

# The UK Economy at the Crossroads

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# Executive Summary

Despite high levels of employment after eight and a half years of economic growth, the UK economy is facing some serious economic challenges: long-term rising inequality, real wages that are still below their 2009 peak, a collapse of productivity growth, and the worst level of regional inequality in the European Union. The unusual uncertainties surrounding Brexit also pose a serious threat that has been much discussed. However, the government's macroeconomic policies may also compound the risks associated with Brexit and make it more difficult to solve the economy's long-term problems. This paper looks at some of the details of the above challenges, with a focus on macroeconomic policy.

Measures of income inequality show long-term redistribution toward upper-income groups. Beginning in the late 1970s, there was a vast and very sharp increase in the share of income going to the top 10 percent of UK residents, as compared to the bottom 40 percent (this is known as the Palma ratio). This measure of inequality soared from 0.9 in 1978 to 1.6 in 1990. It subsequently fell back to 1.2 over the ensuing decades, which is the second worst, after the US, among high-income countries in the OECD.

There is much that can be done legislatively to help reverse the increase in inequality that has surged since the late 1970s. But sound macroeconomic policies that allow for full employment and the necessary levels of public investment are the prerequisite for success in most other positive reforms.

A factor that has contributed significantly to reducing inequality over the past nine years has been the UK pension system. Legislation in 2011 consolidated this role of public pensions. The overall income growth that has taken place for all households since 2006/07 was attributable to the increase in the income of retired households, which grew by almost 18 percent, while the income of nonretired households remained flat.

The decline in the gender pay gap over the past eight years, widely noted in the media, is not due to women catching up to men, but rather to male wages falling even faster than the wages of women. Overall, the real median hourly wage is still down 5 percent since its peak in 2009.

One of the most striking and unusual aspects of the recovery is that poverty, by some measures, has actually increased for people of working age, despite eight years of continuous growth that has brought

employment to very high levels. After accounting for housing costs, the percentage of people aged 16–64 with income below the poverty threshold has risen to 21 percent in 2015/16, from 20 percent in 2006/07.

The net public debt has increased from 36.9 percent in 2007 to 80.5 percent for 2017, stirring demands for fiscal tightening. However, the burden of the public debt is best measured by the interest payments that the UK government is paying on this debt, relative to the economy. At present, the net interest payments on the debt are about 1.8 percent of GDP. This is a relatively modest burden by any historical or international comparison; throughout the 1980s, interest payments on the debt were generally above 3 percent of GDP annually, and in the 1990s they were between 2 and 3 percent per year.

The international financial markets clearly recognize that there is little risk to holding UK debt. Investors are willing to hold UK 10-year government bonds at a very low interest rate of just 1.38 percent (as compared to 2.8 percent for US 10-year Treasury notes). This is significantly lower than the current and projected rate of inflation (3.0 percent and 2.0 percent, respectively), which means that the UK government can borrow long-term at real interest rates that are negative.

Since there are many public investments that have a positive real rate of return by increasing the productivity of the economy, this means the economy and the public could benefit from public investment financed at these long-term negative real interest rates.

It seems that there is a clear role for public investment to create the infrastructure and, at least temporarily, the demand that would induce private investment to increase to levels that would allow for normal productivity growth. Indeed, economists at institutions across the political spectrum, including the IMF and the OECD, have called for increased public investment in the UK. This would allow the current generation of UK residents to increase their living standards, as previous generations over the past century and more have done; if not, it is not clear when this overall growth in living standards will resume.

The failure to understand these things contributed to unnecessary budget tightening, which accounted for about half of the deficit reduction between 2009 and 2017. The economy would therefore have recovered faster in the absence of this budget tightening, which was not only unnecessary but also painful for many people. In addition to unnecessary unemployment and poverty, and the accompanying social ills caused by the slower recovery, austerity measures were also linked to an

estimated 120,000 deaths as a result of decreased access to health and social care. Cuts to higher education funding were offset by sharp tuition increases and outstanding student debt also doubled since 2010.

A big problem at present is that an official narrative is coalescing that sees UK output already at its potential, and also sees potential growth at 1.6 percent. With population growth at 0.75 percent, that is accepting a future of very low productivity growth and therefore of little improvement in living standards. Those who accept these projections and narrative also — quite logically — argue that the Bank of England should forge ahead with higher interest rates despite sluggish growth of both GDP and wages. This can easily produce a low-growth, low-productivity, low-wage scenario — as we have seen over the past decade — which could become the long-term future for the UK economy.

Thus, as explained in more detail below, the debate over macroeconomic policy — including not only monetary policy but also public investment in infrastructure, education, and renewable energy — could play an important role in whether the UK economy is able to address its most pressing long-term economic and social problems, as well as avoid unnecessarily halting the current economic expansion.

# Introduction

The UK economy faces much uncertainty as its political leaders prepare for Brexit. In the past year, reflecting this uncertainty, European banks reduced their exposure to UK-related assets by 18 percent, or about 350 billion euros.<sup>1</sup> However, even if the UK's exit from the European Union were to be abandoned, there would remain considerable angst and concern over the country's economic future. Indeed, most observers would agree that discontent over economic problems contributed to the surprise vote in favor of Brexit. And this appears even truer of the more recent surprise vote, on June 8, 2017, in which the Conservative Party lost its majority in the Parliament, and the Labour Party jolted both pundits and polls by picking up 30 seats.

