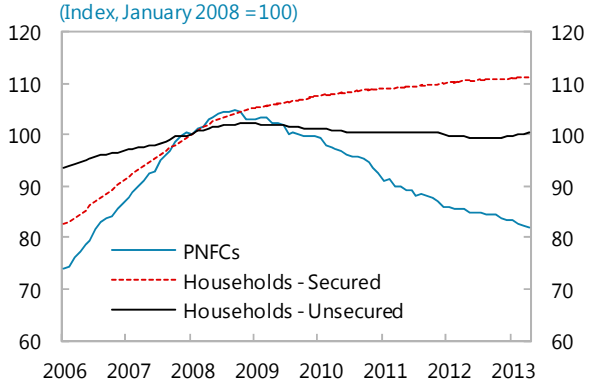
Maintain accommodation, but temper expectations of effectiveness

26. **Monetary policy should remain accommodative.** The continued underperformance of the economy, reflected in the persistent output gap, calls for the accommodative stance to be maintained for an extended period. Because underlying inflation pressures are expected to remain subdued, there is no immediate risk of the credibility of the monetary policy framework being eroded.[10] A broad set of tools could be considered:



Interest Rates
(Percent, January 2006-April 2013)

Source: Haver Analytics.



M4 Lending by sectors
(Index, January 2008 =100)

Sources: Haver Analytics; and IMF staff calculations.

- *QE*. The BoE should consider further purchases of gilts. Studies by staff and at the BoE have found that quantitative easing has reduced yields on long maturity government bonds, with positive effects on asset prices. There is no clear evidence to suggest that the effectiveness of QE—in the narrow sense of affecting gilt prices and expanding broad money—has diminished over time. However, the transmission of broad money to credit has been weak (see ¶27 and Annex 4).

[10] The use of unconventional tools raises the issue of risks to the central bank's independence, a common perception being that monetary policy would become subjugated to fiscal policy if the Bank's balance sheet deteriorates sufficiently. The Asset Purchase Facility—the subsidiary of the Bank of England set up to facilitate QE—is fully indemnified for all losses by the Treasury, and hence any gains or losses are due to the Exchequer. The Funding for Lending Scheme is not indemnified. But even without indemnification, the right measure for operational independence is not the net worth of the central bank but whether (the net present value of) operating expenses is greater than (the net present value of) revenues (mainly seigniorage). On this basis, the Bank has considerable room for asset purchases (but see ¶54).

Box 2. United Kingdom: Forward Guidance

The changes to the MPC's remit raise the possibility of the BoE using explicit forward guidance on policy rates as a tool of monetary policy, potentially with explicit thresholds to signal when rates would be changed.

Forward guidance covers a range of possibilities. At one level, a central bank could be transparent about what it sees as the *likely* path of policy rates to achieve its policy target, based on its assessment of the current state of the economy. Another level would be to *commit* to a path for policy rates, whether for some period of time or guided by a limited number of threshold conditions (such as the level of unemployment or growth in a nominal variable such as incomes).

The case for greater transparency about future rates

Monetary policy transparency in the UK is relatively high, aided by a thorough explanation of views of the state of the economy in the quarterly *Inflation Report*. However, projections for inflation and output are conditioned on market expectations, and have to be "inverted" for private agents to infer the desired interest rate path. Currently, markets do not expect rates to rise until 2016. However, there is a potential risk that households and firms might anticipate that long interest rates increase faster than the Committee would desire, especially if other economies raise rates earlier. Greater transparency about future policy rates could therefore be a useful tool.

Forward guidance as demand stimulus

Another argument for forward guidance is that the promise of lower expected rates—whether by lower nominal rates or higher future inflation—would induce private agents to bring forward demand. This rests on some crucial assumptions: first, that private agents respond now to future interest rate reductions, and that they perceive the policy-maker's promise to be credible. In a situation in which agents are credit constrained, as currently, the effectiveness of forward guidance will be reduced. Hence, as with other monetary policy tools, complementary financial policies to restore credit intermediation are needed for this mechanism to be fully effective.

Commitment and thresholds

The central bank could take forward guidance a step further by binding its own actions based on specific criteria. The bank could commit to keep rates at a certain level for a period of time, or until an economic condition(s) is satisfied (in the case of the Federal Reserve, until unemployment is below 6.5 percent and inflation remains anchored). The central bank needs to assess the disadvantages of tying its own hands and the benefits of making the promised rate path credible. Thresholds also need to be easily communicable—well-known, accurate and timely—while also a sufficiently broad to summarize the overall state of the economy. And any particular threshold would probably need to be supplemented with one or two other conditions—such as inflation and financial stability—to cope with unforeseen shocks.

- *Forward guidance*. In a situation such as currently faced by the UK, assurance by the central bank that policy rates will be kept low as the economy reaches full momentum can play a useful role; however, it is unlikely that this by itself could instigate a recovery (see Box 2).

- *Purchase of private sector assets*.[11] The sizes of these markets are relatively small, because of which the broad money creation effect would be small. However, concomitantly, small purchases by the BoE could have a material impact on the prices of such assets. In the cases of covered bonds and securitized SME lending, a secure source of demand could play a useful role in making issuance of such instruments more viable.

- *Policy rate cut*. In principle, the Bank rate could be cut further. However, with a large quantity of bank loans automatically linked to the policy rate, bank profitability could suffer, further inhibiting loan growth. Hence, such a step would need to be considered carefully.

- *Modifying the FLS*. If draw-downs from the FLS and credit creation remain weak, authorities should examine whether current collateral requirements and haircuts (which are currently set to match the discount window rate) are appropriate

27. **But the effectiveness of monetary policy is limited by weak banks and final demand, making support from financial and fiscal policies vital.** The effectiveness of accommodative monetary policy is dependent on the health of the banking system and the demand for credit. Hence, implementation of financial policies to strengthen banks' health and fiscal and structural measures to boost expectations of long-term incomes are necessary to give monetary policy greater traction. This is particularly important since private domestic deleveraging pressures (on both households and banks) have proven stronger than previously anticipated, and the response of net trade has disappointed.

FINANCIAL SECTOR POLICIES

Repairing bank balance sheets is crucial

28. **Financial sector repair has advanced, aided by European and national policies.** UK banks' funding costs fell sharply following the EU Summit, OMT and FLS announcements in 2012Q3. Banks have also reduced their reliance on wholesale funding, taking advantage of the ample supply of deposits. Noncore deleveraging has progressed well, regulatory capital adequacy ratios continue to edge up, and profitability—which had been dented by large conduct costs in 2012—has improved somewhat in the first quarter of 2013 (see Box 3 and Figure 5).

29. **But banks are still not restored to healthy functionality.** Significant asset quality problems linger on banks' balance sheets: the share of non-performing loans is high, especially at the two government-intervened banks, and there are concerns about lender forbearance on commercial real estate and retail mortgage exposures.[12] Moreover, the build-up of provisions

[11] Although the APF has mainly purchased gilts, it continues to operate facilities for the purchase of private sector assets through the Corporate Bond Secondary Market Scheme and Secured Commercial Paper Facility.

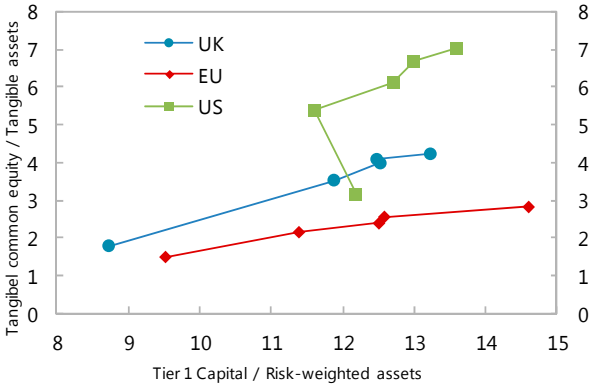
[12] Recent distress at Co-Op bank suggests asset quality issues may also extend to smaller banks and building societies, which are an important source of mortgage and SME financing.

and tangible capital—to buffer against these risks—has slowed since 2009. In general, the health indicators of UK banks are better than those of their EU peers, but markedly worse than those of US banks (see Figure 6). Finally, the outlook for profitability is depressed due to regulatory uncertainty about anticipated structural and price-based measures, and the impact of the new "conduct" environment on banks' ability to pursue fee-yielding products. Against this backdrop, banks have been unwilling to expand lending to businesses, especially the riskier SMEs.

Strengthen capital position of banks and clarify strategy for state-intervened institutions

30. **An expeditious repair of bank balance sheets is imperative for a durable resumption in lending.** As discussed in the previous section, fully-functioning credit markets are crucial for monetary transmission. Moreover, the US post-crisis experience demonstrates well the benefits for credit markets and the economy of: (i) an early and comprehensive treatment of banks' asset quality problems (including through adequate provisioning for expected losses); (ii) a focus on tangible capital-building; and (iii) credible stress tests, backed by supervisor-approved capital plans for major banks.

Tangible Capital vs. Regulatory Capital Ratios, 2008-12
(Percent)



Sources: Bloomberg; and IMF staff calculations.

31. **To this end, the authorities have recently conducted an Asset Quality Review (AQR) and laid out plans to strengthen banks' capital positions.**

- Commissioned by the Financial Policy Committee (FPC, the macro-prudential authority), the March 2013 AQR determined that banks' capital positions, as of end-2012, were overstated by £52 billion—this was attributed to under-provisioning for expected credit and trading book valuation losses (£30 billion) and conduct costs (£10 billion), and the overstatement of capital ratios resulting from an aggressive use of risk weights (£12 billion).

- The estimated capital shortfall, however, is £27 billion when assessed against the FPC's preferred end-2013 benchmark of a 7 percent fully-loaded Basel-III common equity tier 1 capital ratio, computed after making appropriate adjustments for expected loan losses and conduct costs over the next three-years, and for prudent risk weights.

- The Prudential Regulation Authority (PRA) has announced the distribution of this shortfall across major banks (£13.6 billion for RBS, £8.6 billion for LBG, and £3 billion for Barclays) and has discussed individual banks' capital-raising plans to meet the shortfall.[13] The authorities have also announced their intention to launch system-wide stress tests, on an annual basis, from 2014 onward.

[13] In addition, the PRA has published (for the first time) banks' common equity tier 1 leverage ratios, with a view to ensuring they do not fall below the 3 percent Basel-III floor. In this regard, two financial institutions (Barclays and Nationwide) have been asked to prepare plans by end-June 2013.

Box 3. Financial Soundness Indicators for Major UK Banks[1]

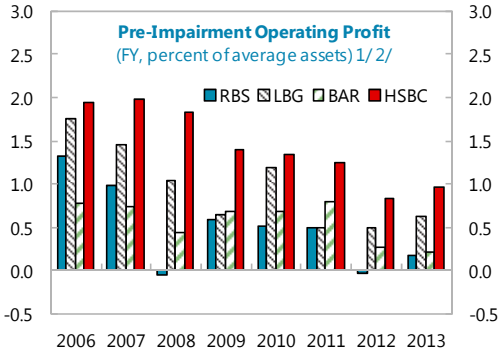
(Percent)

	2011	2012	Change
Capital adequacy			
Total capital ratio	15.0	16.3	1.3
Tier 1 ratio	12.5	13.2	0.8
Tangible common equity ratio	4.1	4.2	0.1
Leverage ratio	4.6	4.7	0.1
Asset quality			
Provision for loan loss / total loans	1.3	0.9	-0.4
Reserves for loan loss (% of non-performing assets)	42.8	44.5	1.8
Non-performing assets / total loans	7.1	6.5	-0.7
Loan growth	-4.0	-0.7	3.3
Profitability			
Net interest income / avg. earning assets	1.7	1.5	-0.2
Efficiency ratio (overheads/revenue)	60.0	61.4	1.4
Return on assets	0.1	0.0	-0.1
Return on common equity	1.9	-1.3	-3.2
Trading income (% of total revenue)	9.5	8.5	-0.9
Liquidity			
Total loans to total deposits	112.2	104.4	-7.8
Wholesale funding / total liabilities	62.6	59.0	-3.5
ST borrowings / total liabilities	9.6	5.1	-4.5
Liquid assets / total assets	9.6	9.6	0.0

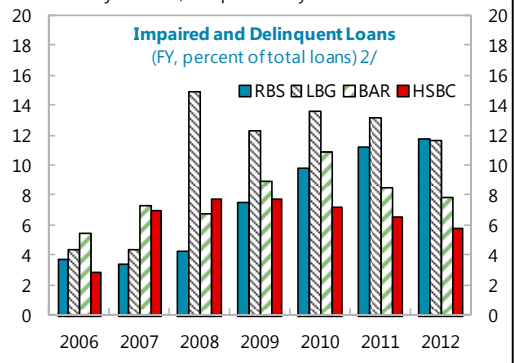
Source: Bloomberg. Indicators reported on a Basel-II basis.
1/ Average for Barclays, HSBC, LBG and RBS.

Figure 5. United Kingdom: Selected Indicators for Major Banks

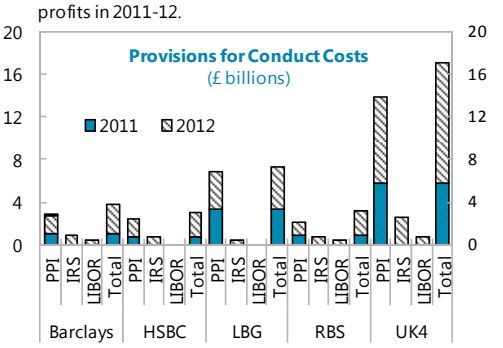
Profitability remains weak, but has improved somewhat in Q1-2013, relative to 2012.



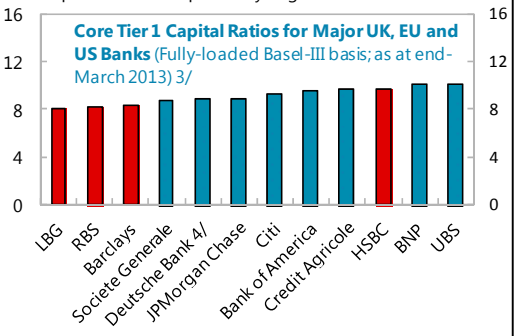
The share of problem loans is elevated for three of four major banks, and particularly for RBS and LBG.



Conduct costs have substantially impacted UK banks' profits in 2011-12.



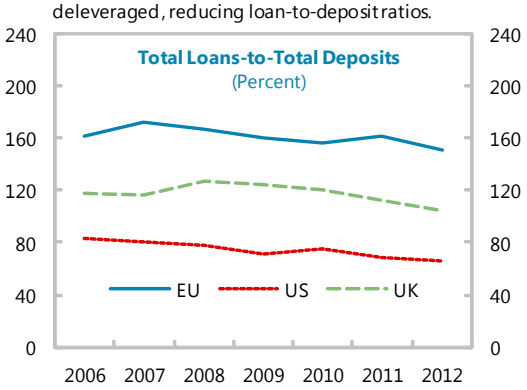
Capital ratios for 3/4 major UK banks are still short of the 9-10 percent level reported by large EU and US banks.



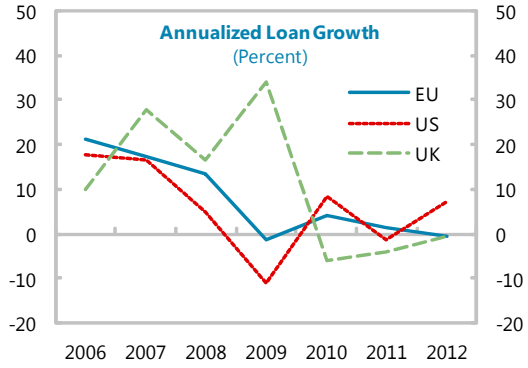
Sources: SNL and IMF staff estimates, for pre-impairment operating profit and impaired and delinquent loans; S&P, for conduct costs provisions; and Banks' Pillar 3 disclosures for Core Tier 1 capital ratios (Basel III basis).
1/ 2013 refers to Q1-2013.
2/ For Barclays, Q1-2013 figures for pre-impairment operating profit, and 2012 figures for impaired and delinquest loans are not reported in SNL, so an extrapolation using changes in the numerator and denominator for each ratio was employed to derive estimates.
3 Ratios shown for EU, UK and US banks with balance sheets above $1.5 trillion at end-2012 (Banco Santander did not disclose fully loaded ratios). The figures are as reported by banks in their Q1-2013 disclosures. Banks may apply different adjustments based on individual interpretation of Basel III requirements.
4/ Deutsche Bank has recently raised €2.96 billion of equity which would raise its ratio to 9.5 percent.

Figure 6. Comparison of Health of UK, EU and US Banks

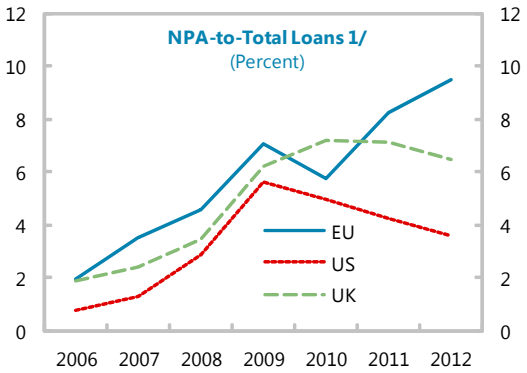
Post-crisis, EU, UK and US banks have all deleveraged, reducing loan-to-deposit ratios.



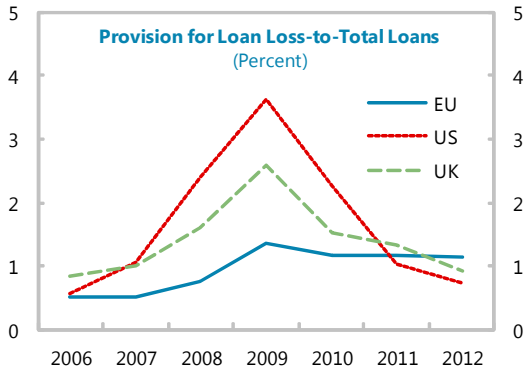
But unlike US banks, net lending by EU and UK banks has not resumed.



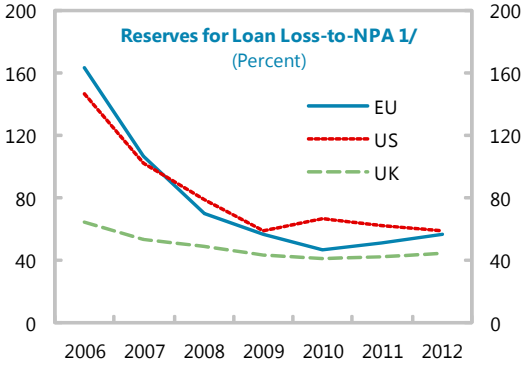
This partly reflect still-lingering asset quality problems weighing on banks' balance sheets.



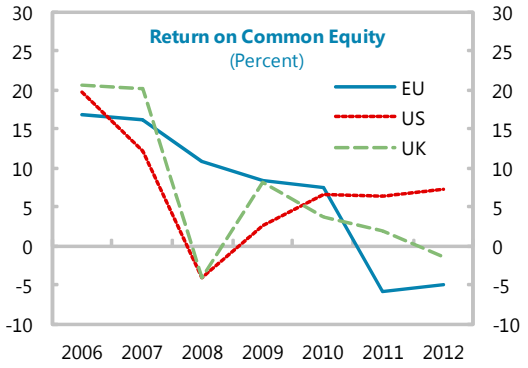
More aggressive provisioning for problem loans helped clean US banks' balance sheets faster.



Whereas coverage ratios for problem loans remained comparatively low for UK and EU banks.



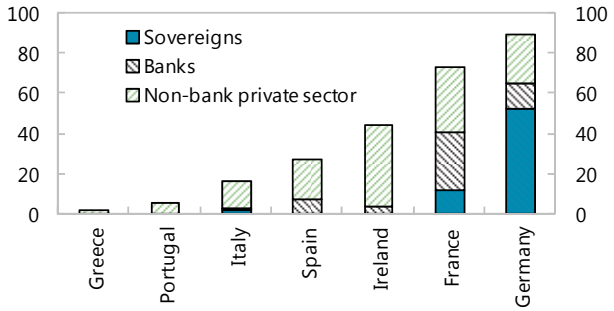
The stronger clean-up of US banks' balance sheets is reflected in their stronger profitability and lending.



Sources: Bloomberg,; and IMF staff calculations. 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 and LBG. 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, PNC Financial Services Group, State Street, SunTrust Banks. US Bancorp 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.

32. **It would be important to ensure that any capital building effort is robust, imparts certainty and preserves lending.** While the AQR was an important stock-taking exercise, it was not a stress test and thus did not measure banks' resilience to shocks. Moreover, the 7 percent capital benchmark ratio set by the FPC falls short of the 9½–10 percent level that will ultimately be required for major UK banks (as G-SIBs, or if within the proposed ring-fence), and that other global peers may already be targeting. In this context, and given the still-high leverage and euro area exposure of UK banks, the system-wide stress tests planned from 2014 should aim to cover a broad range of risks, employ sufficiently stringent scenarios, and aim for commensurately ambitious capital buffers. Transparency over methodology, results, and (supervisor-approved) bank-by-bank capital plans would significantly enhance the credibility of the stress tests. Finally, to protect credit, banks' capital building effort, now and in the future, must focus on new equity issuance, reduction of dividend payouts, restrained remuneration, and balance sheet restructuring that does not reduce net lending. The FPC's recent recommendation to the PRA that banks that are making satisfactory progress on capital should be allowed to reduce their liquidity coverage ratios to 80 percent (still well above EU minima) should also prove helpful in supporting credit during the capital-building phase.[14]

Major UK banks' Exposures to Euro Area Countries, end-2012 1/ (Percent of core Tier 1 capital) 2/



Sources: Bank of England; EBA; and IMF staff calculations.
1/ Banks included: Barclays, HSBC, LBG, and RBS.
2/ Combined core tier 1 capital of Barclays, HSBC, LBG and RBS (on Basel-III basis).

33. **A clear strategy is needed for the two government-intervened banks, with a view to returning them to good health and eventually private ownership.** Together, RBS and LBG account for two-fifths of the stock of UK net private sector lending. The banks have made progress in repairing their balance sheets and improving profitability. But challenges remain, as evident by the recent inability as yet to divest branches, and the still-low market-to-book value for RBS.[15] The approaching completion of the banks' original EC-approved restructuring plans provides an opportunity to elaborate a clear way forward, especially for RBS where prospects are more uncertain and complexities greater. Any strategy should seek to return the banks to private hands in a way that maximizes the value for taxpayers, strengthens confidence and competition in the sector, and minimizes outward spillovers. In this context, if a sovereign backstop is

[14] The June 2013 Financial Stability Report estimates the liquidity release from this countercyclical policy relaxation to be £70 billion (almost 5 percent of GDP), although, given question marks over, inter alia, capital adequacy, it is not clear how much of this will translate into credit.

[15] Staff estimates, using publicly-available information through 2013Q1 and the "HEAT" bank assessment tool developed by Ong et al (forthcoming), suggest that RBS is among the weakest of the 28 globally-systemically important banks (G-SIBs).

required to meet a capital shortfall, it should be provided, as this would have a high multiplier in boosting growth.[16]

34. **The authorities have recently announced their intended strategy for the state-intervened banks.** The choice of a strategy is to be guided by the objectives of maximizing the banks' ability to support the UK economy, maximizing the value for taxpayers, and returning the banks to private ownership. Consideration is being given to selling the government's stake (39 percent) in LBG, possibly beginning with an institutional placement, followed by a retail offering. In the case of RBS, where the government has an 82 percent stake, a review is expected to be conducted by Fall 2013 (with external professional support) on the merits of a good bank/bad bank split that would allow the bank to focus on its core UK businesses and does not involve the bank's nationalization. In this context, further public capital injections into RBS have been ruled out.

FISCAL POLICY

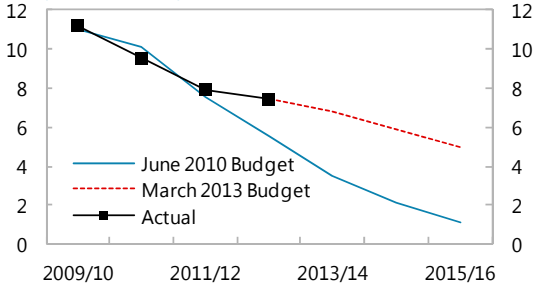
Fiscal consolidation has been a drag on growth

35. **Fiscal consolidation has been large and front-loaded, against a backdrop of large public deficits and debt**. In mid-2010, the newly-elected government embarked on a large and front-loaded fiscal consolidation that aimed to balance the structural current budget by the end of a rolling 5-year window and put the net debt-to-GDP ratio on a downward path by FY15/16 (see Figure 7). To this end, the government set out a plan, comprising of discretionary deficit reduction measures of about £130 billion (8 percent of GDP) from FY 2010/11 to FY 2015/16. The government has since implemented more than a half of those discretionary measures. As a result, the overall deficit fell from 11 percent of GDP in FY2009/10 to 7¼ percent of GDP in FY2012/13.[17] Over the same period, the structural deficit, as measured by the cyclically-adjusted primary balance (CAPB) as a share of potential GDP, narrowed by around 5 percent of GDP.

[16] Any recapitalization need should likely arise mainly for RBS, although, in the absence of detailed information, it is difficult to estimate precisely the amount needed. Based on the AQR, the PRA has quantified a £13.6 billion (0.9 percent of GDP) capital shortfall in the bank, of which £10.4 billion is expected to be covered by RBS's existing capital plans. The remaining shortfall, of £3.2 billion, together with the amount of additional capital required to raise RBS's fully-loaded Basel-III common equity tier 1 ratio to, say, 10 percent (the level targeted by the bank's healthier peers), would amount to around £22 billion (1.5 percent of GDP).

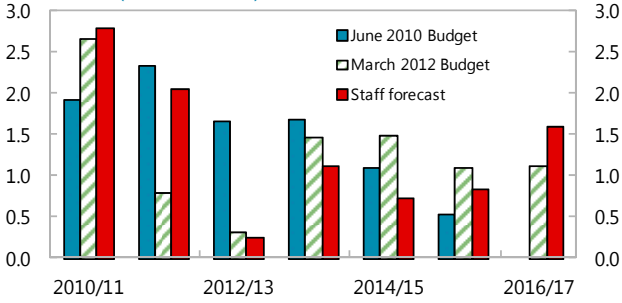
[17] Substantial asset transfers have also helped reduce the deficit. In April 2012, the government transferred assets (1¾ percent of GDP) from the Royal Mail Pension Plan to the public sector, and, in November 2012, decided to transfer the excess cash held in the BoE's Asset Purchase Facility to the Treasury, starting 2013. Fiscal indicators in this report exclude the temporary effects of financial sector interventions and asset transfers from the Royal Mail Pension Plan, unless otherwise noted.

Public Sector: Net Borrowing
(Percent of GDP)



Source: HMT.
1/ Excludes temporary effects of financial sector interventions and the transaction related to the transfer of assets from the Royal Mail Pension.

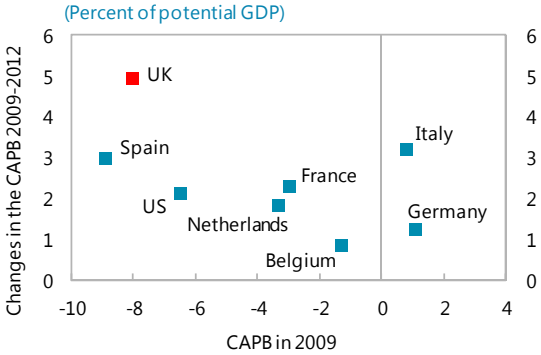
Public Sector: Change in Cyclically Adjusted Primary Balance (Percent of GDP)



Source: HMT.
1/ Excludes temporary effects of financial sector interventions and the transaction related to the transfer of assets from the Royal Mail Pension.

36. **While adhering to the medium-term framework, the government has shown welcome flexibility in its fiscal program.** For instance, the pace of structural consolidation moderated in FY 2012/13, as the authorities decided appropriately in November 2011 not to make any discretionary adjustments to the path of consolidation in response to the OBR's upward revision to the size of the structural deficit associated with its substantial downward revision of actual and potential near-term growth. Moreover, the government has allowed automatic stabilizers to operate freely, and, more recently, accommodated a slippage in meeting the Supplementary Debt Target—public sector net debt is now forecast to fall in 2017–18, two years later than set out in June 2010.

Selected Countries - Changes in Cyclically Adjusted Primary Balances (CAPB) between 2009 and 2012 1/
(Percent of potential GDP)



Sources: April 2013 WEO; and IMF staff estimates.
1/ UK is on a fiscal year basis.

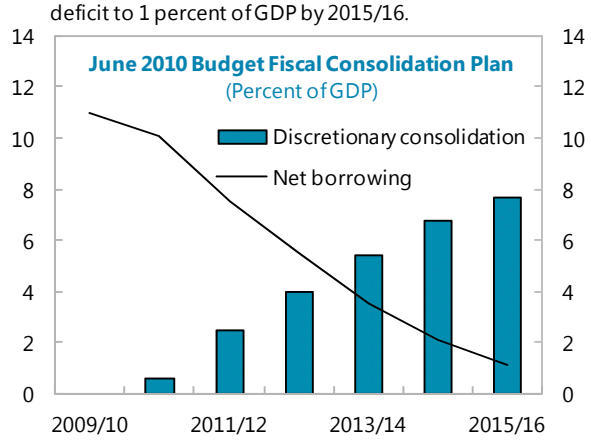
37. **Despite flexibility, consolidation has hurt growth.** The consolidation was the largest among major advanced economies, including France, Germany, Netherlands, Italy, Spain, and the US. Using a conservative multiplier estimate of 0.5 (just under the recent average of effective multipliers used by the OBR) would imply a cumulative GDP loss of 2½ percent, although it is plausible that the multipliers might be higher.

Bring forward growth initiatives while preserving the fiscal framework

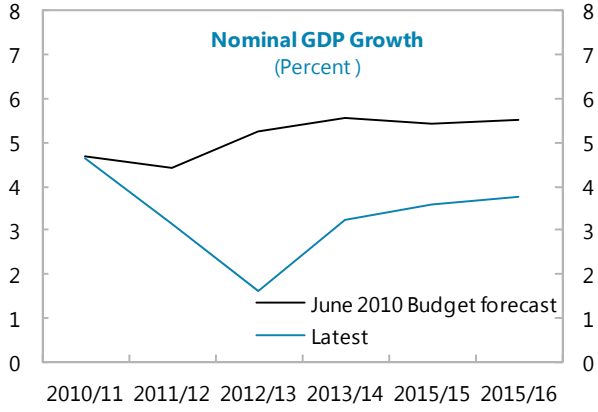
38. **Planned fiscal tightening in FY 2013/14 will be a further drag on growth.** The March 2013 Budget envisages an additional discretionary tightening of £10 billion in FY 2013/14—in structural terms, the OBR estimates that these measures imply a reduction in the cyclically-adjusted primary balance of 1 percentage point of potential GDP. The discretionary tightening is smaller than in FY2012/13, but at a time when households, firms, and banks are all deleveraging and external demand is weak, the tightening will pose further headwinds to growth.

Figure 7. United Kingdom: Progress and Challenges in Fiscal Consolidation, 2009/10–2018/19

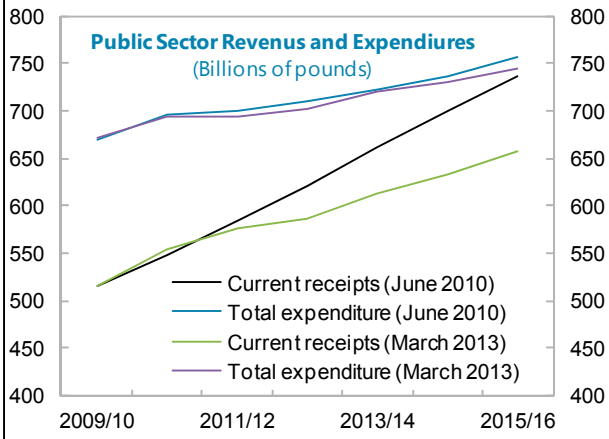
The original consolidation plan aims at reducing the deficit to 1 percent of GDP by 2015/16.



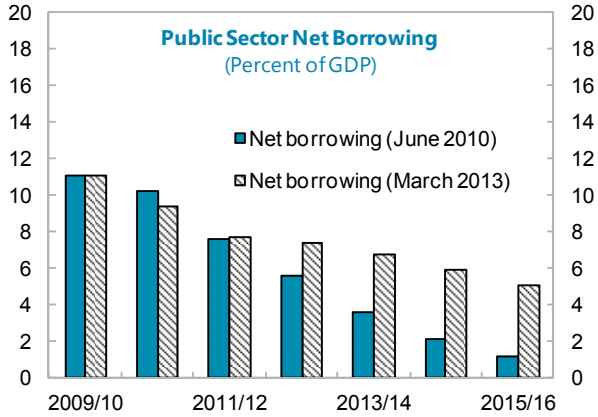
However, as nominal GDP growth significantly underperformed...



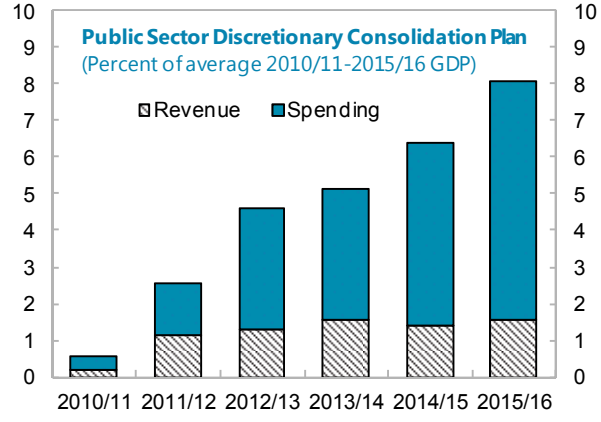
...revenue collection fell short of projected targets...



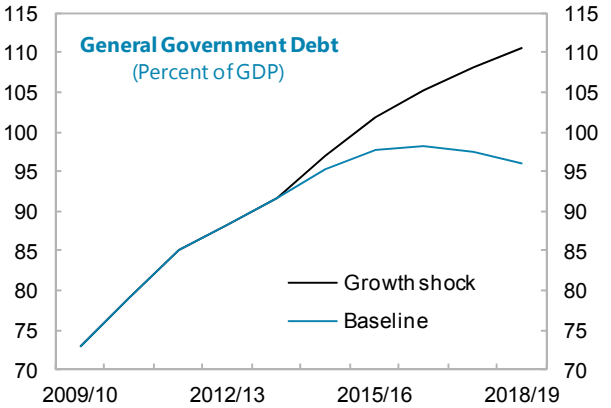
...and the pace of defcit reduction slowed compared with the original plan.



Expenditure-based fiscal consolidaiton is expected to continue.



In addition to discretionary efforts, growth will matter for the success of consolidation.



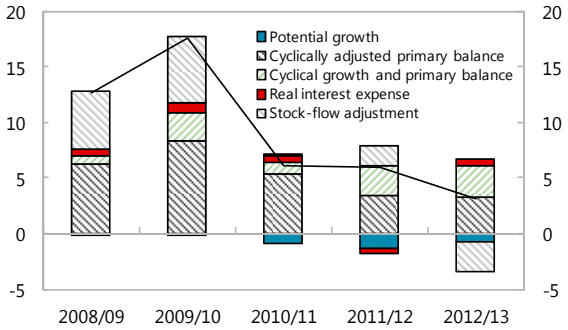
Sources: HMT; Office for National Statistics (ONS); and IMF staff estimates.

39. **Judgments about fiscal policy need to balance debt sustainability with growth concerns.** The combination of continuing weak growth and high debt presents a dilemma: further fiscal consolidation will weaken output, with the risk of a permanent loss to productive capacity, while debt will accumulate unless there is consolidation, with the risk of an eventual loss of credibility.

- On the one hand, the UK has one of the highest deficit and debt levels in the G-20, and the latter continues to rise. With nominal growth projections revised down, and automatic stabilizers allowed to operate fully, the primary deficit is expected to remain above a debt-stabilizing level, contributing to a worsening debt outlook. Public sector net debt is expected to peak at just below 84 percent of GDP, and will begin to fall only in FY 2017/18 (see Appendix I on Debt Sustainability).

- At the same time, however, weak growth has accentuated the large fiscal problem. In 2008-10, the rising debt was in large part accounted for by a worsening of the structural deficit, but more recently, it can be explained increasingly by unfavorable cyclical conditions. In particular, the impact of discretionary consolidation measures on deficit reduction has been more than offset by widening cyclical primary deficits—indeed, low growth is largely responsible for the worsening of the debt outlook.

Decomposition of Annual Changes in Gross Government Debt
(Percent of GDP)

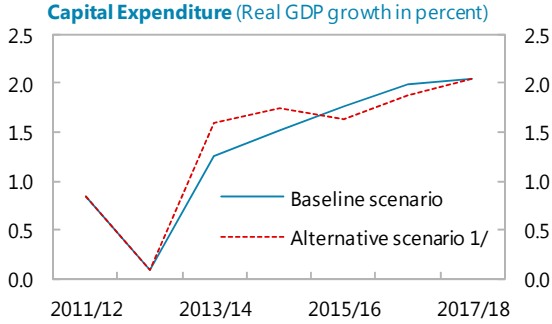


Source: IMF staff estimates.

- Moreover, the drag from fiscal consolidation may be unusually large in the current situation. There is good reason to believe that multipliers—and the associated drag on output—are larger currently in the UK where the output gap is large, the economy is in a liquidity trap, and credit is constrained.

40. **On balance, therefore, given the tepid recovery, fiscal policy should capitalize on the nascent signs of momentum to bolster growth.** This will need to involve pursuing measures that address both supply-side constraints and also provide near-term support for the economy. In the current context in which labor is underutilized and funding costs are cheap, the net returns from such measures are likely to be particularly favorable. The government has introduced some measures to support growth—in particular, it has altered corporate and personal income taxes, to boost

Illustrative Alternative Scenario - Bringing Forward Capital Expenditure (Real GDP growth in percent)



Source: IMF staff projections.
1/ Assumes £10 billion of planned capital projects will be brought forward from 2015/16 to 2013/14-2014/15.

investment and labor participation, and sought to switch from current to capital spending. However, these measures are generally too small in scale and, more importantly, some will not come into effect in the near-term. More can, therefore, be done now to support recovery.

41. **Within the context of the medium-term fiscal framework, several growth-enhancing initiatives could be considered now to offset the drag from planned fiscal tightening.** Such measures need to be aimed at raising expectations of long-run incomes and returns on investments:

- *Bringing forward planned capital investment where possible*. This would help catalyze private investment and spur much-needed growth. The government's National Infrastructure Plan identifies over 550 public and private projects, valued at around £310 billion. Although some projects, such as those requiring regulatory approval (e.g., energy sector projects) might be difficult to bring forward, other investment projects, such as roads, as well as social housing, could be brought forward relatively quickly. In addition, where projects are jointly-financed by the public and private sector, the government could consider raising its financial contributions, as the government's borrowing costs currently are at a historic-low and much lower than those faced by the credit-constrained private sector.

- *Reducing business taxes*. The corporate tax rate is expected to be reduced to 20 percent by 2015 (among the lowest in OECD). However, the level of the effective marginal tax rate will still remain relatively high, due to less generous capital allowances compared to other countries. Thus, there is room to reduce the effective rate. Furthermore, as recommended by the 2010 Mirlees Review, the government could consider introducing a tax allowance for corporate equity to reduce the tax incentive bias in favor of debt over equity finance and stimulate equity-financed investment. This measure would also help the financial sector raise capital as the cost of equity issuance would be decreased.

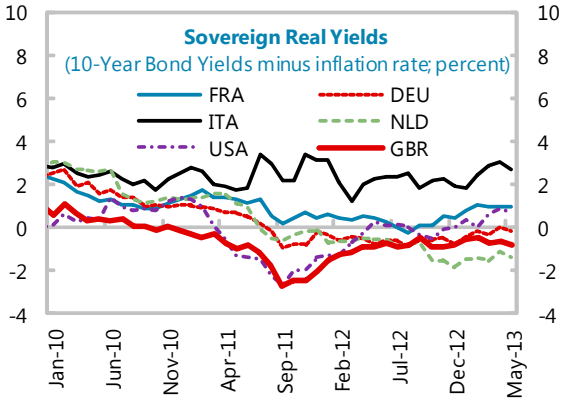
- *Offsetting the budgetary impact of these measures over the medium term*. In particular, the government could consider broadening the VAT base and undertake a reform of property taxes. The standard rate of VAT was raised from 17.5 percent to 20 percent in January 2011, but many goods and services are zero-rated or exempt from VAT. Similarly, with respect to property taxes, council tax is levied on the value of property, but property valuations have not been updated since 1991 in the majority of the regions.

42. **Government investment in supply-side measures to boost growth will enhance rather than damage credibility that the government has gained from its medium-term fiscal plan.** The UK has a strong commitment to medium-term fiscal consolidation, an Office for Budget Responsibility that has rapidly established its credibility, and long-duration debt.