Viewed as a snapshot from a certain angle, some of the economy's vital statistics look pretty good — especially as compared with the grim scenario that many experts and commentators predicted 20 months ago when voters chose to leave the European Union.<sup>2</sup> Most importantly, in 2017 the official unemployment rate was at 4.4 percent, the lowest yearly rate since 1974.<sup>3</sup> And unlike in the US, where a similar unemployment rate masks a drop in the employment rate by about two million jobs from its prerecession peak,<sup>4</sup> the UK employment rate is a record 75 percent. Also, the economy has had eight years of continuous growth since the Great Recession.

Yet both major parties are arguing that serious structural reforms, including an industrial policy to reorient the economy, are necessary. There are some good reasons for this conclusion: long-term rising inequality, real wages that are still below their pre–Great Recession level, a collapse of productivity growth, and large regional disparities in income appear to be some of the main drivers of voter discontent, as well as the responses of political leaders. In what follows, we look briefly at some of these developments in the economy and the challenges going forward, with a focus on macroeconomic policy.

## Inequality

One source of political discontent is the rise of income inequality. At the economy-wide level, the share of national income that accrues to labor, in the form of wages and salaries, has undergone a striking decline over the past four decades. This is shown in **Figure 1**.

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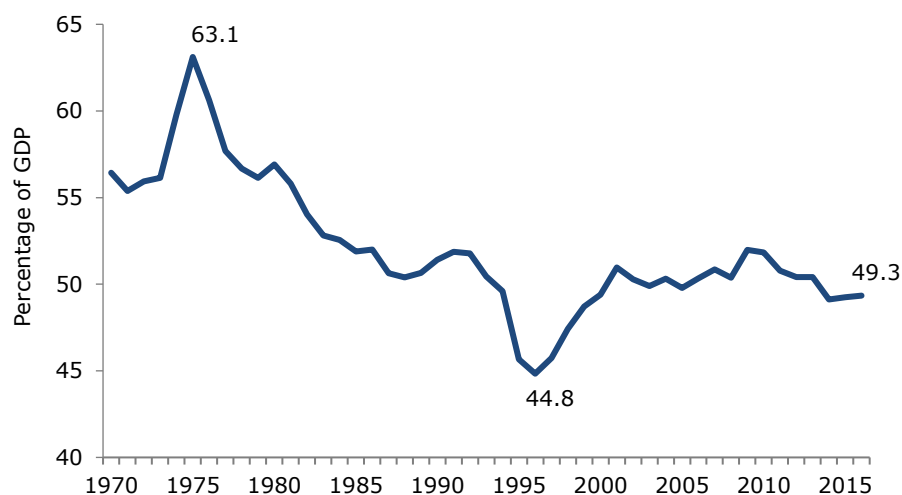
<sup>1</sup> EBA (2017).

<sup>2</sup> IMF (2016), Giles (2016).

<sup>3</sup> ONS (2018).

<sup>4</sup> In the US, some of the decline in the employment rate is due to the aging of the population. However, even looking at the prime age (25–54) employment rate, the economy is still 1.9 million jobs down from its pre–Great Recession peak.

**FIGURE 1**  
**Compensation of Employees as a Share of GDP**



Sources: OECD (2018), authors' calculations.

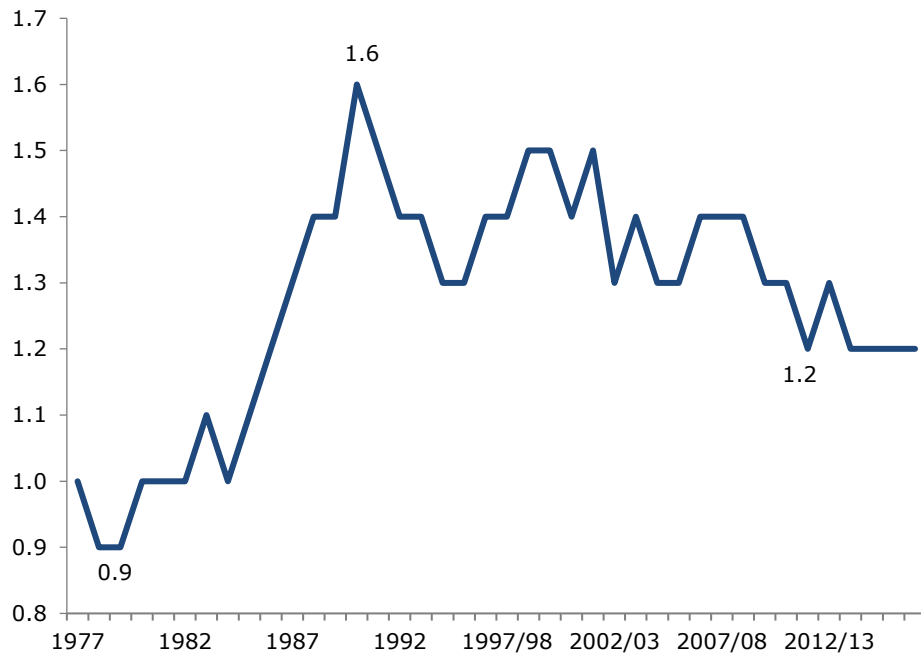
As can be seen in the graph, the share of employees' compensation in GDP peaked at 63.1 percent in 1975. It then began a long decline to the lowest level in the post-World War II era, 44.8 percent in 1996, before recovering only a fraction of the loss, to 49.3 percent, in 2016. This is an indication that one of the most important drivers of income inequality in the UK could have long-term, structural causes.