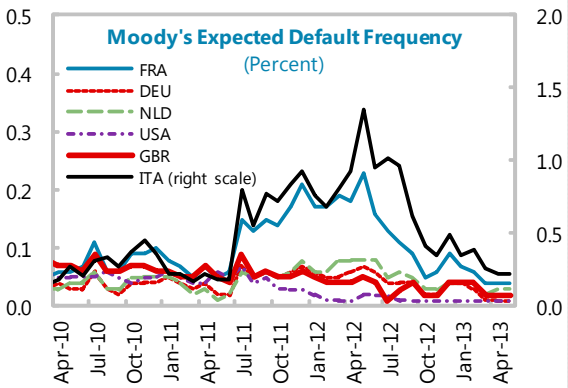
- Market indicators for the UK—sovereign yields, CDS spreads, and sovereign default probabilities—have not signaled any credibility concerns; instead, these indicators have correlated well with other strong sovereigns, such as Germany (Figure 8). Raising growth expectations will do more for reassuring debt sustainability, while also supporting bank

Figure 8. Sovereign Credibility

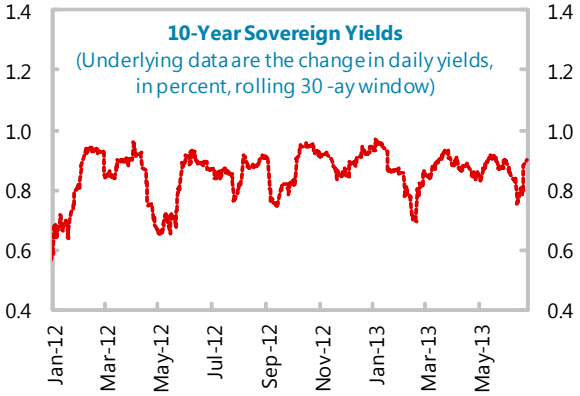
UK real sovereign yields have continued to be negative...



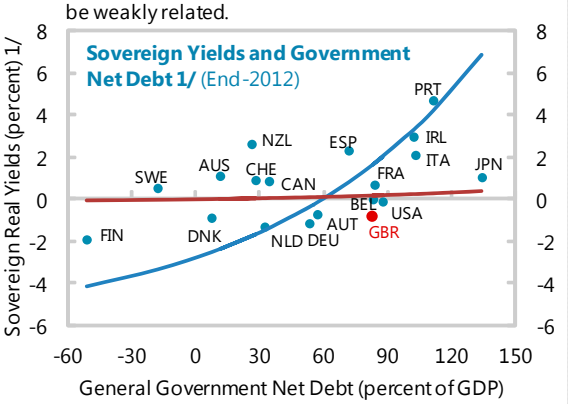
...as have Moody's expected default frequency indicators.



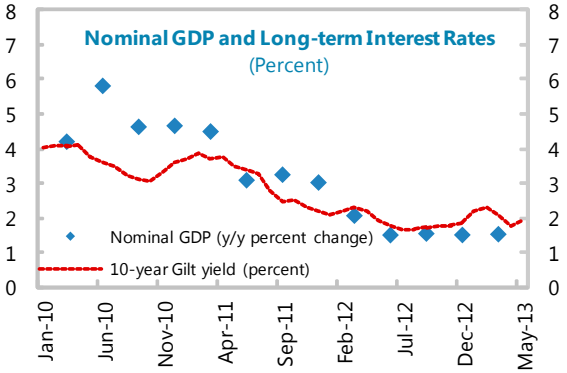
UK sovereign yields have correlated well with German yields.



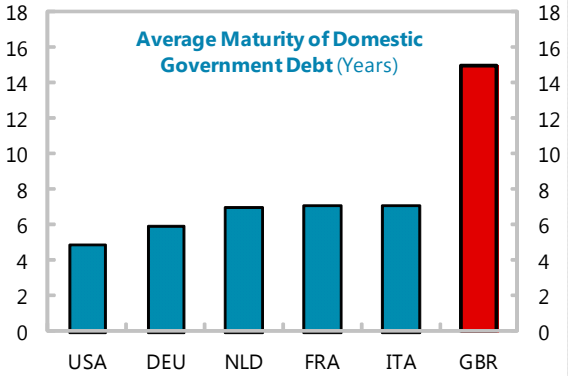
Generally, for advanced economies with monetary independence, sovereign debt and yields appear to be weakly related.



UK sovereign yields have fallen in light of weakening growth.



The average maturity of UK debt is substantially higher than average.



Sources: Bank of England; Bloomberg; Datastream; Haver Analytics; IMF staff calc.ulations.
1/ Nominal yields minus inflation rates. The currency swap adjustments have not been made.

balance sheets. And although supply measures are often thought to have only long-run benefits, they could bring immediate reassurance to purchases of UK debt.

- Moreover, given the exceptionally long maturity of UK sovereign debt—by far the highest in the G7, and a testimony to the authorities' strong debt management capacity—even sharp changes in marginal yields would pass only slowly through to effective rates.

HOUSING SUPPORT POLICIES

New housing support measures pose risks

43. **The government has introduced new policies to support the housing market.** The 2013 Budget announced a new scheme, Help To Buy, aimed at boosting activity in the housing market and making it easier for first-time buyers to purchase homes. The scheme comprises two initiatives: an equity loan scheme (already implemented) and a mortgage guarantee scheme (still being finalized). The equity loan leg of the scheme is targeted to new builds, and the guarantee scheme will provide lenders with the option to purchase a government guarantee to compensate for a portion of losses in the event of foreclosure.

44. **New housing market policies could boost aggregate demand, but also generate adverse effects.** Momentum in the housing market is already growing, with support from falling mortgage rates (owing, in part, to the FLS). And the UK housing market is notable for inelastic supply and structural incentives that support housing demand (see Annex 6). Hence, there is a risk that the result would ultimately be mostly house price increases that would work against the aim of boosting access to housing. Moreover, the guarantees pose risks for the public balance sheet and create incentives for lower quality lending at a time when banks are being encouraged to boost the quality of their balance sheets.

45. **The new measures require careful implementation.** The scheme should be strictly temporary, both to alleviate financial stability risks and to help the economy rebalance away from a dependence on domestic consumption and non-tradable production. Moreover, the fee for banks to access the Help to Buy scheme should be set at a level commensurate with the risks posed to the public balance sheet.

46. **The measures should be balanced by measures to address housing supply problems.** Housing supply pressures could be eased by further liberalizing spatial planning laws. In particular, the planning system should be made more responsive to changes in demand. Housing supply could also be increased by making more land available for development through schemes that compensate those who stand to lose from new developments. To facilitate an adequate supply response, the government could also consider fiscal disincentives for holding land without development.

STRUCTURAL POLICIES

A new wave of reforms is needed

47. **Structural reforms are an essential complement to other policies.** First, they are necessary to ensure a sustainable recovery to a dynamic economy—the current situation does not simply reflect a shortfall in aggregate demand, and reforms are needed to raise returns to investment and provide more confidence about long-term incomes. Second, reforms are necessary to aid rebalancing to a balanced and robust economy that is less dependent on specific sectors (e.g. financial services) and the buoyancy of domestic household spending.

48. **A "second wave" of structural reforms is needed.** The reforms implemented in the UK in the early 1980s induced more competition in goods and services markets, more flexibility in the labor market, and increased the share of working-age adults with higher education. However, structural weaknesses in human capital, infrastructure and innovation have undermined economic prospects. A number of initiatives identified by the LSE Growth Commission, the Heseltine Review, and the government should be pursued with greater vigor:

- *Improving skills:* Retraining opportunities to currently low-skilled workers, including vocational training, would enable them make the transition to high valued-added, high wage work. Current immigration quotas can have perverse effects by restricting the attraction and retention of skilled workers (such as recent graduates).

- *Infrastructure:* Investment in infrastructure, notably in transport and energy, could be supported by streamlining the planning application process and removing regulatory uncertainty. Devolving more authority over planning decisions to local authorities, with financial incentives provided through greater revenue sharing, could accelerate the implementation of infrastructure projects.

- *Banking:* The banking sector in the UK is notably concentrated in comparison with other countries, with the six main retail lenders providing more than 80 percent of outstanding lending. Increased competition would better serve the needs of UK firms and households, especially given few alternative sources of funds for start-ups and smaller enterprises.[18,19]

[18] The Parliamentary Commission on Banking Standards has called for more to be done to boost competition among banks. The Independent Commission on Banking has recommended the creation of a strong challenger bank through the divestiture of assets belonging to Lloyds Bank.

[19] The Breedon Review contains several proposals to develop non-bank lending channels for SMEs, such as by raising awareness of alternatives and improving access to capital markets (e.g. reducing information barriers to. securitization of SME lending).

FINANCIAL REGULATION

Challenges posed by the new regulatory structure should be addressed

49. **The UK has undertaken a major revamp of its financial regulatory structure.** With the Financial Services Act (2012) coming into force on April 1, three new bodies have been formed: (i) the Prudential Regulation Authority (PRA), a subsidiary of the BoE, will be responsible for the regulation and supervision of most systemic institutions, including banks, building societies, credit unions, insurers and major investment firms; (ii) the Financial Conduct Authority (FCA), a separate institution not overseen by the BoE, will supervise and regulate other financial firms (e.g. non-banks such as asset managers), and be responsible for ensuring that relevant markets function well and for the conduct regulation of all financial firms; and (iii) the Financial Policy Committee (FPC), established under the purview of within the BoE, will oversee macroprudential policy.

50. **The revamp of the financial regulatory structure is an important step, but comes with its share of challenges that will need to be addressed.** The reforms of the regulatory and supervisory structure are aimed at improving the integration of microprudential and macroprudential supervision to safeguard financial stability. But important challenges remain:

- *Ensuring greater coordination across the regulatory bodies.* In the context of a concentrated financial system, ensuring perfectly coordinated messages on bank capital while also respecting the lines of separation between macro- and micro-prudential policy is a challenge. This challenge was evident in the build-up to, and reactions to the publication of, the recent AQR, and could reemerge in the context of the multiple stress tests planned over the next 18 months—the PRA's individual bank stress tests this year; the system-wide stress tests planned from 2014; and the EBA exercise expected in the second half of 2014. Given that banks already face significant regulatory uncertainty from anticipated structural and price based measures, there will be a premium on delivering consistent messages across regulators. However, this consistency must be secured in a way that does not compromise the operational independence of the PRA, which is critical for the effective supervision of the UK's globally systemically-important financial institutions.

- *Maintaining the momentum toward an intensive and intrusive supervision model, supported by adequate resourcing.* The UK's new forward-looking and judgment-based supervisory approach—already supported by written documentation and strategies—is welcome. However significant further work and resources will be required for its full implementation. In particular, the PRA will need to overcome still-entrenched cultural barriers to adopting intensive and intrusive supervision, including by ensuring the data provided by firms is comprehensive, timely and accurate – a critical requirement for credible AQRs and bottom-up stress tests. There is also scope for more transparent communication of supervisory judgments about firms' financial health and business models, and risk management and

governance frameworks. Finally, it is important that recent progress on increasing senior management engagement in PRA's supervisory decisions is complemented by a more formal framework for escalation of inspections, to help augment the integrity of the supervisory process.

- *Ensuring the independence of the FPC and equipping it with the right tools.* The FPC's independence should be guarded, including in the context of appointments to the Committee. Moreover, its tools should be augmented. The recent imposition of stricter forward-loss provisioning requirements on banks was an appropriate application by the FPC of its softer powers of recommendation. Augmenting the FPC's harder powers of direction to include the authority to set the leverage ratio, with immediate effect rather than in 2018, and loan-to-value and loan-to-income ceilings would have important benefits. This is because the current toolkit, comprising sectoral and countercyclical capital requirements, is unlikely to be sufficient to effectively prevent a buildup of systemic risk, especially through property bubbles. Separately, it would be important for regulators to internalize the outward spillover effects that could arise from imposing higher capital requirements on globally-active banks headquartered in the UK. As discussed in Annex 7, these spillovers could be positive or negative, strong or mild, concentrated or dispersed, depending largely on the reaction function of global banks.

51. **Structural banking reform measures will need to be coordinated internationally and address gaps.** The effectiveness of the authorities' planned (electrified) ring-fence atop price-based regulations to address systemic risk will depend in part on active cooperation at an international level on cross-border supervisory and bank resolution frameworks. The absence of such cooperation–including in the context of the envisaged banking union for the euro zone–could result in regulatory arbitrage, potentially undermining the UK's attractiveness as a financial center. Moreover, while the envisaged ring-fence will improve the resolvability of banks inside the ring-fence, the issue of "too-important-to-fail" generally, and especially outside the ring-fence, needs further consideration. In this context, strengthening the regulator's ability (and tools) to ex-ante discipline managers, shareholders, and debt holders can help reduce the buildup of risks in the first place. Finally, the implementation of the reforms needs to be pay attention to concerns about significant activity migration to more lightly-regulated shadow banks and non-banks.

THE AUTHORITIES' VIEWS

52. **The authorities broadly concurred with staff's assessment of economic developments, noting that recent momentum, while encouraging, did not substantially alter the picture of a subdued and uneven recovery.** Like staff, the OBR projects the output gap to remain persistently negative for a number of years. Both the OBR and BoE project modest growth for 2013 (around 1 percent), assuming that consumption would benefit from rising disposable incomes, reduced uncertainty, and continued easing in credit conditions. Net trade would remain vulnerable to the fortunes of the euro area, but was expected to be less of a drag

on growth in 2013. Private fixed capital investment was expected to strengthen alongside consumption and exports. Authorities agreed that the performance of the euro area remained a significant risk, but put less emphasis than staff on the potential for stagnation and hysteresis.

Monetary and credit policies

53. **With monetary policy already exceptionally loose, most members of the Monetary Policy Committee judged that no more stimulus was required at this time; some expressed concerns about inflation risks from further easing.** Some members also cautioned that monetary policy could not raise income expectations, and had, in that sense, reached its limits. Most MPC members agreed that the ill-health of the banking sector played a significant role in reducing the effectiveness of loose monetary conditions. Many were of the view that credit demand was weak, owing to reduced confidence in future incomes and returns.

54. **Authorities expressed satisfaction that the two main unconventional tools employed during the past 12 months—purchases of gilts and the Funding for Lending Scheme—were working mostly as anticipated.** There were no obvious signs that QE had reached its limits in terms of the ability to affect yields on gilts. The FLS had played a role in bringing bank funding costs down and had reduced the cost of secured lending for households, but there was little evidence of a material effect on the cost of lending to SMEs (hence the recent modification to skew incentives towards SME lending). The authorities judged that no alterations to the range of acceptable collateral or the haircuts on collateral were needed at the current juncture. The authorities did not favor lowering Bank rate, as this, they viewed, would damage already-low bank profitability. MPC members expressed skepticism about purchases of private assets, arguing that wealth effects would be small and purchases would expose the BoE's balance sheet to credit risk.

55. **The authorities generally felt that the new remit was useful.** The remit re-confirmed the inflation target and clarified flexibilities, including the use of unconventional policy tools. Bank staff viewed the explicit recognition of tradeoffs in part as a codification of existing practices, but also viewed it as a good opportunity to take steps toward greater transparency about such tradeoffs in the *Inflation Report*.

Fiscal policy

56. **The authorities considered that the fiscal strategy has ensured a flexible response and that growth-enhancing fiscal policies have been put in place.** Authorities cited large automatic stabilizers, switching from current to capital spending, and allowing the Supplementary Debt target to be relaxed, as well as specific growth-enhancing measures announced in the 2013 Budget. In addition, emphasis was placed on the ability of activist monetary policy to boost demand, especially under the terms of the new remit and the modifications to the FLS.

57. **The authorities judged that any deviation from the announced plans for fiscal consolidation would be too risky.** "Fine tuning" the consolidation path would bring little benefits

in terms of growth (multipliers were not thought to be large) but may have large negative effects on credibility, with consequences for interest rates. Moreover, there were no signs of hysteresis effects and new data were taken as signaling that growth was picking up. For the authorities, continued fiscal vulnerabilities argued strongly in favor of maintaining existing deficit reduction plans.

58. **The authorities agreed that the payoffs from infrastructure were substantial, but argued that there are substantial constraints to implementing significant additional public sector capital spending in the current year.** The authorities argued that they continue to support public and private infrastructure investment, including by using the credibility of the Government balance sheet to encourage private sector investment through guarantees. However, at the same time, they emphasized the importance of ensuring overall value for money in any new public sector capital spending.

Financial sector policies

59. **The authorities concurred with staff on the need for stronger capitalization of UK banks, and that it should be met by issuing new capital or restructuring balance sheets in a way that does not hinder lending to the economy.** The authorities agreed on the importance of continuing the steps underway to strengthen the resilience of bank balance sheets. In this context, the authorities updated staff on progress by the PRA in implementing the FPC's recommendation that major UK banks meet a common equity tier 1 capital ratio, on a Basel 3 basis, of at least 7 percent of risk-weighted assets by end 2013. In addition, they highlighted the safety benefits of building adequate capital buffers ahead of an eventual normalization of interest rates. The authorities assured that, while the precise scope has yet to be agreed, the system-wide stress tests planned from 2014 will be developed to cover a wide range of scenarios and risks, including macro-financial feedbacks, and seek to provide a model framework for testing and bolstering banks' resilience to shocks.

60. **The authorities agreed with staff's call to return the two government-intervened banks to private hands in a manner that maximized taxpayer value, ensured financial stability, and improved credit intermediation.** They noted that LBG was in good shape, and are actively considering options for the sale of the government's 39 percent stake, although there is, as yet, no pre-determined timetable or method of disposal. RBS was considered more challenging, given its size, complex business model and global presence.

61. **The authorities were alert to the challenge of coordinating micro- and macro-prudential policies.** The PRA agreed that ensuring its operational autonomy was a pre-requisite for supervision of the UK's globally systemic banks and insurers according to statutory objectives. It also agreed that the verification of bank data needs further improvement, and that current resources don't allow for a more detailed asset quality review. The interim FPC noted that it had decided not to recommend to the Government that the statutory FPC be given powers of Direction over LTV and LTI ratios at that time, on the basis that further analysis, reflection and public debate was necessary. Finally, the authorities appreciated the discussion on outward

spillovers that may arise in the context of regulating global banks, but argued that such spillovers would likely be more positive.

62. **The authorities concurred that the efficacy of UK structural banking reforms would partly depend on international progress on cross-border resolution and supervision.** In this regard, they welcomed progress toward the establishment of a recovery and resolution directive in Europe. They also welcomed progress towards the single supervisory mechanism in the euro zone, while expressing satisfaction over the preservation of the UK's voice within the EBA.

STAFF APPRAISAL

63. **Current policies are aimed at rebalancing the economy and anchoring durable recovery.** Progress has been made in reducing fiscal risks and ensuring the sustainability of public debt. While adhering to the medium-term framework, the government has shown flexibility in its fiscal program to support the economy. At the same time, monetary policy has remained highly accommodative, to help support economic recovery, and has been complemented by innovative credit easing policies. This policy mix—tight fiscal and accommodative monetary and credit—is aimed at helping the economy rebalance from public to private and external demand led growth. Financial sector policies have been geared toward enhancing the resilience of the financial system, notably by improving the oversight framework and increasing the capacity to deal with systemically important financial institutions.

64. **These policies have been broadly consistent with the Fund's past surveillance advice.** In particular, consistent with Fund advice, the government has accommodated a slowdown in the pace of structural fiscal consolidation, allowed automatic stabilizers to operate fully, and brought forward spending with high multipliers. Similarly, the BoE has kept monetary policy accommodative, including by additional purchases of gilts, and, jointly with the Treasury, introduced the Funding for Lending Scheme, aimed at lowering bank funding costs and improving credit conditions in the economy. Progress on financial sector reforms has also been consistent with FSAP recommendations.

65. **Notwithstanding some nascent signs of growth, the UK is still a long way from a strong and sustainable recovery and unemployment is still too high.** Activity is expected to pick up only gradually, as domestic deleveraging continues and external demand remains weak. Restoring strong and durable growth and rebalancing the economy, by addressing both demand and supply constraints, is vital to improving incomes, ensuring the sustainability of public debt, and returning the banking sector to good health. This implies the need for a coordinated multi-pronged strategy to guide the economy to greater and more balanced growth.

66. **Monetary policy needs to remain accommodative.** In addition to considering further purchases of gilts, the BoE could provide assurance to households and investors that policy rates will be kept low until the recovery reaches full momentum. These measures need to be

complemented by credit easing schemes. In this context, the recent extensions to the FLS are welcome.

67. **The effectiveness of monetary policy is, however, dependent on the health of the banking system.** In particular, repairing bank balance sheets is imperative for a durable resumption of lending. This will involve, first and foremost, a strengthening of the capital position of banks. To this end, and as a follow-up to the AQR, banks should expeditiously meet their capital shortfall as assessed by the PRA. Moreover, beginning in 2014, it would be essential that the authorities conduct an annual stringent system-wide stress test, backed by supervisor-approved capital plans to ensure a robust level of bank capitalization. Most importantly, capital bolstering efforts should be based on a combination of new equity issuance, reducing dividend payments, restraining remuneration, and balance sheet restructuring that does not reduce net lending. A clear strategy is needed for the two state-intervened banks—which account for a large chunk of the stock of net bank lending—that seeks to maximize taxpayer value, strengthen the banks' contribution to the economy, and eventually return them to private ownership. In this context, if a sovereign backstop is required to meet a capital shortfall, it should be provided, since this would have a high multiplier effect on growth.

68. **It is essential that fiscal policy supports the nascent recovery.** Planned near-term fiscal tightening will be a drag on growth, and will come on top of domestic deleveraging and a weak external outlook. Given the tepid recovery, it is essential that fiscal policy capitalizes on the nascent signs of momentum to bolster growth, by pursuing measures that would alleviate supply-side constraints and also provide support for the economy. In particular, to spur private demand, the drag from planned near-term fiscal tightening could be offset—notably by bringing forward capital investment and reducing business taxes—within the context of the medium-term fiscal framework.

69. **The government needs to pursue with greater vigor structural reforms, aimed at rebalancing to a more dynamic, balanced and robust economy.** In particular, measures aimed at improving the economy's skills base and competitiveness would not only help boost the productive potential, they would help support demand in the near-term by boosting expectations about long-term prospects and incomes.

70. **Financial stability needs to be bolstered by building on recent progress in improving the regulatory and supervisory structure.** Such stability will anchor a strong and durable recovery and reduce the risk to taxpayers, as well as limit spillovers from shocks that are transmitted through the UK financial system. In particular, going forward, greater coordination between the FPC and the newly established PRA should be ensured, notably in the context of the planned bank stress tests, to alleviate regulatory uncertainty. The PRA should be adequately resourced and its operational independence ensured, to support an intensive and intrusive supervision of the UK's globally-systemic financial sector. Similarly, the independence of the FPC should be guarded and its toolkit augmented, notably by allowing it to set leverage ratios beginning now, rather than in 2018, and providing it additional powers to limit loan-to-value and loan-to-income ratios, as higher capital requirements alone might be insufficient to restrain property bubbles.

71. **Structural banking reforms should proceed apace, but the authorities will need to remain alert to challenges.** The authorities' intention to introduce an electrified ring-fence is welcome, but its effectiveness in reducing systemic risk without leading to a balkanization of capital will depend critically on progress, internationally, on cross-border regulation and supervisory frameworks (including in the context of the euro area banking union). The authorities should also ensure adequate and pro-active supervision of non-banks and shadow banks, given the possibility of significant risk migration to these entities due to regulatory arbitrage.

72. It is recommended that the next Article IV consultation with the United Kingdom be held on the standard 12-month cycle.

Table 1. United Kingdom: Selected Economic Indicators, 2009–13

	2009	2010	2011	2012	2013 Proj.
Real Economy (change in percent)					
Real GDP	-5.2	1.7	1.1	0.2	0.9
Domestic demand	-6.3	2.4	-0.1	1.1	1.0
Private final domestic demand	-6.9	1.4	-0.5	0.9	1.3
CPI, end-period	2.9	3.7	4.7	2.6	2.6
Unemployment rate (in percent) 1/	7.5	7.9	8.0	8.0	7.8
Gross national saving (percent of GDP)	12.7	12.3	13.5	10.9	10.9
Gross domestic investment (percent of GDP)	14.1	15.0	14.9	14.7	14.6
Public Finance (fiscal year, percent of GDP) 2/					
General government overall balance	-11.2	-9.4	-7.8	-7.5	-6.0
Public sector overall balance	-11.0	-9.3	-7.7	-7.2	-6.0
Public sector cyclically adjusted overall balance (staff estimates) 3/	-9.9	-7.9	-5.9	-5.0	-3.8
General government gross debt	73.0	79.1	85.1	88.2	91.7
Public sector net debt	56.3	65.9	71.1	74.0	76.8
Money and Credit (end-period, 12-month percent change) 4/					
M4	6.7	-1.5	-2.4	-1.0	-0.1
Net lending to private sector	0.5	-0.3	-0.2	-0.2	-0.2
Interest rates (percent; year average) 5/					
Three-month interbank rate	1.2	0.7	0.9	0.8	0.5
Ten-year government bond yield	3.6	3.6	3.1	1.9	2.1
Balance of Payments (percent of GDP)					
Current account balance	-1.4	-2.7	-1.5	-3.8	-3.7
Trade balance	-1.6	-2.2	-1.5	-2.2	-2.3
Net exports of oil	-0.2	-0.3	-0.8	-1.0	-0.5
Exports of goods and services (volume change in percent)	-8.7	6.7	4.5	0.9	1.2
Imports of goods and services (volume change in percent)	-10.7	7.9	0.3	2.8	1.6
Terms of trade (percent change)	-0.6	-0.3	-1.6	-0.2	0.0
FDI net	1.7	0.4	-2.3	-0.6	...
Reserves (end of period, billions of US dollars)	64.1	77.9	93.5	105.2	...
Fund Position (as of May 31, 2013)					
Holdings of currency (in percent of quota)					69.9
Holdings of SDRs (in percent of allocation)					94.8
Quota (in millions of SDRs)					10,134.2
Exchange Rates					
Exchange rate regime					Floating
Bilateral rate (June 27, 2013)					US$1 = £0.658
Nominal effective rate (2005=100) 6/	78.8	79.3	78.7	82.1	79.2
Real effective rate (2005=100) 6/ 7/	80.8	83.7	84.9	89.3	87.2

Sources: Bank of England; IMF's International Finance Statistics; IMF's Information Notic 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.

3/ In percent of potential output.

4/ 2013: actual data through April.

5/ Average. 2013: actual data through May.

6/ Average. An increase denotes an appreciation. 2013: actual data through April.

7/ Based on relative consumer prices.

Table 2. United Kingdom: Medium-Term Scenario, 2012–18
(Percentage change, unless otherwise indicated)

	2012	2013 Proj.	2014 Proj.	2015 Proj.	2016 Proj.	2017 Proj.	2018 Proj.
Real GDP	0.2	0.9	1.5	1.8	1.9	2.1	2.3
Q4/Q4 1/	0.0	1.4	1.8	1.6	2.0	2.0	2.6
Real domestic demand	1.1	1.0	1.3	1.4	1.4	1.5	1.7
Private consumption	1.1	1.4	1.6	1.7	1.9	2.1	2.2
Government consumption	2.8	0.4	-0.7	-0.4	-1.0	-1.8	-1.0
Fixed investment	0.5	0.9	3.4	3.3	3.1	3.5	3.6
Public	3.7	-0.7	5.0	1.8	-1.5	-1.2	-1.2
Residential	-5.4	2.8	2.0	2.8	3.0	3.2	3.2
Business	1.8	0.3	3.8	4.0	4.5	5.0	5.0
Stocks 2/	-0.3	0.0	0.0	0.0	0.0	0.0	0.0
External balance 2/	-0.6	-0.2	0.1	0.3	0.4	0.5	0.5
Exports of Goods and Services	0.9	1.2	3.3	4.0	4.6	5.1	5.3
Imports of Goods and Services	2.8	1.6	2.9	3.0	3.1	3.5	3.6
Current account 3/	-3.8	-3.7	-3.3	-2.8	-2.2	-1.5	-0.8
CPI Inflation, end period	2.6	2.6	2.2	2.0	1.9	2.0	2.0
Output gap 4/	-3.1	-3.3	-3.2	-3.0	-2.7	-2.4	-2.0
Potential output	0.7	1.2	1.4	1.5	1.6	1.7	1.8
Employment and productivity							
Employment	1.2	0.6	0.7	0.8	0.9	0.9	0.9
Unemployment rate 5/	8.0	7.8	7.4	7.3	7.3	6.8	6.5
Productivity 6/	-1.0	0.5	0.7	1.0	1.0	1.1	1.4
Memorandum items:							
Private final domestic demand	0.9	1.3	1.9	2.0	2.2	2.5	2.5
Household saving rate 7/	6.7	5.7	6.2	6.4	6.8	7.0	7.2
Private saving rate	16.6	14.6	14.7	14.4	14.4	14.2	14.5

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/ Percent of total household available resources.

Table 3. United Kingdom: Statement of Public Sector Operations, 2010/11–17/18 1/

(Percent of GDP, unless otherwise noted)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
				2013 Budget				
Revenue	37.0	37.3	38.0	38.4	38.2	38.1	38.4	38.3
Taxes	28.4	28.6	28.7	28.9	28.9	28.8	29.0	29.0
Social contributions	6.5	6.6	6.7	6.7	6.6	6.6	6.9	7.0
Other revenue	2.1	2.1	2.6	2.8	2.8	2.6	2.5	2.3
Of which: Interest income	0.4	0.4	1.0	1.2	1.1	1.0	0.9	0.7
Expenditure	46.3	44.9	45.4	45.1	44.1	43.1	41.8	40.5
Expense	44.7	43.8	44.6	44.3	43.1	42.2	41.0	39.8
Consumption of fixed capital	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Interest	3.1	3.1	3.1	3.2	3.2	3.4	3.6	3.8
Others	40.3	39.3	40.1	39.7	38.5	37.4	35.9	34.5
Net acquisition of nonfinancial assets	1.6	1.1	0.8	0.8	0.9	0.9	0.8	0.7
Gross operating balance	-7.7	-6.6	-6.6	-5.9	-4.9	-4.2	-2.6	-1.5
Net lending/borrowing (overall balance)	-9.3	-7.7	-7.4	-6.8	-5.9	-5.0	-3.4	-2.2
Current balance 2/	-6.7	-5.8	-6.0	-5.2	-4.3	-3.5	-1.9	-0.9
Primary balance	-6.6	-4.9	-5.3	-4.8	-3.8	-2.6	-0.6	0.9
Cyclically adjusted overall balance	-7.1	-5.8	-5.4	-4.3	-3.3	-2.7	-1.3	-0.6
Cyclically adjusted current balance 2/	-4.5	-3.9	-4.0	-2.8	-1.7	-1.2	0.1	0.8
Cyclically adjusted primary balance (CAPB)	-4.4	-3.0	-3.3	-2.3	-1.2	-0.3	1.4	2.5
General government gross debt 3/	79.1	85.1	90.7	94.9	98.6	100.8	100.8	99.4
Public sector net debt 4/	65.9	71.1	75.9	79.2	82.6	85.1	85.6	84.8
Memorandum items:								
Output gap (percent of potential) 5/	-2.8	-2.7	-2.9	-3.7	-3.6	-3.3	-2.7	-2.1
Real GDP growth (percent)	2.0	0.8	0.2	0.8	2.0	2.4	2.7	2.8
Nominal GDP (in billions of pounds)	1,499	1,546	1,546	1,595	1,658	1,728	1,806	1,889
Potential GDP growth (percent)	1.6	0.6	0.4	1.6	1.9	2.1	2.1	2.2
				Staff projections 6/				
Revenue	37.0	37.3	37.6	38.4	38.1	37.9	38.3	38.1
Taxes	28.4	28.6	28.1	28.9	28.9	28.7	28.8	28.8
Social contributions	6.5	6.6	6.7	6.7	6.5	6.6	6.9	7.0
Other revenue	2.1	2.1	2.8	2.8	2.7	2.6	2.5	2.3
Of which: Interest income	0.4	0.4	0.9	1.2	1.1	1.0	0.9	0.7
Expenditure	46.3	44.9	44.8	44.4	43.5	42.7	41.6	40.5
Expense	44.7	43.8	43.9	43.6	42.6	41.9	40.8	39.8
Consumption of fixed capital	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Interest	3.1	3.1	3.0	3.1	3.2	3.4	3.6	3.8
Other	40.3	39.3	39.5	39.0	38.0	37.1	35.8	34.5
Net acquisition of nonfinancial assets	1.6	1.1	0.9	0.8	0.9	0.8	0.8	0.7
Gross operating balance	-7.7	-6.6	-6.3	-5.2	-4.4	-3.9	-2.5	-1.7
Net lending/borrowing (overall balance)	-9.3	-7.7	-7.2	-6.0	-5.3	-4.8	-3.3	-2.4
Current balance 2/	-6.7	-5.8	-5.7	-4.5	-3.7	-3.3	-1.9	-1.0
Primary balance	-6.6	-4.9	-5.1	-4.0	-3.3	-2.4	-0.6	0.8
Cyclically adjusted overall balance	-7.9	-5.9	-5.0	-3.8	-3.1	-2.7	-1.3	-0.6
Cyclically adjusted current balance 2/	-5.3	-4.1	-3.6	-2.3	-1.6	-1.2	0.1	0.7
CAPB	-5.2	-3.2	-3.0	-1.8	-1.1	-0.2	1.4	2.5
CAPB (percent of potential GDP)	-5.1	-3.1	-2.9	-1.8	-1.0	-0.2	1.3	2.4
General government gross debt 3/	79.1	85.1	88.2	91.7	95.2	97.7	98.1	97.5
Public sector net debt 4/	65.9	71.1	74.0	76.8	80.2	82.7	83.7	83.3
Memorandum items:								
Output gap (percent of potential)	-1.9	-2.7	-3.2	-3.2	-3.1	-3.0	-2.7	-2.4
Real GDP growth (percent)	2.0	0.8	0.1	1.3	1.5	1.8	2.0	2.1
Nominal GDP (in billions of pounds)	1,499	1,546	1,571	1,622	1,680	1,744	1,815	1,889
Potential GDP growth (percent)	1.6	1.7	0.6	1.2	1.5	1.6	1.7	1.7

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.
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.
5/ March 2013 Budget estimates.
6/ IMF staff projections based on March 2013 Budget expenditure plans and staff's macroeconomic assumptions.

Table 4. United Kingdom: Statement of General Government Operations, 2006–12
(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012
Revenue	40.8	40.4	42.0	39.5	39.7	40.2	41.6
Taxes	29.2	28.8	30.1	27.3	28.1	28.8	28.2
Social contributions	8.2	8.1	8.3	8.4	8.3	8.3	8.4
Other	3.4	3.5	3.6	3.7	3.4	3.2	5.0
Expense	43.5	43.2	47.0	50.7	49.8	47.9	47.9
Expense	42.7	42.4	45.7	49.1	48.4	46.9	46.9
Compensation of employees	11.1	10.8	10.8	11.5	11.4	10.9	10.7
Use of goods and services	11.6	11.4	12.3	13.4	12.9	12.3	12.2
Consumption of fixed capital	0.9	0.9	0.9	1.0	1.0	1.0	1.1
Interest	2.0	2.2	2.3	1.9	2.9	3.2	3.0
Subsidies	0.7	0.6	0.6	0.7	0.6	0.5	0.6
Social benefits	12.4	12.5	13.0	14.9	14.9	14.9	15.4
Other	4.1	4.0	5.8	5.8	4.7	4.0	3.9
Net acquisition of nonfinancial assets	0.8	0.8	1.3	1.6	1.4	1.0	1.0
Consumption of fixed capital	-0.9	-0.9	-0.9	-1.0	-1.0	-1.0	-1.1
Gross operating balance	-1.0	-1.1	-2.8	-8.7	-7.7	-5.7	-4.2
Net operating balance	-1.9	-2.0	-3.7	-9.7	-8.7	-6.7	-5.3
Net lending/borrowing (overall balance)	-2.7	-2.8	-5.0	-11.3	-10.0	-7.7	-6.3
Net financial transactions	-2.8	-3.0	-4.9	-11.2	-10.8	-7.4	-6.0
Net Acquisition of Financial assets	0.9	0.4	4.7	3.7	-0.2	1.4	0.6
Currency and deposits	0.6	0.7	2.1	0.5	-0.8	0.8	0.1
Securities other than shares	0.2	0.1	0.2	0.0	0.5	0.6	0.1
Loans	0.1	0.3	0.3	0.5	0.0	-0.3	0.3
Shares and other equity	-0.2	-0.6	0.7	2.6	0.1	0.1	0.0
Insurance technical reserves	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial derivatives	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Other accounts receivable	0.2	-0.1	1.4	0.0	0.1	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	3.6	3.3	9.6	14.8	10.6	8.7	6.6
Currency and deposits	0.4	0.6	1.3	0.6	-0.4	0.5	-0.2
Securities other than shares	2.9	2.7	7.4	15.6	10.9	8.2	6.8
Loans	-0.1	0.1	0.6	-1.3	-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial derivatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other accounts receivable	0.4	0.0	0.3	0.0	0.2	0.1	-0.1

Source: IMF's International Finance Statistics.

Table 5. United Kingdom: General Government Stock Positions, 2006–12
(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012
Net worth	...	...	...	...	...	...	...
Nonfinancial assets	...	...	...	...	...	...	...
Net financial worth	-26.3	-27.2	-32.1	-42.7	-50.9	-65.2	-68.1
Financial assets	20.5	20.9	26.5	30.8	36.0	36.1	36.6
Currency and deposits	2.5	3.3	5.4	6.1	4.2	4.8	5.2
Securities other than shares	1.9	1.9	2.7	2.1	3.1	3.5	3.4
Loans	2.4	2.6	2.8	3.3	9.3	8.8	8.9
Shares and other equity	9.9	9.4	10.7	13.4	12.9	12.6	12.6
Insurance technical reserves	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Financial derivatives	0.1	0.0	-0.2	-0.1	0.1	0.1	0.2
Other accounts receivable	3.5	3.3	4.6	4.8	5.0	5.0	5.0
Monetary gold and SDRs	0.3	0.3	0.4	1.1	1.2	1.3	1.2
Liabilities	46.8	48.1	58.6	73.4	86.9	101.2	104.7
Currency and deposits	6.9	7.1	8.3	9.0	8.6	8.8	8.6
Securities other than shares	34.9	35.8	44.5	60.4	74.3	88.5	92.3
Loans	3.5	3.5	3.9	1.8	1.6	1.7	1.6
Shares and other equity	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Insurance technical reserves	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial derivatives	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Other accounts payable	1.5	1.7	2.0	2.2	2.2	2.1	2.1

Source: IMF's International Finance Statistics.

Table 6. United Kingdom: Balance of Payments, 2009–18

(Percent of GDP)

	2009	2010	2011	2012	2013 Proj.	2014 Proj.	2015 Proj.	2016 Proj.	2017 Proj.	2018 Proj.
Current account	-1.4	-2.7	-1.5	-3.8	-3.7	-3.3	-2.8	-2.2	-1.5	-0.8
Trade balance	-1.6	-2.2	-1.5	-2.2	-2.3	-2.2	-1.9	-1.5	-1.0	-0.4
Trade in goods	-5.9	-6.6	-6.5	-6.9	-7.6	-7.5	-7.4	-7.1	-6.8	-6.5
Exports	16.1	17.9	19.4	19.2	19.0	19.1	19.4	19.7	20.2	20.7
Imports	21.9	24.5	25.9	26.1	26.6	26.6	26.8	26.8	27.0	27.2
Trade in services	4.2	4.4	5.0	4.7	5.2	5.3	5.5	5.6	5.9	6.1
Exports	12.3	12.3	12.7	12.4	12.7	12.8	13.1	13.2	13.5	13.8
Imports	8.1	7.8	7.7	7.6	7.5	7.5	7.6	7.6	7.7	7.7
Income balance	1.3	0.9	1.5	-0.1	0.1	0.3	0.5	0.7	0.9	1.0
Receipts	11.9	10.9	12.5	10.4	9.7	9.9	9.9	9.9	9.9	9.9
Payments	10.6	10.0	11.1	10.5	9.6	9.6	9.4	9.2	9.0	8.9
Current transfers	-1.1	-1.4	-1.4	-1.5	-1.5	-1.4	-1.4	-1.4	-1.4	-1.4
Capital and financial account	1.1	2.4	1.0	3.3	...	...	...	...	...	...
Capital account	0.3	0.3	0.3	0.2	...	...	...	...	...	...
Financial account	0.8	2.2	0.7	3.1	...	...	...	...	...	...
Direct investment	1.7	0.4	-2.3	-0.6	...	...	...	...	...	...
Domestic	3.5	2.2	2.1	2.5	...	...	...	...	...	...
Abroad	-1.8	-1.7	-4.3	-3.1	...	...	...	...	...	...
Portfolio investment balance	3.3	1.2	-1.8	-13.5	...	...	...	...	...	...
Other financial transactions 1/	-3.7	0.9	5.1	17.7	...	...	...	...	...	...
Change in reserve assets	-0.4	-0.4	-0.3	-0.5	...	...	...	...	...	...
Net errors and omissions	0.4	0.3	0.5	0.5	...	...	...	...	...	...

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

1/ Includes net financial derivatives

Table 7. United Kingdom: Net Investment Position, 2006–12 1/

(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012
Assets	449	538	749	602	665	708	654
Direct investment abroad	54	63	73	69	70	71	73
Portfolio investment abroad	113	118	114	132	139	135	144
Other investment abroad	216	258	284	244	252	263	238
Reserve assets	2	2	2	3	3	4	4
Liabilities	465	553	744	615	670	707	663
Direct investment in the UK	43	43	45	48	49	50	54
Portfolio investment in the UK	128	141	138	171	172	161	160
Other investment in the UK	229	272	293	248	254	266	255
Net investment position	-16	-15	5	-13	-5	1	-9
Direct investment	12	20	28	21	21	22	19
Portfolio investment	-14	-22	-25	-38	-33	-26	-16
Other investment	-12	-14	-9	-4	-2	-3	-18
Reserve assets	2	2	2	3	3	4	4
Monetary financial institutions	-14	-19	-13	-17	-11	-8	-8
Other sectors	6	13	30	17	24	30	21
Public sectors	-8	-9	-11	-12	-17	-22	-22
Memorandum items:							
Change in the net investment position	-6.2	-0.1	20.1	-18.4	7.6	5.4	-9.7
Current account balance	-2.8	-2.2	-0.9	-1.4	-2.7	-1.5	-3.8

Source: Office for National Statistics.

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

Appendix 1. Fiscal Debt Sustainability Analysis

Baseline scenario

1. In the baseline scenario, the general government primary balance (defined as the overall balance excluding interest payments) is projected to improve from a deficit of 4½ percent of GDP in 2012/13 to a surplus of 2 percent of GDP in 2018/19, reflecting the government's commitment to medium-term fiscal consolidation (Appendix Table 1, baseline).

2. However, in the near term, public sector debt to GDP ratio will continue rising and reach a peak of around 98 percent of GDP in 2016/17, as the primary deficit exceeds the debt-stabilizing level. After 2017/18, the debt ratio will be on a downward path.

Alternative scenarios and bound tests

3. Debt would increase steadily in the absence of fiscal consolidation. If the primary deficit remains constant, debt would increase to over 110 percent of GDP by 2018/19 (Table A1, scenario with no policy change).

4. Figure 1 illustrates a series of bound tests, including a permanent ½ standard-deviation shock to growth, real interest rate, and primary balance independently, and a ¼ standard deviation shock to these three combined, as well as a one-time 10 percent of GDP shock to contingent liabilities.

- Medium-term debt dynamics are not highly sensitive to interest rate shocks given the long average maturity (about 14 years) of UK government debt.
- However, if medium-term growth rates are persistently lower by ½ standard-deviation of historical growth (equivalent to 1¼ percentage points of GDP) than in the baseline scenario or if the primary deficit is higher by 1½ percentage points of GDP, the debt-to-GDP ratio could rise well above 110 percent of GDP by 2018/19.

Appendix Table 1. United Kingdom: Public Sector Debt Sustainability Framework, 2008/09–2018/19
(Fiscal year basis; percent of GDP, unless otherwise indicated) 1/

	Actual					Projections						
Fiscal year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	Debt-stabilizing primary balance 9/
Baseline: General government consolidated gross debt	55.4	73.0	79.1	85.1	88.2	**91.7**	**95.2**	**97.7**	**98.1**	**97.5**	**95.9**	**-0.3**
o/w foreign-currency denominated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Change in public sector debt	12.7	17.6	6.1	6.0	3.1	3.4	3.6	2.5	0.5	-0.6	-1.6	
Identified debt-creating flows (4+7+12)	8.4	16.8	8.6	5.4	6.0	3.3	2.2	1.4	-0.4	-1.3	-2.2	
Primary deficit	4.8	9.1	6.3	4.7	4.5	2.9	2.2	1.5	-0.2	-1.4	-1.9	
Revenue and grants	37.0	35.5	36.5	36.8	37.0	38.1	37.8	37.6	38.0	37.8	37.8	
Primary (noninterest) expenditure	41.7	44.6	42.8	41.5	41.5	41.0	40.1	39.1	37.7	36.4	35.9	
Automatic debt dynamics 2/	3.6	2.5	-0.2	0.7	1.7	0.4	0.0	0.0	-0.2	0.0	-0.4	
Contribution from interest rate/growth differential 3/	2.4	2.5	-0.2	0.7	1.7	0.4	0.0	0.0	-0.2	0.0	-0.4	
Of which contribution from real interest rate	1.0	0.6	1.2	1.3	1.7	1.4	1.3	1.6	1.7	2.0	1.9	
Of which contribution from real GDP growth	1.4	1.9	-1.4	-0.6	-0.1	-1.1	-1.3	-1.6	-1.9	-1.9	-2.3	
Contribution from exchange rate depreciation 4/	1.3	0.0	0.0	0.0	0.0	…	…	…	…	…	…	
Other identified debt-creating flows	0.0	5.2	2.4	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Recognition of implicit or contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other (bank recapitalization and other financial interventions)	0.0	5.2	2.4	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes (2-3) 5/	4.2	0.8	-2.5	0.6	-2.9	0.2	1.3	1.0	0.9	0.7	0.7	
General government debt-to-revenue ratio	149.9	205.6	217.0	231.2	238.3	240.6	251.6	259.8	258.5	257.9	253.8	
Gross financing need 6/	9.3	13.6	14.9	15.0	15.1	11.5	12.3	12.1	10.6	10.2	7.5	
in billions of U.S. dollars	229.9	311.4	346.8	370.9	375.4	284.9	321.7	331.5	306.4	309.8	181.6	
Scenario with key variables at their historical averages 7/						**91.7**	**97.4**	**103.0**	**108.4**	**113.7**	**119.1**	**1.2**
Scenario with no policy change (constant primary balance) in 2013-2018						**91.7**	**95.9**	**99.8**	**103.4**	**107.0**	**110.2**	**-0.4**
Key Macroeconomic and Fiscal Assumptions Underlying Baseline												
Real GDP growth (in percent)	-3.2	-3.4	2.0	0.8	0.1	1.3	1.5	1.8	2.0	2.1	2.4	
Average nominal interest rate on public debt (in percent) 8/	5.0	3.8	4.3	4.0	3.6	3.7	3.6	3.7	3.9	4.1	4.1	
Average real interest rate (nominal rate minus change in GDP deflator, in p	2.2	1.1	1.7	1.8	2.1	1.7	1.5	1.7	1.8	2.1	2.1	
Nominal appreciation (increase in US dollar value of local currency, in perc	-1.2	2.6	5.8	1.3	2.2	…	…	…	…	…	…	
Inflation rate (GDP deflator, in percent)	2.8	2.8	2.6	2.3	1.5	2.0	2.0	2.0	2.1	2.0	2.0	
Growth of real primary spending (deflated by GDP deflator, in percent)	6.4	3.2	-2.1	-2.2	0.0	0.1	-0.8	-0.7	-1.5	-1.5	1.0	
Primary deficit	4.8	9.1	6.3	4.7	4.5	2.9	2.2	1.5	-0.2	-1.4	-1.9	

1/ Data are for general government and on a fiscal year basis (March - April).

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

3/ The real interest rate contribution is derived from the denominator in footnote 2/ as $r - \pi (1+g)$ and the real growth contribution as -g.

4/ The exchange rate contribution is derived from the numerator in footnote 2/ as $\alpha\varepsilon(1+r)$.

5/ For projections, this line includes exchange rate changes.

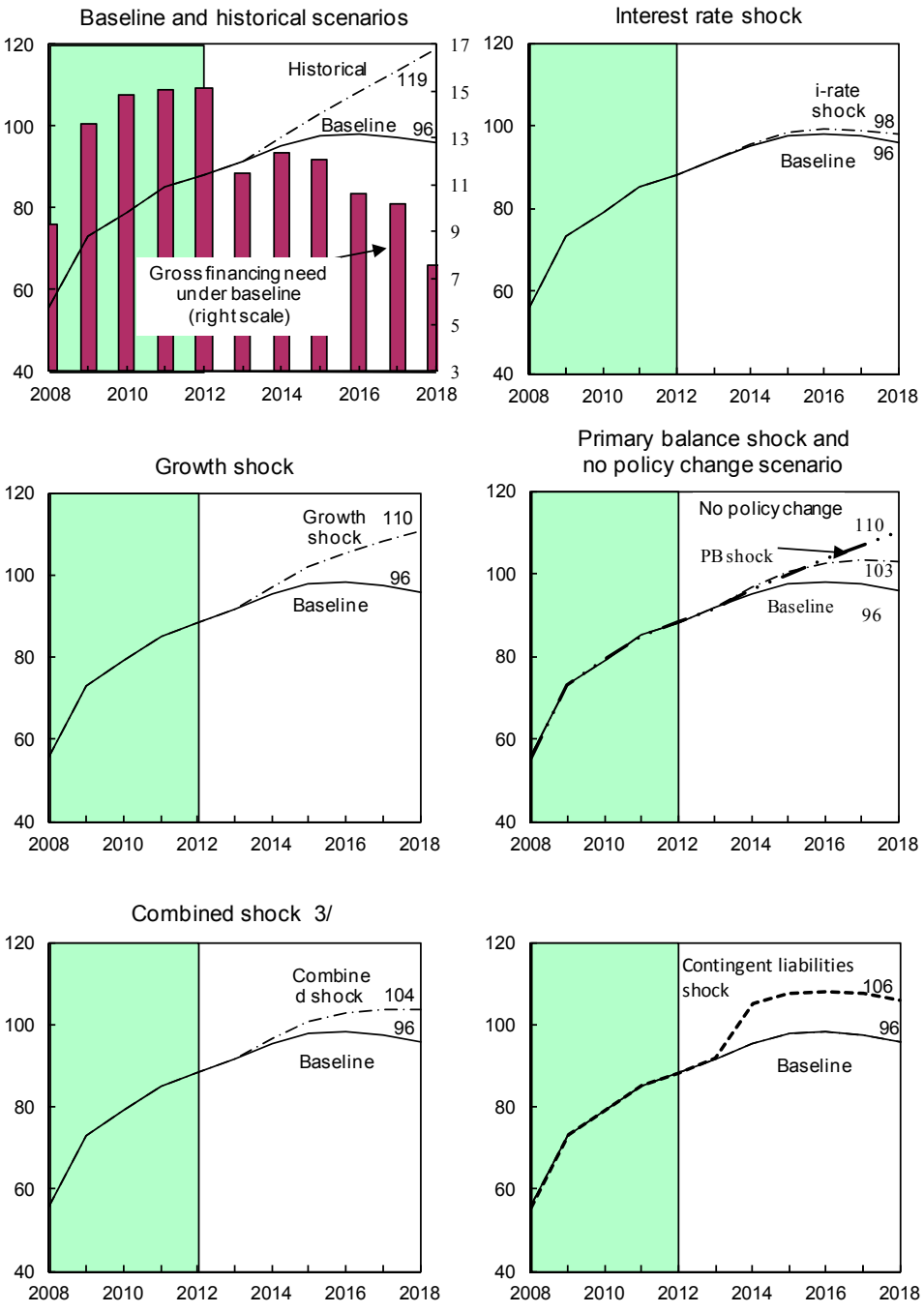
6/ Defined as general government deficit, plus amortization of medium and long-term government debt (gilts), plus short-term debt at end of previous period.

7/ The key variables include real GDP growth; real interest rate; and primary balance in percent of GDP.

8/ Derived as nominal interest expenditure divided by previous period debt stock.

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.

Appendix Figure 1. United Kingdom: Public Debt Sustainability: Bound Tests 1/ 2/
(General government gross debt in percent of GDP)



Sources: International Monetary Fund, country desk data, and staff estimates. Data for fiscal years.
1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.
2/ For historical scenarios, the historical averages are calculated over the ten-year period, and the information is used to project debt dynamics five years ahead.
3/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and primary balance.
4/ A 10 percent of GDP shock to contingent liabilities occurs in 2014.

Annex 1. The Productivity Puzzle in the UK[1, 2]

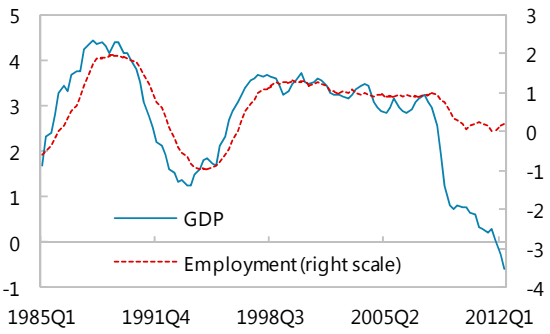
Notwithstanding the sharp decline in output in the UK since the beginning of the crisis, employment has remained surprisingly stable. As a result, labor productivity has plummeted. While many European countries have seen persistently weak productivity, the UK's loss of labor productivity stands out, as it is now around 10 percent below its pre-crisis trend. Many reasons have been cited for the decline in productivity, including mismeasurement of output, labor hoarding, and the increase in part-time workers. No one factor can, however, fully explain this phenomenon.

A. Trends in the Labor Market

1. **The labor market in the UK has exhibited greater resilience than might have been expected from the outturns for GDP.** Historically, the relationship between GDP and employment has been fairly stable in the UK. However, in the context of the Great Recession, this link has become weak, and labor market performance has been significantly stronger.

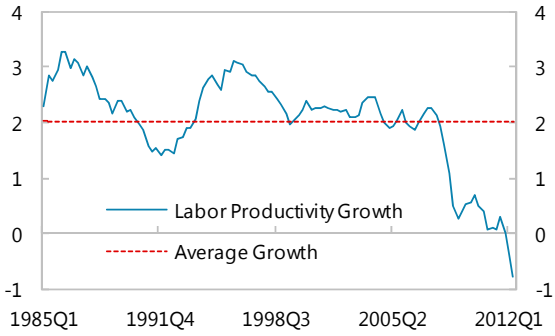
2. **In normal times, the 4 percent drop in real GDP since 2008 would have been associated with a 1 percent decline in employment.** Instead, employment has been roughly constant, and has actually risen from its low point at the end of 2009. If viewed through the prism of employment growth, the current recession would compete with that of the 1970s for being the shortest and shallowest recession in post-war UK economic history.

Figure A1.1. 5-year Average Growth Rate of Gross Domestic Product and Employment (Percent)



Sources: Haver Analytics; ONS; and IMF staff calculations.

Figure A1.2. 5-year Average Growth Rate of Labor Productivity (Percent)



Sources: Haver Analytics; ONS; and IMF staff calculations.

3. **The decoupling of output and labor market trends is reflected in the weakening of labor productivity.** Having experienced modest fluctuations around a trend growth of 2 percent, labor productivity has declined at an average rate of 1 percent per year since the beginning of the crisis. Indeed, the 5-year average productivity growth has been the worst in the post-war period.

[1] Prepared by Ruy Lama.

[2] The data in this annex were current as of September 2012.

- In previous recessions, labor productivity has typically returned to its pre-crisis trend after about four years, driven mainly by falls in employment rather than a recovery in output. This time has been different. Many European countries have seen persistently weak productivity, often weaker than has typically been seen in previous crises. The UK stands out as having the weakest performance, with the current level of labor productivity being 10 percent below a simple pre-crisis trend.

- The decline in productivity in some other advanced economies, such as Germany, France and Italy, has been concentrated in manufacturing. Over the recovery period, manufacturing productivity has grown faster in these countries than in the UK, which explains why these countries have begun to reclaim some of the lost ground. In contrast, much of the sustained weakness in UK productivity is concentrated in services, where the level is still below its pre-crisis peak.

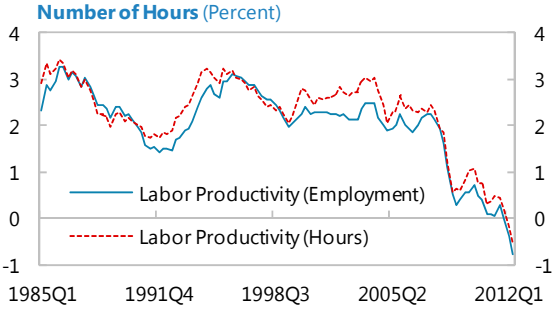
4. **What explains the productivity puzzle?** This note examines some of the more popular reasons suggested for the decline in labor productivity in the UK, followed by a discussion of other factors that may be contributing to this phenomenon.

B. Some Popular Explanations for the Decline in Labor Productivity

5. **Three explanations have often been offered for the decline in productivity:** (i) labor input is measured incorrectly because it does not take into account the increase of part-time workers; (ii) GDP is understated in the national accounts, and once the estimates are revised—which has often been the case—there will be no productivity puzzle; and (iii) firms are hoarding labor, as they await a pickup in demand to pre-crisis levels. Let us examine by turn each of these hypothesis.

6. **Part-time workers.** One feature of the UK labor market during the current recession is the increase of part-time workers. Some have argued that, from an accounting perspective, the use of part-time workers distorts labor input, and once a correction is made, labor productivity will revert to a level consistent with the cycle. This line of argumentation, however, does not appear to be valid, as there is little evidence to suggest that the increase of part-time workers in the labor market is distorting estimates of labor productivity. Indeed, labor productivity in the UK has also declined when measured using the total number of hours worked in the economy, a more accurate measure of labor input.

Figure A1.3. 5-year Average Growth Rate of Labor Productivity —Based on Employment and Total Number of Hours (Percent)

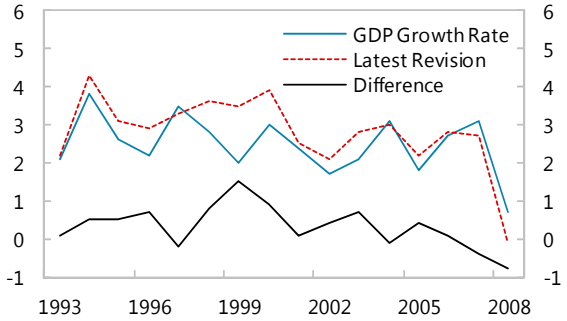


Sources: Haver Analytics; ONS; and IMF staff calculations.

7. **GDP is understated.** It has been argued by many economists that GDP in the UK is an imperfect summary measure of the economy—it is often revised several times prior to its finalization—and given the heightened uncertainty in the context of the crisis, current estimates of GDP will likely be revised up. While revisions to GDP estimates are certainly a possibility, the

magnitude of the revision that is required to offset the decline in productivity is way too large for this to be a credible explanation for the puzzle. According to the Office of National Statistics (ONS), over the period 1993–2008, the average revisions to GDP growth has been in the order of around 0.3 percentage points. However, if productivity growth over the past four years is to have increased at its historic trend, GDP would on average have to increase by 3 percentage points per year. There has never been a revision in the national accounts of this magnitude.

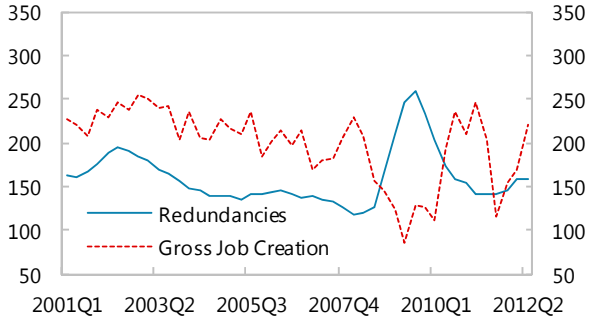
Figure A1.4. Revisions to GDP from ONS
(Annual percent change)



Sources: Haver Analytics; ONS; and IMF staff calculations.

8. **Labor hoarding.** Over the business cycle some firms engage in labor hoarding, which is the practice of retaining workers in order to minimize the costs of firing and retraining new workers once the economy recovers. This factor cannot, however, explain the resilience of the labor market in the UK. Also, if there was labor hoarding, it should be reflected in low levels of job redundancies. But redundancies are even higher than the pre-crisis level. Moreover, while labor hoarding is consistent with longer run changes that have seen the workforce becoming better educated and jobs becoming more knowledge-intensive—changes that mean the costs of short-term "hire and fire" policies have risen—it doesn't really explain the rise in employment.[3]

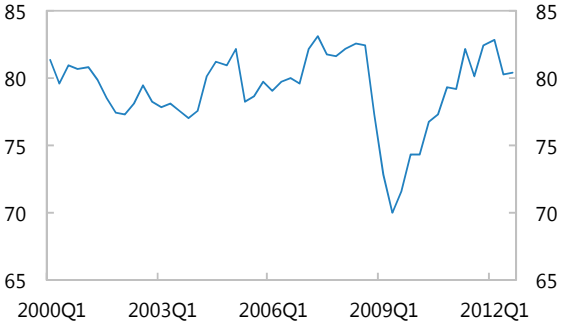
Figure A1.5. Redundancies and Gross Job Creation (4-quarter moving average)



Sources: Haver Analytics; ONS; and IMF staff calculations.

9. **Low capacity utilization.** Typically in recessions, firms face excess capacity of capital and workers. When capital and workers are not used at their normal intensity, firms either restructure reducing their stock of capital and workers, declare bankruptcy, or temporarily maintain their excess capacity until there is an economic recovery. It has been argued that an excess of capacity could be driving down labor productivity in the UK economy. Data from the European Commission indicates that capacity utilization on the manufacturing sector is currently at the pre-crisis level, invalidating this hypothesis in explaining the productivity puzzle.

Figure A1.6. Capacity Utilization in Manufacturing
(Percent, SA)



Sources: Haver Analytics; and ONS.

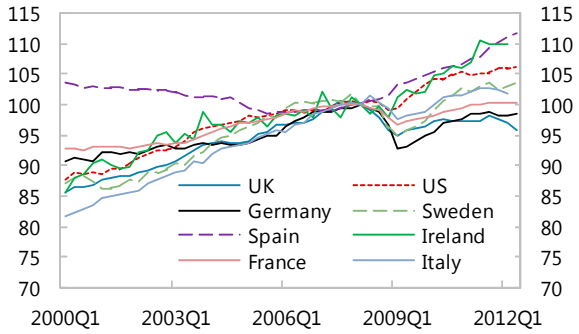
[3] Gross job creation is defined as redundancies plus the variation in employment.

C. How Else Could We Explain the Labor Productivity Puzzle?

10. **Four hypotheses can be considered to explain the current labor productivity puzzle.** First, lower labor productivity is common across several OECD countries, and may reflect a persistent reduction in potential output growth; second, lower real wages in the UK have contributed to cushioning the impact of the recession on employment; third, there has been a destruction of firm or sector specific human capital in the process of labor reallocation; and fourth, there has been a natural redeployment of workers to sectors with low labor productivity growth. Each of these hypotheses is examined below.

11. **Lower potential output growth?** Low labor productivity growth is not unique to the UK. Indeed, labor productivity growth has been dismal (and comparable to the UK) in other developed economies, such as Germany and Sweden, both of which have been relatively unscathed by the crisis. This suggests that a common factor, such as a structural reduction in potential output across major advanced economies, maybe at play and can help explain low labor productivity.

Figure A1.7. GDP per worker - Selected OECD Countries (Index 2008Q1 = 100)



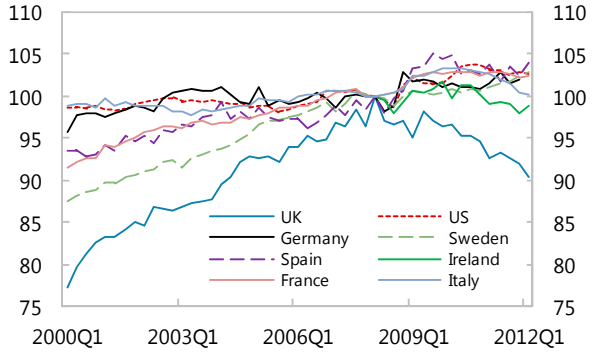
Sources: Haver Analytics; and IMF staff calculations.

12. **A moderation in real wages.** The UK has experienced a substantial reduction in real wages compared with other OECD countries—indeed, real wages in the UK declined by 10 percent in the period 2008–12, while in most other countries in the sample it increased. Using a standard neoclassical production function, a reduction of real wages induces a substitution of labor for capital, which translates into lower labor productivity even without any change in technology. Assuming a labor share of 0.7, a reduction of real wages of 10 percent translates into a reduction of labor productivity of 3 percent, which might help to explain partially the labor productivity puzzle.[4]

13. **Labor substitution.** In the context of the current crisis, there has been a change in the composition of labor input. In particular, there has been a steep contraction in the number of full-time workers, comparable to the experience of Ireland and Spain. There has also been an increasing share of involuntary temporary and part-time workers—indeed, since the beginning of the financial crisis, there has been a substantial increase in temporary and part-time workers that are looking for a permanent or full-time job. To the extent that full-time workers are more productive than part-time workers, the change experienced in the labor market could lead to an overall lower productivity. In fact, data on wage earnings support this hypothesis.

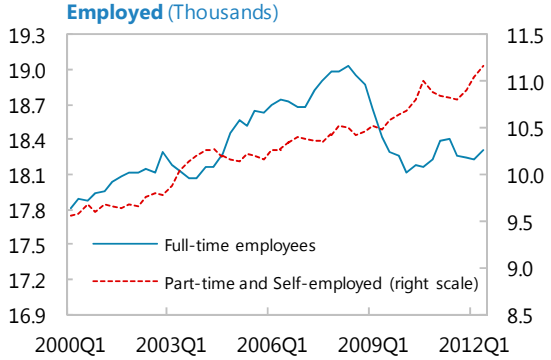
[4] Assuming a Cobb-Douglas production function $Y_t = A_t K_t^{\alpha} L_t^{1-\alpha}$, labor productivity can be written as $Y_t/L_t = A_t(K_t/L_t)^{\alpha}$. Moreover, if we consider the case of a representative firm that is maximizing profits, then the wage (w) relative to the rental rate of capital (r) will defined by $w_t/r_t = (\alpha/(1-\alpha))(K_t/L_t)$. Finally, replacing the optimality condition in the definition of labor productivity, we obtain the following expression: $Y_t/L_t = A_t(\alpha/(1-\alpha))^{\alpha}(w_t/r_t)^{\alpha}$. This last function relates labor productivity to factor prices.

Figure A1.8. Real Wages - Selected OECD Countries (Index 2008Q1 = 100)



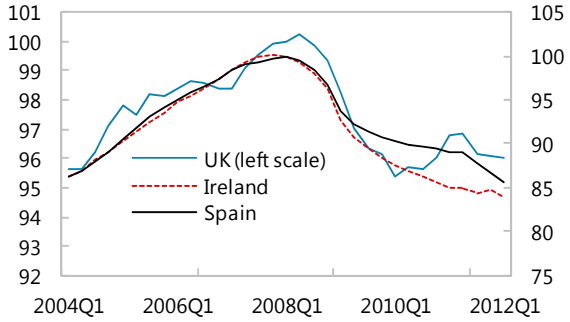
Sources: Haver Analytics; and IMF staff calulations.

Figure A1.9. Employment Composition: Full-Time Employees, Part-time Employees and Self-Employed (Thousands)



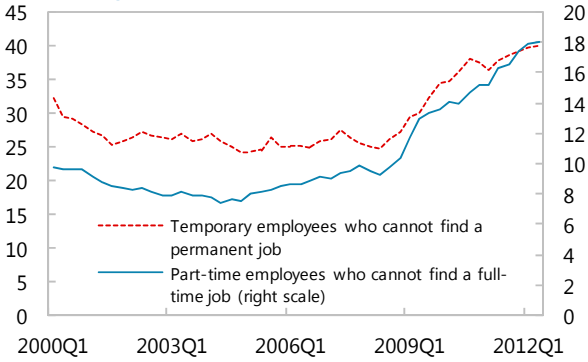
Sources: Haver Analytics; and ONS.

Figure A1.10. Full-Time Employees in the United Kingdom and Total Employment in Spain and Ireland (Index 2008Q1 = 100)



Sources: Haver Analytics; and IMF staff calculations.

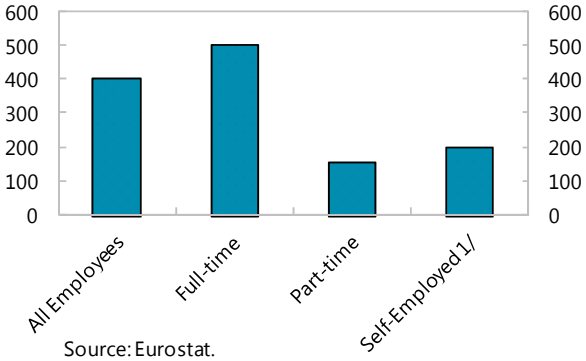
Figure A1.11. Temporary and Part-Time Workers Seeking Permanent and/or Full-Time Jobs (Percent)



Sources: Haver Analytics; and ONS.

- Temporary and part-time employment allows the economy to be more flexible in order to better absorb shocks. However, the current situation could be reflecting some misallocation in the labor market. In particular, the reallocation of employment from full-time workers to part-time and self-employed workers could lead to lower aggregate labor productivity due to the destruction of firm or sector specific skills. For instance, if a worker is displaced from a job in the construction sector and moves into a job in the retail sector, there will be some training and experience that is not directly applicable from one sector

Figure A1.12. Median Gross Weekly Earnings in 2011 (GBP per week)



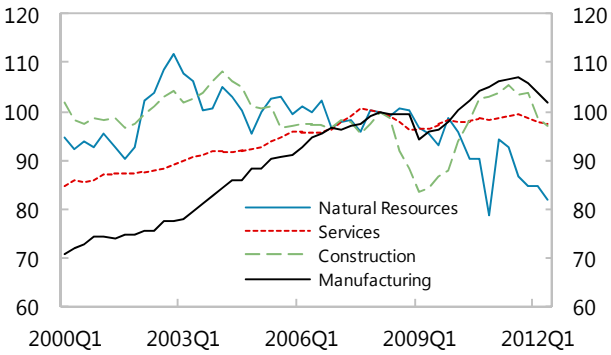
Source: Eurostat.
1/ Data corresponds to 2010.

to another one, and hence there will be a loss of skills and productivity associated to the reallocation process.[5]

- The median earnings of part-time workers and self-employed are less than 50 percent of the earnings of full-time workers. To the extent that this difference in wages reflects differences in productivity, the changes in the composition of employment in the context of the crisis can help explain the moderation of labor productivity growth in the UK.

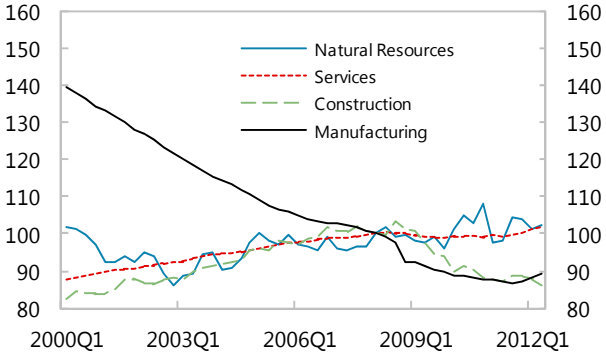
14. **Redeployment of labor.** The flow of workers towards low labor productivity growth sectors can partially explain the labor productivity puzzle. In the UK, the services and natural resource sectors are the ones with the largest decline in productivity growth. During the crisis, employment has been growing faster in these sectors. In the absence of this reallocation, measured labor productivity would have been slightly larger.

Figure A1.13. Labor Productivity by Industry
(Index 2008Q1 = 100)



Sources: Haver Analytics; and IMF staff calculations.

Figure A1.14. Employment by Industry
(Index 2008Q1 = 100)



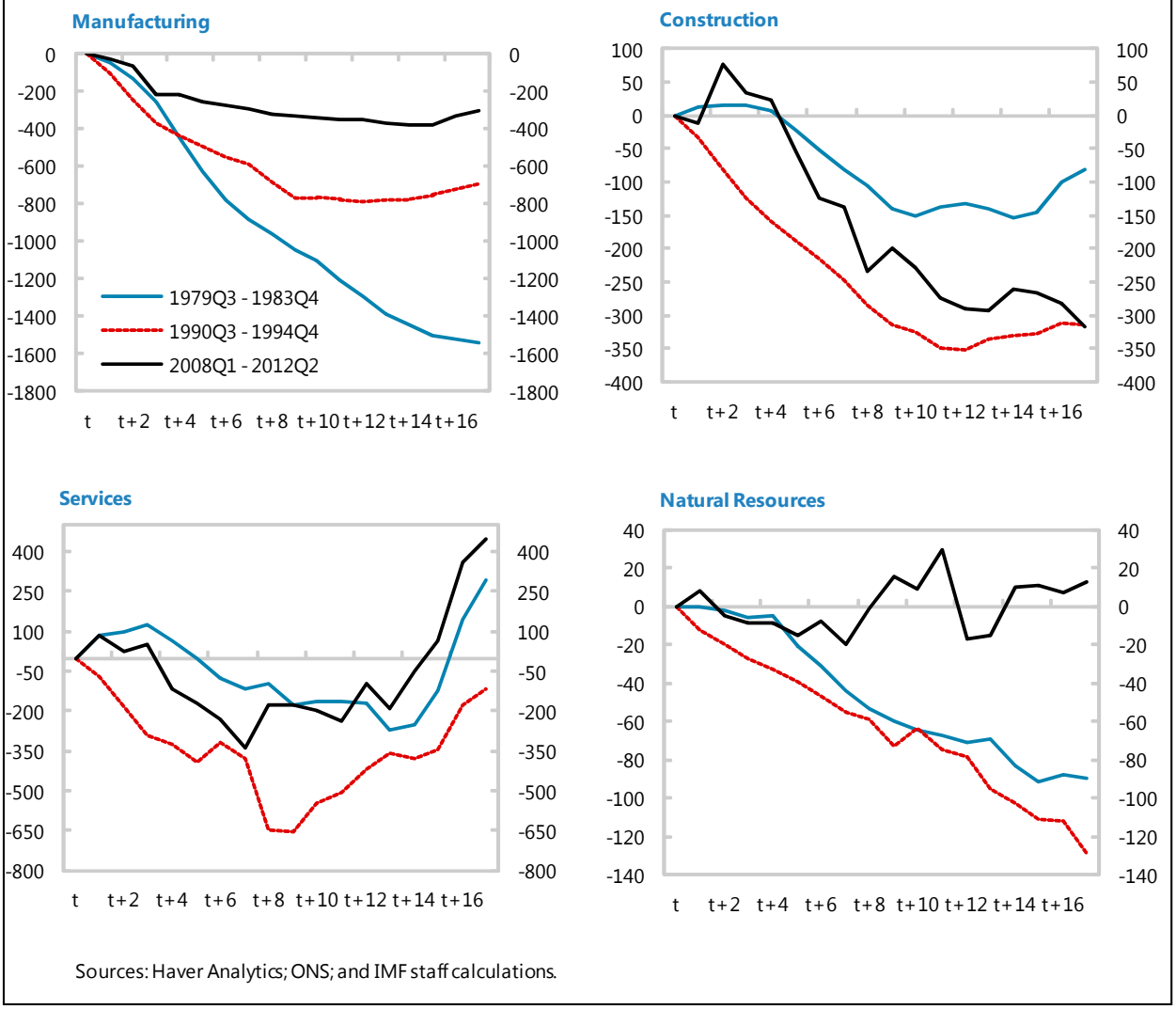
Sources: Haver Analytics; and IMF staff calculations.

D. Other Possible Explanations

15. **A change in the structure of employment.** In previous major UK recessions, around 75 percent of the job reductions have occurred in two highly cyclical sectors of the economy—manufacturing and construction. These sectors now account for a smaller share of jobs, and so have generated less job losses this time around.

[5] Von Wachter (2009) show that in the US displaced workers tend to lose on average 20 percent of their earnings once they relocate from one firm to another one.

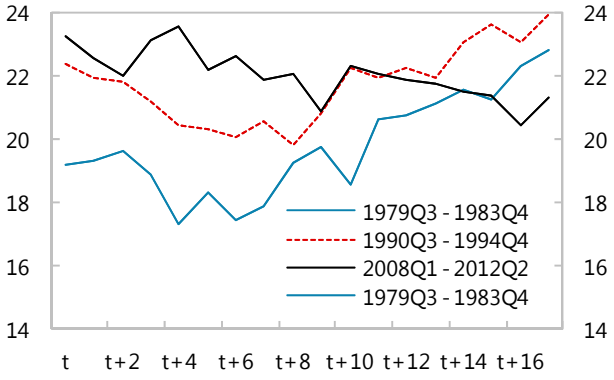
Figure A1.15. Job Losses by Sector in the Last Three Recessions
(Thousands of jobs; *x*-axis in quarters)



Sources: Haver Analytics; ONS; and IMF staff calculations.

16. **The underlying health of the UK business sector.** In the two earlier UK recessions, the loss of jobs was intensified by structural problems. By contrast, the nonfinancial business sector of the economy was in much better shape when the financial crisis hit, and companies were in a better position to retain skilled and experienced workers. The other two factors are wage flexibility and policy measures, which has resulted in subdued wage increases, more part-time jobs and self-employment growing strongly.

Figure A1.16. Gross Operating Surplus
(Percent of GDP; *x*-axis in quarters)



Sources: Haver Analytics; IMF staff calculations.

17. **An impaired financial system.** A combination of uneven demand (across sectors) and an impaired financial system, one that is unable to reallocate capital resources sufficiently quickly to respond to such shocks, is enough to reduce aggregate output per employee. Such a process would also give rise to precisely the volatility in relative prices and the widening sectoral dispersion of profitability that is observed in the data. Some firms, it appears, are staying in business (and retain employees) despite making relatively low returns. Others that are well positioned to expand are unable to do so because they are unable to secure financing and hence substitute labor for capital. It's hard to imagine this dispersion in returns can persist indefinitely. Assuming the underlying shifts in relative demand are permanent, the economy must in the end adapt to them. Indeed, at some point, once the financial system returns to health, one could imagine exactly the reverse process: a long period of above-trend productivity growth. If this is true, the economy's lost potential is the result of a misallocation of capital, rather than any form of "technical regress". In that case it needn't have been lost forever. In time, as the financial system heals, and investment starts to flow, the economy could well expand at an above-trend rate (without generating inflation), catching up some of the ground lost over recent years.

E. Conclusions

18. **The "Labor Productivity Puzzle" in the UK reflects both structural and cyclical factors.** To the extent that low labor productivity growth is common to several OECD countries, one could reasonably conclude that structural factors—such as a low trend growth of potential output—can explain, in part, the productivity puzzle. With regard to cyclical and UK-specific factors, a reallocation of employment from full-time to part-time jobs and the associated loss of skills; a redeployment of labor toward low productivity growth sectors; the diminished role of recession-sensitive sectors (construction and manufacturing) in job losses; and an impaired financial system appear to be important in explaining declining labor productivity in the UK economy.

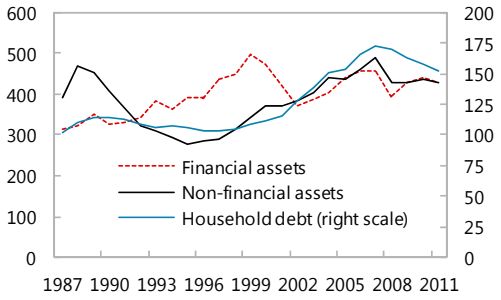
Annex 2. Household Debt Deleveraging and Consumption Dynamics[1, 2]

In the run-up to the crisis, the rapid build-up of household debt helped support robust consumption growth, allowing the UK economy to grow at rates exceeding the historical average. In the aftermath of the crisis, however, there has been a rapid deleveraging of household balance sheets, which is expected to culminate in the next two to three years. Until then, private consumption is likely to remain relatively weak. Evidence from previous episodes of household deleveraging suggest that the adverse impact on the economy, because of such deleveraging, was cushioned by demand rebalancing, initially through a rise in government consumption but followed, more importantly, by a rapid increase in net exports. In the current context in the UK, the lack of external rebalancing, notably because of a decline in competitiveness and falling productivity, has further contributed to the weak recovery from the crisis.

A. Background

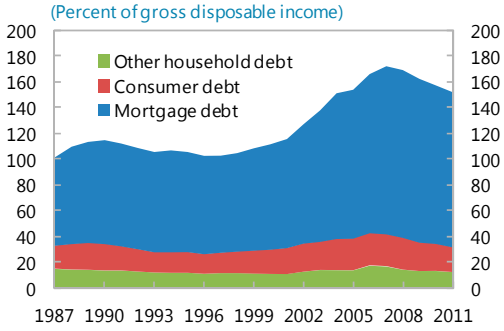
1. **In the run-up to the crisis, household debt increased to unprecedented levels.** Household debt reached a peak of 167 percent of gross disposable income in 2007. The rapid rise in debt was not viewed as being a problem, since it was accompanied by an increase in financial and non-financial assets held by households. On the surface, the position of household balance sheets was robust, but it masked underlying vulnerabilities that became evident during the crisis.

Figure A2.1. Household Assets and Liabilities
(Percent of gross disposable income)



Sources: Haver Analytics; ONS; and IMF staff calculations.

Figure A2.2. Composition of Household Liabilities
(Percent of gross disposable income)



Sources: Haver Analytics; ONS; and IMF staff calculations.

2. **The predominant share of rising household debt came from an expansion in mortgage credit.** This was fuelled by a rapid increase in real house prices during 2000–07. Other components of household debt increased as well, but to a smaller extent. When crisis struck, house prices decreased by around 9 percent in nominal terms during the periods of 2007–09.[3]

[1] Prepared by Ruy Lama.

[2] The data in this annex were current as of May 2013.

[3] Source: ONS.

3. **In the aftermath of the crisis, there has been a significant deleveraging of household balance sheets**. Deleveraging has, however, been passive, in the sense that the ratio of household debt to disposable income has declined owing to high inflation rather than to debt amortization. This is not uncommon—barring Japan, in all previous episodes of deleveraging, debt overhang has been alleviated because of high inflation (see section D).

B. How Long Will Household Debt Deleveraging Continue?

4. **The process of household debt deleveraging is not expected to culminate in the very near-term.** So far, household debt as a share of disposable income has declined from a pre-crisis peak of 167 percent to around 141 percent. To assess the period ahead, we estimate the duration of the deleveraging cycle based on five possible scenarios: (i) equilibrium debt set at its 10 year average; (ii) equilibrium debt set at its 25 year average; (iii) debt stabilization at pre-crisis leveraging trend; (iv) debt stabilization based on historical evidence; and (v) debt stabilization based on a debt sustainability model. Based on these scenarios, we assess that household deleveraging could continue for up to three years.[4] Figure A2.3. illustrates all scenarios.

- **Equilibrium debt set at the 10 year average.** According to this metric, households have already achieved an equilibrium debt level, and so we should not expect further deleveraging. That said, current financial market conditions suggest that households are likely to continue deleveraging.

- **Equilibrium debt set at the 25 year average.** Based on this metric, the deleveraging process is more than half-way through, and at the current pace, household balance sheet repair will culminate by 2015.

- **Debt stabilization at pre-crisis leveraging trend.** The previous two methods rely on the assumption that leverage will revert to a long-term average over time. However, the post-war series on household debt shows that there is a trend component. In fact, based on pre-crisis data, household debt on average increases by about 2 percentage points of disposable income per year. If we extrapolate this trend, using the year 2000 as the starting point, households will reach their equilibrium level of debt in 2013 (where the two lines intersect).