Measures of income inequality, not surprisingly, also show long-term redistribution toward upper-income groups. Beginning in the late 1970s, there was a vast and very sharp increase in the share of income going to the top 10 percent of UK residents, as compared to the bottom 40 percent (this is known as the Palma ratio,<sup>5</sup> shown in **Figure 2**). This measure of inequality soared from 0.9 in 1978 to 1.6 in 1990. It subsequently fell back to 1.2 over the ensuing decades, which is the second worst, after the US, among high-income countries in the OECD.<sup>6</sup>

<sup>5</sup> The Palma Ratio, by comparing the share of income captured by the top 10 percent to the bottom 40 percent, avoids the Gini coefficient's oversensitivity to the middle of the income distribution, which Gabriel Palma has shown to be fairly consistent over time. Furthermore, the Palma ratio can be translated into nontechnical terms, since it simply states how many times more income the top 10 percent captures as compared to the bottom 40 percent. Cobham, Schlogl, and Sumner (2015).

<sup>6</sup> OECD (2018): Income inequality (indicator).

**FIGURE 2**  
**Palma Ratio for Equivalised Disposable Income**



Source and notes: ONS (2018). 2016/17 is provisional.

A number of causes of this long-term increase in inequality have been identified in economic research. One that has not gotten enough attention is the decline in the percentage of workers in labor unions since the late 1970s. From 1979 to 1998, there was a large and prolonged increase in the wage gap between workers with and without a college degree in the UK, with the degree premium increasing by 27.4 percent in the private sector. During this time, the percentage of unskilled workers in labor unions fell by about 25 percent.<sup>7</sup> An econometric analysis by Fei Peng and Lili Kang found that the decline in union density among unskilled workers could account for about a quarter of that increase in the degree premium in the private sector, and for about 80 percent in the public sector. It was by far the largest cause of this significant and prolonged increase in wage inequality. Their review of the literature shows that their finding is consistent with other studies of the UK.<sup>8</sup> The authors note that the UK and US are the only two countries that have seen an increase of such a large magnitude in this measure of wage inequality.<sup>9</sup>

International Monetary Fund (IMF) economists Davide Furceri and Prakash Loungani have also found a significant link between the liberalization of capital flows and inequality, as measured by the Gini coefficient.<sup>10</sup> With data from 149 countries, they found that such liberalization would be expected

<sup>7</sup> “Unskilled workers” is defined as workers without a college degree.

<sup>8</sup> See e.g., Schmitt (1995).

<sup>9</sup> Peng and Kang (2014).

<sup>10</sup> Furceri and Loungani (2015).



to increase the Gini coefficient by about 1 percent within the first year and by 2.5 percent within five years. The authors conclude that liberalization can exacerbate differential access to credit, especially in countries where such access is concentrated in upper-income groups, thus increasing income inequality. Also, it can contribute to the occurrence of financial crises (e.g., the Asian financial crisis of 1997–1999) that then increase income inequality, especially when recessions follow such crises. Additionally, capital account liberalization can reduce the bargaining power of labor, as business owners have more opportunities to threaten relocation to other countries in response to labor demands. The authors also find a significant relationship between liberalization of capital flows and a declining labor share of national income.

Since the Great Recession (2009), overall income inequality has declined, as measured by the Palma ratio. Some of this is due to the rise in employment as the economy recovered from the Great Recession. Unemployment declined from a peak of 8.4 percent in 2011 to 4.4 percent today.<sup>11</sup> Or measured alternatively by employment, there has been a rise from 70.2 percent of the working-age population at the beginning of 2010, to 75.2 percent today.<sup>12</sup> Here again, the debate over macroeconomic policy takes on increasing importance for those who want to reverse some of the long-term trend that has made the UK a much more unequal society than it had been in the first half of the post-WWII period. Proposed fiscal tightening will reduce employment growth, or even employment as a percent of the labor force.