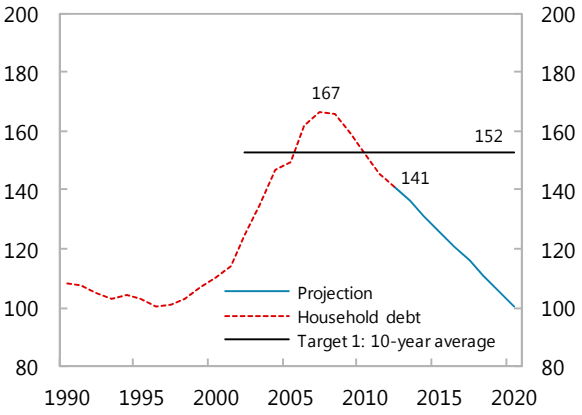
- **Debt stabilization based on previous deleveraging episodes.** An alternative is to estimate the expected path of household debt based on historical episodes. Based on the work of

[4] For the first four scenarios we assume a pace of deleveraging of 5 percentage points of gross disposable income per year. This is the average decline of household debt per year in the period 2007–12. In the fifth scenario, the pace of deleveraging is determined by the assumptions on consumption and income growth, and the real interest. We use as a source WEO projections to forecast all these components.

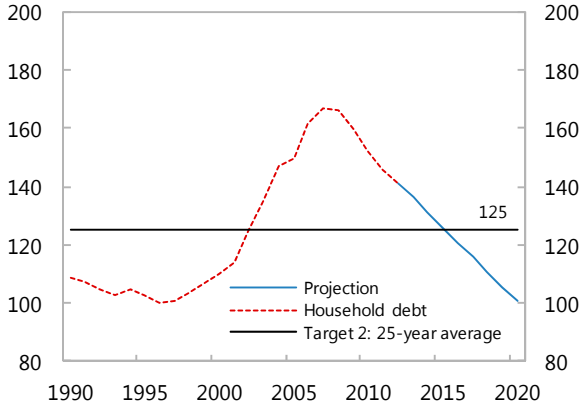
Figure A2.3. United Kingdom: Household Deleveraging Scenarios

(Percent of gross disposable income)

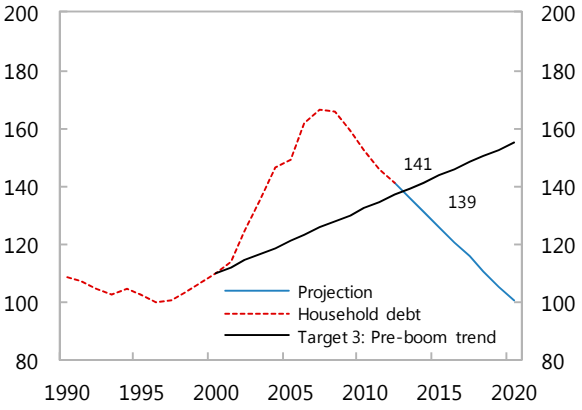
Scenario 1: Household Debt Stabilized at 10-Year Average



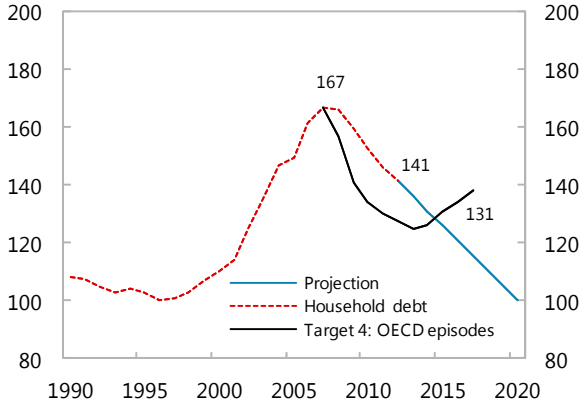
Scenario 2: Household Debt Stabilized at 25-Year Average



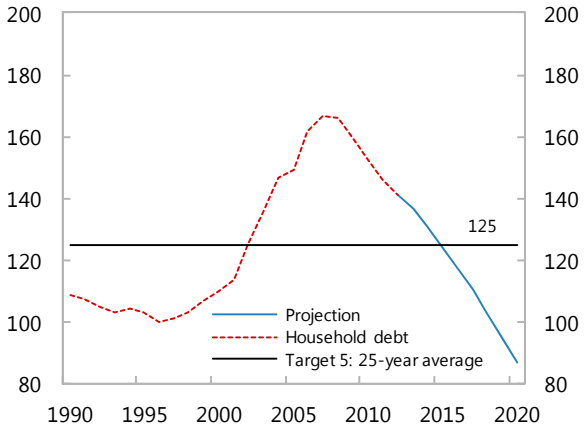
Scenario 3: Household Debt Stabilized at Precrisis Trend



Scenario 4: Household Debt Stabilized at Same Level as in Sweden (Based on OECD Episodes)



Scenario 5: Debt Sustainability Approach



Source: IMF staff estimates.

Laeven and Valencia (2012), we consider episodes of banking crisis in OECD economies prior to 2007. Three cases emerge in the early nineties— Finland, Norway, and Sweden, where households deleveraged in the aftermath of a crisis. We chose the deleveraging path of Sweden, the country that had the largest reduction in household debt. Assuming that the UK will follow a similar path, deleveraging is more than half-way through and will culminate in 2014.[5]

- **Debt stabilization according to a debt sustainability model.** All previous scenarios assume that households continue to deleverage at the current pace (average reduction of household debt in the period 2007-12). However, the actual trajectory of deleveraging will depend on the dynamics of consumption, gross disposable income, and the real interest rate.[6] Using WEO projections for all these components and a debt target set at the 25-year average, we find that households have completed 60 percent of the deleveraging, and will reach the equilibrium debt level by 2015

C. Implications for Private Consumption and Aggregate Demand: Evidence from Advanced Economies

5. **There are likely to be significant changes in demand patterns in the context of household debt leveraging, with implications for economic prospects.** To understand the macroeconomic consequences, we rely on event studies based on a sample of five advanced economies, which witnessed significant household deleveraging.[7] Three of the countries, Finland, Norway, and Sweden, were chosen based on the fact that they are the only advanced European economies that experienced a financial crisis in the two decades prior to 2007. In addition, we consider two G-7 economies—Germany and Japan—that experienced household debt deleveraging during 2000–10, and are closer in size to the UK. For this set of countries, we analyze a series of macroeconomic variables 10 years before and 10 years following the peak of household debt as a share of disposable income (see figure A2.6).

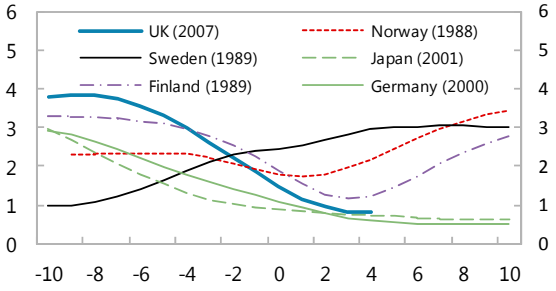
[5] In this exercise we consider as a target (black line) the dynamics of household debt in Sweden during the period 1989-1997 (see section C). Even though there are many differences between the UK and Sweden, this exercise provides a benchmark regarding the future path of deleveraging in the UK.

[6] In this section we use the debt sustainability approach to infer the trajectory of household debt. The key factors that are going to influence the expected deleveraging path are the savings rate (or the difference between gross disposable income and consumption) and the difference between the growth rate in the economy and the real interest rate. In the projections we assume that all savings are allocated to debt repayments and not asset accumulation.

[7] In all five countries households deleveraged by at least 15 percentage points of gross disposable income.

6. **Debt deleveraging was accompanied by a decrease (increase) in private (public) consumption.** A common pattern across these countries is that private consumption was lower by 1 percentage point of GDP after 10 years following the beginning of deleveraging (see figure A2.6). This implies that annual consumption growth was lower, on average, by 0.5 percent during the deleveraging cycle (see figure A2.4). Government consumption, on the other hand, rose significantly initially, before declining and remaining at about 1 percentage point of GDP higher than at the beginning of the deleveraging process (see figure A2.6).

Figure A2.4. Trend of Private Consumption Growth
(Percentage points)

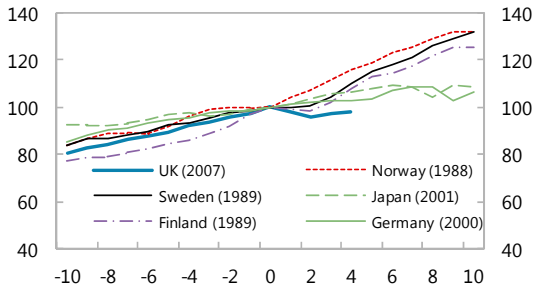


Sources: WEO; and IMF staff calculations.

7. **There was a significant slump in investment, but a discernable rebalancing toward external demand.** Ten years following the start of the deleveraging episodes, investment as a share of GDP was lower by 5 percentage points, while net exports were higher by the same magnitude. The trajectory of the investment share was very similar across countries. After an initial slump in investment in the first three years, it remained relatively stable for the rest of the period. For the Nordic countries, the decline in investment reflected mainly a reduction in residential investment, which was a direct consequence of the banking crisis experienced during the deleveraging episode. For Germany and Japan, the lower investment rate was part of a long-term trend witnessed over the preceding 20 years. On the other hand, net exports rose in all instances, except in Japan, where they remained stable during the entire deleveraging period.

8. **The rebalancing of demand went hand-in-hand with an increase in labor productivity.** All countries in the sample experienced an increased in labor productivity. The Nordic countries experienced an annual growth in labor productivity of 2.5 percent, while productivity increased by 1 percent per year in Germany and Japan. The flip side of the gains in productivity was persistent job losses in the Nordic countries, while employment remained relatively stable in Germany and Japan.

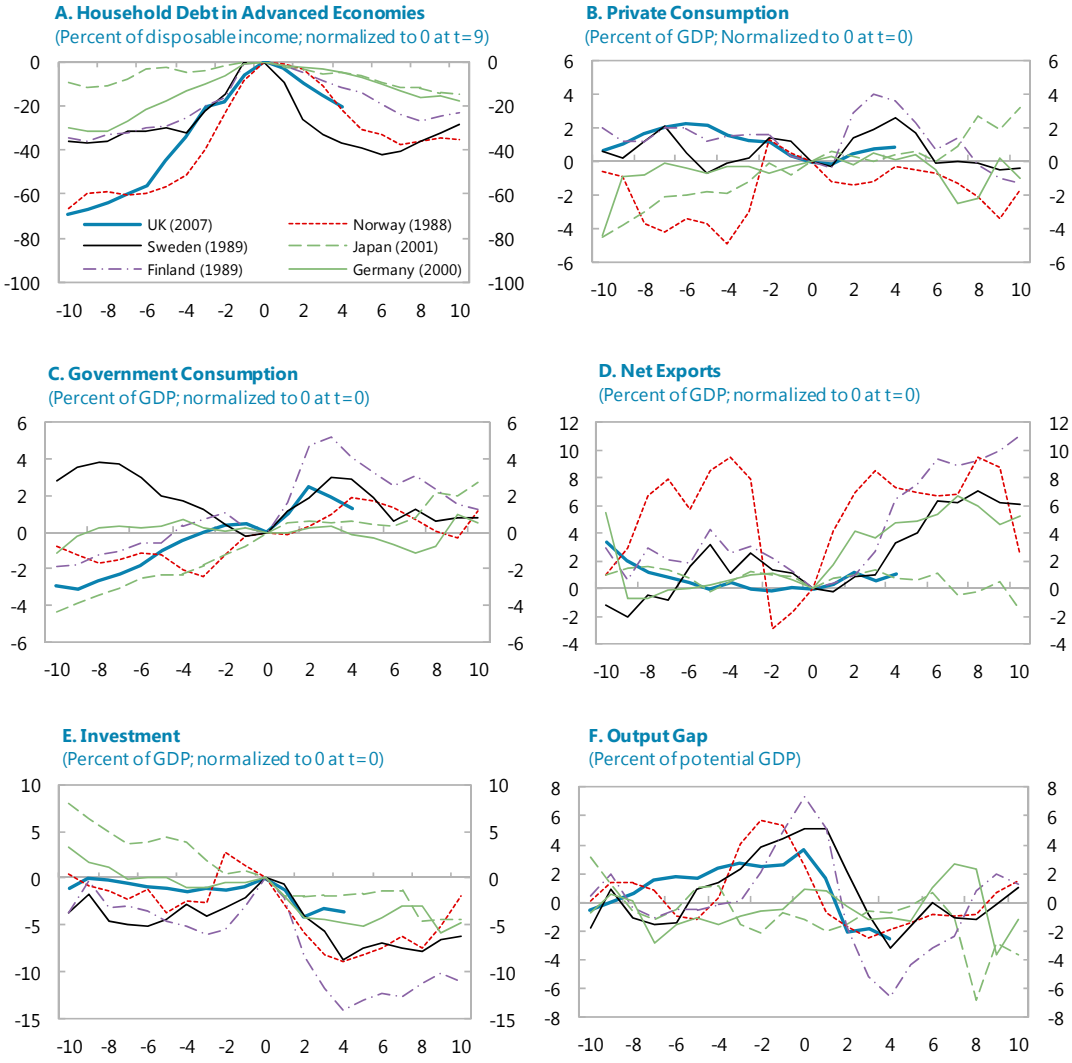
Figure A2.5. Labor Productivity
(Index 100 at t=0)



Sources: WEO; and IMF staff calculations.

9. **Overall, during the episodes of deleveraging, aggregate demand was weak, resulting in a persistently large output gap.** In addition to a weakening of consumption during episodes of deleveraging, aggregate demand grew at a slower rate, contributing to large and persistent output gaps. The output gaps closed only after about 10 years after the deleveraging cycle began.

Figure A2.6. Household Debt Deleveraging Episodes in OECD Countries



Sources: World Economic Outlook; and IMF staff calculations.

10. **The UK experience with household deleveraging is different.** In the case of the UK, consumption as a share of GDP has increased in part explained by the relative resilience of the labor market.[8] However, if current labor market trends were to reverse, private consumption could decline and be a drag on aggregate demand. Public consumption in the UK increased initially, but has declined at a much faster rate than in the Nordic countries, resulting in a drag on the economy. Investment has declined in the UK in the same way as in the sample of advanced economies, but net exports have remained flat. The lack of external rebalancing could be explained, in part, by lackluster

[8] The increase of consumption as a share of GDP can also be explained by higher social transfers and a high growth rate of the private consumption deflator relative to the GDP deflator.

performance of labor productivity. Finally, the output gap in the UK has widened, consistent with the experience of the comparator countries in the sample. To conclude, unless there is a rebalancing in the components of aggregate demand, facilitated by gains in labor productivity, it will be difficult for the UK to reproduce the pattern of recovery witnessed in other advanced economies.

D. Policy Implications of Household Debt Deleveraging: Lessons from Advanced Economies

11. **It is necessary to have an appropriate set of macroeconomic policies to offset the drag on demand arising from deleveraging.** The experience from the sample of countries suggests that there are important policy choices to be made in order to promote a swift recovery. In particular, a combination of accommodative monetary policy, gains in competitiveness, gradual adjustment of government consumption, and structural reforms were important in cushioning the impact of deleveraging on output. In the UK, some of these elements of the policy package are missing, making it more likely that deleveraging will continue in a context of low growth.

- **Monetary Policy:** A policy stance which accommodates a temporary departure of inflation from its long-run target can contribute to the process of deleveraging. Deleveraging can take place through a reduction in nominal debt, a rise in real disposable incomes, or through inflation. In the case of most countries in the sample, deleveraging took place because of an increase in real incomes or through inflation (Columns b and c in the deleveraging decomposition). The exceptions are Japan and Finland, where reductions of nominal debt were more important. In the case of the UK, inflation has been the most important contributor to deleveraging.

- **Exchange Rate changes:** In most cases, a real exchange rate depreciation cushioned the effect of deleveraging. In particular, a rise in net exports compensated for the lack of demand arising from lower consumption growth. In the UK, the large real exchange rate depreciation has not translated into a significant increase in net exports (see Annex 3), owing, in part, to a slump in productivity, suggesting an important role for structural reforms aimed at boosting the economy's skills base and competitiveness.

Table A2.1. Decomposition of Deleveraging Episodes
(Percent of Gross Disposable Income)

	Deleveraging Episode			Deleveraging Decomposition		
	Peak	Trough	Deleverage (a+b+c)	a. Variation Nominal Debt	b. Variation Inflation	c. Variation Dis. Inc.
A. United Kingdom (2007–2012)*	166.7	141.3	-25.5	2.5	-24.8	-3.2
B. Norway (1988–1995)	162.2	124.9	-37.3	19.9	-31.2	-26.0
C. Sweden (1989–1995)	129.4	87.2	-42.1	1.7	-31.1	-12.8
D. Japan (2001–2011)	132.0	117.0	-15.0	-16.9	2.5	-0.6
E. Finland (1989–1997)	84.7	57.9	-26.9	-9.9	-10.9	-6.1
F. Germany (2000–2010)	109.0	91.0	-17.9	1.6	-15.9	-3.6

Sources: Haver Analytics; and IMF staff estimates.

- **Fiscal Policy:** Government spending provided demand support during episodes of household debt deleveraging. The example of Nordic countries is illustrative. In response to the decline in output following the banking crisis in the early nineties, which was associated with household deleveraging, the government responded by allowing automatic stabilizers to operate fully and provided discretionary fiscal support. As a result, government consumption as a share of GDP increased during the initial several years of the deleveraging process. And rather than reducing government consumption over a very short span of time, the retrenchment was phased out over several years. Indeed, it was only after 10 years following the start of the deleveraging process, did the share of government consumption come close to the level observed at the beginning of the cycle. In contrast, in the UK a more front-loaded fiscal consolidation effort has contributed to the weakness in demand.[9]

- **Structural Reforms:** One additional feature of the deleveraging cycle is the large productivity gains in Nordic countries, in part supported by structural reforms. For instance, as discussed by Lindbeck (1997), Sweden liberalized its labor and product markets ahead of joining the EU, which allowed it access to a large market for its goods and services. This contributed to an increase in labor productivity and a gain in competitiveness that supported the external rebalancing of the economy. The deleveraging cycle in the UK began in the context of highly flexible goods and labor markets, but declining labor productivity (currently 10 percent below the pre-crisis trend) has undermined competitiveness and external rebalancing (See Annex 1). Structural reforms, that improve the skills of the workforce, upgrade public infrastructure, and encourage more innovation, will be crucial to sustain future gains in productivity.

[9] See chapter 3 from the April 2012 WEO "Dealing with Household Debt" for a discussion of fiscal policy in Nordic countries in the context of household debt deleveraging.

E. Conclusions

12. **Household debt deleveraging in the UK is expected to continue for another two to three years, and will be a drag on consumption and aggregate demand.** In the absence of policy support, such deleveraging will result in a very slow recovery of output. Prior experience with deleveraging in other advanced economies suggests that the adverse impact on demand during the deleveraging cycle could be offset by a combination of policies, including an accommodative monetary policy stance, fiscal support, and, more importantly, structural reforms that improve the skills base and competitiveness of the economy.

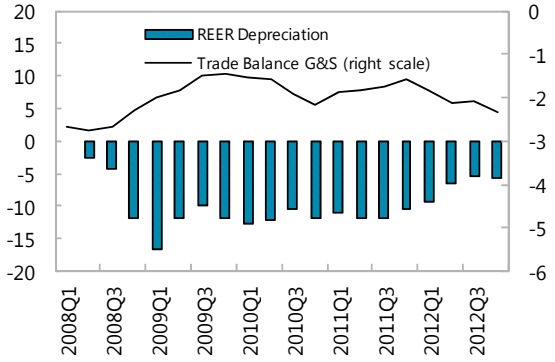
Annex 3. Prospects of External Rebalancing in the UK[1, 2]

This note analyzes the factors behind the limited progress in external rebalancing in the United Kingdom. Securing a durable recovery and strong growth in the UK will require rebalancing away from a reliance on domestic toward external demand. The analysis suggests that external rebalancing has been held back by structural weaknesses in the economy, including poor export diversification, poor performance of technology-intensive exports, and a large reliance on financial services exports. These have been amplified by cyclical factors such as a decline in the terms of trade and weak external demand, low productivity growth, and insufficient support from the exchange rate depreciation. As a result, notwithstanding a substantial real depreciation of the sterling following the onset of the crisis, net exports have adjusted very little, contributing a mere 0.3 percentage points to GDP growth rate over the last 5 years.

A. Developments Pre-Crisis

1. **Weak trade performance has contributed to anemic growth in the UK.** One of the key factors behind disappointing growth in the UK has been the lackluster performance of net exports. Indeed, notwithstanding a sharp real exchange rate depreciation of around 15 percent in 2008 (18 percent since the start of 2007) following the onset of the crisis, the UK's trade balance improved by around 1 percentage point of GDP at its peak, and has worsened since then. As a consequence of the lack of external rebalancing, the contribution of net exports to growth in 2010–12 has been close to zero.

Figure A3.1. UK: Trade Balance of Goods and Services and Cumulative REER Depreciation (Percent)

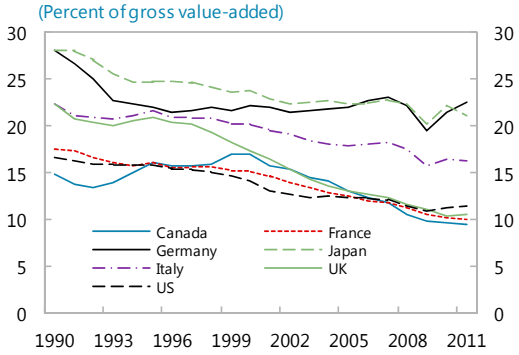


Sources: Haver Analytics; and IMF staff calculations.

Developments that preceded the crisis can help explain, in part, the UK's poor trade performance post-crisis.

2. **In the years ahead of the crisis, the UK witnessed a very sharp decline in manufacturing activity.** As an economy develops, production first moves from agriculture to manufacturing, and then eventually from manufacturing to services. The trend decline of manufacturing production as share of Gross Value Added (GVA) is relevant process across all advanced economies.

Figure A3.2. Manufacturing in G-7 Countries
(Percent of gross value-added)



Sources: Haver Analytics; and IMF staff calculations.

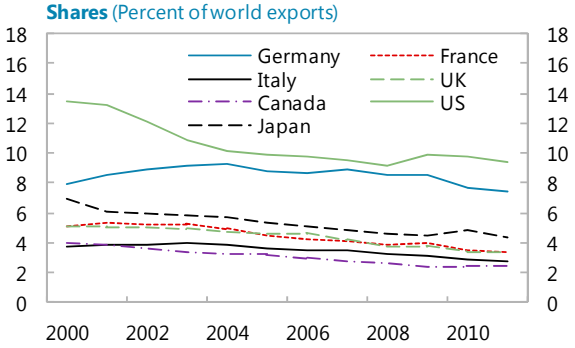
[1] Prepared by Ruy Lama and Stephanie Denis.

[2] The data in this annex were current as of May 2013.

The decline was, however, the largest in the UK among the G7 economies, amounting to a reduction of about 50 percent in the share of manufacturing to GVA during the period 1990–2011. The sharp decline in manufacturing possibly reflects a lack of competitiveness in that sector.

3. **The UK, like other advanced economies, has lost market share globally.** The process of globalization boosted world trade by 10 percent annually over the last decade, but all G7 countries experienced a slower export growth, resulting in a smaller market share. The UK had a 34 percent decline in export market share in 2000–11. Some other advanced economies, such as Germany and the US, have, however, been more successful in stabilizing their export market shares in recent years.

Figure A3.3. Goods and Services Export Market Shares (Percent of world exports)

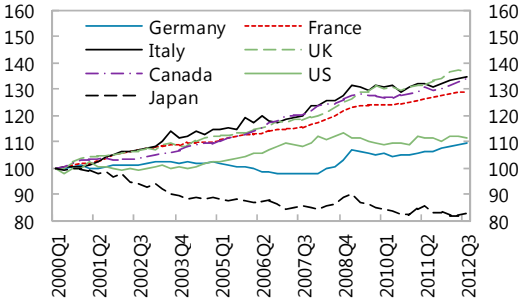


Sources: IMF's Direction of Trade Statistics; World Trade Organizaiton; and IMF staff calculations.

4. **Loss of market share reflected a lack of competitiveness.** Developments in the real estate and finance sectors in the UK during the period 2000–07 induced capital inflows that generated a rise in real wages, a consumption boom, and an appreciated real exchange rate. Relative to other G-7 countries, the UK experienced the sharpest increase in nominal unit labor costs.[3] The lack of competitiveness was also reflected in lower returns in the manufacturing sector. The net rate of return on investment in manufacturing was one-third of the return reported in the services sector (5 and 17 percent, respectively). Moreover, given the sensitivity of manufacturing to business cycles and the relative stability of services, the difference of returns adjusted by risk was even larger. As a result, the economy increasingly specialized in services.

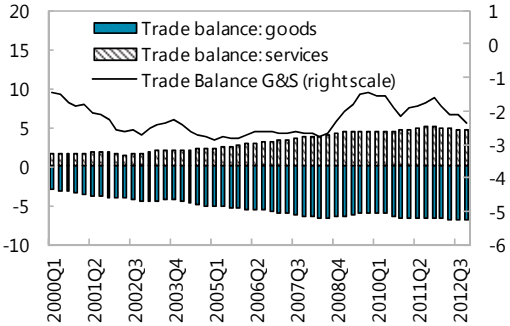
5. **The UK had a chronic trade deficit, notwithstanding a sharp uptick in exports of services.** The biggest contributor to the deficit was the trade balance of goods. The trade balance in services was consistently positive, owing in large part to the stellar performance of financial services exports.

Figure A3.4. Unit Labor Costs in G-7 Countries
(Index, 2000Q1 = 100)



Sources: Eurostat; Haver Analytics; and IMF staff calculations.

Figure A3.5. UK: Trade Balance of Goods and Services (Percent)



Sources: Haver Analytics; and IMF staff calculations.

[3] The UK also had the largest increase in real unit labor costs among G-7 economies during the period 2005–12.

B. Structural Factors behind the Lack of External Rebalancing

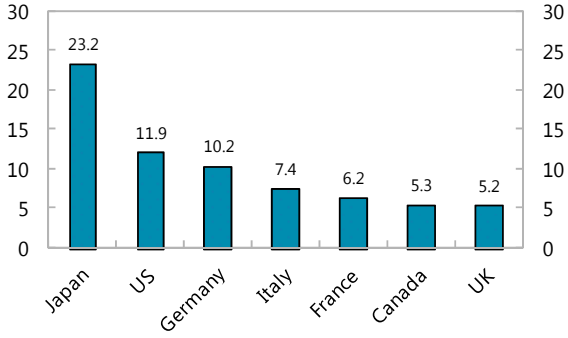
The role of export composition

6. **Against the backdrop of weak trade performance before the crisis, three structural factors can explain the lack of external rebalancing in the UK.** These include: (i) low exposure of exports to fast growing emerging markets; (ii) low growth of technology intensive products, where advanced economies generally have a comparative advantage; and (iii) large exposure to financial services, which has been affected adversely by the financial crisis.

7. **Low exposure to Emerging Economies.** Among the G7 economies, the UK has the smallest exposure to emerging markets. Part of the reason why some other advanced countries, like Germany, the US, and Japan, have a dynamic export sector is because of their relatively large exposure to fast growing economies. While the UK exported only 5 percent of its exports of goods to the BRICs in 2011, Japan, the US, and Germany had an export share larger than 10 percent. But the problem for the UK is deeper than that. UK exports are not sufficiently dynamic in emerging economies. Indeed, among major advanced economies, the UK had the lowest average growth rate of exports to the BRICs. In order to improve the trade balance, not only is it important to increase the exposure to emerging economies, it is equally important to upgrade the type of goods exported to these economies.

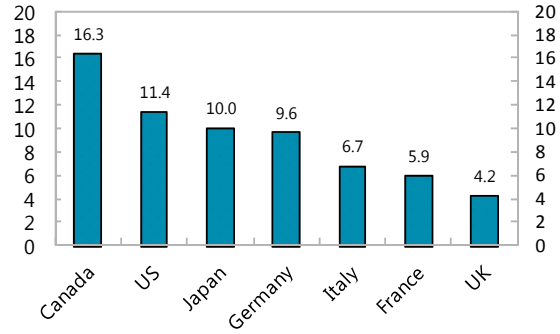
8. **Poor performance of technology intensive goods.** In the context of countries with relatively low labor costs entering the global market, advanced economies are facing stiffer competition in labor-intensive manufactured exports. In order to remain competitive, therefore, these economies need to specialize in high and medium-high technology intensive manufacturing goods.[4] These typically involve more R&D and, depending on the specific product, could provide a higher GVA to the

Figure A3.6. Exports going to BRIC Countries in 2011 (Percent of total exports of goods)



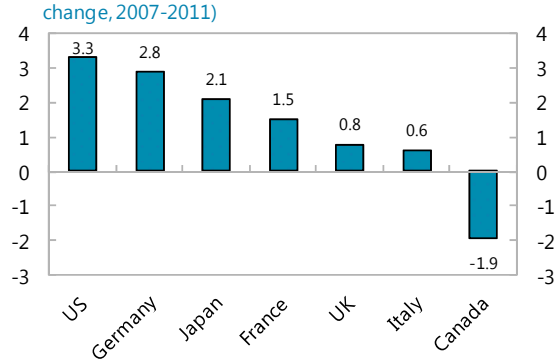
Sources: IMF's Direction of Trade Statistics; World Trade Organization; and IMF staff calculations.

Figure A3.7. Nominal Export Growth to BRIC Countries (Percent change, 2007-2011)



Sources: IMF's Direction of Trade Statistics; World Trade Organization; and IMF staff calculations.

Figure A3.8. Nominal Export Growth of High and Medium-High Technology Industries (Percent change, 2007-2011)



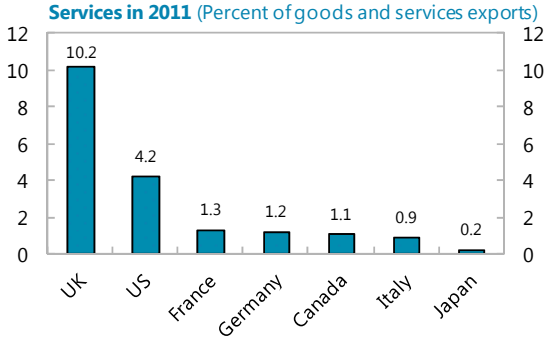
Sources: OECD; and IMF staff calculations.

[4] These industries include pharmaceuticals, computers, air space craft, machinery, and motor vehicles, among others.

economy. The UK has one of the lowest growth rates of exports in high and medium-high manufacturing goods among G-7 economies. The prospects for rebalancing will depend, in part, on how successful the UK is in increasing its exports in these sectors.

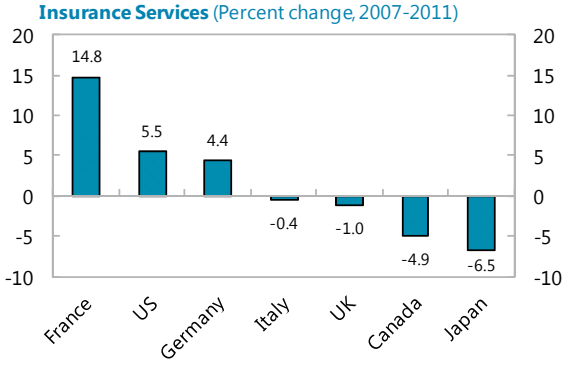
9. **Large exposure to financial services.** One important feature of the export sector in the UK is the large participation of insurance and financial services in total exports. This share is more than two times than that for the US, a global leader in financial services. During the 2000s, the large exposure to financial services benefited the UK in a context where the growth of these exports averaged 18 per cent annually. More recently, however, the average annual export growth of financial services has been around -1 percent, resulting in a significant drag on UK's trade balance. One of the challenges to achieve a durable process of external rebalancing is to diversify the exports away from financial services, in order to avoid the negative consequences of financial sector deleveraging.

Figure A3.9. Export Share of Financial and Insurance Services in 2011 (Percent of goods and services exports)



Sources: World Trade Organization; and IMF staff calculations.

Figure A3.10. Nominal Export Growth of Financial and Insurance Services (Percent change, 2007-2011)



Sources: OECD; and IMF staff calculations.

Comparative Perspectives: How does the UK Compare with Germany?

10. **Benchmarking the UK against Germany could provide important lessons.** To this end, exports were disaggregated across two key dimensions—the weight and the growth rate of exports in each market destination—to assess whether the export performance can be attributed to the weight of an export destination in total UK exports or to the growth performance of UK's trading partners. In others words, are UK's export woes because of its "large" exposure to less dynamic markets or is it because demand is weak in a large number of its export destinations. In addition, exports are disaggregated by types of goods and services to evaluate their contribution to the overall trade performance. Then, UK and German trade structure are compared.[5, 6]

[5] The export growth is decomposed in two elements: the weights and the growth rate of each component, using the following formula: $\Delta X_t^{UK} = \sum_{m=1}^{M} \theta_m^{uk} \Delta x_t^{m,uk}$. Where ΔX_t^{UK} is the total nominal export growth rate in the UK, θ_m^{uk} is the share of a market destination "m", and $\Delta x_t^{m,uk}$ is the export growth rate in market "m". For instance, if UK exports have a low growth rate there are two possible explanations. First, the UK can be heavily exposed to stagnant markets, which reflects a problem with the shares θ_m^{uk}. Second, the market destinations could be broadly diversified, however, there is limited demand across market destinations, which reflects a problem with the growth rate of each component of $\Delta x_t^{m,uk}$.

[6] The trade data is expressed in nominal USD. Even though exchange rate fluctuations could affect the interpretation of the results, UK export deflator series in dollar terms is fairly stable, suggesting that nominal exports are closely related to real exports.

11. **There are significant differences in the trade patterns and export destinations between the UK and Germany.** The European Union, notably the euro area, has been the predominant trade partner for UK and Germany. With regard to the rest of the world, the UK has greater trade linkages with the United States, while Germany trades significantly more with the BRICs. German exports are concentrated in goods (85 percent), while goods exports account for only 65 percent of UK's total exports of goods and services. Both countries export intensively machinery, transportation equipment and chemicals. Moreover, in the case of the UK, exports of financial services account for almost 10 percent of total exports.

12. **In the run-up to the crisis, the UK's export performance was modest, owing to a generalized competiveness problem.**

- A simple comparison of export performance suggests that over the period 2000–08, Germany registered significantly faster export growth across all destinations compared with the UK. While the average growth rate of exports in the U.K was 6.6 percent, German exports grew at 12.9 percent per year[7]

- As a counterfactual, if the UK had the same export destinations (and weight in total) as Germany, exports would have grown faster, albeit modestly, by 0.5 percentage points.[8] This suggests that the destination of exports cannot explain the UK's poor performance in the run-up to the crisis. Similarly, if the UK replicated the export "structure" or "pattern" of goods and services from Germany, total export growth would have been smaller, suggesting that export composition cannot explain the UK's poor trade performance.[9]

- On the other hand, if the UK maintained its trade structure, but exhibited the export dynamism of Germany across all markets, the growth rates of total exports would have increased by about 100 percent.[10] This suggests that issues pertaining to "generalized competitiveness" may have played a bigger role in undercutting export performance.

13. **In the post-crisis period, limited trade linkages with fast growing emerging markets has undercut a recovery in UK's exports.**

- In 2008–09, Germany and the UK experienced a contraction in exports of around 20 percent, similar to the decline in world trade, followed by a swift recovery. Given the exceptional circumstances that were affecting worldwide trade, the analysis is focused on the recovery period of 2009–11.

[7] The analysis of market destinations is based on the Directions of Trade Statistics, which only covers trade in goods.

[8] Counterfactual 1 in Figure 11.

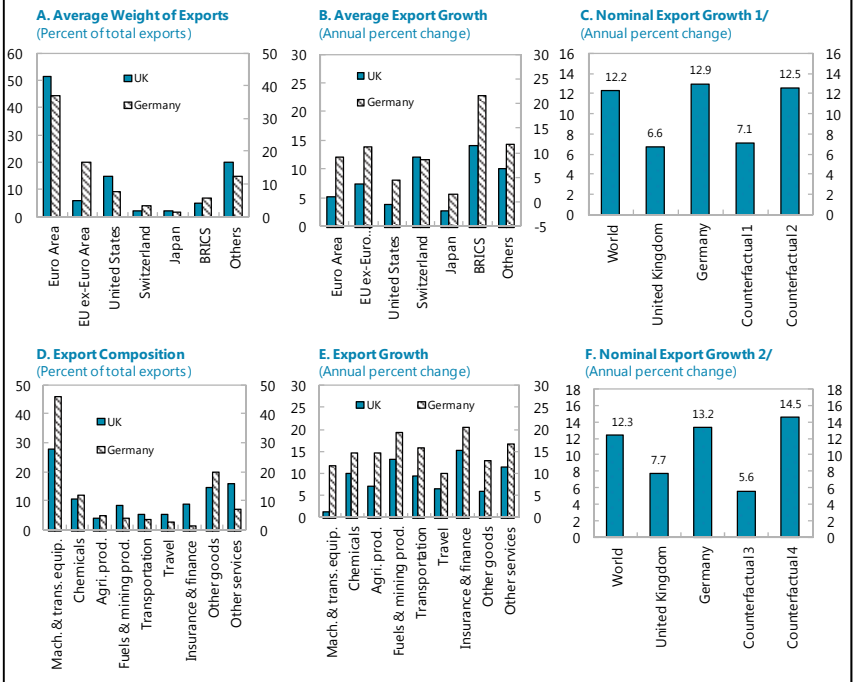
[9] Counterfactual 3 in Figure 11.

[10] Counterfactuals 2 and 4 in Figure 11.

- If the UK adopted the same market destinations as Germany, nominal export growth could have increased by about one-third.[11] This suggests that the UK would have benefited from having the same exposure to emerging markets as Germany.[12]

14. **Addressing underlying competitiveness problems and inadequate export diversification would be important to boost exports.** The external demand accounting exercise shed some light on the dynamics of UK exports before and after the crisis. In the run-up to the crisis, export growth was fairly weak across markets destinations, suggesting an underlying competitiveness problem, so increasing the exposure to emerging markets would not have improved substantially the trade balance. Instead, if the UK had the same export dynamism as Germany, there would have been an improvement in the external sector. On the other hand, in the post-crisis period, UK exports could have recovered faster if the UK had greater trade exposure to emerging economies.

Figure A3.11. External Demand Accounting, 2000–08

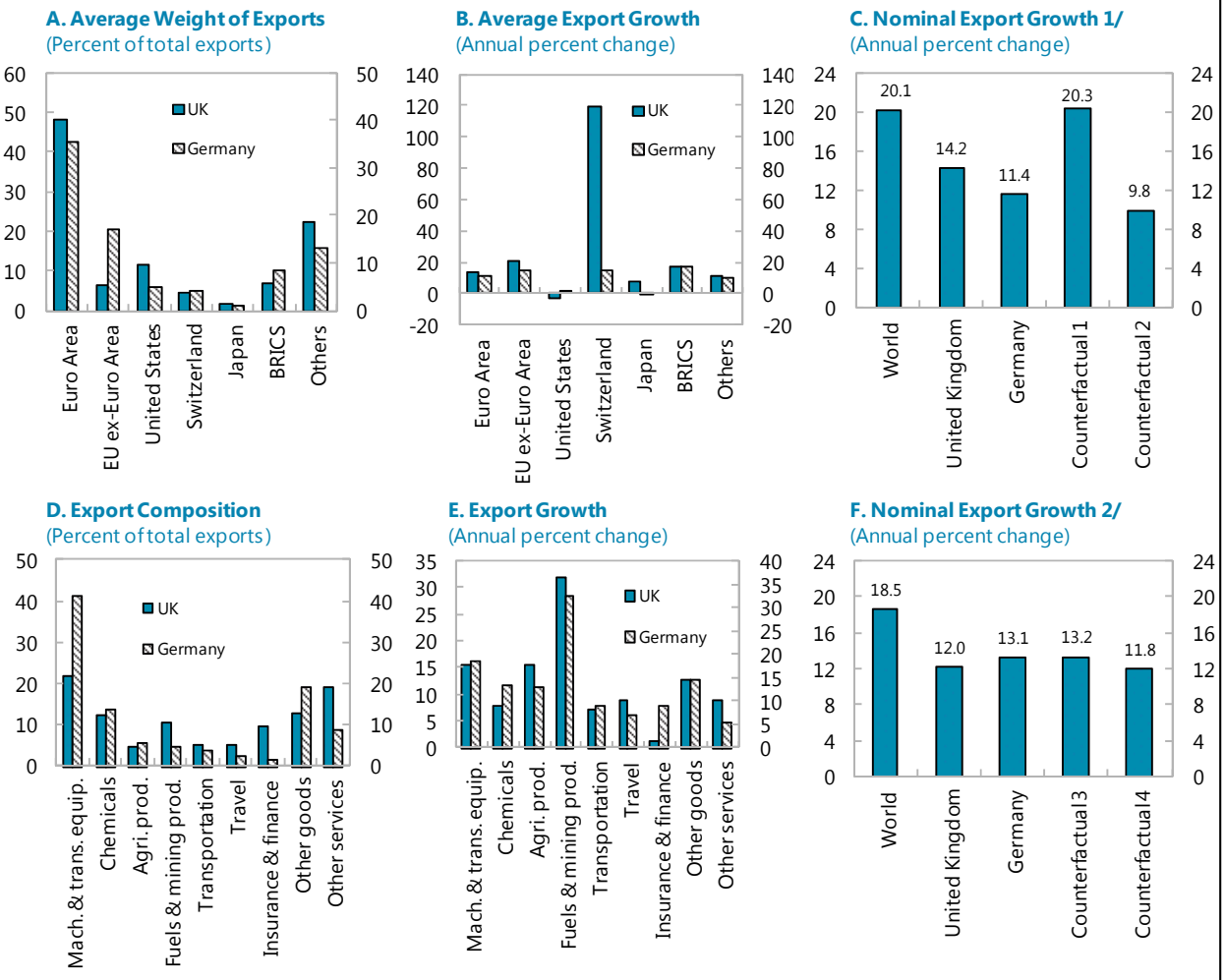


Sources: World Trade Organization; and IMF staff calculations.
1/ Counterfactual 1: UK exporting to German markets. Counterfactual 2: UK exporting German goods.
2/ Counterfactual 3: UK exporting German basket of goods and services (G&S). Counterfactual 4: UK exporting German varieties of G&S.

[11] Counterfactual 1, Figure 12.

[12] If the UK had the same composition of exports in terms of goods and services from Germany, it wouldn't have experienced a substantial change in export growth (counterfactual 3 in Figure 12). Similarly, in the case that the UK retained its exports structure, but with the same export dynamism as Germany, it would not have necessarily improved its trade performance.

Figure A3.12. External Demand Accounting, 2009–11

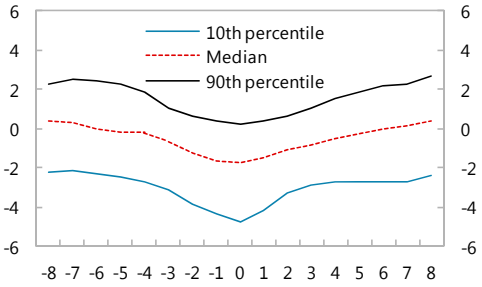


Sources: World Trade Organization; and IMF staff calculations.
1/ Counterfactual 1: UK exporting to German markets. Counterfactual 2: UK exporting German goods.
2/ Counterfactual 3: UK exporting German basket of goods and services (G&S). Counterfactual 4: UK exporting German varieties of G&S.

C. Cyclical Factors: Lessons from External Rebalancing Episodes

15. **There are significant cyclical factors that have a bearing on the prospects for rebalancing.** An event studies approach is used to understand the cyclical factors behind external rebalancing in the UK and OECD countries. The event studies of external rebalancing episodes—one specific to the UK and the others based on the experience of 22 OECD countries—are defined in a context where the trade balance improved by around 2 percentage points of GDP over eight quarters. The 2 percentage points threshold is the external rebalancing required for the UK to reduce the output gap in the medium-term (See Box 1). Thirty six episodes of external rebalancing were obtained from the sample of 22 OECD countries in the period 1960-2012.[13] The average adjustment of the trade balance was 5 percentage point of GDP, with duration of 6 years. In a previous external rebalancing episode in the UK, the trade balance increased by 4 percentage points of GDP between 1989 and 1997.

Figure A3.13. OECD Sample: Episodes of Trade Balance Adjustment (Percent of GDP; episodes centered at 0)



Sources: Haver Analytics; and IMF staff calculations.

Box A3.1. How much do net exports have to increase to close the output gap?

An external rebalancing of around 2 percentage points of GDP is required in order to close the output gap in the UK economy. In the April 2013 WEO macroeconomic projections, the GDP in the UK is projected to grow at an average rate of 2.0 percent which results in a negative output gap of 2.2 percent in 2018 (See Table 1). Using these projections as a baseline scenario, we compute the required increase in the trade balance to close the output gap in 2018. Assuming that exports of goods and services are the only component of aggregate demand that changes, then the trade balance needs to increase 1.7 percent of GDP in the medium-term to close the output gap. Albeit, this is a partial equilibrium analysis, it provides a useful benchmark regarding the magnitude of external rebalancing required in order to achieve a situation of full employment. This numerical target is used as a threshold in the event studies analysis, which provides an insight on the cyclical factors that make this magnitude of external rebalancing possible.

Calculating the External Rebalancing Gap

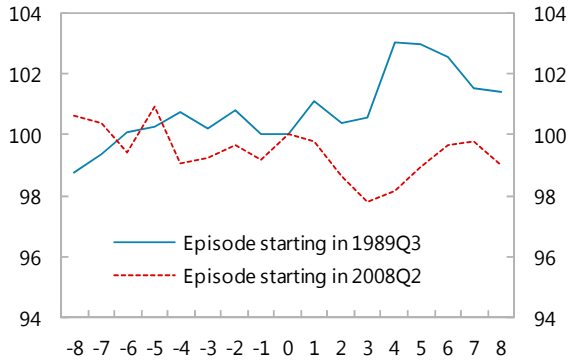
	Real GDP Growth	Output Gap (2018)	Export Growth	Trade Balance (2018)	Current Account (2018)
A. World Economic Outlook Baseline (2013-2018)	2.0	-2.2	4.3	-1.7	-2.6
B. Close Output Gap in 2018	2.1	0.0	4.6	0.0	-0.9
C. Difference (A - B)	0.1	2.2	0.3	1.7	1.7

Source: IMF staff calculations.

[13] The cases in which countries show a trade balance surplus exceeding 1 percent of GDP during the whole sample period were discarded. The event studies are focused on cases that resemble as much as possible the UK, so episodes of chronic trade surpluses are not considered.

16. **The event studies show that three cyclical factors can explain the lack of external rebalancing.** These include: (i) a decline in the terms of trade and external demand; (ii) low productivity growth, which increases the unit labor costs and reduces external competitiveness; and (iii) lack of persistence in real exchange rate depreciation.

Figure A3.14. UK: Terms of Trade
(Index = 100 at *t* = 0; episodes centered at 0)

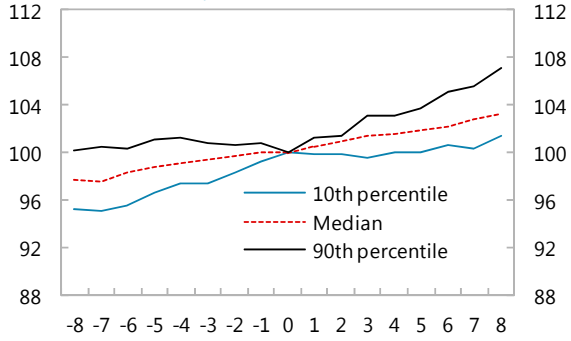


Sources: Haver Analytics; and IMF staff calculations.

17. **Terms of trade and global demand conditions matter for external rebalancing.** The last time the UK was able to achieve a trade balance surplus, international conditions were more benign—there was an improvement in the terms of trade and external demand was robust. In the current context, the terms of trade have worsened and there has been a significant contraction in global demand.

18. **Low productivity growth.** If external conditions are weak, large productivity gains can improve the competitiveness of an economy through reductions in the unit labor cost, and can contribute to external rebalancing. In the exercise involving the 22 OECD countries, labor productivity growth accelerated by 0.5 percentage points during the external rebalancing episodes (increasing from 1.1 to 1.6 percent per year). A similar acceleration occurred in the previous rebalancing episode in the UK, where labor productivity growth rates increased from 0.7 to 1.2 percent annually. In the current context, there has been a large decline in labor productivity. In fact, labor productivity has not recovered to the pre-crisis levels. The dynamics of labor productivity has generated a loss of competitiveness, which, in turn, has dampened the prospects of external rebalancing.

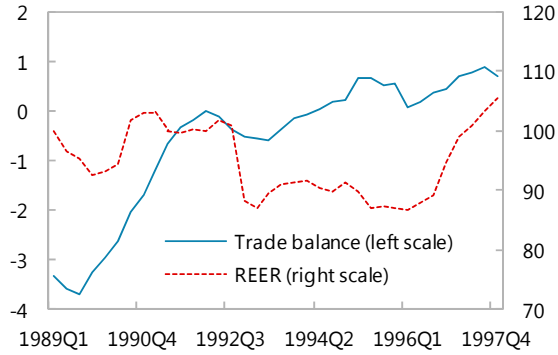
Figure A3.15. OECD Sample: Labor Productivity
(Labor productivity = 100 at *t* = 0; episodes centered at 100)



Sources: Haver Analytics; and IMF staff calculations.

19. **The role of the exchange rate.** In a situation of negative terms of trade or low labor productivity, the real exchange rate can play an important role in boosting competitiveness. In order for the trade balance to improve, the depreciation must be highly persistent, so export-oriented firms have the incentives to enter new international markets or expand their production in traditional markets. For instance, if an exchange rate depreciation lasts only a few quarters, it would not be profitable for export-oriented firms to expand

Figure A3.16. UK: Trade Balance and REER
(Trade balance in percent of GDP; REER = 100 in 1989Q1)



Sources: Haver Analytics; and IMF staff calculations.

production capacity. In the rebalancing episode of the early 1990s, sustaining a positive trade balance was possible due to long-lasting real exchange rate depreciation. Between 1992 and 1996, the real exchange rate depreciated by 12 percent and remained at a depreciated level through the end of the period. On the contrary, in the current context, while the real exchange rate depreciated sharply in 2008, it has been quite volatile in the period thereafter.

D. Conclusions

20. **Bold policy actions are required to restore competitiveness and improve the prospects of external rebalancing in the UK.** Abstracting from the external environment, this will require both a diversification of its exports and of export markets. In particular, the UK will need to focus on boosting technology-intensive exports and increasing its foray into fast growing emerging markets. The former will *inter alia* require improving the competitiveness and skills base of the economy, while the latter would benefit from further trade initiatives, including free-trade agreements.

Annex 4. The Monetary Policy Transmission Mechanism, Credit and Recovery[1, 2]

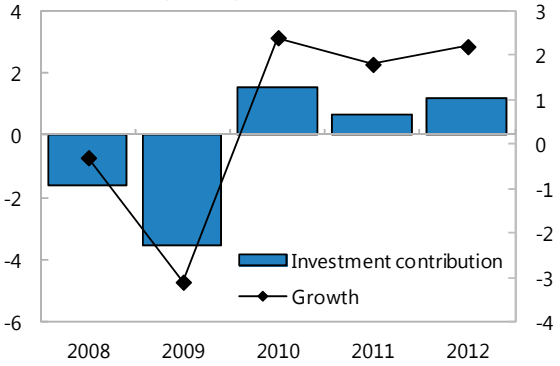
This note examines why the transmission of monetary policy to credit in the UK has not been successful. There is consistent evidence of credit supply problems for all types of lending except for mortgages. However, the importance of demand problems appears to be increasing more recently, as prolonged periods of tight credit conditions and weak demand have started to discourage borrowers from applying for loans, especially in the SME sector. The analysis suggests that easy monetary conditions are being transmitted to the mortgage market, but not feeding through to spreads or lending to the rest of the economy. This, in turn, explains why the recovery from the financial crisis has been one of the weakest in the history of the UK.

A. A Weak Recovery from the Crisis

1. **The recovery of the UK economy from the financial crisis has been exceptionally weak.** The current economic recovery has been one of the slowest in the history of the UK, even when compared to the Great Depression. In addition, following the financial crisis, the UK has underperformed relative to most other large advanced economies (see figures below ¶7, main text).

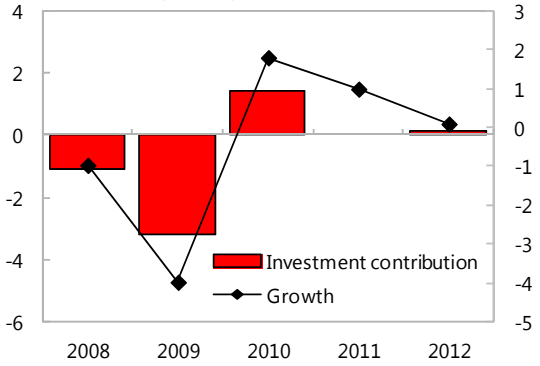
2. **The US and the UK were both at the epicenter of the crisis, but the recovery of the former has been faster and stronger.** This adds some perspective into the poor performance of the UK. The shocks ensuing from the financial crisis were of similar size and nature in both countries. From peak-to-trough, GDP in the UK fell by 6.3 percent, and by 5 percent in the U.S. Further, over the 2007–08 periods, equity prices, house price inflation, bank lending, and residential construction fell at similar sharp rates in both countries. The two economies hit the GDP trough in Q2 2009 and rebounded in 2010, but their performance started diverging thereafter. Growth in the UK decelerated against the backdrop of stagnant investment, while the US economy maintained an average annual growth rate of 2 percent, with positive contributions from investment in every year. Therefore, the growth gap between the UK and the US appears to be partly driven by differences in investment growth.

Figure A4.1. US: Investment's Contribution to GDP Growth (Percent)



Source: Haver Analytics.

Figure A4.2. UK: Investment's Contribution to GDP Growth (Percent)



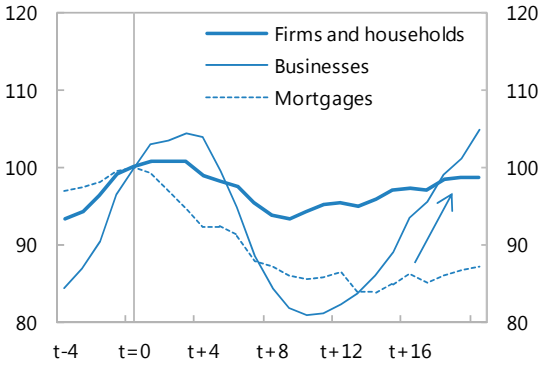
Source: Haver Analytics.

[1] Prepared by Carolina Osorio Buitron.

[2] The data in this annex were current as of May 2013.

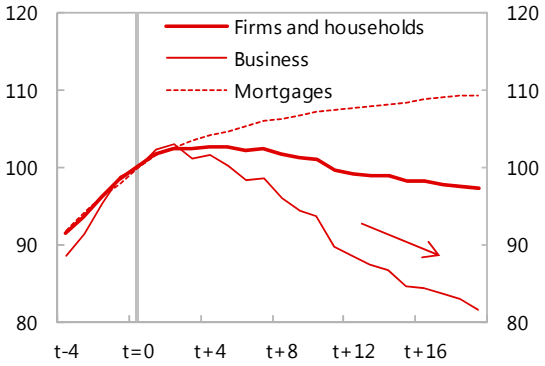
3. **Furthermore, the disappointing performance of the British economy has been accompanied by an extraordinary contraction of credit.** Lending to firms and households in the US resumed growing three years after the crisis started, while credit to the private sector in the UK is still falling, notably to businesses. Consequently, unlike the US, the UK has been unable to embark on an investment-led recovery.

Figure A4.3. US: Lending by Category after the Current Recession (Index = 100 at GDP peak; *x*-axis in quarters)



Sources: FDIC; and IMF staff calculations.

Figure A4.4. UK: Lending by Category after the Current Recession (Index = 100 at GDP peak; *x*-axis in quarters)

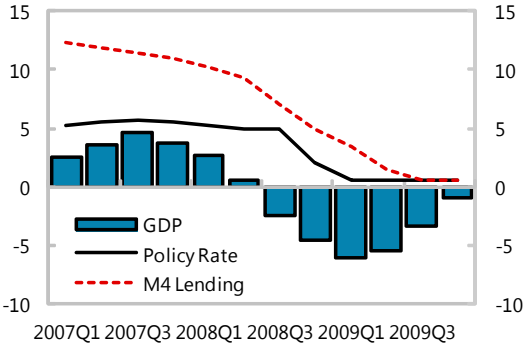


Sources: Bank of England; and IMF staff calculations.

B. Effectiveness of Monetary Policy

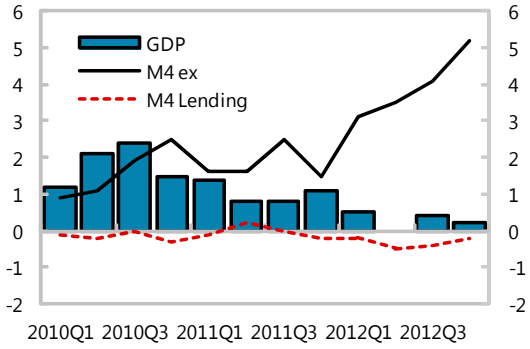
4. **Credit and economic growth have been fragile, notwithstanding the extraordinary monetary stimulus provided by the Bank of England (BoE).** Since March 2009, the BoE has lowered the policy rate in several steps to close to the zero bound; purchased £375 billion (25 percent of GDP) worth of assets, notably gilts, by issuing bank reserves over three rounds of QE; and, in conjunction with the Treasury, launched the Funding for Lending Scheme (FLS) to lower bank funding costs.

Figure A4.5. Bank Rate, Credit and Growth
(Annual growth rate, percent)



Sources: Bank of England; and ONS.

Figure A4.6. Money, Credit and Growth
(Annual growth rate, percent)

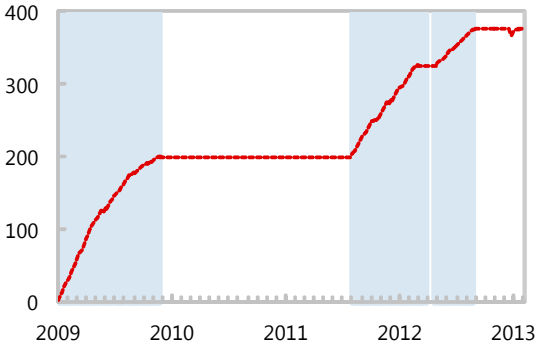


Sources: Bank of England; and ONS.

5. **QE has partly succeeded in increasing broad money, but this has not translated into higher credit to the private sector.** The effects of QE on broad money and credit were mitigated by endogenous responses from private agents that reduce deposits. Through QE, the BoE creates

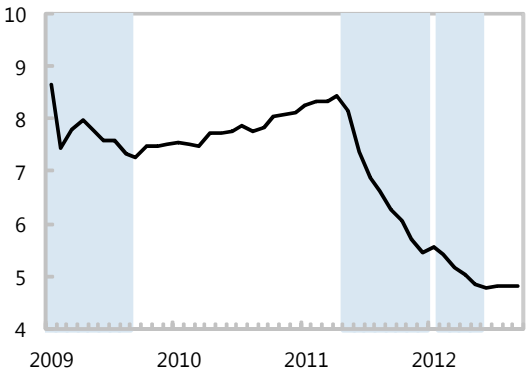
broad money by purchasing assets from non-bank private agents. However, if banks do not lend, and agents spend their additional deposits investing in domestically-issued securities or foreign assets, broad money falls. This has been reflected in a continuous decline of the money multiplier.[3]

Figure A4.7. Assets Purchased by the Creation of Central Bank Reserves (£ billion; shaded areas represent QE periods)



Source: Bank of England.

Figure A4.8. Money Multiplier: Broad to Narrow Money Ratio (shaded areas represent QE periods)



Sources: Bank of England, IMF staff calculations

6. **The leakages leading to a reduction of deposits after each round of QE were associated with weak bank lending, increased activity in capital markets and a larger volume of transactions with the rest of the world.**[4] The effects of on broad money can be traced using the banks' balance sheet identity, whereby total assets equal total liabilities (see Butt. et. al. 2012). This identity implies that the effects of QE on broad money can be offset by lower lending or an increase in banks' non-monetary liabilities.

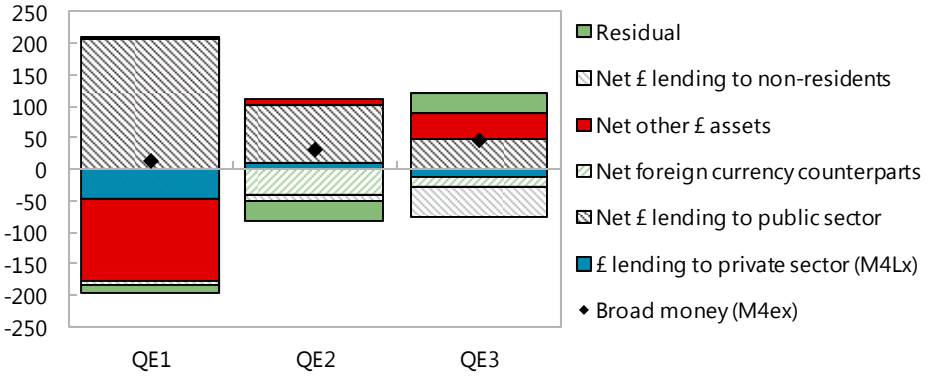
- The decrease in yields resulting from the first round of QE provided financial and nonfinancial firms with incentives to substitute bank lending with capital market finance. The negative contribution of net-other assets reflects banks' shift towards bond and equity issuance as a source of financing. Similarly, the negative contribution of lending to the private sector, which is largely explained by firms' repayment of previously acquired loans, implies that corporates reduced their reliance on bank credit.

- By contrast, in the last two phases of QE the fall in net foreign currency counterparts (stemming from investors purchases of foreign assets) and net-lending to non-residents weighed down on broad money growth.

[3] The multiplier is defined as the ratio of broad to narrow money. Broad money includes currency in circulation and deposits. Throughout this annex, *M4 excluding intermediate other financial corporations* is taken as the measure of broad money, because that is the BoE's preferred measure. Narrow money, on the other hand, is the sum of currency and bank reserves.

[4] The BoE has engaged in three rounds of QE. QE1 refers to the first phase of the program where £200 billion in assets were purchased between March 2009 and January 2010. In the second round, QE2, £125 billion of assets were purchased between October and May 2012. This was followed by QE3 in which £50 billion were purchased between July 2012 and October 2012. These three rounds are depicted by the shaded area in the figures below ¶5.

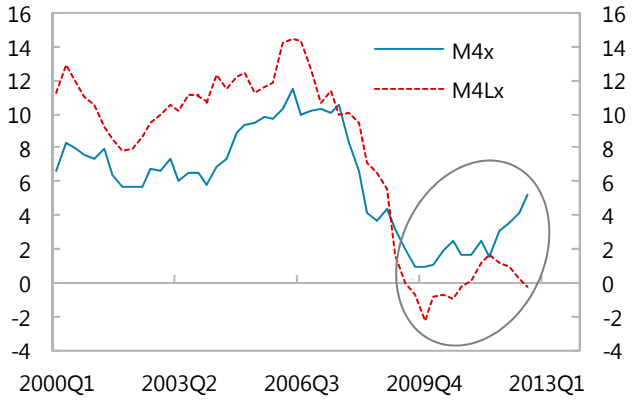
Figure A4.9. Counterparts to Changes in Broad Money (M4x) (£ billions)



Sources: Bank of England, IMF staff calculations.

7. **But the negative contribution of bank lending has been exceptional, thus suggesting an important impairment to the monetary transmission mechanism.** The provision of credit by banks has tended to be the most important transaction in creating broad money. This is due to the fact that, by extending loans, banks create broad money in the form of deposits for the borrower or the recipient of the borrower's expenditure. However, since 2010, lending has, for the most part, contributed negatively to changes in M4. QE may not have been successful in boosting lending to the private sector because, by design, it circumvents the banking system. The main transmission mechanism channels of QE are through higher asset prices and lower costs of capital market issuance (see Churm et. al. 2012). FLS was launched with the aim of inducing banks to lend more by reducing banks' funding costs; however, the scheme has not been a game-changer. While it is somewhat early to judge the effectiveness of FLS, thus far, there is no clear evidence of it succeeding in loosening credit conditions for households and firms. Recently, the scheme was modified to address criticisms of its lack of success in promoting credit growth to firms, particularly SMEs.

Figure A4.10. Broad Money and Credit
(Annual growth rate, percent)



Source: Bank of England.

C. What Explains the Weakness in Bank Lending?

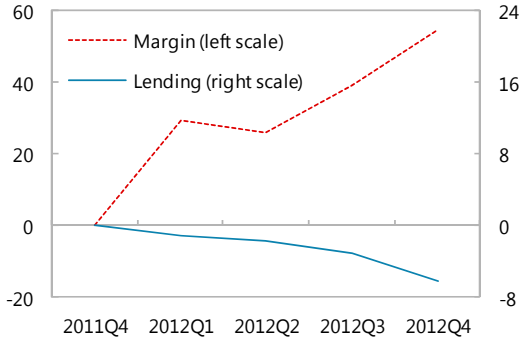
8. **Identifying whether the weakness in bank lending is driven by supply or demand side factors, is essential to determine the appropriate policy response.** The inefficiencies generated by supply-side constraints should be addressed with policies that reduce the cost of lending for banks, or that help financial intermediaries restore the health of their balance sheets. In this case, the appropriate tools lie in the domain of the central bank or the financial regulator. By contrast, if subdued demand is the main problem, there may be scope for welfare-improving fiscal measures.

9. **The weakness in bank lending after the crisis reflects both subdued demand and a tightening of credit supply.** As the financial crisis intensified, wholesale funding costs rose, and banks' risk aversion increased autonomously, and in response to tighter liquidity and capital requirements. This discouraged banks from extending new loans and induced them to tighten credit conditions. Although demand for credit may have fallen in response to tighter credit conditions, agents' willingness to borrow was also subject to independent negative shocks. Weak and uncertain future demand prospects reduced firms' appetite for external finance. Similarly, concerns about future job losses and lower real income growth seem to have encouraged households to save more and reduce their level of debt.

10. **Comparative statics analysis suggests that, since end-2011, supply-side constraints have been the main driver of the weakness in lending, although not in the mortgage market.**[5] In the period leading to the crisis, aggregate lending to households and businesses increased and average credit spreads narrowed (see graph A on Figure A4.24), suggesting that credit developments were dominated by positive supply shocks. By contrast, more recently, lending flows are falling slightly while interest rate spreads are widening (see graph C on Figure A4.24). This implies that, since the Euro Area Crisis intensified, negative supply-side shocks have been the most binding constraint on bank lending.

- Lending to businesses is currently being held-back by supply-side constraints. Since end-2011 lending to businesses has dropped, while the cost of credit of this type of lending has increased (see graph F in Figure A4. 24). Similar patterns are also observed in SME lending data. Consequently, the weakness in lending to the business sector has been recently driven by negative supply-side shocks.

Figure A4.11. Lending to SMEs
(Index, 2011Q4 = 0)



Sources: Bank of England; and IMF staff calculations.

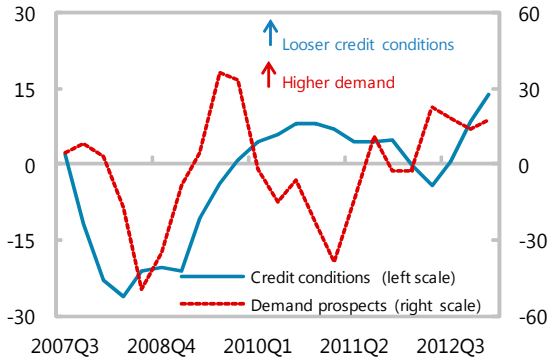
- Developments in the mortgage market seem to follow a different pattern, however. In the mortgage market the periods preceding and following the crisis were characterized by rising lending flows and narrowing credit spreads. Thus, positive supply shocks were the drivers of mortgage lending in these two periods. Since November 2011, lending flows continued to rise, but mortgage spreads started widening. Therefore, positive demand shocks have become the main source of fluctuations in the mortgage market (see graphs A, B and C in Figure A4.25).

[5] This analysis builds on the simple partial equilibrium model by Bell and Young (BY, 2010) . While BY measure credit spreads relative to the policy rate, in the model used here credit spreads are given by the difference between lending rates and banks' funding costs. The comparative statics analysis based on this model can reveal whether observed movements in the cost and amount of lending are predominantly driven by demand or supply side factors. If lending flows and the cost of credit move in the same direction, then demand-side shocks dominate. If, on the contrary, the two variables move in opposite directions, then supply-side shocks are more important. We abstract from analyzing the 2007–09 period, during which credit markets were disfunctional.

D. Survey Data Affirms Evidence from Market Data

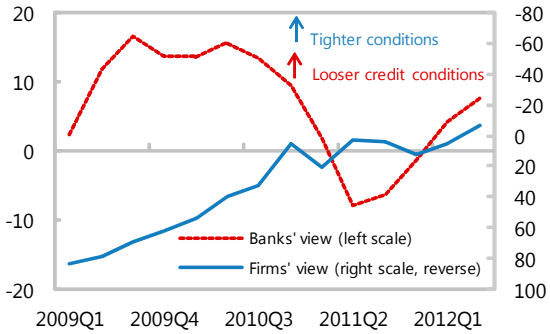
11. **Survey data suggests that conditions in the mortgage and credit market for large firms are improving.** For the past few quarters, banks have been reporting that demand for mortgages is growing and mortgage credit conditions are loosening. Similarly, when the Euro Area crisis intensified, large firms and banks reported a tightening of credit conditions, but these now seem to be moving towards more favorable levels.

Figure A4.12. Banks' Assessment of the Mortgage Market (Percent balance; 2-quarter average)



Sources: Bank of England; and IMF staff calculations.

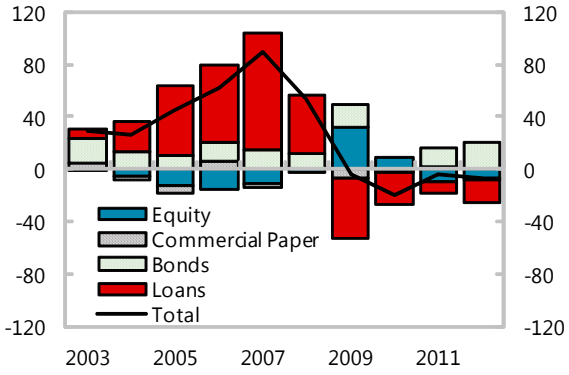
Figure A4.13. Credit Conditions of Loans to Large Businesses (Percent balance; 2-quarter average)



Sources: Bank of England; Deloitte CFO Survey; and IMF staff calculations.

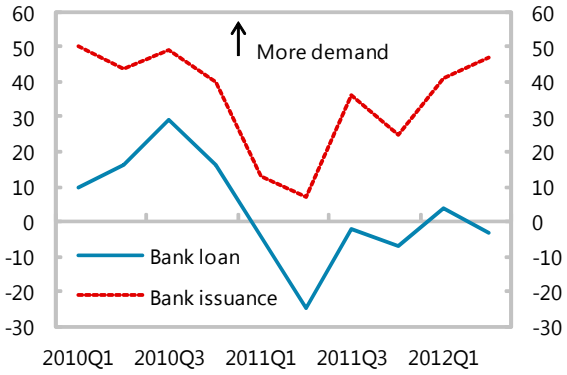
12. **Large businesses have been able to substitute bank debt with bond issuance, thus confirming the importance of supply side constraints in credit markets.** Relative to the pre-crisis period (2005–07), bank borrowing by large businesses plummeted, while corporate bond issuance held-up, aided by historically low yields.[6] Note that if demand-side shocks were the

Figure A4.14. Net Funds Raised by UK Businesses (£ billions)



Sources: Bank of England; and IMF staff calculations.

Figure A4.15. Future Financing Prospects (Percent balance)



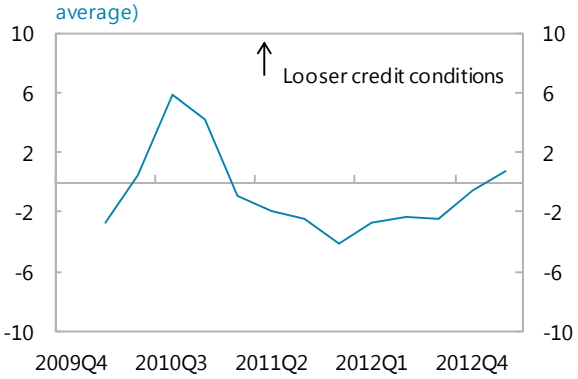
Source: Deloitte CFO Survey.

[6] Note that equity issuance has been negative since 2011, as firms have engaged in equity buybacks. While this may suggest that banks could be issuing debt to buy back shares, the volume of this type of transactions has been very small. This kind of transactions normally account for less than 5 percent of total gross bond issuance and are undertaken by at most two companies. In 2008, there was an important increase in the issuance of bonds used to buy back shares. The transaction represented 16 percent of total gross bond issuance, but it was undertaken by a single firm. Further, data from the CFO Deloitte survey suggests that equity buy-backs could be related to the fact that firms consider their cash-payout ratios to be "below normal levels".

underlying cause of weak lending to large firms, one would observe a contraction in both bank borrowing and corporate debt. Going forward, large businesses are likely to continue funding themselves through corporate bond issuance, as they still find bank borrowing relatively less attractive.

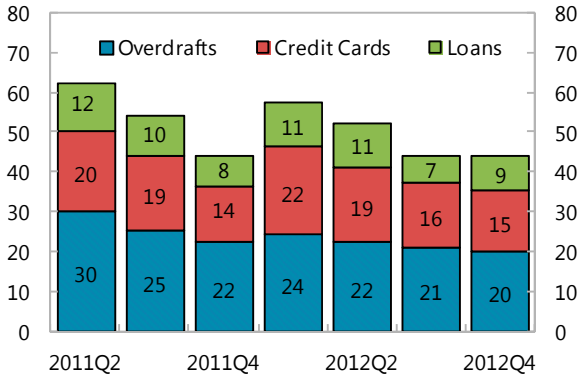
13. **SMEs are more credit constrained than large businesses.** Unlike large corporates, SMEs cannot substitute bank debt with other sources of financing**.** Although banks report a modest improvement in credit conditions to small businesses, SMEs do not perceive an improvement in the availability of credit, and lending continues to fall. More than 40 percent of credit to SMEs is in the form of credit card lending and overdrafts. Since end-2011, lending flows in the market for unsecured lending have been largely flat, while credit spreads have risen (see graph F in Figure A4.25). SMEs are relying more on personal funds and/or cutting back on their scale of operation.

Figure A4.16. Banks' Perception of Credit Conditions to SMEs (Percent balance; 2-quarter average)



Sources: Bank of England; and IMF staff calculations.

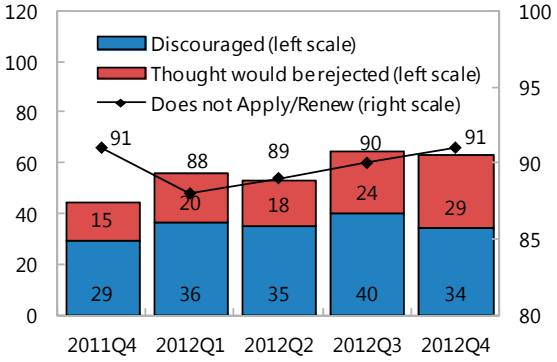
Figure A4.17. Types of Financing used by SMEs (Percent of surveyed SMEs)



Source: SME Finance Monitor.

14. **But the phenomenon of the "deterred borrower" suggests that demand considerations are growing.** The percent of SMEs that are not applying or renewing lending facilities is quite high, and the two most important factors which are increasingly contributing to this behavior are "discouragement" and expectations about possible being denied access to credit.

Figure A4.18. SME Borrowing Events (Percent of surveyed SMEs)



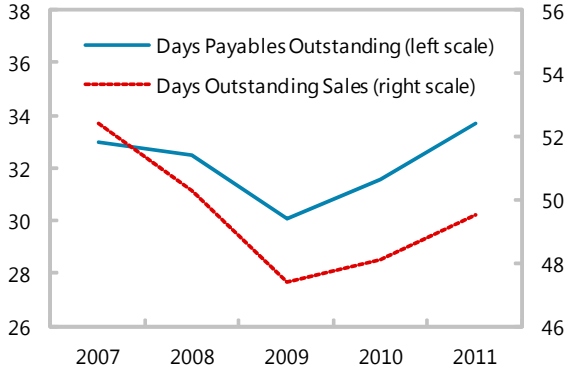
Source: SME Finance Monitor.

E. Inefficient Allocation of Capital

15. **The prolonged period of tight credit conditions has induced firms to build-up their working capital excessively, thus leading to inefficiently low levels of investment.** In the post-Lehman period, businesses responded to tight credit conditions by increasing their deposit holdings and inventories. While this has allowed firms to improve their operational liquidity, it may also be the result of weak demand. Persistently weak demand prospects have led to inefficiencies in the management of working capital, as firms have a significant amount of liquidity tied-up in their inventories and are, therefore, unable to generate enough cash to pay their bills.

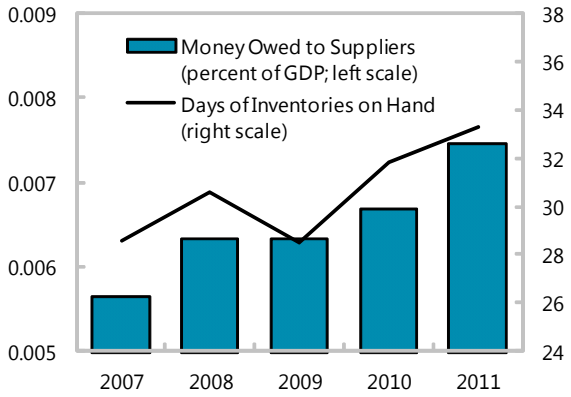
- Indeed, large corporates are seeing an increase in the days of inventories on hand, and the time taken to receive payments from customers has risen. Against the backdrop of tight credit conditions, this has induced large firms to delay payments to suppliers.[7]

Figure A4. 19. Large Firms' Working Capital Indicators



Source: Deloitte UK.

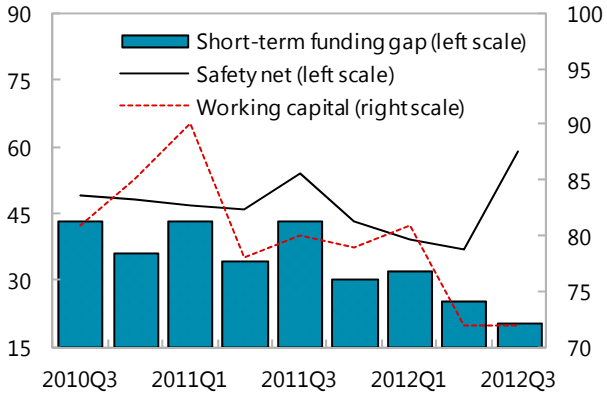
Figure A4.20. Working Capital Indicators



Sources: Deloitte UK; ONS; and IMF staff calculations.

16. **In addition to tight credit conditions, SMEs have been adversely affected through the supply chain.** The increase in payables by large companies is damaging to SMEs, as the former are often suppliers of the latter. SMEs have been forced to accept payment terms, which are detrimental to their working capital and cash-flow. This appears to be distorting SMEs' incentives to demand external finance. Fewer SMEs are applying for overdrafts to cover funding gaps, and a larger share is seeking to build a safety net.

Figure A4.21. Purpose of Overdrafts Sought by SMEs (Percent of surveyed SMEs)



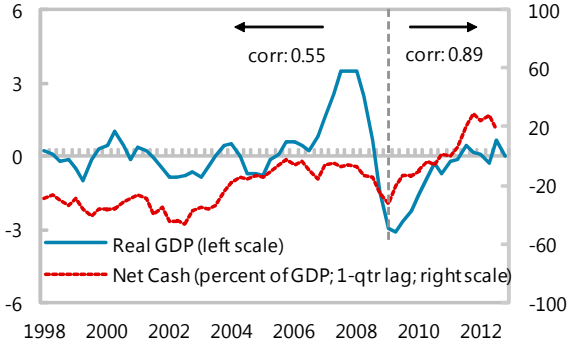
Source: SME Finance Monitor.

[7] While the data in figures A4.19 and A4.20 is only available through 2011, evidence from the British Chamber of Commerce's "Prompt Payment Report", suggests that late payment problems, especially by large firms, continued through 2012.

17. **Working capital management practices in the post-crisis era could be creating inefficiencies at the macroeconomic level.** Over the past three years, economic growth in the UK has been stagnant as firms, willingly or not, have been shifting away from bank lending and focused on boosting their working capital. At the same time, the business cycle has become more correlated with firms' net cash position, while bank borrowing has become counter-cyclical although, historically, this variable has tended to be pro-cyclical.

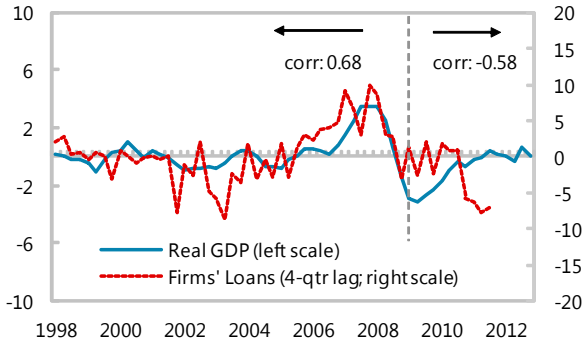
18. **This phenomenon affects the economy on a demand and a supply-side dimension.** Tight credit conditions and their ensuing pressures on firms' working capital have induced businesses to cut back on investment (demand). Moreover, uncertainty about future consumer demand and late payments has induced businesses to delay production or file for bankruptcy, thereby damaging the productive capacity of the economy.

Figure A4.22. Net cash and the Business Cycle
(Percent deviation from trend)



Sources: ONS; and IMF staff calculations.

Figure A4.23. Firms' Borrowing and the Business Cycle
(Percent deviation from trend)



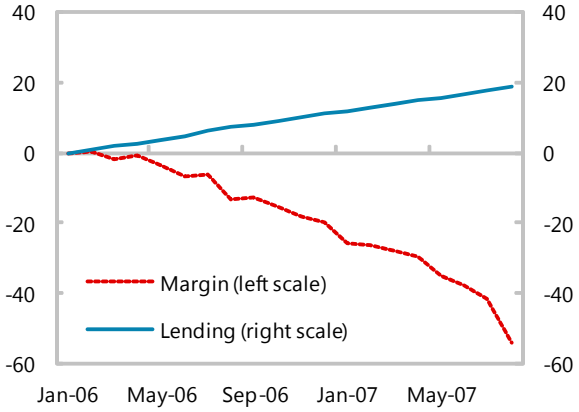
Sources: ONS; and IMF staff calculations.