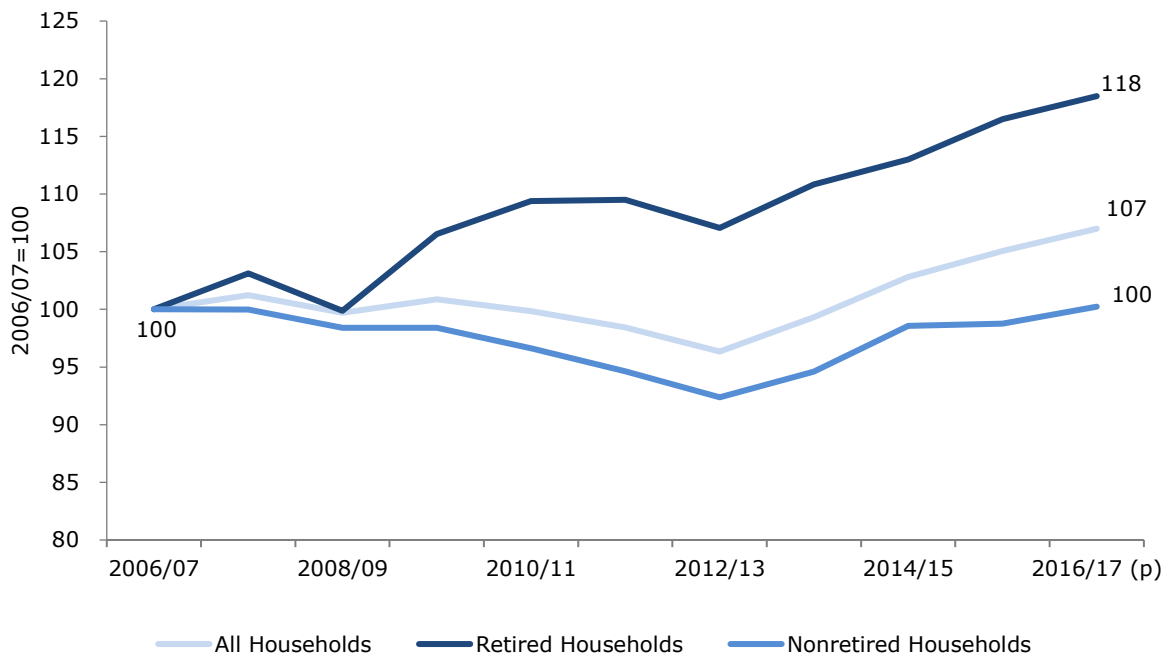
Another factor that has contributed significantly to reducing inequality over the past nine years has been the UK pension system. Thus, as can be seen in **Figure 3**, the growth of real (inflation-adjusted) median equivalised household income from FY 2006/07 to 2016/17 was 7 percent; but it was zero for nonretired households.<sup>13</sup> The overall income growth came from the increase in the income of retired households, which grew by almost 18 percent.

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11 ONS (2018): Unemployment rate (aged 16 and over, seasonally adjusted).

12 ONS (2018): Employment rate (aged 16 to 64, seasonally adjusted).

13 Equivalised disposable income is the total after-tax income of a household, adjusted for the composition of the household. For full explanation of this adjustment, see Eurostat (2014).

**FIGURE 3****Growth of Real Median Equivalised Household Disposable Income by Household Type**

Sources and notes: ONS (2018), authors' calculations. 2016/17 is provisional.

Since retired households on average have less income than nonretired households, this differential rate of income growth reduced inequality. In 2011, legislation known as the “triple lock” guaranteed public pension recipients a minimum annual increase of one of three amounts, whichever is highest: 2.5 percent, the rate of consumer price inflation, or average growth of earnings.<sup>14</sup>

Since these pension increases contribute to increased government spending, this is another way in which proposed fiscal tightening threatens to worsen income inequality. There are well-publicized calls for eliminating the triple lock, even though it is projected to increase the cost of public pension benefits on average by as little as 0.1 percent of GDP over the next decade.<sup>15</sup> This cost increase is projected to be 0.09 percent of GDP annually by 2066, an average cost increase of just 0.06 percent per year for the 50-year period.<sup>16</sup> This is so small that if these numbers were well-known by the general public, it would be difficult to imagine that many people would be worried about the cost of this policy. Here again, the importance of an informed debate over the role of government, and especially over the demands for more fiscal tightening, is paramount.

<sup>14</sup> Thurley and Keen (2017).

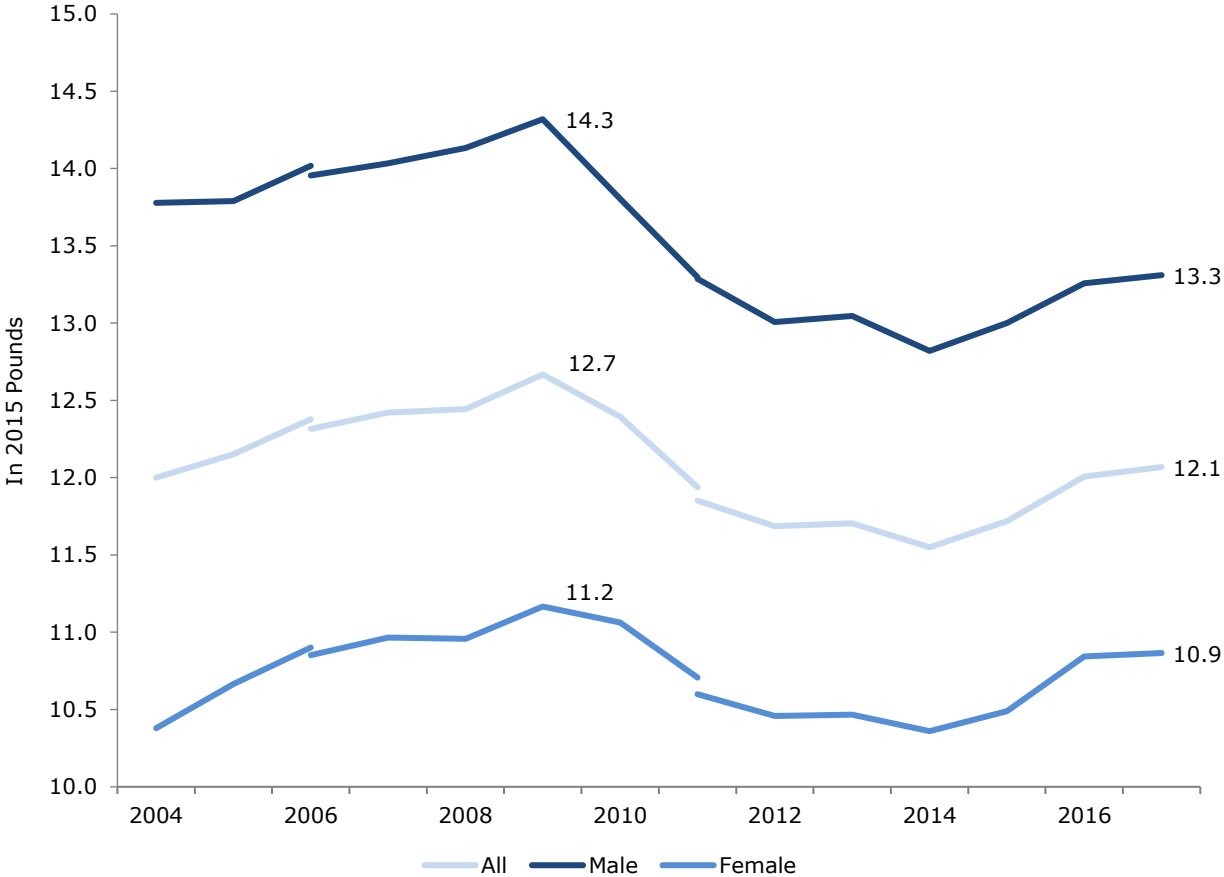
<sup>15</sup> Cridland (2017).