F. Conclusions

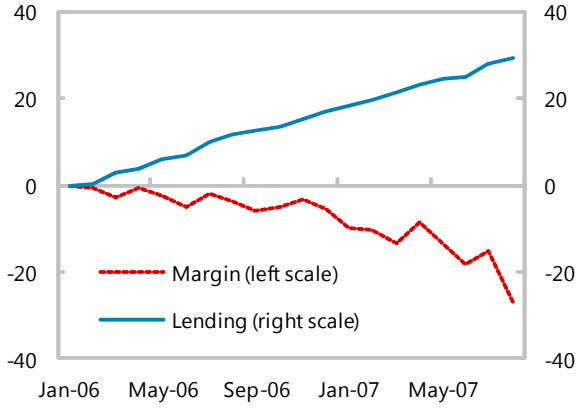
19. **This note provided evidence that the transmission of monetary policy to credit is impaired, owing to both demand and supply side considerations.** This may explain why the recovery from the crisis has been exceptionally weak in the UK. The results indicated that current weakness in bank lending is largely explained by adverse supply-side shocks. However, there are differences across sectors. While mortgage borrowers do not seem to be credit-constrained, SMEs appear to be severely credit-constrained sector. These results are consistent with the information conveyed by surveys, but SME survey data suggests that demand considerations are a growing concern: prolonged periods of tight credit conditions are discouraging small and medium sized firms from seeking external finance. The results also showed that liquidity and credit-constrained firms have engaged in inefficient accumulations of working capital. This has created additional pressures to SMEs financing concerns, and has led to lower growth.

Figure A4.24. UK: Lending Before and After the Crisis

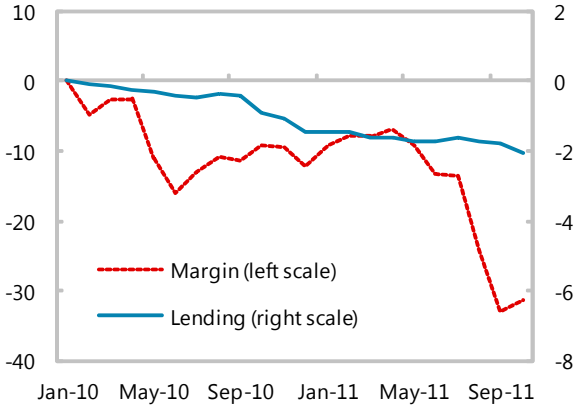
A. Lending to Private non-Financial Sector 1/
(Index, Jan. 2006 = 0; Jan. 2006 to Sep. 2007)



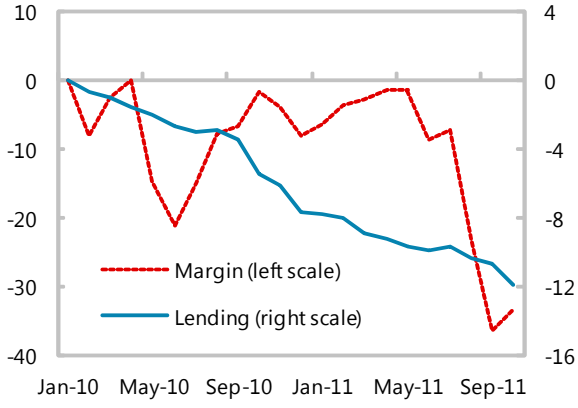
D. Lending to PNFCs
(Index, Jan. 2006 = 0; Jan. 2006 to Sep. 2007)



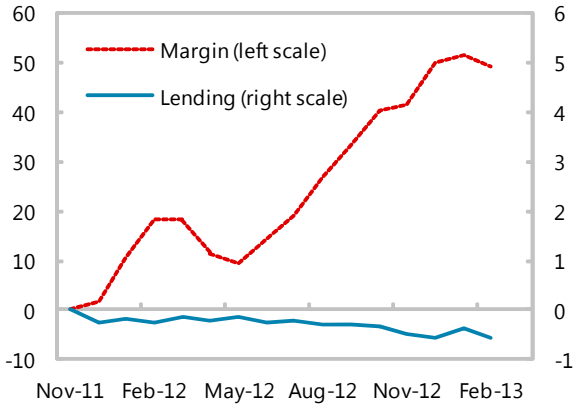
B. Lending to Private non-Financial Sector 1/
(Index, Jan. 2010 = 0; Jan. 2010 to Oct. 2011)



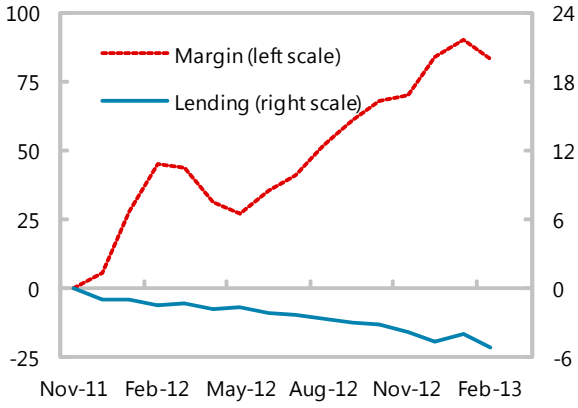
E. Lending to PNFCs
(Index, Jan 2010 = 0; Jan. 2010 to Oct. 2011)



C. Lending to Private non-Financial Sector 1/
(Index, Nov. 2011 = 0; Nov. 2011 to Feb. 2013)



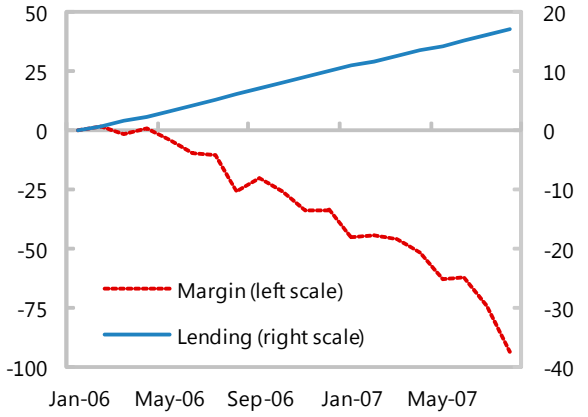
F. Lending to PNFCs
(Index, Nov. 2011 = 0; Nov. 2011 to Feb. 2013)



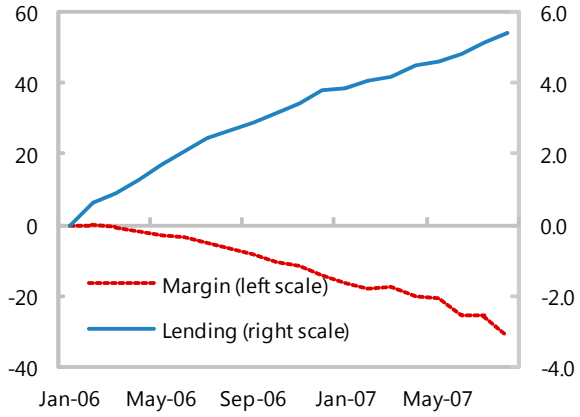
Sources: Bank of England; and IMF staff calculations.
1/ Includes lending to private non-financial corporations, and secured and unsecured lending to households.

Figure A4.25. UK: Lending Before and After the Crisis

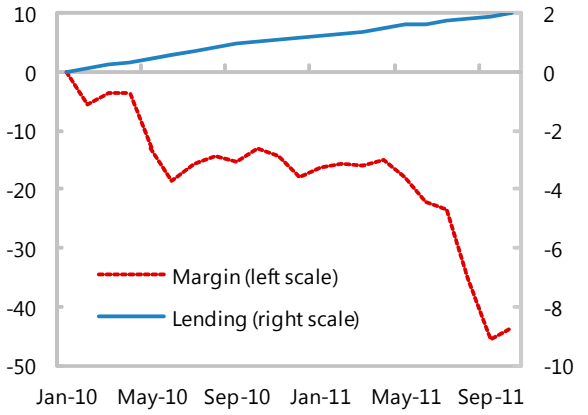
A. Secured Lending to Households
(Index, Jan. 2006 = 0; Jan. 2006 to Sep. 2007)



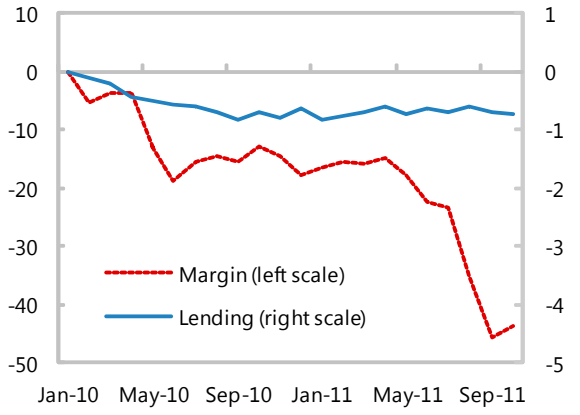
D. Unsecured Lending to Households
(Index, Jan. 2006 = 0; Jan. 2006 to Sep. 2007)



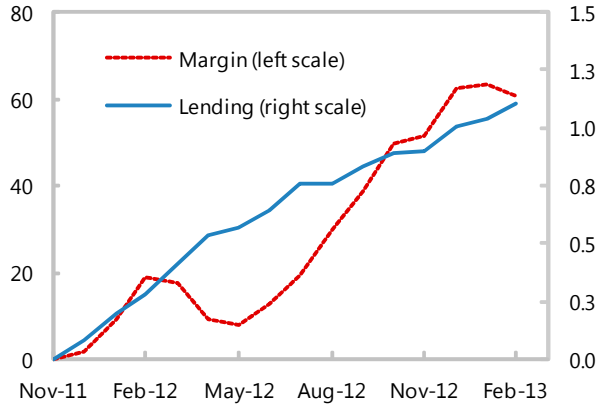
B. Secured Lending to Households
(Index, Jan. 2010 = 0; Jan. 2010 to Oct. 2011)



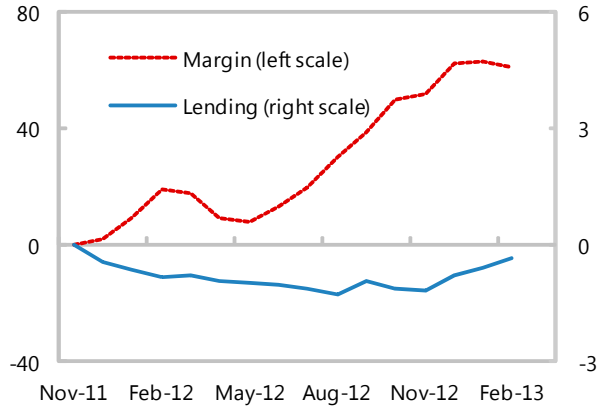
E. Unsecured Lending to Households
(Index, Jan. 2010 = 0; Jan. 2010 to Oct. 2011)



C. Secured Lending to Households
(Index, Nov. 2011 = 0; Nov. 2011 to Feb. 2013)



F. Unsecured Lending to Households
(Index, Nov. 2011 = 0; Nov. 2011 to Feb. 2013)



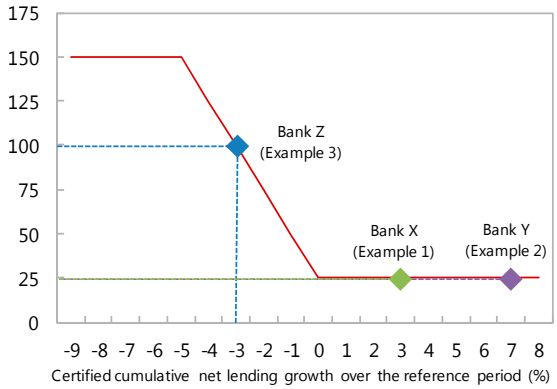
Sources: Bank of England; IMF staff calculations.

Annex 5. The Funding For Lending Scheme[1,2]

A. Motivation for the Scheme

1. **The FLS was introduced jointly by the HMT and BoE on August 1, 2012 against a backdrop of significant bank deleveraging and high bank funding costs.** The scheme followed "Project Merlin" (ended March 2012) and the National Loan Guarantee Scheme (launched in March 2012, sized £40bn), both of which aimed at boosting bank lending to small businesses and reducing the cost at which this was done. The initial response to the earlier two schemes had been positive. However, with the economy in recession, doubts about the effectiveness of QE emerging, and banks pressured by euro area stress, the need was felt to do something bigger/bolder to reduce banks' funding costs and support lending to the private sector. At the time of its launch, the FLS was clearly seen as the most ambitious of the credit-support schemes and a potential game-changer. Nine months later (on 24 April 2013) the BoE and HMT announced a one-year extension in the duration of the FLS, and stronger incentives for banks and nonbanks to lend to SMEs. This followed continued credit contraction and survey evidence that, SMEs, unlike households, have not benefitted from the increased availability, and lower cost, of credit since mid-2012.

Figure A5.1. FLS Fee Variation with Net Lending
(Fee bp)



Source: Bank of England.

B. Original Design

2. **The FLS was designed as a four-year collateral swap—participating banks placed their lower quality collateral with the BoE (with the usual haircuts and margins applied) in exchange for higher-quality gilts**. The latter could then be used to raise wholesale funds at close to the policy rate. The amount of gilts participating banks could "draw down" was set at 5 percent of their end-June 2012 stock of net sterling lending to the UK private sector (private non-financial corporations and households). This stock stood at £1.67 trillion (three-fourth of it accounted by lending to households), placing the initial potential size of the Scheme at about £80 billion. With some banks (notably HSBC) choosing not to participate, the initial stock of net lending of participating banks amounted to £1.36 trillion, implying an allowance of £68.2 billion. Importantly, banks' allowance increased pound-for-pound for any net lending increase after the initial date,

[1] Prepared by S. Ali Abbas and Mohamed Norat.

[2] The data in this annex were current as of May 2013.

which meant there was no cap on the Scheme's size.[3] The Scheme came initially with a drawdown period of 18 months, i.e. till end-Jan 2014.

3. **A pricing incentive was built in to incentivize net lending (or minimize deleveraging).** The Scheme access fee was set at 25 bps of the amount drawn if banks maintained or increased their net lending over an assessment period (end-2013 vs. end-June 2012); 50 bps if banks deleveraged by 1 percent, 75 bps if they deleveraged by 2 percent, and so on up till a maximum cost of 150 bps. Gilts acquired under the scheme could also be counted for purposes of the liquidity coverage ratio, and the capital charge on FLS-funded loans could be offset under Pillar-II capital requirements.

C. April 2013 Extension/Modification

4. **On April 24, 2013, the authorities announced three key changes to the scheme to further credit provision, notably to SMEs:**

(i) a one year extension (to January 2015) in the period under which participants can access funding under the scheme.

(ii) higher borrowing allowances for banks that lend more, and sooner, to SMEs: for every £1 of net lending to SMEs in 2013 (2014), banks will now be able to draw £10 (£5) from the scheme, whereas other lending will continue to translate into a pound-for-pound allowance.[4]

(iii) participating banks permitted to access FLS funding on the basis of their loans to certain non-bank credit providers (NBCPs) such as financial leasing corporations and factoring corporations, which are an important source of credit for SMEs, and to mortgage and housing credit corporations.[5]

D. Effectiveness Through End-March 2013

5. **With just three quarter data, and the impact of recent changes not yet reflected, it is still early to assess the Scheme's effectiveness.** Still, it does appear that the Scheme has contributed to easing funding pressures on UK banks, with CDS spreads falling and equity valuations improving. The fact that LIBOR spreads (over overnight interest swap rates) for sterling fell by more than for euro suggests that the additional FLS backstop has helped UK banks, beyond the EU Summit and OMT announcements in Q3-2012 (left chart below). Time deposit rates (right chart)

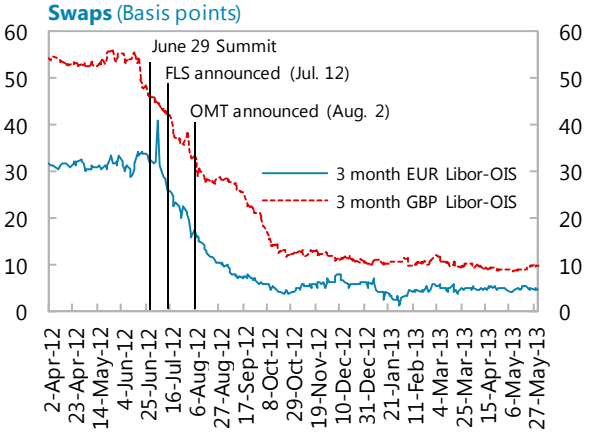
[3] Thus, a bank with an initial stock of net lending of £100 billion and initial allowance of £5 billion would receive an additional allowance of £10 billion if its stock of net lending increased to £110 billion.

[4] Moreover, the sectoral split of lending–covering households, SMEs, large businesses and certain non-bank credit providers (NBCPs)–will be published for each participating group alongside its respective drawdown.

[5] Only lending to NBCPs "outside" the banking group will be eligible for this specific treatment. Each banking group will continue to report lending by its NBCP subsidiaries within its total group-level lending figures (intra- group flows to NBCPs will not count separately for the purposes of the FLS).

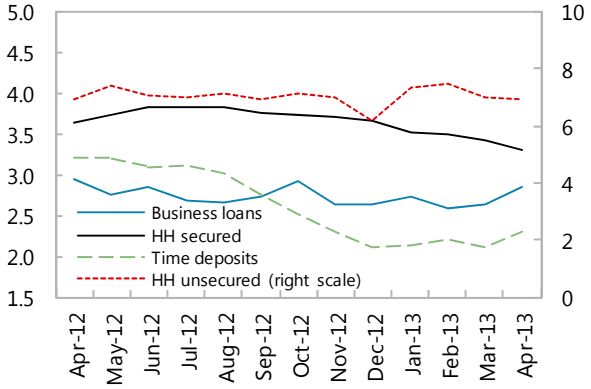
have also fallen to historic lows, although pass-through to lending rates has been partial. Mortgage rates have declined steadily, but rates on unsecured lending to HHs and lending to businesses have not. Anecdotal evidence suggests that effective rates on new business loans, i.e. once account is taken of fee reductions, and loan approvals in pipeline, are also beginning to edge down.

Figure A5.2. Forward OIS Spreads and Basis Swaps (Basis points)



Source: Bloomberg.

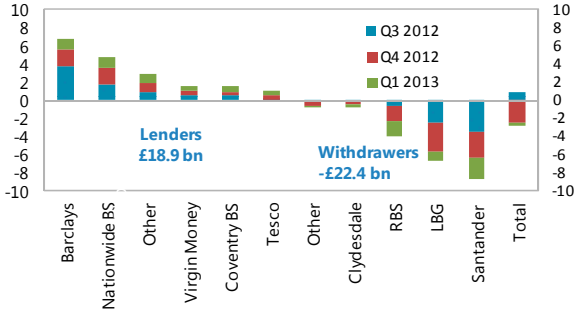
Figure A5.3. Lending and Deposit Rates
(Percent; rates on new loans or deposits)



Source: Bank of England.

6. **The effectiveness of the Scheme with regard to boosting lending *volumes* is less clear.** The combined net lending of the 40 participating banks has fallen by £1.8 billion in the 9 months through end-March 2013, with lending to SMEs remaining particularly weak. Cumulative drawings under the Scheme have been low: just £16.5 billion out of £68.2 billion (5 percent of the loan books of UK MFIs). This somewhat disappointing aggregate performance appears to be driven in large part by the particular deleveraging imperatives of three large banks (RBS, LBG and Santander UK). Excluding these, net lending rose by £17.4 billion (split between Barclays, Nationwide and 35 other small lenders), with FLS drawings contributing two-third of this increase. Even for banks that were forced to reduce leverage, the Scheme—through its impact on net interest margins—might have enabled more lending to be sustained than otherwise possible.

Figure A5.4. Cumulative Household & PNFC Net Lending
(End-June 2012 to End-March 2013; £ billions)



Source: Bank of England.

Net Lending and FLS Drawdowns Between End-June 2012 and End-March 2013
(£ billion; numbers may not add up exactly due to rounding)

	Initial stock of net lending	Initial 5% allowance	Actual FLS drawing	Net lending	Net lending *less* FLS drawing
Santander UK	189.3	9.5	1.0	-8.6	-9.6
RBS	214.8	10.7	0.8	-4.0	-4.7
LBG	443.3	22.2	3.0	-6.6	-9.6
Barclays	*188.5*	*9.4*	*6.0*	*6.8*	*0.8*
Nationwide	*152.2*	*7.6*	*2.5*	*4.8*	*2.3*
Rest (35)	*176.3*	*8.8*	*3.2*	*5.8*	*2.6*
All participants	**1364.4**	**68.2**	**16.5**	**-1.8**	**-18.2**

Source: Bank of England.

E. Factors Impacting Effectiveness

7. **Four broad explanations have been preferred for the limited impact of the FLS on lending volumes, including for SMEs:**

- *Weak/low quality demand for credit:* Responsible households are still looking to deleverage, while bigger/healthier corporate can issue directly into the markets and are less reliant on bank lending. The only demanders of bank credit may thus be higher-risk borrowers, such as SMEs and high-LTV first-time home buyers, which banks perceive as poor credit risks, given weak aggregate demand and earnings prospects, respectively.

- *Design of capital charge on FLS lending:* The Scheme allows banks to offset under Pillar-II, the regulatory capital charge in respect of FLS-funded loans. However, the offset was done on the basis of average risk weight, which constituted a de facto incentive for banks to substitute increase secured lending but reduce SME lending. The April 2013 modification to the Scheme has addressed this by significantly improving the attractiveness of SME lending.

- *Health of UK banks:* As noted in the PN, there are still some lingering concerns about the health of UK banks, especially asset quality and the adequacy of existing capital buffers. As a result, despite being flush with liquidity, banks have eschewed credit origination, persisting with previous deleveraging plans, and using the cheaper funding to boost net interest margins and, potentially, ever-greening forborne loans.

- *Timing issues:* The timing of the Bank Asset Quality Review (announced in November 2012, and published in March 2013) could have prompted some of the larger banks to deleverage faster in Q4 2012 (see chart above). Also, the British Bankers Association has contended that business demand for new loans was muted toward year-end due to the availability of £125 billion in surplus cash and £15 billion in unused credit lines.

F. Conclusions

8. **The FLS was a timely and innovative policy initiative.** Alongside OMT and quantitative easing, it has helped lower banks' funding costs since mid-2012, and some of this reduction has passed through to borrowers. The recent extension in the scheme's duration is helpful, both in the face of continuing euro area uncertainties, and because it would enable banks presently undertaking balance sheet repair (in order to meet BoE's end-2013 capital requirements) to still access funding under the scheme in 2014. Staff also deems appropriate the new explicit focus on SMEs, which appear to face the toughest credit constraints, and account for three-fifth of UK employment.

9. **However, in light of continued negative credit growth since the Scheme's origination, it is important to keep expectations of FLS effectiveness tempered.** There are limits to what liquidity-easing measures can achieve on their own, in the presence of weak credit demand (a function of expected future incomes), and banks that are still not strong enough to lend freely. The removal of these bottlenecks would require a smaller drag from fiscal consolidation, and greater clarity on the strategy for RBS and LBG.

10. **Going forward, it would be useful for the authorities to review the BoE's definition of acceptable collateral, and the haircuts applied to it.** Some analysts have suggested that the BoE's collateral requirements may be serving as a constraint on lenders' ability to access the FLS to the desired extent. Over the coming months, if the authorities determine this to be a factor limiting FLS effectiveness, there would be a case to consider some relaxation of the requirements.

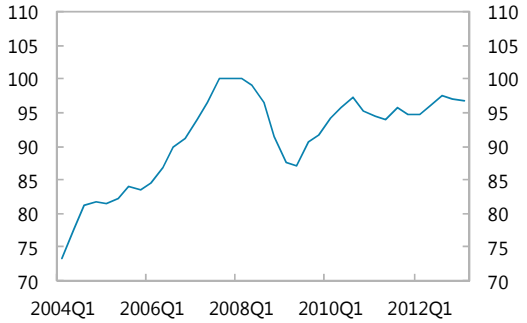
Annex 6. The UK Housing Market[1, 2]

Residential property prices in the UK appear to be high, largely owing to stable demand and supply-side constraints. These restrictions have, over the years, translated into sizeable housing supply shortages and have made residential properties less affordable. Government intervention is needed to improve the efficiency of the planning system and strengthen the incentives of developers to build homes. Yet existing housing policies stand to boost the demand for mortgages and dwellings, which could fuel house prices further and worsen the affordability problem.

A. Supply Constraints and House Price Misalignments

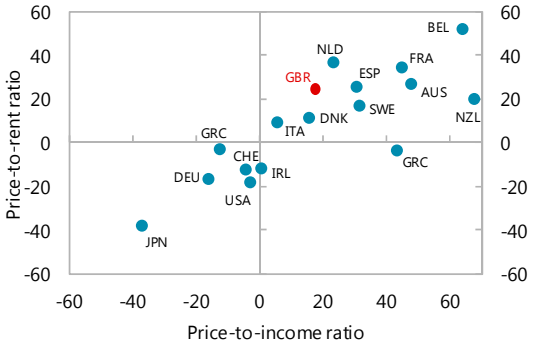
1. **Residential property prices in the UK are elevated relative to incomes and rents.** Although house prices declined significantly during the crisis (13 percent), they have recovered substantially, reaching near pre-crisis peak values. Moreover, residential property values are currently about 20 percent above their historical average values of price-to-income and price-to-rent ratios.[3]

Figure A6.1. ONS House Price Index
(NSA, Index 2008Q1 = 100)



Sources: Haver Analytics; ONS; and IMF Staff calculations.

Figure A6.2. Housing Valuation Metrics
(Percent deviation from historical average)



Sources: OECD; ONS; and IMF staff calculations.

2. **This aggregate trend masks some variation across regions.** London remains prime real estate and prices are now 12 percent higher relative to their 2007 peak value. In the South East region, prices have stabilized at around 4 percent above their pre-crisis peak values. By contrast, in the rest of Britain house price inflation is zero, although residential values have stabilized at around 6 percent above their trough values.

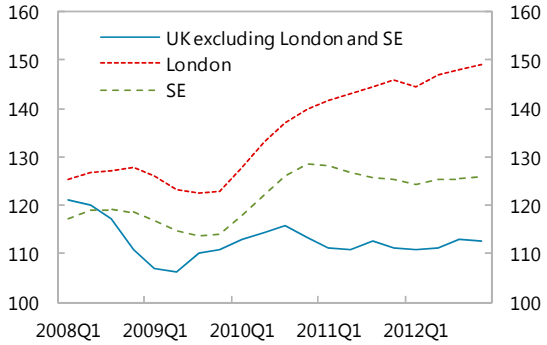
[1] Prepared by Carolina Osorio Buitron.

[2] The data in this annex were current as of May 2013.

[3] There are other measures, albeit not as accurate as the ONS house price index, which suggest that that residential property is currently overvalued between 4 to 10 percent.

- Overseas investment may be an important factor in driving the rapid increase in London house prices. London receives a constant flow of property investors from across Europe, the Middle East and Asia, who are looking for safe investments to protect their wealth. House purchases by foreigners amounted to 5 percent of total transactions in the UK in 2012, and this represented a 40 percent increase relative to 2010 in value terms.

Figure A6.3. ONS House Price Indices by Region
(Index, 2005Q1 =100)

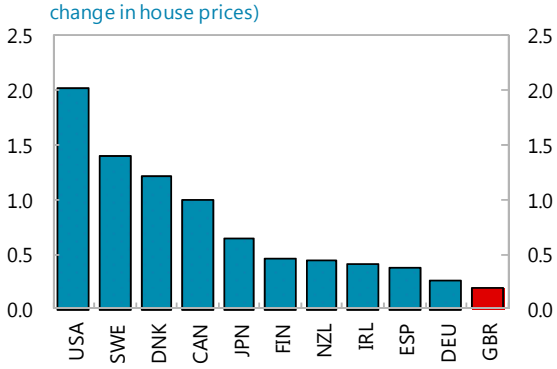


Sources: Haver Analytics; and IMF staff calculations.

B. Distortions can be Attributed to House Constraints

3. **House prices have held-up in the UK better than in other crisis-hit countries, owing largely to structural supply constraints and relatively healthy demand.** Relative to the pre-crisis peak, nominal house prices have dropped by 50 percent in Ireland, 30 percent in Spain and over 20 percent in the US as compared with 3 percent in the UK. While in the US house building increased significantly in the run-up to the crisis, housing markets in some countries that have experienced substantial price falls also have low long-run supply elasticities. This suggests that both supply constraints and robust demand have contributed to the dynamics of house prices in the UK.

Figure A6.4. Long Run Elasticity of Housing Supply
(Percent change in residential investment / percent change in house prices)

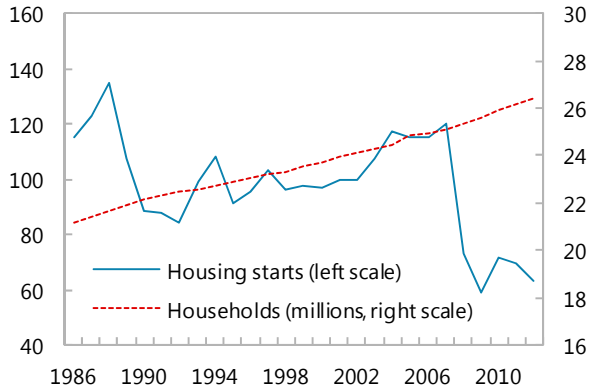


Source: Caldera Sanchez, A. and A. Johansson (2011).

4. **Supply-side constraints in the residential real estate market and lack of security in the rental market have made owner-occupied houses structurally less affordable.** For decades, housing starts have fallen short of the level needed to match demand owing to inefficiencies in the planning framework. This has led to a sizeable shortage of housing, which is currently estimated at one million homes. In addition, since rental contracts are very short-term and do not offer much security to tenants, agents have developed a strong preference for home ownership, which has contributed to maintain a strong demand for owner-occupied houses. These trends have been accompanied by a continuous increase in the number of years it would take an individual who earns the average gross disposable income to fully pay-off a house.[4]

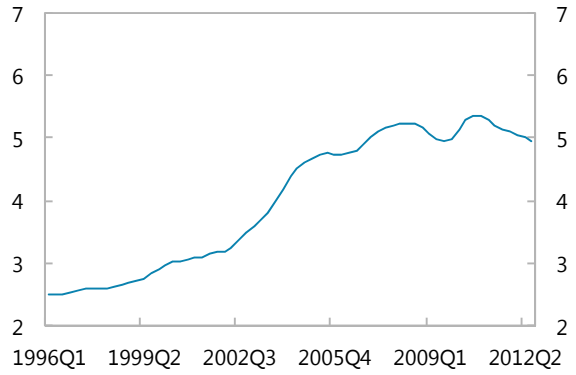
[4] This measures assumes that all income is spent paying off the house.

Figure A6.5. Housing Supply Shortage
(NSA, Index 2002 = 100)



Sources: Haver Analytics; and IMF staff calculations.

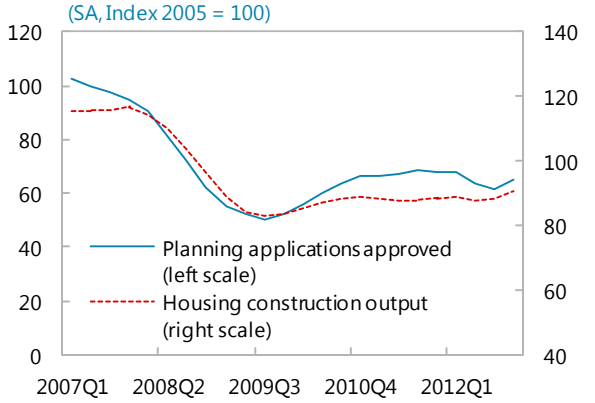
Figure A6.6. Housing Affordability
(Years of work needed to buy a house)



Sources: Haver Analytics; and IMF staff calculations.

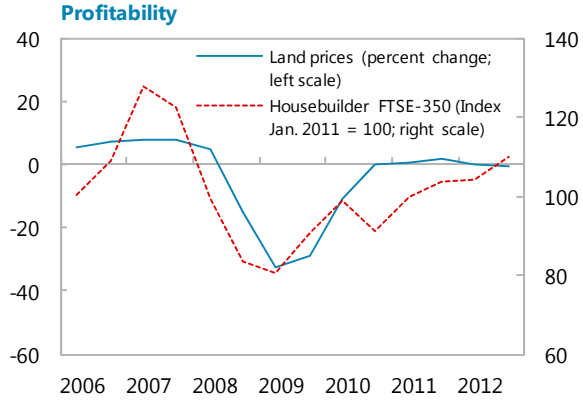
5. **The sluggishness of the planning process has weakened and distorted developers' incentives to build homes.** Land for development is released sluggishly, and the issuance of building permits is burdensome and time-consuming. This entails risks and constraints that, over time, have provided large developers with incentives to accumulate and manage land, rather than to engage in the construction of houses. Large-listed house builders benefited from purchasing land at fire sales levels during the crisis, while small and medium sized developers continue struggling to access development finance. The majority of homes (65 percent) are developed by small and medium-sized housebuilders, who also provide the largest share in terms of employment and value added in the construction sector. Industry experts estimate that, if SME housebuilders continue to face difficulty in accessing finance, the shortfall of housing supply could double by 2020.

Figure A6.7. Housing Supply
(SA, Index 2005 = 100)



Sources: Haver Analytics; and IMF staff calculations.

Figure A6.8. Land Prices and Large House Builders' Profitability



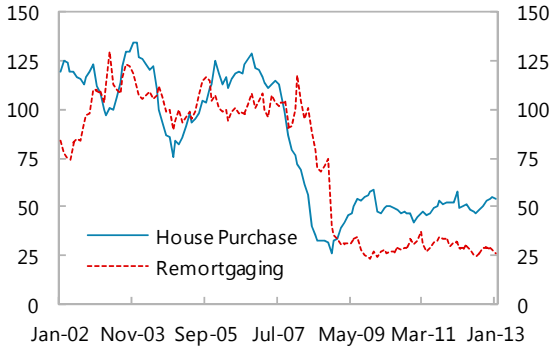
Sources: HCA, Knight Frank and Savills; and Bloomberg.

C. Policy is Stimulating Household Demand

6. **The mortgage market has not yet recovered fully from the crisis. Some indicators suggest that debt overhang and mortgage distress problems remain.**

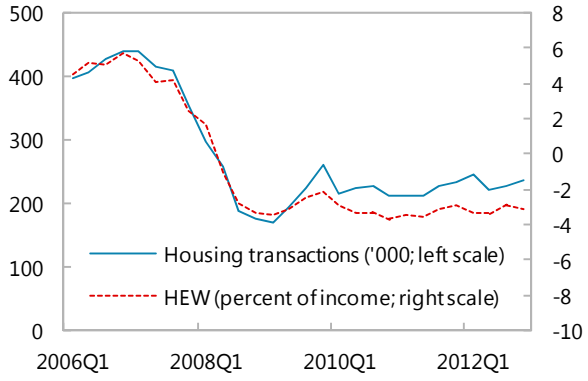
- Mortgage approvals have increased somewhat, but they remain at historically low levels and approvals for remortgaging remain depressed.
- Housing equity withdrawal (HEW) – the difference between net lending secured on dwellings and households' gross investment in housing – remains at an all time low. While this indicates continued injections of housing equity by households, the latter is not associated with increased mortgage repayments. Instead, it reflects subdued housing turnover and remortgaging activity.
- Mortgage write-offs remain high relative to their pre-crisis levels.

Figure A6.9. Mortgage Approvals by Purpose
(Thousands)



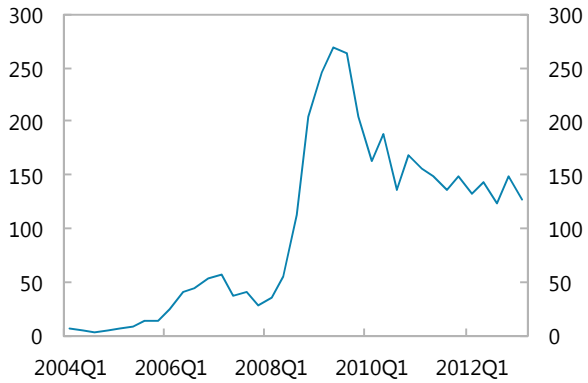
Sources: Haver Analytics; and IMF staff caluclations.

Figure A6.10. Housing Equity Withdrawal (HEW) and Turnover



Sources: Bank of England; and Haver Analytics.

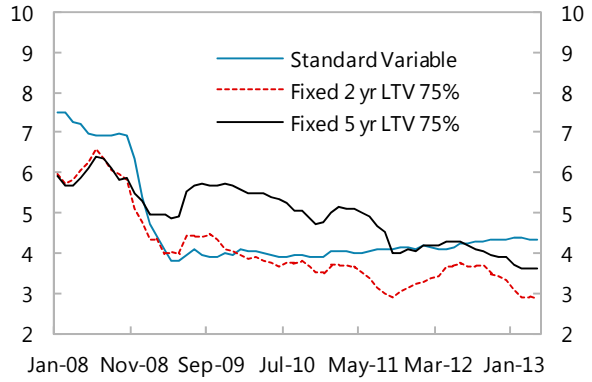
Figure A6.11. Mortgage write-offs
(£ millions)



Sources: Haver Analytics; and IMF staff calculations.

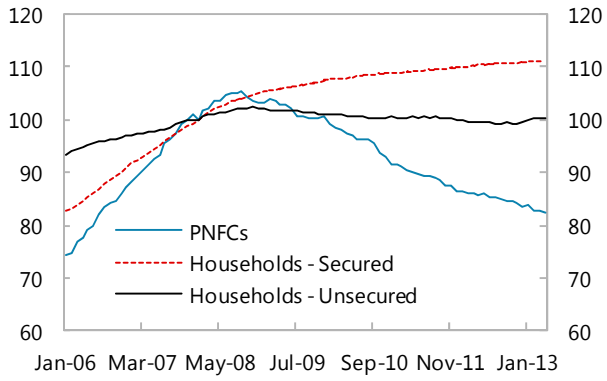
7. **However, credit conditions in the mortgage market have eased, owing to the government's efforts to stimulate the housing market.** Housing schemes, such as NewBuy and FirstBuy, have increased the availability of high loan-to-value mortgages (see Table 1 for details), and the Funding for Lending Scheme has improved mortgage credit conditions by reducing bank funding costs. Measures of quoted fixed-rate mortgages, which make up roughly half of available mortgage products, have been dropping steadily since June 2012, and mortgage lending continues to grow. This contrasts with credit market developments in the other sectors of the economy, where credit is falling and interest rates remain stubbornly high.

Figure A6.12. Mortgage Rates
(Percent)



Sources: Bank of England; and Haver Analytics.

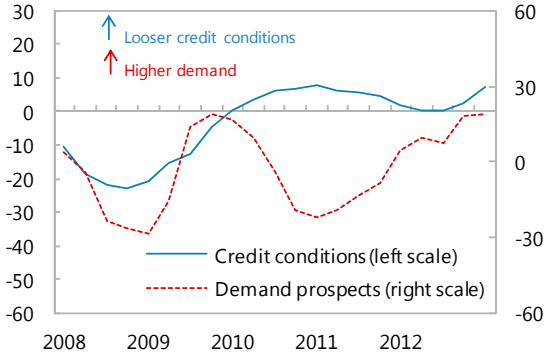
Figure A6.13. M4 Lending by Sector
(Index, Jan. 2008 = 100)



Sources: Haver Analytics; and IMF staff calculations.

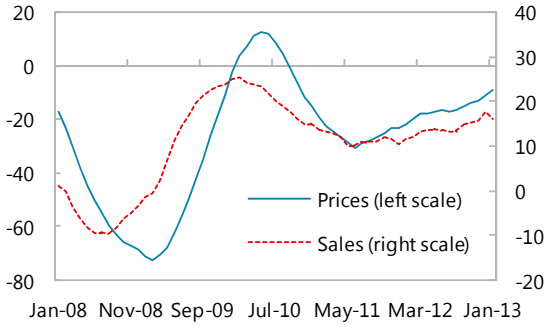
8. **Activity in the mortgage and housing markets is expected to continue improving.** Banks perceive that demand for mortgages is increasing and report having loosened the terms and conditions for this type of lending. Similarly, housebuilders' expectations about prices and property sales continue to improve.

Figure A6.14. Mortgage Market Conditions
(Percent Balance, 4-quarter average)



Sources: Bank of England; and IMF staff calculations.

Figure A6.15. Housing Market Expectations
(Percent balance, SA)



Sources: Haver Analytics; and Royal Institute of Chartered Surveyors.

9. **Further measures to prop up the housing market could be self-defeating.** The government has launched several schemes to support the housing market (see Table 1) and, in the 2013 Budget, it introduced Help-to-Buy (HtB), which comprises two initiatives: an equity loan and a mortgage guarantee scheme. Only the equity loan leg of the scheme is targeted to new builds. Through the guarantee scheme, the government will provide lenders with the option to purchase a government guarantee that will insure them against the event of default, by compensating them for a portion of the incurred net losses. The guarantee scheme is not targeted and can be used to purchase homes with a value of up to £600,000.

- HtB is designed to address the lack of financing for high loan to value home buyers, but it is not clear that an overall failure in the mortgage market exists. Mortgage rates have already

come down impressively, and mortgage lending is the only type of lending that continued growing during and after the crisis.

- While the equity loan leg of HtB could address the housing supply problem (as it is targeted to new-built homes), experience from previous similar initiatives, like NewBuy, suggests that the scheme may end up boosting housebuilders' profits, without materially boosting the supply of houses. The best way to address the supply problem is through planning reforms, by inducing banks to lend more to SME housebuilders, or by discouraging large developers from hoarding land.

- The eligibility criterion is broad enough to accommodate London home buyers. This could increase house prices significantly at the national level, as non credit-constrained buyers outside of London will benefit from the scheme, and the house value threshold is about 50 percent higher than the average price of residential properties in London.

- Similarly, the mortgage guarantee leg of HtB could make housing less affordable by increasing the demand for houses and mortgages by high-risk borrowers. Since borrowers benefiting from the scheme are expected to be of poorer credit quality, financial intermediaries may offer them punitive rates and conditions.

- HtB conflicts with macro-prudential policy objectives whereby banks are encouraged to engage in more prudent lending practices.

D. Conclusions

10. **Unlike other crisis-hit economies, house prices in the UK are currently high relative to incomes and rents.** This phenomenon is largely explained by a relatively healthy demand and supply-side constraints which have, over the years, widened the demand-supply gap considerably and made houses unaffordable. Existing housing measures are designed to boost the demand for high loan-to-value mortgages, which, due to the highly inelastic supply of housing, could lead to higher residential property prices. To ensure these policies have the desired effect, they should be complemented with measures that address the shortage of housing. Housing supply stimulus can be provided through measures that enhance the efficiency of the planning system and increase the amount of land available for development. Further, demand pressures in the market for owner-occupied houses could be alleviated by making long term private renting more attractive, through the use of regulations that make rental contracts more secure.

Table A6.1. Home Ownership Schemes

Programme	Product	Targeted to	Structure/ Type	Eligibility Criteria	Usage	Limitations/Comments
Right-to-Buy	Right-to-Buy	Renters of publicly rented houses	The scheme allows tenants to buy the home they live in. For houses (flats), the scheme offers discounts of 35 (50) per cent plus one (two) per cent per year of residency after five years, up to a maximum of 60 (70) per cent. The maximum discount is £75,000. In the Budget 2013 budget the scheme was extended. For London, the maximum discount cap was increased to £100,000 and the minimum tenancy time was reduced from 5 to 3 years.	Have been a tenant of a council home, which is the only/ main home. Be a secure tenant, and have had a public sector landlord for five years (not necessarily in a row).	971,000 sales were processed under Margaret Thatcher's government (annual average of 97,000), 316,000 under John Major (annual average of 45,000) and 487,000 under the two Labor administrations from 1997 onwards (averaging 35,000 yearly). Sales dipped to a 4,000 trickle following the financial crisis from 2008 onwards. Excluding the credit-crunch years, the number of sales between 1998 and 2007 averaged 44,000.	Over the 30 years since the scheme's introduction sales have drifted up and down. Research by the Human City Institute shows that the level of unemployment, the state of the housing market and the size of the council housing stock have been the key determinants of Right-to-Buy activity since 1980, rather than the level of discount. The latter is the key variable in providing potential homebuyers with incentives to purchase a home.
HomeBuy	FirstBuy	First-time buyers	Individuals buy a home with at least 80% of the cost met by a mortgage and a deposit. The rest is paid for by the government and the house builder through an equity loan. The government and the house builder will get a share of the value if the home is sold. If the home is not sold, the individual will have to pay back the equity loan after 25 years.	Earn less than £60,000 a year. Not be able to afford a home in area of residence. Maximum full purchase price is £280,000.	The FirstBuy has one of the largest market share (13 per cent in the last 12 months)	Some banks (Halifax and Barclays) claimed that borrowers under the scheme presented a higher risk than other wise. This induced banks to charge higher mortgage rates for borrowers under the scheme (90 basis points higher), which translated into £1000 pounds per year more for the borrower.
	Shared Ownership	First-time buyers or individuals who used to own a home and cannnot afford one anymore	Individuals buy a share of the home (between 25% and 75% of the home's value) and pay rent on the remaining share. Individuals must take out a mortgage to pay their their share of the home's purchase price. Shared ownership properties are always leasehold.	Buyer should earn less than £60,000 a year, and not able to purchase a home without the programme. Buyer must rent a council or housing association property.		

Programme	Product	Targeted to	Structure/ Type	Eligibility Criteria	Usage	Limitations/Comments
Mortgage Rescue Scheme	Mortgage to Rent	Owner-occupiers at risk of repossession that seek to become tenants.	The property is purchased by a Registered Provider and let to the household with rent charged at up to 80% of market rent.		Since April 2011, 1,736 households have been able to remain in their homes. Since the scheme began a total of 4,413 households have been helped to remain in their homes.	The government had assumed the cost per household under the scheme would be £34,000. Instead, the cost per household is instead £93,000 despite it only being taken up 2,600 instead of 6,000 as expected. That is, the government has overspent of £34 million, and aided less than half of households it expected. Currently 180,000 households are struggling to pay their mortgages. Hence, the scheme is small and does not provide good value for money.
	Equity Loan	Owner-occupiers at risk of repossession who wish to maintain a share of ownership.	The household's existing secured debt and monthly payments are reduced by an equity loan provided by the housing association.			
Help-to-Buy	Equity Loan	Home buyers of new-built homes	Government provides an equity loan for up to 20% of value of new built home, repayable when home is sold.	New home priced at £600,000 or less. No income cap		
	Mortgage Guarantee Scheme	Lenders who offer mortgages with LTVs between 80%-95%	The Government provides lenders with option to purchase a government guarantee, which ensures the lender will be compensated for a portion of net losses in the event of default. The guarantee applies down to 80 percent of the purchase value of the property.			Lenders are partially protected from the impact of plummeting house prices but the buyers are not. The scheme could encourage riskier lending by banks and inflate house prices, exacerbating the problem of insufficient affordability.

Annex 7. Real and Financial Spillovers[1, 2, 3]

A. Spillovers from UK Macroeconomic Policies

We look at how a combined policy package of monetary easing, targeted fiscal stimulus, and structural reforms could benefit the UK economy, and its effects on other countries. The exercise is done using the G20MOD model, a multi-country structural macro model of the global economy with individual blocks for each G20 country and several other regions. In sum, we find that such a policy package would have positive outward spillovers for the UK's major trading partners, despite the sterling's depreciation (see Figure A7.1).

1. **The exercise starts by matching the path of the WEO projection output gap with a (temporary) negative demand shock producing an output gap of about -4 percent.** In the baseline, the recovery is slow—the output gap takes 6 years to close—in part because policy rates are assumed to be constrained by the zero bound and hence there is little scope for traditional monetary policy easing. Weak demand is associated with higher-than-usual saving rates and a current account surplus, and puts downward pressure on underlying inflation. With decreasing nominal demand, public debt to GDP increases, before coming down as nominal GDP rises and the need for automatic fiscal stabilizers wanes. With nominal rates at the zero bound for 3 years and lower inflation, real rates are higher, putting additional downward pressure on consumption and investment. The real exchange rate initially moves in line with real interest differentials.

2. **We sequentially layer growth-supporting policies, starting with monetary stimulus, extending to temporary fiscal stimulus, and finally immigration and education reforms.** In the first variation, we assume that the central bank adopts unconventional monetary policy measures, equivalent to a 60 bps easing in policy rates relative to the baseline. In the second variation, temporary fiscal stimulus is added to the monetary support: 1 percentage point of additional expenditure on public investment for two years, financed with debt. In the third variation, immigration reforms are enacted that boost the labor supply by 1½ percent over the course of 4 years, in addition to the fiscal and monetary support. Finally, education reforms are assumed to boost potential output by 3 percent over a 5-year period from 2016 to 2020.

3. **The impact on the UK's own growth, cyclical and potential and, hence, public debt trajectory is favorable.** The monetary stimulus has immediate effects, boosting demand by about 1 percent (although the effect dissipates after 5 years). Demand is also boosted by the fiscal stimulus; in that case the spending on public investment also brings with it permanent increases in productive potential. The structural reforms only bear slight improvements to output initially, but

[1] Prepared by S. Ali Abbas, Ben Hunt, Rene Lalonde, Mohamed Norat and Alasdair Scott, with contributions from Miguel Segoviano.

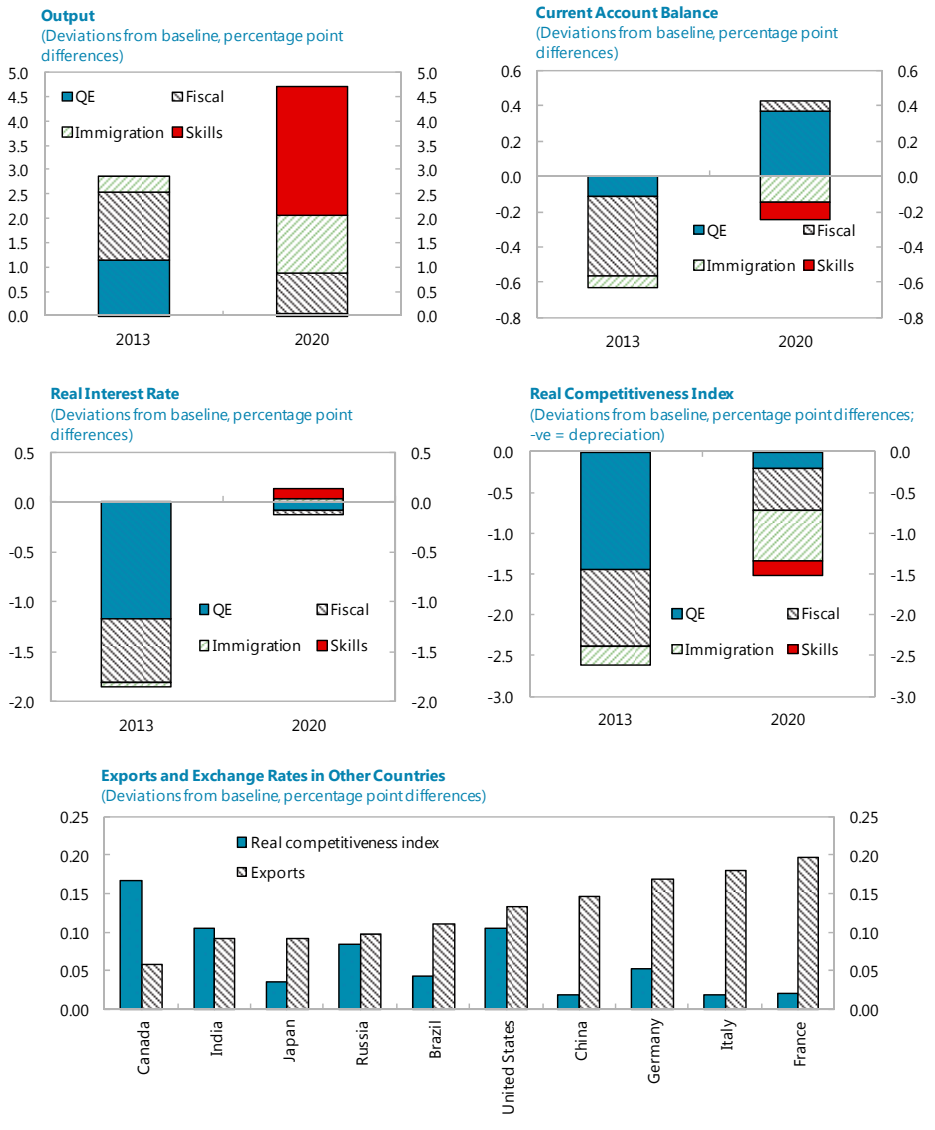
[2] The data in this annex were current as of May 2013.

[3] A fuller discussion of spillovers, including from other strategic economies, is contained in the 2013 *Spillover Report*.

have more significant effects later. Inflation is also higher than in the baseline path, reducing real rates. With greater domestic absorption, the current account surplus is not as large. With higher nominal output, the increase in the public debt ratio is less than that in the baseline.

4. **The real exchange rate depreciates.** The increases in productive potential require a shift in the terms of UK trade to shift some of the extra production externally—the long-run effect is therefore a net depreciation. In the short run, positive real exchange rate differentials in the UK encourage an appreciation from the starting point (i.e. before the negative demand shock), but this is gradually offset by the policy measures such that the exchange rate is very slightly below its starting point (and about 2½ percentage points below the baseline level in 2013).

Figure A7.1. United Kingdom: Real Spillovers



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

5. **Favorable spillovers to other countries follow from a combination of these effects.** By definition, sterling depreciation requires offsetting real exchange rate appreciation in other economies. Appreciations are largest in the cases of Canada, India, Russia, and the US. But despite the appreciation, the improved demand from the UK dominates and the net effect for all countries is stronger exports than in the baseline.

B. Financial Spillovers

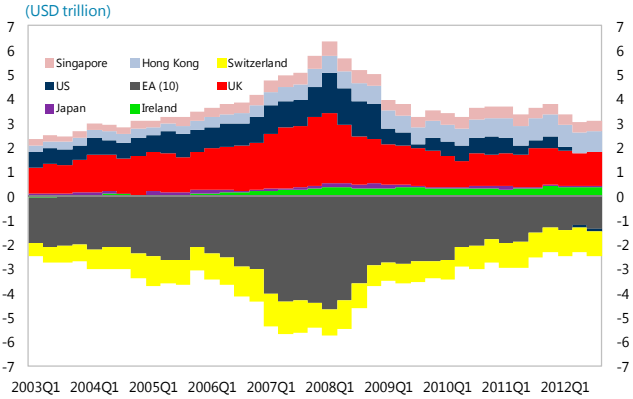
We show that the UK has preserved its status as a major financial center, with its near-50 percent half share of global cross-border liquidity generation by branches and subsidiaries of foreign banks broadly unchanged from pre-crisis levels. At the same time, Asian financial centers (Hong Kong and Singapore) are rising and, together, match the UK's share. Given that the UK is the reporting home of many global banks with substantial presence in Asia, this highlights the importance of coordination between UK and Asian regulators, including in relation to macroprudential capital requirements. We also study the emerging risks of activity migration to the nonbank sector, showing that UK's globally-systemically important banks are now more vulnerable to UK nonbanks. One of the upshots for policy is that intensive supervision of the UK's financial system is vital for the safety and soundness of global finance.

The UK remains the world's leading liquidity hub, but Asian centers are rising

6. **Despite being affected severely by the crisis, the UK has held its position as the most important global hub for cross-border liquidity generation.** A number of subsidiaries and branches of banks headquartered *outside* the UK generate and distribute global liquidity (i.e. claims on non-UK jurisdictions) *through* the UK. Although the current quantum of such liquidity is half its pre-crisis peak of US$ 2.8 trillion, it is comparable to 2003-06 levels, and has been broadly stable since early 2010. Thus, the UK has retained its status as the world's leading liquidity hub, while the US and Japan appear to have withdrawn from this function.

7. **The rise of Asian financial centers will reinforce the significance of the UK as the reporting home of two major Asia-centered banks.** Preliminary estimates – based on an approximation of the consolidated foreign claims of Hong Kong SAR and Singapore using BIS locational data by nationality – suggest that these two hubs together generate a similar amount of cross-border liquidity as the UK. On one hand, this implies stiffer competition for the position of the world's leading liquidity generator. On the other hand, it will reinforce the UK's role in its position as the home of HSBC and Standard Chartered, which have substantial and expanding presence in Asia.

Figure A7.2. Cross-border Liquidity Generated in Major Jurisdictions by Subsidiaries and Branches of Foreign Banks Resident in those Jurisdiction
(USD trillion)



Source: BIS Banking Statistics. The UK's contribution to cross-border liquidity provision was obtained by subtracting the consolidated foreign claims of UK-headquartered banks from the international claims of all banks and branches located in the UK. This difference provided a proxy for the global claims originated from the UK by the subsidiaires and branches of banks headquartered outside the UK. Note that this proxy measure does not take into account the claims of the consolidated balance sheet of a given country's banks on their own foreign subsidiaries, but captures any claims by the subsidiaries on the consolidated balance sheet.

Capital requirements for UK's global banks can generate significant outward spillovers

8. **As the headquarters of several large global banks, the impact of UK regulation will be transmitted globally.** HSBC and Standard Chartered are just two examples of several internationally-focused banks that have chosen the UK as their reporting home.[4] Indeed, the size of all UK-headquartered MFIs' outstanding foreign currency assets (£8.1 trillion at end-April 2013) was 2¼ times the size of their sterling assets (£3.7 trillion), and why sound regulation and supervision of these banks constitutes a global public good. This setting, however, also implies that the imposition by UK regulators of capital charges tied to UK-headquartered MFIs' UK operations could end up significantly impacting the size and distribution of those MFIs' "global" asset portfolios as well, insofar as capital requirements are not exclusively met through new capital raising.

9. **It is instructive to attempt an approximate quantification of the impact of new anticipated capital requirements in the UK.** Two new capital charges are expected to apply to UK-headquartered banks over the medium-term, including as part of the new macroprudential framework: the 2.5 percent charge for globally-systemically important banks, and 2.5 percent countercyclical capital buffer. In order to broadly size the impact of such requirements, we make use of recent empirical estimates by Aiyar et al (2013) of the cross-border lending effect of higher capital charges on UK-headquartered banks (4 percent reduction in lending for a 1 percentage point higher capital ratio). We extrapolate this to the case of a 2.5 percentage point higher capital requirement (so a 10 percent impact on cross-border lending), and assume that British banks' foreign affiliate claims on nonbanks will be similarly affected as their cross border claims.

10. **The results of the exercise intuitively highlight the importance of UK-headquartered banks' global strategies for determining which jurisdictions are affected by how much.** For instance, it is possible that affected UK-headquartered banks respond to higher capital requirements by adopting option A: reducing their cross-border and affiliate lending *in proportion to their exposure to each economy*. This is unlikely, but if it happens, it could tighten domestic credit in Hong Kong, Singapore and Ireland by over 1 percent. Alternatively the banks could opt for an arguably more realistic option B: *cutting lending to and operations in non-core destinations only*, while protecting top (or largest) 10 destinations. In this case, lending to higher-risk jurisdictions, such as Egypt, Kenya, Pakistan, Tanzania could drop to zero. Banks can also outright relocate their headquarters (for instance, HSBC and SCB could decide to relocate to Asia, given that much of their operations are that jurisdiction any way), but this is not shown below.

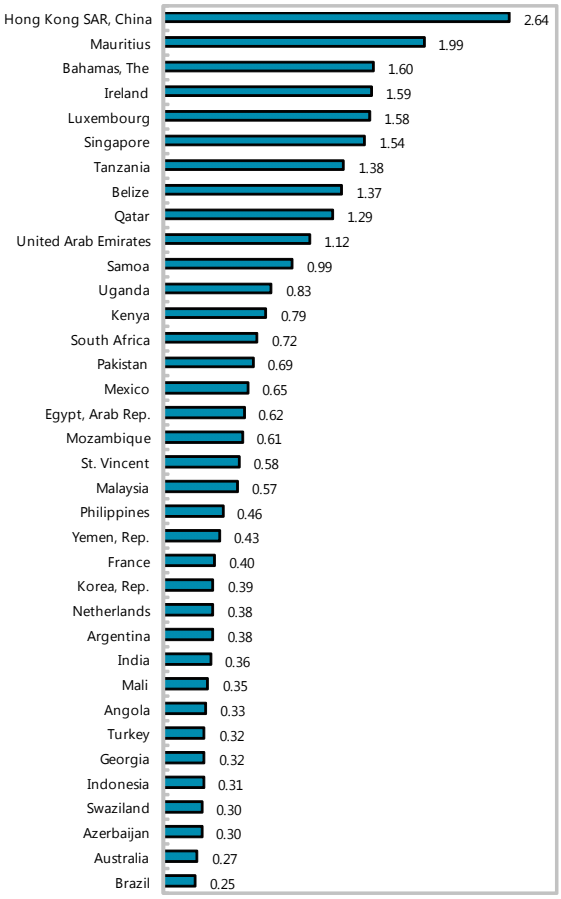
11. **This suggests that UK regulators should internalize these outward spillovers, which could be positive or negative for recipient economies.** Whether the identified spillovers are beneficial or not depends partly on the macroeconomic and financial circumstances prevailing in the recipient economies. Consider, for instance, the case where the UK imposes counter-cyclical capital requirements on British banks' UK exposures to address overheating in the UK economy and banks

[4] HSBC and Standard Chartered operate through subsidiaries in Hong Kong but branches in Singapore resulting in differences between the two jurisdictions with regard to home/host supervisory responsibility for application of prudential and conduct measures.

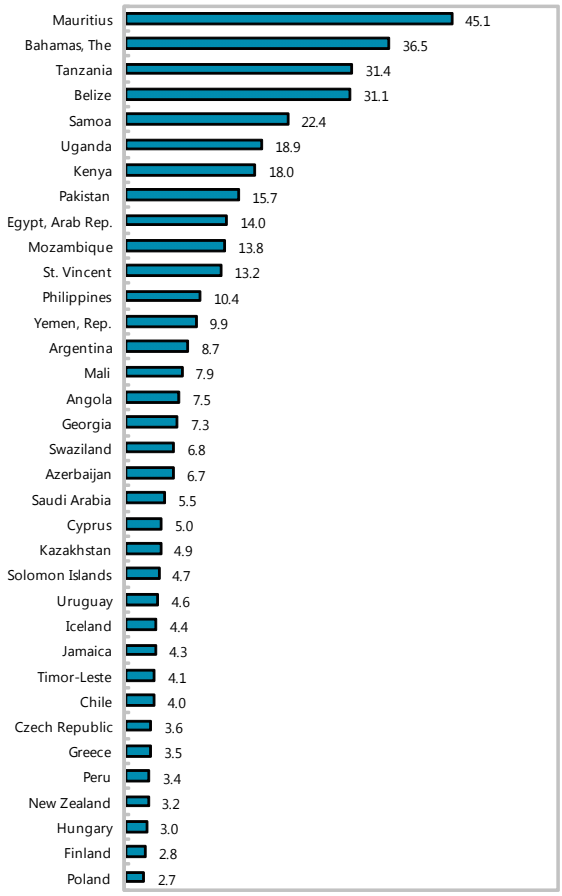
partially meet this requirement by reducing their exposures to a jurisdiction that is also over-heating. In this case, the associated reduction in credit in that jurisdiction will clearly constitute a positive spillover. However, if some banks decided to reduce their exposures to economies already facing a slowdown, or closed entirely their operations in some non-core jurisdictions, this would carry significant negative spillovers. To the extent possible, the UK authorities should seek to consider such impacts before altering micro- or macroprudential policies as they apply to global banks.

Figure A7.3. Percentage Decline in Domestic Credit due to 2.5 ppt. Higher Capital Requirement Imposed by UK Regulator on Banks Headquartered in the UK

SCENARIO A: UK banks reduce their consolidated foreign exposures in proportion to the size of claims on each jurisdiction.



SCENARIO B: UK banks fully protect their 10 largest jurisdictions in terms of consolidated external claims, and largely protect the next 20 jurisdictions.



Source: (a) *BIS*, for British banks' consolidated foreign nonbank claims (calculated as British banks' average consolidated total foreign claims in 2010-11 multiplied by 0.44, where 0.44 was the average share of nonbank claims in *international* consolidated claims across all countries in 2010-11; (b) *WDI*, for average 2010-11 credit to private sector for each country. The percentage decline in domestic lending was then calculated as 100*(a/b)*(0.04*2.5). where 0.04 is the assumed semi-elasticity of UK-headquartered banks' consolidated foreign claims to capital requirements. This is an extrapolation of the 0.04 estimate for UK banks' cross-border credit spillover from capital requirements produced by Aiyar et al (2013), "The International Transmission of Bank Capital Requirements: Evidence from the UK", paper presented at NBER conference in Cambridge, MA (April 2013).

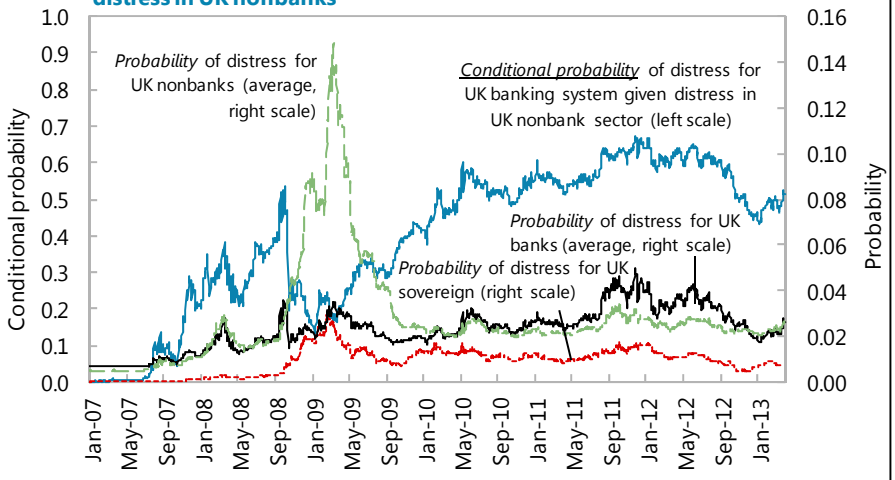
The systemic importance of UK nonbanks is rising

12. **Despite a low aggregate probability of default, the UK banking system's vulnerability to the nonbank sector has increased sharply since 2009.** The conditional probability of distress (CoPoD) of the UK banking system given distress in the nonbank sector (mainly insurance companies) is about 0.5, which seems high, and has doubled from 2009 levels. At this point, we can only conjecture about underlying reasons: perhaps banks are more reliant on funding from insurance companies; or insurance companies are helping to shore up a range of asset prices (for the sovereign, banks and firms) that improves prospects for banks. Notwithstanding this ambiguity, the results are "interesting" in that they highlight the future systemic risk associated with any "activity migration" from banks to (lightly-regulated) nonbanks that could result from an asymmetric tightening of price-based and structural measures for banks. Although only the probability of distress of UK banks following distress in UK nonbanks is shown below, it is easy to see that there would be spillovers for non-UK banks and non-banks as well, given the G-SIB status of several UK banks.

13. **This result is important, because tighter regulation/ring-fencing of banks could lead significant banking activity and risks to migrate to nonbanks and shadow banks.** Vinals et al (2013, p. 24) notes the clear possibility of regulatory arbitrage in the context of these changes: "Banks, particularly the internationally active ones, will optimize across different rule books by moving operations, changing corporate structures, and redesigning products in ways that could weaken policy effectiveness. This could push risks outside the regulated financial sector into shadow banks whose regulation and supervision may not be as strong."

14. **Intensive and pro-active supervision of UK nonbanks and shadow banks is essential to effectively contain systemic risks.** The UK is as vulnerable as any other major jurisdiction to this risk. And to their credit, the UK authorities have positioned themselves well for these risks by adopting a "twin-peaks" model where the supervision of all systemic institutions, including insurers, for instance, is housed in a single agency, the Prudential Regulation Authority. However, the authorities will need to keep a close watch on the activities of nonbanks that are currently not deemed systemic, but may be becoming so.

Figure A7.4. Conditional probability of distress in UK banks given distress in UK nonbanks



Source: The methodology follows Segoviano (2009, 2011). For this present analysis, estimates were first obtained for the individual probabilities of distress of the largest UK banks (RBS, Barclays, LBG. HSBC and SCB) and nonbank financial institutions, mainly insurers: Aviva, Legal & General, Old Mutual, Prudential, Royal & Sun Alliance and Standard Life. The multivariate density of the combined UK financial system (banks + NBFIs) was then sliced to derive conditional probabilities of distress (using Bayes' theorem).

Impact of transparency and anti-money laundering initiatives

15. In the context of its G8 presidency objectives, the UK aims at improving entity transparency and mobilizing the AML framework to foster tax compliance but which may generate outward spillovers. In addition to supporting the inclusion of tax crimes as a predicate offense to money laundering, the authorities seek to improve the transparency of companies' and trusts' ownership both in the UK and in British overseas territories and Crown dependencies. These developments may necessitate economic adjustment in these jurisdictions and could generate spillovers on other financial centers as a consequence of the transmission of UK regulation through global banks located in the UK.

Annex 8. FSAP Update: Status of Main Recommendations[1]

The authorities have made progress in implementing the recommendations of the 2011 FSAP Update, which emphasized the need to intensify supervision and provide it with sufficient resources. The new regulatory architecture announced in late 2010 came into operation on April 1, 2013, The Financial Services Authority (FSA) ceased to exist, and was replaced by the Prudential Regulation Authority (PRA) and Financial Conduct Authority (FCA). As the new structure is now in operation, many of the FSAP recommendations are being addressed. The continued implementation of the recommendations will require significant staff resources for both the PRA and FCA, and better coordination with the macroprudential authority—the Financial Policy Committee (FPC). (The Bank of England—responsible for the Financial Stability mandate.)

[1] Prepared by Mohamed Afzal Norat and Antonio Pancorbo.

	Priority	Timeframe	Status
Overall Financial Sector Oversight			
Revise the legal framework to clarify mandates and include a specific financial stability mandate for the prudential authorities (HMT, BoE, PRA, and FCA).	High	Immediate	The commencement of the Financial Services Act 2012 (Act) on 1 April 2013 implemented the Authorities commitment to strengthen the financial regulatory structure in the UK. The Act seeks to clarify the mandates and objectives of the FPC, PRA and FCA. The legislation includes: • The establishment of a macro-prudential authority, the Financial Policy Committee (FPC), within the Bank of England. It has two key objectives: to protect and enhance the stability of the UK financial system (Financial Stability objective) and, subject to that, to support the Government's economic policy (including, supporting growth and employment). The FPC contributes to the financial stability objective by identifying, monitoring and taking action to mitigate systemic risks. The FPC also has powers of direction and recommendation over the PRA and FCA with regard to macro-prudential measures. The Treasury has the power under the Act to recommend, annually, to the FPC matters related to achieving its dual objectives of financial stability and support for the economy, as well as matters with regard to exercising its functions. The Act does not contain explicit provisions to safeguard the independence of the FPC. Ensuring FPC independence, while maintaining its accountability to parliament and the public, remains important and requires close monitoring. Additional provisions to safeguard FPC independence should be considered as part of future delegated or secondary legislation. The Act has provisions which require the FPC to act in a way that does not prejudice the work of the PRA and FCA. The Act also provides the FPC the power to override those provisions if it believes that meeting its twin objectives (see above) would be compromised if it did not impinge on the work of the PRA and FCA. • The Act enshrines transfer of responsibility for prudential regulation of banks, insurers and major investment firms to a new regulator, the Prudential

	Priority	Timeframe	Status
			Regulation Authority (PRA) as a subsidiary of the Bank of England. The PRA's statutory objectives are to promote the safety and soundness of firms and contribute to current and future policyholder protection. The PRA advances these objectives by setting out expectations that firms should meet. It supervises firms against these expectations by using a judgment-based approach, and one that is both forward-looking and focused on the key risks posed to the stability of the UK financial system. The addition of the insurance objective for the PRA helps to address the important issues that arise from the prudential regulation of insurance companies.. However, the specification in the Act to protect future policy holders raises some issues that should be clarified by the PRA. For how long will this future protection extend (1, 5 or 10 years)? The PRA and FCA should further clarify whether there is unhelpful overlap between FCA objectives and remit of conduct regulation, for example, in relation to misselling of products including to those who may become future policy holders whose protection would be under PRA prudential remit. The Act also does not provide an explicit and symmetric protection to current and future deposit holders. While this may be argued as being covered under the general financial stability objective, ensuring financial stability is not the same as ensuring no adverse impact on deposit holders. There remains in the Act an appearance, at least, of an asymmetry of protection of two types of consumers. This asymmetry should be clarified by the PRA, and tackled through future secondary legislation. • The Act also signals the creation of a new conduct of business regulator – the FCA. The FCA is responsible for the retail and wholesale conduct supervision of around 25,000 firms across all sectors of the financial services industry and the prudential supervision of 23,000 firms (those that are not prudentially regulated by the PRA). The FCA aims to ensure that business across financial services and markets is conducted in a way that advances the interests of all users and participants. Under the Act, the FCA deals with financial stability concerns through its integrity objective which includes within it the 'soundness, stability and resilience' of the UK financial system. It has an important role to play in contributing to financial stability, particularly through the regulation of financial

	Priority	Timeframe	Status
			and wholesale markets, including through: the supervision of trading infrastructure (including its prudential soundness and operational resilience); oversight of participant conduct on organized trading venues and OTC markets; and the conduct and prudential supervision of major trading firms not supervised by the PRA and asset management activity. Unlike for the PRA, the Act does not explicitly and separately define a financial stability objective for the FCA. This raises the prospect of tensions that may arise when PRA prudential and systemic concerns may override consumer protection issues in the case of failing institutions. While the existence of a Memorandum of Understanding (MoU) exists between the Treasury, BoE, PRA, and FCA as required by the Act - to facilitate coordination and communication between the respective institutions there remain concerns that at certain times the MoU may become less operationally effective. The PRA could use its power of veto over the FCA when the PRA's financial stability objective is impacted upon. However, this also represents a potential source of tension between the two agencies. An area where legislation remains incomplete is in the area of secondary legislation. Much of it remains undeveloped and incomplete. HMT has remarked that secondary legislation will support the extended powers provided by the Financial Services Act 2012 already in place for deposit-taking institutions, under the Banking act 2009 - to other systemically important investment firms, clearing houses and group companies. HMT currently plans to lay the following orders in the autumn. The following Statutory Instruments (SIs) are required to underpin the extended powers. The five orders are as follows: Power to exclude small investment firms; Specification / exclusion of financial institutions relevant to group powers; Partial property transfer safeguards;

	Priority	Timeframe	Status
			No creditor worse off; and Extending the Banking Administration Procedure. The UK is also currently considering introducing a special administration regime for operators of recognized inter-bank payment systems, operators of securities settlement systems, and key service providers to these firms. A consultation setting out this proposal was published in early 2013. This will involve both primary and secondary legislation to bring into force. It is clear that progress has been made to strengthen the UK regulatory architecture, notwithstanding the need for enhancements (see above). The need to adhere to European legislation will be important and may require further changes to UK legislation. Changes to UK legislation may also follow from various agreed approaches on financial regulation and supervisory practices from international bodies such as the Financial Stability Board (FSB) of which the UK as a member will also contribute to.
Amend legislation to allow for regulatory power over holding companies of regulated entities (HMT, PRA, and FCA).	High	Near term	The PRA and FCA policy statement (links below) regarding the power of directions over qualified parent undertakings are a restatement of the provisions contained in the Financial Services Act 2012. Notwithstanding the clarification by the PRA and FCA authorities regarding powers of direction contained in the Financial Services Act 2012, these powers still do not extend to full and necessary authority over a holding company. Indeed the policy statement by the PRA provides a non-exhaustive list of possible scenarios in which the PRA may consider exercising the powers of directions. The examples articulated there are issues that the previous FSA was able to deal with using its unamended own initiative variation of permission (OIVOP) power. The PRA's policy statement on 'The power of direction over qualifying parent undertakings' (April 2013) can be found online at: http://www.bankofengland.co.uk/publications/Documents/other/pra/powerdirection.pdf.

	Priority	Timeframe	Status
			The FCA's statement of policy is contained within PS13/5, 'The new FCA Handbook' at http://www.fca.org.uk/your-fca/documents/policy-statements/fsa-ps-13-05] UK Authorities will also need to clarify how the provisions in the Act will line up operationally with work at the European level (directive on conglomerates).
Enhance resources for supervision of banks, insurers, and securities firms based on the agreed-upon supervisory operating model and the new macro-prudential overlay (HMT, PRA and FCA).	High	Near term	Both the PRA and FCA are self financing from levies on regulated firms. However, each of the regulators will need to consider the resources they need to deliver their objectives on an ongoing basis. As part of its judgment-based supervisory model, the PRA allocates resources to regulated firms based on the potential impact they pose to its statutory objectives. Consequently, the most significant (or Category 1) firms are subject to a much higher intensity of supervision than firms in lower categories. As outlined in the *PRA's approach documents,* 250 (out of 600) supervisory staff are allocated to the c25 Category 1 firms. The UK authorities have remarked that judgment-based supervision is also supported by teams with relevant skills and experience, as well as by engaging senior management and the PRA Board more closely in taking key supervisory decisions. This provides the PRA with the appropriate skills, resources and framework to engage constructively with the UK's new macro-prudential arrangements centered on the FPC. The overall FCA resource level is as set out in the FCA 2013/2014 business plan. The Supervision division headcount is 642 full-time equivalents (FTE) for the 2013/2014 year. This is an increase from 596 FTE in 2012/2013 when the division was part of the FSA. This increase is to allow for an increase in thematic & sector team resource and key initiatives such as Consumer Credit and Mortgage Market Review. The PRA has moved from one-off reviews to continuous monitoring, and both PRA and FCA show programs with more thematic reviews. Changes are evident in concepts and written strategies, but implementation will require further work and will highlight more clearly resource needs in the future. We are encouraged

	Priority	Timeframe	Status
			that the authorities will continue to evaluate the resources they need to deliver on their objectives. We recommend both the PRA and FCA publish at least an annual, and possibly more frequent assessment of resource needs, if and when needed. The mission team assessments from meetings with PRA and FCA raised staffing concerns in the following areas of PRA and FCA work: adequate oversight of small firms, assessment of data provided by firms, specialist risk assessment of corporate loan portfolios, stress testing enhancements, movement from sequential to parallel asset quality reviews of firms, monitoring and undertaking in-house analytical work on network of OTC derivative exposures and early warning indicators;, and analytical work on high-frequency finance/trading.
Establish a forum for ensuring good governance and coordination among organizations in the new regulatory structure (HMT, BoE, PRA, and FCA).	High	Near term	The Financial Services Act 2012 (including the changes to FSMA) has established a range of requirements and mechanisms relating to coordination between the new regulatory authorities. These include requirements for the regulators to consult each other when (for example) making rules, supported by a broader duty to coordinate their functions whenever their actions might have an adverse effect on each others' objectives, and a requirement on the PRA and FCA to establish an MoU covering matters of common regulatory interest. This has been published. The PRA-FCA MoU requires each regulator to appoint a senior executive responsible for coordination; these appointees will meet quarterly to review the effectiveness and efficiency of coordination and cooperation. For the first year, this will be the respective CEOs – these meetings have been held, initially between the designate CEOs, since the summer of 2012. The respective management teams are clear that publishing this MoU is insufficient, and that they must also ensure that staff is aware of its existence and contents, and that it is adhered to and reviewed. Moreover, the teams are also clear that they are responsible for fostering a culture of cooperation between their respective organizations.

	Priority	Timeframe	Status
			Under the terms of the MoU ,the FCA and PRA share data on firms, both dual regulated and in some cases non-dual regulated, in order to maintain a complete view of the market. Both organizations are required to publish a summary of coordination performance in their annual reports. Coordination between the PRA and the FCA is assisted by the membership of their CEOs on each other's board. The FCA, PRA and Bank are also voting members of the FPC. At a working level, there are dedicated teams responsible for coordinating analysis, and sharing information, across the FPC, FCA and PRA. Across the respective supervision divisions, regular communication between the FCA and PRA is maintained, in particular where the FCA and PRA share a direct regulatory interest in dual-regulated firms and firms that are part of dual-regulated groups. This is achieved through a number of mechanisms including, supervisory colleges which bring together the respective supervision teams for dual-regulated firms and groups from the PRA and FCA. Colleges are held at regular intervals and the frequency is dependent on the category of the firm involved. A distinct FCA/PRA MoU covers the area of insurance with-profits policies, while a separate Bank/PRA/FCA MoU covers co-operation in the area of markets/market infrastructure/members of such infrastructure. A financial crisis management MoU between the Bank (including the PRA) and HMT has been published in accordance with the Financial Services Act. In a financial crisis situation, the Bank is subject to additional reporting to HMT where public funds are potentially at risk. When certain criteria are met (an institution of systemic importance in distress and likely need for an outlay of public funds), the Act gives HMT the ability to direct some of the Bank's operations. An 'international organizations' MoU between HMT, the Bank (including the PRA) and FCA has also been published. This sets out how the UK authorities will co-ordinate their respective involvements in international fora and establishes an International Coordination Committee chaired by HMT, which reports to the

	Priority	Timeframe	Status
			Chancellor. The 'statutory coordination' MoU between the FCA and PRA, together with a number of additional MOUs (for example between the FCA and the Bank, HMT, FSCS, MAS and FOS), can be found at http://www.fca.org.uk/your-fca/documents/mou-between-the-fca-and-the-pracoordination Coordination is vital for the operational effectiveness of PRA, FCA, FPC, BoE and HMT, individually and collectively, and will require continuous monitoring. Equally, continuous monitoring should also apply to governance arrangements across the organizations in the new regulatory structure. Specifically, the PRA has moved decision-making to high-level committees compared to the FSA where decisions were taken at lower levels. While senior management engagement is welcome in the supervisory process it should seek primarily to support staff assessments, should be subject to reasonable checks, and should avoid second-guessing staff recommendations.
Enforce public disclosure by banks and insurance and securities firms, including prudential returns as appropriate (PRA).	High	Near term	PRA is reviewing disclosure requirements in the context of the work of the Enhanced Disclosure Task Force (EDTF). The major UK banks have all made a commitment to implement the recommendations of the EDTF this year. In the context of European banking legislation, national rules on prudential regulatory reporting will be deleted or amended following public consultation in Q3 2013. The FCA will then deliver a system to receive prudential data from banks, building societies and investment firms under the new European reporting framework. The first reporting period is scheduled for Q1 2014. Given the size and global significance of the UK financial sector, strengthening disclosure by publishing prudential returns and firms' own disclosures should be a priority. The mission team remains unclear as to whether the PRA and FCA are actively considering publication of prudential returns. The PRA has only committed itself to examining the case for publication. Staff believes the PRA could signal a more committed view of the importance of prudential disclosure

	Priority	Timeframe	Status
			for risk pricing, awareness and assessments carried out by investors and market participants. (Staff is unaware of FCA disclosure standards) Moreover, while EDTF disclosure requirements are welcome, the PRA should see these as a starting point for further improving disclosures by UK banks. The PRA should provide clear guidance to firms on increasing the comprehensiveness and transparency of their accounting and risk information to more granular and consistent levels. More regular and consistent reporting at granular risk levels related to banks Pillar III reporting should also be required.
Amend risk-based assessment methodologies to ensure adequate assessment of AML/CFT risk (FCA).	High	Near term	The FCA's financial crime remit directly impacts two of three of their operational objectives: market integrity and consumer protection. The FCA focus will be on protecting consumers as potential victims of financial crime, and to the use of firms as a conduit for financial crime rather than protecting firms themselves as potential victims. The FCA will also target firms that pose the highest financial crime risks. The Financial Action Task Force's last evaluation of the UK (in 2007) stated that the UK had comprehensive anti-money laundering (AML) and counter-financing of terrorism (CFT) systems in place. In 2011 the FSA published the Financial Crime Guide for firms, which is a collection of good and poor practice throughout the regulated sector. This guide assists in increasing standards in the regulated sector while also demonstrating regulatory expectations. The FCA have suggested that they are unique among financial crime supervisors to have issued such guidance and to continue to produce thematic/horizontal reviews which detail good and poor practice each year. The 2011 FSAP recommendation and FCA update to the IMF on amending their risk-based assessment methodology of AML/CFT will state that this is a dynamic process and the Financial Crime and Intelligence Department is currently rolling out a strategy to ensure that the FCA are a risk based and proportionate supervisor of financial crime.