<sup>16</sup> Ibid.

As noted above, the median household — thanks to increases in income of retired households — had just caught up with its pre–Great Recession level of income in 2014/15. If we look at the last ten years, we have a “lost decade” for income growth for the typical household — i.e., median real household income in 2016/17 is barely catching up to 2006/07. This is an unusually long period for the majority of households to lose out on an opportunity to increase their living standards. For comparison, in the previous decade, between 1997/98 and 2006/07, real median household incomes grew by almost 30 percent.

The increase in employment and hours worked has contributed to the recovery of median household income; the situation looks significantly worse when we look at wages. As can be seen in **Figure 4**, the real median hourly wage is actually down 5 percent since its peak in 2009.

**FIGURE 4**  
**Median Real Hourly Earnings (Excluding Overtime), by Sex**



Sources and notes: ONS (2018), authors’ calculations. There have been a number of changes to the methodology over the years, which has resulted in three breaks in series: in 2004, 2006, and 2011. For these years figures are provided on both the old and new basis.

The decline in real wages since 2009 for male employees is more than twice the rate as for female employees. This can be seen in Figure 4, with median hourly real wages for men declining by 7 percent, as compared to 2.7 percent for women. This means that the decline in the gender pay gap over the past eight years, widely noted in the media, is not due to women catching up to men, but rather male wages falling even faster than the wages of women.

One of the most striking and unusual aspects of the recovery is that poverty, by some measures, has actually increased for people of working age, despite eight years of continuous growth that has brought employment to very high levels. After accounting for housing costs, the percentage of people aged 16–64 with income below the poverty threshold has gone up to 21 percent in 2015/16, from 20 percent in 2006/07.<sup>17</sup>

As many have noted, the UK has the worst level of regional inequality in the European Union.<sup>18</sup> This is widely seen as a factor that influenced the Brexit vote and other recent political shifts. **Figure 5** shows median weekly earnings within various regions as a percentage of median weekly pay in London. As can be seen in the graph, in 2016 (latest available data), in most of the regions weekly pay was about 70 percent of London’s median earnings. These wide disparities in regional income have not been reduced by the recovery from the Great Recession.

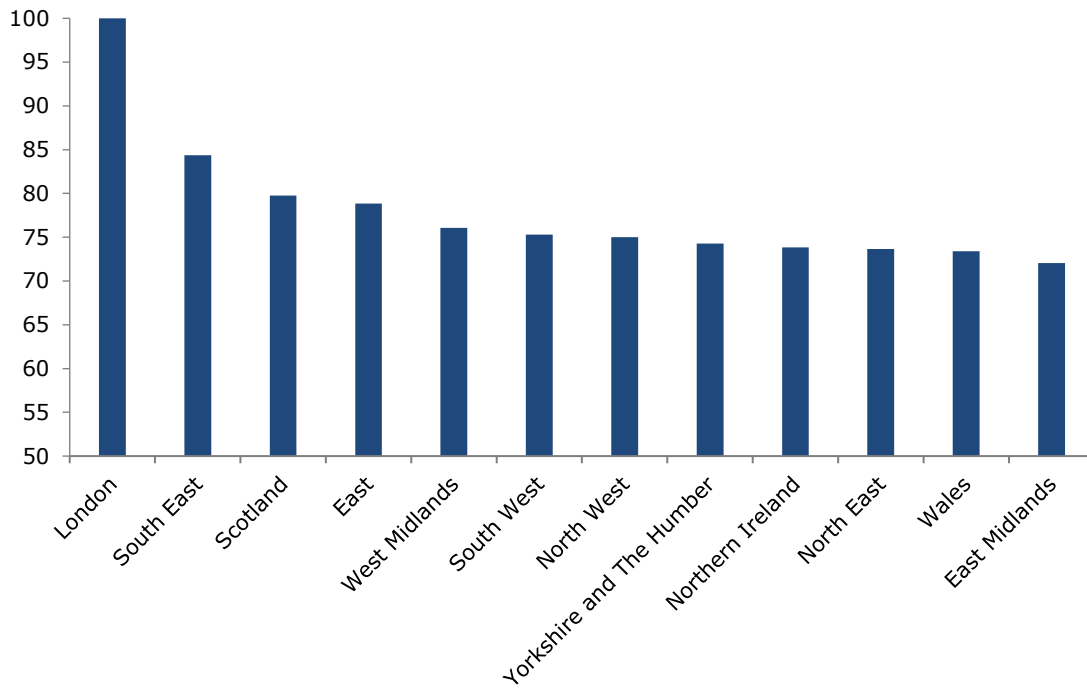
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<sup>17</sup> Department for Work and Pensions (2017).

<sup>18</sup> IPPR (2017).

**FIGURE 5**

**Median Weekly Pay, by Region, as a Percentage of London Earnings, 2016**



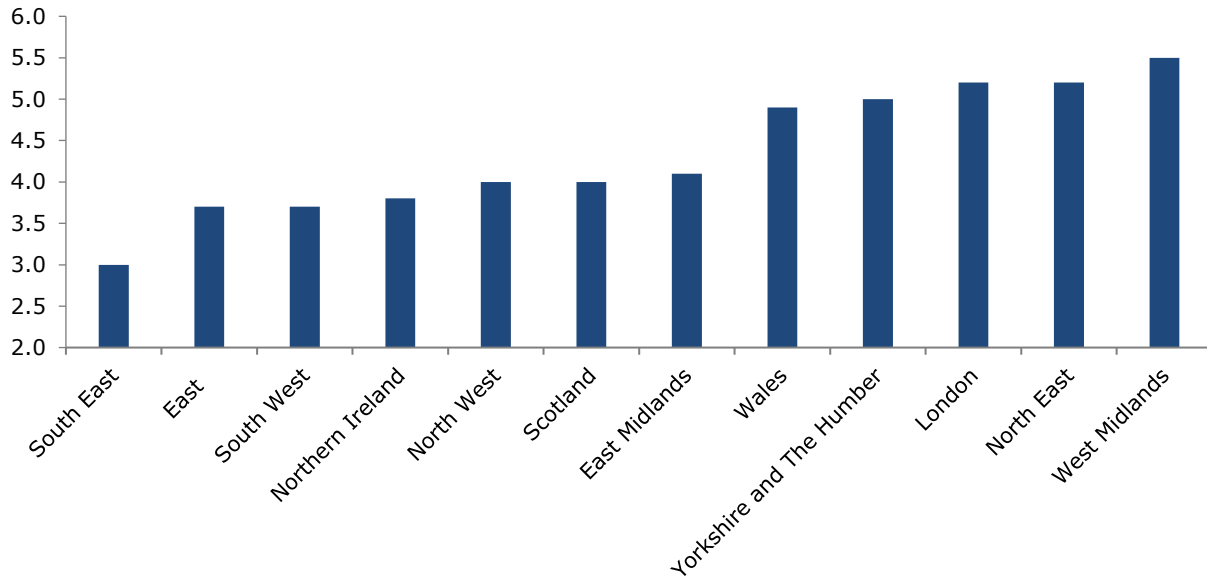
Sources: ONS (2018), authors' calculations.

Similarly, unemployment and poverty also vary drastically by region. This can be seen in **Figures 6 and 7**, respectively.

Overall, the regions with lower incomes are also plagued by higher unemployment and poverty rates. The main exception is London, which despite having significantly higher median earnings than the rest of the UK, also has among the highest unemployment rates, and the highest poverty rate after accounting for housing costs. This is due to the large inequalities and disparities within different parts of London.

**FIGURE 6**

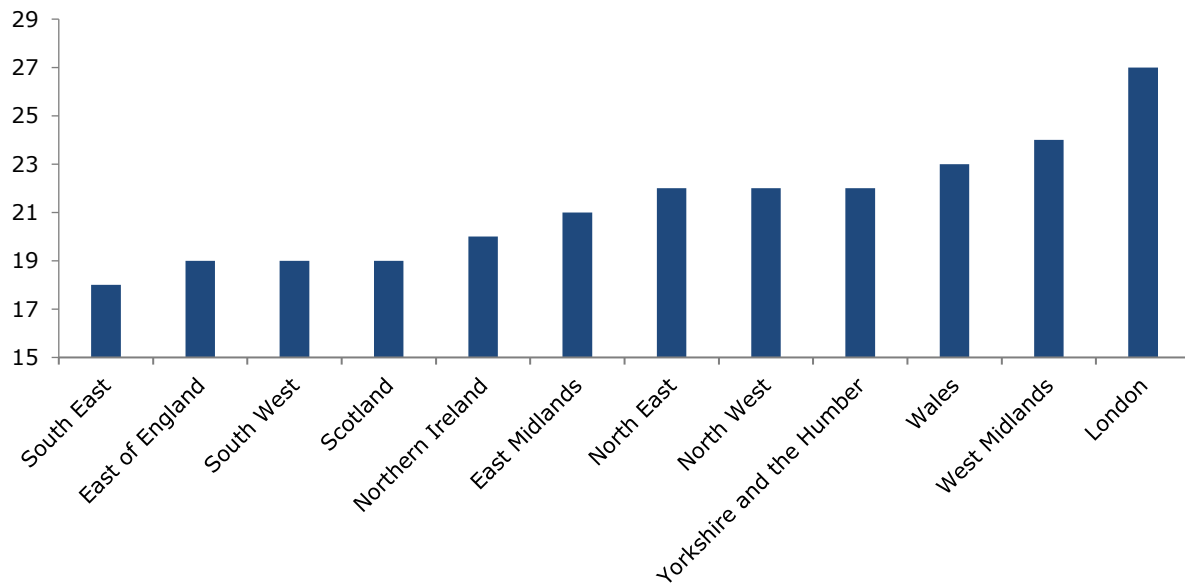
**Unemployment Rates by Region, Seasonally Adjusted, September to November 2017**



Source: ONS (2018).