	Priority	Timeframe	Status
			The methodology for FCA risk assessments to identify and assess AML/CFT risks in the regulated sector will be a dynamic process and continue to evolve over time. The mission team views the revision of AML/CFT risk-based methodology as ongoing and not yet complete.
Banking Oversight			
Enhance supervision by (i) conducting detailed reviews of credit and market risk assessment by banks, (ii) conducting verification and selected model replication reviews on a proactive basis, (iii) better integrating specialist work into the supervision programme, and (iv) enhancing peer analysis (PRA).	High	Near term	The PRA has developed a supervisory model that aims to address some of these points. The model designates firms as Category 1-5, according to their size, level of complexity and the impact their failure would have on the financial system. The supervisory assessment framework for the largest banks (Category 1) is systematic, proactive, and multi-year, which should lead to a continuous regime of firm assurance that is more judgment-based and forward-looking than existed previously. The PRA—also drawing on the work across the BoE—makes use of a range of 'top down' analysis, including sector and 'peer group' analysis. At the same time, PRA supervisors, risk specialists and policy staff are necessarily engaged in a range of 'bottom up' analyses. These approaches will often be complementary. The recent asset quality review that fed into the FPC's assessment of UK bank capital needs provided a valuable opportunity to employ a combination of 'top down' risk analysis and 'bottom up' portfolio assessments to arrive at conservative valuation assessments. While the recent asset quality review did provide an opportunity to employ a combination of top-down and bottom-up assessments of firms' asset quality, the mission team believes that further work will be required to ensure the authorities do not prioritize one approach over the other and will need to further enhance the communication of messages from these approaches. To support the judgment-based forward-looking approach, the PRA is committed to greater senior management involvement in supervision, including

	Priority	Timeframe	Status
			engagement with the senior management of regulated institutions. Business model analysis forms an important part of the PRA's approach. The PRA examines the threats to the viability of a firm's business model, and the way in which a firm could create adverse effects on other participants in the system by the way in which it carries on its business. Peer analysis forms an important part of this assessment. The PRA supervisory assessment framework sets out how supervisors construct a multi-year plan to assess the different areas of risk across individual firms/groups. This includes testing of credit and market risk. For the larger firms, the continuous assessment program includes asset quality reviews and valuation reviews. Interaction with banks at board level is reported to be more frequent and conducted at a more senior level. It will focus on the key messages and ensure firms understand the PRA's concerns and are fully engaged in addressing them. The PRA approach has been designed to offer a, long-term methodology for addressing prudential risks comprehensively. However given that the PRA is a new organization, the development of a resilient supervisory model will have to be continuously refined in light of operational experience. Under the old FSA model, supervisory and risk specialist staff were separated, and this raised concerns in the FSAP. Within the PRA, supervisors and risk specialists are better integrated and operate within the same supervision-oriented business unit. This has facilitated the extensive work that has recently been conducted as part of the PRA's asset quality review. In addition, the supervisory assessment framework aims to link better capital and liquidity assessments to a bank's overall risk assessment. The different elements of capital analysis are brought together under one overall approach. The PRA has determined that the most resource-effective approach to Internal Ratings Based (IRB) credit model validation is to review the firm's model documentation, assessing both the development process and outputs of the

	Priority	Timeframe	Status
			proposed model, in addition to relying on the firm's own model governance and validation process, rather than to undertake model replication. In addition, the PRA has determined that the most resource-effective approach to CAD & IMM (market & counterparty credit risk) model validation is to: • Assess model governance and validation process, both in terms of design & execution • Review the firm's model documentation • Assess the model development process • Assess model outputs of the proposed model On an exceptional basis, where the PRA has doubts regarding a model that could have a material systemic impact, the PRA would build their own model as a benchmark against which to test those used by firms. The mission team has already identified (above) that staffing levels remain a concern with regard to key areas of work by the PRA and FCA, specifically with regard to the assessment of data provided by firms, specialist risk assessment of corporate loan portfolios, stress testing enhancements, movement from sequential to parallel asset quality reviews of firms, more staffing to monitor, and undertake in-house analytical work on network of OTC derivative exposures, and early warning indicators; and analytical work on high-frequency finance/trading. Moreover, concerns remain that PRA work on IRB model validation focuses essentially on reviewing documentation rather than appropriate bench-testing with hypothetical portfolios. The mission team is also unclear how the previous model of determining supervisory intensity has changed. Is the ARROW (old FSA Advanced Risk-Responsive Operating Framework) risk framework utilized for this purpose? Has it been replaced or amended to reflect the new supervisory judgment led intensive and intrusive forward-looking approach? Finally, while we do find useful the recent FPC call (June 2013 Financial Stability Report) for

	Priority	Timeframe	Status
			major UK banks to report their regulatory capital ratios on a standardized basis as well as on an IRB basis, this data should be publicly reported by the banks in the interest of full disclosure.
Adopt a proactive intervention framework through triggers for contacts and coordination actions with other authorities and amend legislation as needed (PRA).	Medium	Medium term	The PRA has developed a Proactive Intervention Framework (PIF). This framework supports the early identification of risks to a firm's viability and seeks to ensure that firms take appropriate remedial action to reduce the probability of failure. A core part of the process is to identify actions that the authorities need to take in advance in order to prepare for the failure and resolution of a firm, including coordination with the Special Resolution Unit (SRU) and FSCS as resolution authority and operator of the deposit guarantee scheme, respectively. To ensure appropriate internal oversight, where it is proposed that actions expected in a particular PIF stage should not be taken, supervisors will report to PRA senior management. The PIF has five clearly demarcated stages. The judgment on where to place a firm within a particular stage is based on an assessment of the firm's viability in both current and future states of the world. The system does not rely mechanically on backward-looking indicators. The assessment of where a firm sits in the PIF is undertaken as part of the ongoing supervisory process. It can be reviewed in response to specific concerns arising in the external environment in which a firm operates — for example, in response to a sector-specific risk identified by the FPC. If the PRA judges risks to a firm's viability to be low, the firm will be in Stage 1 of the PIF. This implies a normal level of supervisory monitoring and actions. As a firm moves through each stage of the PIF, the intensity of supervisory monitoring and the intrusiveness of supervisory actions will increase, and contingency planning by the SRU and the FSCS will be stepped up. Along with other parts of the supervisory framework, the PIF has been implemented recently and therefore the PRA will be able, going forward, to draw on its implementation experience.

	Priority	Timeframe	Status
			The mission team believes that to reinforce operational independence, PRA's articulated judgment-based, prompt intervention framework has to ensure that escalation of inspection findings is formally established, elaborated and respected within the current governance framework.
Develop a comprehensive plan to enhance prudential reporting and conduct a review to deliver a more systematic approach to data quality (PRA).	High	Near term	The PRA has embarked on a prudential data strategy, which covers the data collected from regulated firms. The overall aim of the strategy is to ensure that prudential data meet user requirements and support the PRA's approach to supervision, in particular facilitate supervisory assessments based on evidence and analysis. The data strategy will deliver a classification system for prudential data collected by the PRA, with systematic reviews of the prudential data inventory and data requirements. The strategy will also ensure that the quality of PRA data and analytics to examine the data are fit for purpose and establish a clear governance structure to determine whether proposed new data collections should be implemented. The mission team remains concerned that for the PRA (and indeed FCA) to carry out it data management strategy will require additional personnel than currently budgeted for. Staff has yet to see whether the assessment of firms' own data management systems meet PRA and FCA requirements under their data strategy. As data cleansing will be carried out by the statistics section of the BoE, this may mean an increased burden without a concomitant increase in resources. Moreover there is also a need to meet European requirements (e.g. COREP).
Insurance Sector Oversight			
Extend the new intrusive risk-based approach to supervision to a wider range of insurers (PRA).	High	Near term	The PRA has asserted that the reclassification of firms under the new model (Categories 1-5) means that more insurers are subject to more intensive supervision (Category 1 and 2) than the number of insurers covered in the previous program. This was intended to meet the FSAP's concerns that insurers just below the previous CPP(I) threshold were insufficiently supervised. While the mission team would agree that written documentation suggests that

	Priority	Timeframe	Status
			more insurers are covered in the new intrusive risk-based approach to supervision, it was unable to verify this assertion fully with the PRA or with market contacts. For example the mission team does not have a clear view of how many more insurers this involves and/or what coverage of the insurance sector is now under the new intrusive risk-based approach to supervision.
Increase the frequency and number of randomly conducted "transaction examinations" for both the largest and some smaller insurers (PRA).	Medium	Medium term	PRA remarked that supervisors are able to call on the resources of in-house risk specialists; they can also require a firm to employ external specialists to prepare reports into any aspect of a firm's business that may require further attention or be a source of concern. Both options can be deployed to engage in on-site testing. However, the PRA does not engage in routine 'random' transaction testing but instead targets specialist resource on the basis of materiality and risk. However, the answer to this question depends on the definition of 'random' as for the larger firms, the continuous assessment programs include asset quality and valuation reviews which could be regarded as transaction level examinations. The mission team, without further granular information, is unable to make an assessment of whether asset quality and valuation reviews suffice as transaction level examinations. Moreover, PRA judgments are made on basis of materiality and risk which detract from a pure random transaction examination of large and small insurers. The mission team also remains concerned that small insurers are unlikely to be selected or fully assessed for risk given the selective and directed approach of the PRA.
Securities Markets Oversight			
Clarify in legislation that the remit of the conduct authority includes market integrity and transparency to ensure adequate emphasis on issues other than consumer protection (HMT and FCA).	High	Immediate	The Government has legislated through the Financial Services Act 2012 to give the FCA a distinct operational objective of protecting and enhancing the integrity of the UK financial system, alongside two further operational objectives of protecting consumers and promoting effective competition in the interests of consumers. While conduct concerns are evident in the FCA mandate (above), staff believes clarification is still required with regard to its prudential responsibilities,

	Priority	Timeframe	Status
			notwithstanding the distinct objective of protecting and enhancing the integrity of the UK financial system. The embedding of financial stability objectives within the market integrity objective lacks transparency with regard to FCA's financial stability responsibilities.
Increase intensity of supervision with greater use of "bottom up" analysis of firm operations using on-site examinations, including thematic work, to supplement the "top down" risk analysis (FCA).	High	Medium term	The FCA supervisory model is designed to support a judgment-based and pre-emptive approach that is focused on delivering the FCA's statutory objectives. This is delivered through a risk based and proportionate supervisory approach recognizing the diversity of the regulated firm population. The FCA supervises approximately 25,000 firms including retail and wholesale firms across all financial services industry sectors. The first element of supervision is proactive firm specific supervision. This involves elements such as business model and strategy analysis and on-site assessments. The intensity of FCA approach depends on the firm categorization and is proportionate to the potential impact of the firm on FCA objectives. The higher impact firms (122 groups) are subject to a continuous assessment approach, which involves a regular program of business model analysis, meetings, information review and on-site assessments. The remaining firms have a more sector based approach with less regular firm specific engagement on a proactive basis. However, the tools used for the supervision of small firms such as peer group analysis and firm questionnaires are designed to identify those firms with outlier business models and therefore assisting with the prioritization of work. As a minimum, all firms should have a touch point with the FCA at least once every 4 years. The FCA supervision model includes an increased focus on thematic work. Thematic work allows the FCA to address risks that are common to more than one firm and potentially more than one sector. It is based on sector risk analysis which aims to identify what is currently or prospectively causing poor outcomes for consumers or market participants. Thematic work usually involves visiting a range of firms, across all firm categories, to carry out detailed work on a specific area or product. It can use the full range of supervisory tools, such as

	Priority	Timeframe	Status
			on-site assessments, file reviews, interviews with senior management, consumer research. Any project findings and remedial action is usually extended to all firms that may be affected by the risk in question not just those directly involved in the work, thereby mitigating risks at a sector or market level. While FCA's supervisory approach reflects the diverse and large number of firms it supervises (for both conduct and prudential reasons) and the expansion of thematic reviews, outlier analysis and a minimum touch-point requirement are all useful, there are still a large number of firms with low and or weak contact. Moreover the FCA and PRA current supervisory approach may not be able to adequately capture that smaller, less intensively supervised firms could on occasion have systemic and reputational impacts on other firms, markets and products beyond their own operations. Adequate oversight, generally, of small firms remains a concern given the large number of firms the FCA is prudentially responsible for and the constraints on resources and analysis applied to their supervision.
Payments and Securities Systems Oversight			
Ensure that sufficient and reliable funding options are in place for central counterparties (CCPs), including committed credit lines subject only to presentment (Bank of England (BoE), FSA).	High	Near term	The supervision of CCPs passed from the FSA to the Bank of England on 1 April 2013 so the Bank of England is now the responsible authority for implementing this recommendation. Rather than requiring committed credit lines from banks (which the authorities deem to be counterproductive or even unreliable in a stressed situation) the Bank of England requires CCPs to hold cash, potentially supplemented with other highly liquid collateral, to meet the minimum regulatory liquidity needs set out in the revised CPSS/IOSCO Principles for Financial Market Infrastructures and reflected in the EU regulation on OTC derivatives, central counterparties and trade repositories (EU/648/2012) "EMIR", which will apply to CCPs as they are authorized under EMIR. The main UK CCPs have right of re-use to cash margins provided by members, giving them access to an extensive pool of liquidity that is not available to CCPs that do not have such rights of reuse.

	Priority	Timeframe	Status
			While liquidity standards are in line with CPSS/IOSCO standards there will need to be clarification by authorities concerning cash margin re-use by UK CCPs. Cash margin re-use could pose potential financial stability risks, thereby endangering both the CCP and its own participants.
Develop contingency plans to deal with a potential failure of a CCP (BoE, FSA).	High	Near term	The UK has been developing a recovery and resolution framework for CCPs. In December 2012, primary legislation was passed on resolution of CCPs, under the Financial Services Act 2012. The key features of this regime are: transfer powers (similar to the stabilization powers in the UK's banking resolution regime) with regard to the business of a CCP in resolution; an enhanced power of direction enabling the Bank of England to direct UK CCPs to take action on financial stability grounds; and a power of direction by the Bank of England over the administrator of an insolvent UK CCP. The resolution regime for CCPs does not contain a bail-in tool and is currently constrained from having a power to close-out of contracts in resolution by the EU's Financial Collateral Arrangements Directive. Since the FSAP conclusions were published on 3 August 2011, the BoE and FSA have worked with UK CCPs to ensure they have loss allocation rules in place to address the situation in which they face a loss greater than the size of their financial resources available in a default, with the aim of continuing to provide clearing services for as long as possible. HMT is expected to publish in Q2 2013 secondary legislation requiring UK CCPs to introduce loss allocation rules to address how they will deal with a loss that is greater than their existing financial resources. UK CCPs will also have to introduce plans to deal with non-default losses that could lead to the CCP's insolvency. In line with this regulatory requirement, the Bank of England will require CCPs to refine some of the loss allocation rules that have been introduced or prepared during 2012 and 2013, and put new rules in place for remaining services where they have not yet been implemented. The Bank requires all new services with

	Priority	Timeframe	Status
			segregated default funds to include loss allocation rules from the outset. In addition, under the EMIR capital requirements for CCPs, CCPs are expected to submit a wind-down plan to their regulators. The mission team believes plans to meet international and European requirements are appropriate. However contingency planning will be an ongoing process including the need to carry out "live-test exercises".
Offer central bank settlement to CCPs that have been classified as systemic institutions (BoE).	Medium	Medium term	The Bank offers settlement facilities (in sterling and euro) to CCPs. It would be useful for authorities to clarify whether this involves access to liquidity facilities more generally.
Establish close monitoring of concentration of banks' payment and settlements activities (BoE, FSA).	Medium	Near term	The BoE is the regulator of recognized payment systems, securities settlement systems and central counterparties in the UK. The Bank monitors concentration of banks' payment and settlement activities, and regularly shares data and liaises with the PRA on supervised firms where appropriate. Since the FSAP, the Bank has sought to reduce the degree of concentration in the provision of access to the CHAPS large value system. As a result, CHAPS has introduced rules which prevent members settling for indirect participants where that relationship presents systemic risk, and one large indirect participant has joined, reducing concentration and the degree of 'tiering' in the CHAPS network. A number of other non-members have committed to join over the next three years. EUI, operator of the securities settlement system CREST, has also begun analyzing data on 'tiering' and is discussing settlement bank status with the few large members of CREST that are not already settlement banks. Since last year's update the BoE has formally taken over as overseer of payment system activity, and additional moves have been made to reduce the concentration of payment system clearing by encouraging new member participation (see above). However apart from these changes there is little additional work undertaken from last year's report on fully addressing concentration of bank's payment and settlement activity. Further work on

	Priority	Timeframe	Status
			mitigating concentration risk should follow promptly from data evaluations on 'tiering' and additional banks should be further encouraged to join CHAPS and CREST.
Undertake a unified assessment of the real time gross settlement (RTGS) infrastructure, including an assessment of the finality of transactions (BoE).	High	Medium term	The BoE conducts such assessments under its own risk framework. The last such assessment was undertaken in 2012. The mission team has received no information as regards BoE's own risk framework and the assessment on 2012.
Crisis Management			
Establish appropriate resolution tools and framework for potentially systemically important nonbank firms that are not covered by the Special Resolution Regime (HMT, BoE, PRA and FCA).	Medium	Medium term	The Government passed legislation in late 2012 which, once implemented through secondary legislation later this year, will extend the scope of the resolution regime for deposit-takers in the Banking Act 2009 to include investment firms, central counterparties (CCPs), and related group companies (including the financial holding companies of banks). The Treasury is also currently consulting with industry on a proposal to introduce a special administration regime for the operators of systemically important payment and settlement systems. The FSB is currently revising annexes of the international standard *Key Attributes of Effective Resolution Regimes* to specify how those standards apply, in particular, to insurers, to Financial Market Infrastructures, and with respect to the treatment of client assets in resolution. The UK authorities anticipate that this will be reflected in the European Commission's legislative proposal on non-bank resolution, possibly in late 2013, which may require the UK further to improve its resolution framework for non-banks. However uncertainty still remains regarding the timing of this proposal as well as the proposal for an EU bank resolution framework. Moreover the proposed EU bank recovery and Resolution Directive, which establishes a harmonized framework for the resolution of banks, would require changes to the UK bank resolution framework to be fully consistent with the EU directive. The mission team is encouraged with UK progress and the coordination with international practices on resolution tools and framework. Secondary legislation

	Priority	Timeframe	Status
			has yet to be passed which strengthen regulator's powers. As authorities have identified (see above) this will be continuously evolving and subject to change. Staff does not have any information at this time to determine whether UK banks have completed their resolution and recovery plans.

INTERNATIONAL MONETARY FUND

UNITED KINGDOM

STAFF REPORT FOR THE 2013 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

June 28, 2013

Prepared By

Staff Representatives for the 2013 Consultation with the United Kingdom (In consultation with other departments)

CONTENTS

FUND RELATIONS

(Data as of May 31, 2013)

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

General Resources Account:	**SDR Million**	**Percent Quota**
Quota	10,738.50	100.00
Fund holdings of currency	7,503.81	69.88
Reserve Tranche Position	3,234.75	30.12
Lending to the Fund		
New Arrangement to Borrow	2,303.34	

SDR Department:	**SDR Million**	**Percent Allocation**
Net cumulative allocation	10,134.20	100.00
Holdings	9,610.11	94.83
Designation Plan	0.00	

Outstanding Purchases and Loans: None

Financial Arrangements: None

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

	Forthcoming				
	2013	2014	2015	2016	2017
Principal					
Charges/Interest	0.16	0.37	0.37	0.37	0.37
Total	0.16	0.37	0.37	0.37	0.37

Exchange Rate Arrangement:

The UK authorities maintain a free floating regime.

The United Kingdom accepted the obligations of Article VIII, Sections 2, 3, and 4 on February 15, 1961. It maintains an exchange system free of restrictions on the making of payments and transfers for current international transactions, except for exchange restrictions imposed solely for the preservation of national or international security. In accordance with UN resolutions and EU restrictive measures, the United Kingdom applies targeted financial sanctions under legislation relating to Al-Qaeda and Taliban, and individuals, groups, and organizations associated with terrorism; and certain persons associated with: the former Government of Iraq, the former Government of Liberia, the current Government of Burma (aka Myanmar), the former Government of the Republic of Yugoslavia and International Criminal Tribunal Indictees, the current Government of Zimbabwe, the current government of Belarus, the current government of North Korea; the current government of Iran and persons considered to be a threat to peace and reconciliation in Sudan, Cote

d'Ivoire, and Democratic Republic of Congo; and persons considered by the UN to have been involved in the assassination of former Lebanese Prime Minister Rafik Hariri. These restrictions have been notified to the Fund under Decision 144–(52/51).

Article IV Consultation:

The last Article IV consultation was concluded on July 16, 2012. 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.

Technical Assistance: None

Resident Representative: None

STATISTICAL ISSUES

Economic and financial data provided to the Fund are considered adequate for surveillance purposes. The United Kingdom 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).

TABLE OF COMMON INDICATORS REQUIRED FOR SURVEILLANCE

(As of June 19, 2013)

	Date of latest observation	Date received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of Publication[7]
Exchange Rates	Same day	Same day	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	May 2013	06/05/2013	M	M	M
Reserve/Base Money	May 2013	06/05/2013	W	M	M
Broad Money	April 2013	05/31/2013	M	M	M
Central Bank Balance Sheet	May 2013	05/30/2013	W	W	W
Consolidated Balance Sheet of the Banking System	April 2013	05/31/2013	M	M	M
Interest Rates[2]	Same day	Same day	D	D	D
Consumer Price Index	May 2013	06/18/2013	M	M	M
Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4]	Q4 2012	05/23/2013	Q	Q	Q
Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government	April 2013	05/22/2013	M	M	M
Stocks of Central Government and Central Government-Guaranteed Debt[5]	April 2013	05/22/2013	M	M	M
External Current Account Balance	Q4 2012	05/27/2013	Q	Q	Q
Exports and Imports of Goods and Services	April 2013	06/07/2013	M	M	M
GDP/GNP	Q1 2013	05/23/2013	Q	Q	Q
Gross External Debt	Q4 2012	05/27/2013	Q	Q	Q
International Investment Position[6]	Q4 2012	05/27/2013	Q	Q	Q

[1] Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.
[2] Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.
[3] Foreign, domestic bank, and domestic nonbank financing.
[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
[5] Including currency and maturity composition.
[6] Includes external gross financial asset and liability positions vis-à-vis nonresidents.
[7] Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).

INTERNATIONAL MONETARY FUND

COMMUNICATIONS DEPARTMENT

Press Release No. 13/264
FOR IMMEDIATE RELEASE
July 17, 2013

International Monetary Fund
Washington, D.C. 20431 USA

IMF Executive Board Concludes 2013 Article IV Consultation with the United Kingdom

On July 15, 2013 the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with the United Kingdom.[1]

Economic recovery in the UK continues to be slow and fragile, as domestic deleveraging pressures remain and external demand is weak. Economic activity is projected to recover going forward, but the pace of expansion is expected to be weak relative to the scale of underutilized resources. As a result, the output gap is projected to remain sizeable for an extended period, portending the risk that continued cyclical weakness will lead to a permanent loss in the economy's productive capacity. Inflation has remained stubbornly above the two percent target, owing largely to increases in administered and policy-driven prices. Underlying inflation is, however, modest. Against the backdrop of a large output gap, inflation is expected to decline to the 2-percent target over the medium term. Risks to this central scenario remain to the downside, including from a reemergence of financial stress in the euro area and larger-than-expected headwinds from public and private sector deleveraging.

Current polices aim to rebalance the economy and strengthen financial stability. Significant progress has been made toward reducing fiscal risks, notably through front-loaded consolidation. In light of weak recovery, however, the pace of structural fiscal consolidation slowed in FY 2012/13 (April-March), while flexibility in the fiscal program allowed automatic stabilizers to operate fully. Current fiscal plans envisage additional discretionary fiscal tightening of £10 billion in FY 2013/14, and will result in an acceleration of the pace of structural consolidation.

[1] 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. At the conclusion of the discussion, the First Deputy 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.

Monetary policy in the UK has been highly accommodative to help bolster the recovery. In addition to cutting the policy rate aggressively, the Bank of England has engaged in Quantitative Easing, amounting to a cumulative £375 billion (about a ¼ of gross domestic product), and, jointly with the Her Majesty's Treasury, launched the Funding for Lending Scheme, aimed at lowering bank funding costs. The transmission of accommodative monetary policy to credit has, however, only been partially successful. Mortgage rates have declined sharply and corporate bond and equity markets have recovered strongly. But bank lending, notably to sectors of the economy unable to post high-quality collateral, such as small and medium size enterprises (SMEs), remains very weak, as bank balance sheets remain impaired.

To advance financial sector repair, the authorities have recently conducted an Asset Quality Review and laid out plans to strengthen banks' capital position. The financial regulatory structure has also being revamped, with the establishment of three new bodies—the Prudential Regulation Authority, Financial Conduct Authority, and Financial Policy Committee—aimed at bolstering financial stability.

Executive Board Assessment

Executive Directors noted that, despite recent signs of increasing momentum, growth prospects remain weak as the economy moves to rebalance away from public to private demand, and from domestic to external demand. Directors underscored that restoring growth and rebalancing the economy are vital to improving incomes, ensuring debt sustainability, and returning the banking sector to good health, and supported a multi-pronged policy strategy to achieve these objectives.

Directors welcomed the accommodative stance of monetary policy. Many Directors agreed that monetary policy should remain accommodative and further efforts should be made to ease credit conditions. Many other Directors were skeptical about the effectiveness of additional policy easing and called for a careful analysis of costs and benefits of further measures. Directors welcomed the extension of the Funding for Lending Scheme and its recent modifications to strengthen incentives for banks and non-banks to lend to small and medium enterprises.

Directors commended the authorities' commitment to medium-term fiscal consolidation and welcomed progress in reducing fiscal risks and ensuring the sustainability of public debt. Most Directors underscored the importance of keeping fiscal consolidation on track to preserve credibility, not least in light of the persistent weakness of the fiscal position. However, a number of other Directors noted that slow growth could undermine the credibility of the adjustment effort and called for additional flexibility within the context of the medium-term fiscal framework, including by bringing forward capital investment.

Noting that the effectiveness of monetary policy is undermined by persisting weaknesses in the banking system, Directors welcomed the steps taken to enhance the resilience of the financial system and encouraged the authorities to proceed rapidly on financial sector repair. In particular, they emphasized the need for banks to meet identified capital shortfalls without delay. Going forward, Directors noted that it would be important that the planned system-wide bank stress tests cover a broad range of risks, employ stringent scenarios, and include supervisor approved capital plans. Directors called for a clear strategy for the two state-intervened banks, including returning them to private ownership.

Directors welcomed recent progress in improving the regulatory and supervisory framework. They stressed the importance of ensuring the operational independence of regulatory and supervisory authorities and of greater coordination among these bodies. Directors emphasized that adequate resources and appropriate tools should be provided to support an intensive supervision of globally-systemic financial institutions.

Directors underscored the need for structural banking reforms to proceed apace. They welcomed the authorities' intention to reduce systemic risk by introducing ring-fencing, but noted that its effectiveness would depend on global cooperation on cross-border supervisory and bank resolution frameworks. Directors agreed that the supervision of financial institutions outside the ring-fence should also be strengthened to prevent regulatory arbitrage and the potential migration of risks to these entities.

Directors underscored the importance of further efforts on structural reforms to help the economy move toward a more dynamic and robust structure. They agreed that measures to improve the economy's skills base and competitiveness would enhance the economy's productive capacity while supporting demand in the near term.

United Kingdom: Selected Economic Indicators, 2008–13

	2009	2010	2011	2012	2013 Proj.
Real Economy (change in percent)					
Real GDP	-5.2	1.7	1.1	0.2	0.9
Domestic demand	-6.3	2.4	-0.1	1.1	1.0
Private final domestic demand	-6.9	1.4	-0.5	0.9	1.3
CPI, end-period	2.9	3.7	4.7	2.6	2.6
Unemployment rate (in percent) 1/	7.5	7.9	8.0	8.0	7.8
Gross national saving (percent of GDP)	12.7	12.3	13.5	10.9	10.9
Gross domestic investment (percent of GDP)	14.1	15.0	14.9	14.7	14.6
Public Finance (fiscal year, percent of GDP) 2/					
General government overall balance	-11.2	-9.4	-7.8	-7.5	-6.0
Public sector overall balance	-11.0	-9.3	-7.7	-7.2	-6.0
Public sector cyclically adjusted overall balance (staff estimates) 3/	-9.9	-7.9	-5.9	-5.0	-3.8
General government gross debt	73.0	79.1	85.1	88.2	91.7
Public sector net debt	56.3	65.9	71.1	74.0	76.8
Money and Credit (end-period, 12-month percent change) 4/					
M4	6.7	-1.5	-2.4	-1.0	-0.1
Net lending to private sector	0.5	-0.3	-0.2	-0.2	-0.2
Interest rates (percent; year average) 5/					
Three-month interbank rate	1.2	0.7	0.9	0.8	0.5
Ten-year government bond yield	3.6	3.6	3.1	1.9	2.1
Balance of Payments (percent of GDP)					
Current account balance	-1.4	-2.7	-1.5	-3.8	-3.7
Trade balance	-1.6	-2.2	-1.5	-2.2	-2.3
Net exports of oil	-0.2	-0.3	-0.8	-1.0	-0.5
Exports of goods and services (volume change in percent)	-8.7	6.7	4.5	0.9	1.2
Imports of goods and services (volume change in percent)	-10.7	7.9	0.3	2.8	1.6
Terms of trade (percent change)	-0.6	-0.3	-1.6	-0.2	0.0
FDI net	1.7	0.4	-2.3	-0.6	...
Reserves (end of period, billions of US dollars)	64.1	77.9	93.5	105.2	...
Fund Position (as of May 31, 2013)					
Holdings of currency (in percent of quota)					69.9
Holdings of SDRs (in percent of allocation)					94.8
Quota (in millions of SDRs)					10,134.2
Exchange Rates					
Exchange rate regime					Floating
Bilateral rate (June 27, 2013)					US$1 = £0.658
Nominal effective rate (2005=100) 6/	78.8	79.3	78.7	82.1	79.2
Real effective rate (2005=100) 6/ 7/	80.8	83.7	84.9	89.3	87.2

Sources: Bank of England; IMF's International Finance Statistics; IMF's Information Notic 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
3/ In percent of potential output.
4/ 2013: actual data through April.
5/ Average. 2013: actual data through May.
6/ Average. An increase denotes an appreciation. 2013: actual data through April.
7/ Based on relative consumer prices.

Statement by Mr. Steve Field, Executive Director for the United Kingdom
July 15, 2013

I thank staff for a very productive mission and a detailed Article IV report. My authorities agree with much of the staff analysis, note the conclusion that policy responses to restore growth and rebalance the UK economy are "not straightforward" and endorse the recommendation that a multi-pronged strategy is required to address economic and financial problems that have built up over many years.

Economic Outlook

Over the last year, the UK economic recovery has continued to be subdued and uneven but the economic news has been better in recent months.

GDP growth was only 0.2 per cent in 2012. Domestic demand was actually stronger than forecast, with much of the weakness attributable to net trade, which in turn reflects weakness in the UK's key export markets. Independent analysis by the Office for Budget Responsibility (OBR) explains that "the unexpectedly poor performance of exports is more than sufficient on its own to explain the shortfall".

In March, the OBR forecast a steady return to growth of 0.6 per cent of GDP in 2013. Since then, the economy has shown signs of improvement and the average of independent forecasts for GDP growth has now risen to 0.9 per cent. GDP growth in Q1 was 0.3 per cent and recent official and survey data for the services, construction and manufacturing sectors leads most external forecasters to anticipate stronger growth in Q2. Overall, this gives some indication that momentum is building.

Crucially, private sector jobs are still being created. According to the OBR, the picture on employment "continues to surprise on the upside". Employment is now at record levels, 432,000 higher than a year ago, while unemployment has fallen further and currently stands at 7.8 per cent. Since early 2010 an additional 1.3 million private sector jobs have been created, more than offsetting the fall in public sector employment of 423,000. Given these trends, the risks of hysteresis should not be overstated.

CPI inflation rose to 2.7 per cent in May, up from 2.4 per cent in April, but is still down to roughly half the level it was at its peak in September 2011. In May, the Monetary Policy Committee (MPC) judged that inflation was likely to remain well above the 2 per cent target for the rest of the year, reflecting external price pressures and administered and regulated prices. That said, inflation is still expected to fall back to target over time, as external price pressures fade and a gradual revival in productivity growth curbs increases in domestic costs.

There is some way to go before we see a strong and sustainable recovery. This reflects the ongoing domestic and external challenges, and the fact that the UK was hit harder than most countries by the financial crisis, following a decade of unbalanced and unsustainable growth. The Government's strategy is designed to protect the economy through this period of global uncertainty, maintain market confidence and lay the foundations for stronger, more balanced growth. As recommended by the IMF, my authorities are taking a multi-pronged approach. This is focused on: monetary activism; deficit reduction; structural reform; and reform of the financial sector.

Monetary activism

Monetary policy continues to play a critical role in supporting the economy and provides the first line of defense against external shocks. The MPC has maintained Bank Rate at 0.5 per cent over the past year. Given the potential impact on bank and building society profitability, the view continues to be that further rate reductions could be counterproductive, potentially inhibiting their ability to lend and impairing the functioning of money markets. The stock of asset purchases also remains unchanged since mid-2012 at £375bn. The MPC will continue to review this position in light of the latest developments.

In March, the Government reviewed the monetary policy framework and updated the MPC's remit. The new remit reaffirms the MPC's primary objective of a 2 per cent inflation target within a flexible inflation-targeting framework. Moreover, it clarifies the Government's expectation of the Committee in terms of the judgements it must make in forming and communicating the trade-offs that are inherent in setting monetary policy to meet a forward-looking inflation target while giving due consideration to output volatility. It also makes clear that the use of all necessary unconventional policy tools to maintain price stability and secure the recovery is available to the MPC, if judged necessary. The Chancellor has also requested that the MPC provides an assessment of the merits of using intermediate thresholds in its August 2013 Inflation Report.

In addition to pursuing a highly accommodative monetary policy, the Funding for Lending Scheme (FLS) was launched in July 2012 to reduce banks' funding costs and boost their lending to households and businesses. Since its introduction banks' funding costs have fallen, and by more than their European counterparts. There is also evidence that this is being passed on to consumers: interest rates have come down on mortgages, unsecured personal loans, and loans to businesses of all sizes. And while the improvement in credit conditions will take time to feed through to lending volumes, net lending is expected to pick up modestly in the remainder of this year. In contrast, the expectation prior to the introduction of the FLS was for a net decline in lending over this period.

In April, the FLS was extended by a further year to the start of 2015 to give banks and building societies confidence that they will be able to continue to access funding on

reasonable terms. And given improvements in credit conditions have been less pronounced for SMEs than for secured household borrowers and larger businesses, the incentives for lending to smaller businesses have been strengthened.

Deficit reduction

In 2010 the UK had a budget deficit of 11.2 per cent, forecast by the IMF at the time to be the largest budget deficit of any G20 country. Since then, the deficit has been reduced by about a third, but it remains one of the largest in the G20 at 7.4 per cent of GDP. As a result, gross debt is continuing to rise and is forecast to peak in 2016-17 at over 100 per cent of GDP.

The Government's fiscal strategy is anchored by the tax and spending plans set out in the June 2010 Budget. Subsequent implementation and ongoing commitment to these plans has ensured fiscal credibility. However, implementation has taken place within a flexible medium-term fiscal framework. Sizeable automatic stabilizers have been allowed to operate in full and the pace of structural adjustment has been allowed to slow in the near-term, with the Government choosing not to take corrective action to meet its debt target. As a result, the planned period of consolidation has been extended from 5 to 8 years.

The Government has continued to improve the composition of consolidation, recognising the benefits of further switching from current to capital spending. Over the past two years, plans have been revised to increase capital spending by around £20bn. And in recent weeks, the Government has set out plans to deliver a further £3bn of capital investment in 2015-16 in areas with the highest economic returns (transport, science and innovation and education) and £100bn of specific infrastructure projects over the next Parliament.

In addition, recognising the fact that a significant proportion of infrastructure investment in the UK is delivered by the private sector, the Government is using the credibility of its balance sheet to provide further support to the economy through guarantees for investment in infrastructure. While the government cannot control the timing of this investment, these guarantees are designed to support investment in major projects that may have stalled due to adverse credit conditions. This will also support the rebalancing of the economy towards sustainable private-sector led growth.

In summary, my authorities continue to believe that the fiscal policy stance and projected pace of consolidation implied by its tax and spending plans, remain appropriate, given the economic outlook, risks and continued global uncertainty. In turn, fiscal credibility has allowed the government to use its balance sheet to support investment through guarantees and credit easing policies, and support the economy with the free operation of sizeable automatic stabilisers. Credibility has also reduced the risk of adverse feedback between weak public finances and the strained and systemically important financial sector, which staff acknowledge is a "global public good". Revising the fiscal plans in an attempt to fine-tune

the consolidation path would risk undermining credibility and could have consequences for global, as well as domestic, financial stability.

Structural reform

A comprehensive programme of supply-side reforms is underway to boost competitiveness and improve the business environment, as set out in the *Plan for Growth*, and the *National Infrastructure Plan*. A wide-range of reforms have been identified across government, including: infrastructure investment; deregulation; measures to boost trade and investment; root and branch reform of the planning system; and radical reforms to every stage of education and skills provision.

At the 2013 Budget, the Government complemented planning reforms by launching the *Help to Buy* scheme to support the housing market. This is a temporary scheme to make it easier for first time buyers to purchase homes and existing homeowners to move home. After three years, the Financial Policy Committee (FPC) will assess its impact and advise whether it should be continued.

Separately, the Government also set out further reforms at the Budget to devolve significant local funding to Local Enterprise Partnerships to enable them to tackle barriers to growth, which hold back private investment at the local level.

Financial Sector Policy

The healing process in the UK financial sector has continued over the last 12 months. Bank liquidity and funding positions have improved and capital ratios of major UK banks and building societies have increased. However, confidence in the financial system remains fragile and credit growth is still weak. The outlook is still clouded by the ongoing risks associated with a weak and uneven global recovery, and imbalances in the euro area. More still needs to be done to improve the resilience of the UK banking system and ensure that lending to the real economy is maintained. To meet these challenges, the Government is continuing to implement its ambitious financial sector repair and reform agenda.

On 1 April 2013, the Financial Services Act came into force, fully establishing the new regulatory and supervisory architecture in the UK. The Financial Policy Committee (FPC), Prudential Regulation Authority (PRA) and Financial Conduct Authority (FCA) are now all up and running. The view of my authorities is that the issues raised by staff in the 2011 FSAP, concerning the mandates and independence of these institutions, have been fully addressed and, while it is still early days, there is a sound basis for effective coordination.

Given the uncertain outlook for financial stability, a number of steps have been taken to ensure the capital adequacy of UK banks and building societies in line with FPC

recommendations. The PRA has conducted an asset quality review to ensure that banks have credible plans in place to meet identified shortfalls, either by issuing new capital or restructuring balance sheets in a way that does not hinder lending. The PRA will also ensure that credible plans are in place for the transition to tougher prudential standards in 2019. In order to assess capital adequacy on a forward-looking basis, the Bank of England, including the PRA, is continuing to develop its stress testing framework and a discussion paper will be published in the autumn. The PRA will also ensure that UK banks comply fully with Enhanced Disclosure Task Force (EDTF) recommendations when they publish their 2013 annual reports.

Structural banking reforms are now going through Parliament in the Banking Reform Bill. Key measures include the ring-fencing of retail banking from wholesale and investment banking and an additional 3 per cent of equity on top of the Basel III minimum for the largest ring-fenced banks. These reforms will improve the safety of banks, protect taxpayers and ensure a more stable financial sector. The Government also intends to give the FPC the power to vary the leverage ratio for deposit takers and investment firms above the international baseline requirement in 2018, though this will be reviewed once this baseline is implemented in 2017. More broadly, the UK continues to press in European negotiations for the full and faithful implementation of the Basel III binding minimum leverage ratio baseline. In addition, the Government has asked the Office of Fair Trading to conduct a review of competition in small business banking, recognising that competition remains an important structural issue in the UK banking sector.

The IMF recommended in May that the Government urgently develop a strategy for returning its shareholdings in the Royal Bank of Scotland (RBS) and Lloyds Banking Group (LBG) back to the private sector. The Chancellor has announced that he is actively considering options for beginning the sale of LBG and is urgently investigating the case for breaking up RBS and creating a “bad bank” of risky assets - a review will be completed by autumn. The Government strategy will be guided by three objectives: maximising the banks’ ability to support the UK economy; getting best value for money for the UK taxpayer and returning the banks to private ownership.