**FIGURE 7**

**Percentage of Individuals Living in Poverty, after Housing Costs, Average for Fiscal Years 2014–2016**



Source and notes: Department for Works and Pensions (2017). Poverty is defined as individuals living in households with less than 60 percent of contemporary median household income, by region.

# Macroeconomic Policy and the Public Debt

It is frequently argued that the UK debt is unsustainably large, and this argument has been used to justify fiscal tightening that has already taken place (since 2010) as well as further spending cuts. The most common argument is that the public debt is too large as a percentage of GDP. The net public debt has increased from 36.9 percent in 2007 to 80.5 percent for 2017.<sup>19</sup>

Most of this debt was accumulated as a direct result of the Great Recession, since tax revenues fall when the economy shrinks, and some payouts increase (e.g., unemployment and other benefits). These automatic stabilizers, as they are called, helped to keep the recession from getting much worse, especially in terms of lost employment and output. As the economy recovered, revenue automatically increased and expenditures fell, and the fiscal balance improved. The government budget deficit fell from a peak of 10.9 percent of GDP in 2009, to an estimated 2.7 percent of GDP for 2017.<sup>20</sup> Some of this reduction in the deficit was a result of fiscal tightening, which was mostly spending cuts. Looking at the IMF's measure of the structural budget balance, which adjusts for the effect of the business cycle, it appears that about half of the reduction of the deficit is attributable to the fiscal tightening.<sup>21</sup>

The economy would therefore have recovered faster in the absence of this budget tightening, and so it seems clear that it was unnecessary as well as painful for many people. In addition to unnecessary unemployment and poverty, and the accompanying social ills caused by the slower recovery, the spending cuts were also linked to an estimated 120,000 deaths as a result of decreased access to health and social care.<sup>22</sup> Cuts to higher education funding were offset by sharp tuition increases. Outstanding student debt has doubled since 2010.<sup>23</sup>

Going forward, the main question is whether further austerity is necessary in order to reduce the annual budget deficit and therefore the debt stock. On the opposite side, many economists argue that it would be better for the government to take advantage of negative real interest rates to increase public investment.

The first thing to recognize is that the ratio of debt to GDP is, especially in present circumstances, a misleading measure of the sustainability, constraints, or potential risks of the public debt. Since the principal, or stock of debt, is rolled over with new borrowing as it matures, it does not represent a

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<sup>19</sup> IMF (2017c): WEO.

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

<sup>22</sup> Watkins et al. (2017).

<sup>23</sup> Bolton (2017).

burden of the debt unless a government cannot borrow. The burden of the public debt is therefore currently best measured by the interest payments that the UK government is paying on this debt, relative to the economy. At present, the net interest payments on the debt are about 1.8 percent of GDP.<sup>24</sup> This is not very high by any historical or international comparison,<sup>25</sup> nor is there any other obvious reason that it should be a matter for public concern. Throughout the 1980s, interest payments on the debt were generally above 3 percent of GDP annually, and in the 1990s they were between 2 and 3 percent per year.<sup>26</sup>

The international financial markets clearly recognize that there is little risk to holding the UK debt. Investors are willing to hold UK 10-year government bonds at an interest rate of just 1.38 percent.<sup>27</sup> This is significantly lower than the current and projected rate of inflation (3.0 percent and 2.0 percent, respectively),<sup>28</sup> which means that the government can borrow long-term at real interest rates that are negative. Since there are many public investments that have a positive real rate of return by increasing the productivity of the economy, this means the economy and the public could benefit from public investment financed at these long-term negative real interest rates.

One objection might be that the low interest rates on UK bonds are mainly an indirect result of the policies of the European Central Bank (ECB), and therefore vulnerable to any major change in policy there. The ECB, by effectively guaranteeing eurozone government bonds since 2012 (followed by quantitative easing since 2015) has driven down long-term eurozone interest rates to mostly negative real levels.<sup>29</sup> But before this guarantee was in place, and Europe was suffering from a severe financial crisis in 2012, the yield on Spanish bonds rose as high as 6.8 percent; at the same time, the UK, with a debt-to-GDP ratio that was higher than Spain's, had 10-year yields of just 1.65 percent.<sup>30</sup> That is mostly because the UK can borrow in its own currency, and has its own central bank. This guarantees that creditors who loan money to the UK government will be repaid, since the central bank can create sterling.

The risk to domestic holders of the UK debt is therefore not of an actual default but rather the risk of unanticipated inflation that would reduce, or even make increasingly negative, the bonds' real return. Although inflation picked up last year, mainly as a result of the depreciation of the pound and of oil prices,<sup>31</sup> it is difficult to make the case that an increase in borrowing to finance infrastructure,

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24 ONS (2018).

25 Weisbrot et al (2017).

26 ONS (2018).

27 OECD (2018): Long-term interest rates.

28 OBR (2017a).

29 ECB (2018) and authors' calculations for real rates.

30 OECD (2018).

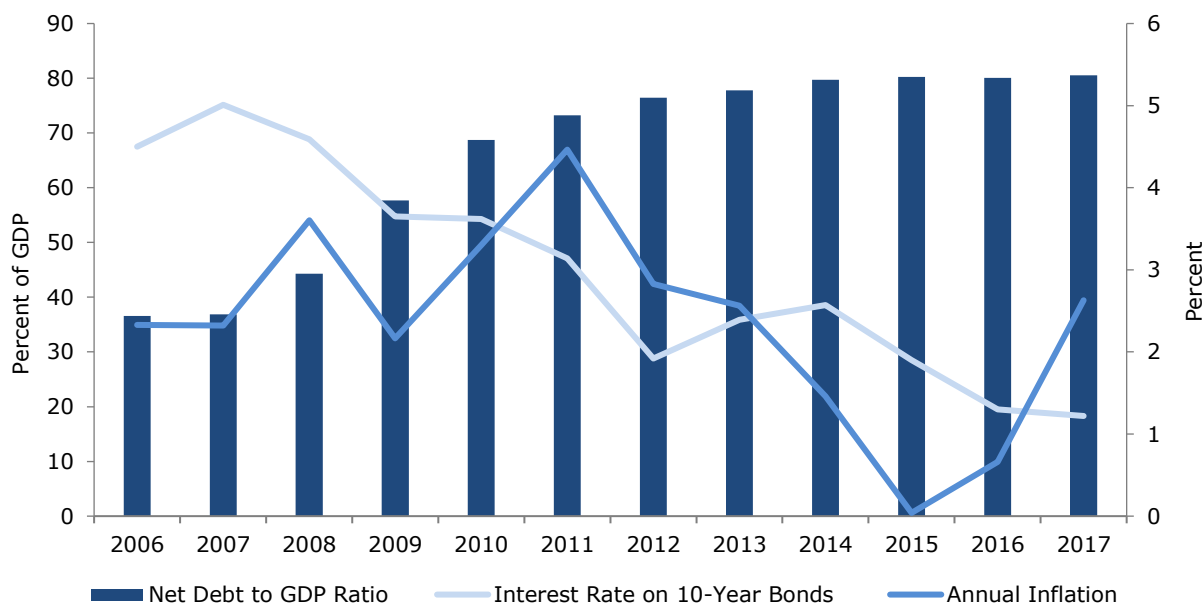
31 ONS (2017a).



for example, would fuel inflation. We will look at inflation more below in conjunction with monetary policy. But with regard to fiscal policy and debt, there does not appear to be any reason to believe that it would be necessary to pay off debt, or restrict borrowing, in order to contain inflation.

**FIGURE 8**

**Net Debt as Percent of GDP, Inflation, and Interest Rate on 10-Year Bonds**



Sources: IMF (2017c); WEO, OECD (2018).

**Figure 8** shows the net debt-to-GDP ratio along with the 12-month rate of inflation and the interest rate on 10-year government bonds. As can be seen, the interest rate on 10-year bonds plummeted even as the debt-to-GDP ratio was soaring. This reflects the financial markets’ understanding that there is no increased risk of default as a result of this accumulation of government debt. Again, the risk for domestic investors is the risk of inflation. But as can be seen from the graph, there is no obvious impact of the increase in borrowing on inflation either. Nor would economic theory expect there to be, since the run-up in debt took place while the economy was operating well below its capacity, including a weak labor market. It therefore did not generate inflationary pressures. This is despite the fact that the Bank of England (BOE) has created over 529 billion pounds since 2009 (an amount equivalent to 27 percent of annual GDP), through its quantitative easing program.<sup>32</sup> This program was designed, successfully, to bring down long-term interest rates. (It was another widespread mistaken belief that this money creation would cause an increase in inflation.)

<sup>32</sup> As percentage of 2017 GDP. BOE (2018b), ONS (2018).

Even if the rate of inflation were to fall back to the BOE's target, which is 2 percent, the nominal rate of GDP growth (3.7 percent),<sup>33</sup> would still be greater than the central government budget deficit (2.9 percent of GDP).<sup>34</sup> For as long as this relationship holds true, it means that the debt-to-GDP ratio would continue to decline.

What, then, are the real risks going forward with regard to the public debt? One possibility would be a change in interest rates. For example, if the average interest rate on the UK's net public debt, which is currently at 2.1 percent, were to suddenly double, then the interest burden would approximately double from its current 1.8 percent of GDP to 3.6 percent. This would be a heavier interest burden, although still not necessarily all that risky in the short run — it would still be below the current nominal rate of GDP growth, for example, and the debt-to-GDP ratio would not immediately grow. Still, it is an interest burden that would be better avoided. But how long would it take for even this doubling of the interest burden on UK net debt to occur?

Note that the average maturity of UK government debt is more than twice as long as the other G7 countries, at over 14 years.<sup>35</sup> This means that it would take some years to increase the UK's debt burden even with a sudden change in interest rates. We can see how slowly the interest rate on UK sovereign debt changes in **Figure 9**. The graph shows the effective interest rate on the net public debt since the pound sterling was separated from the European Exchange Rate Mechanism (1993), along with the change in the BOE's policy rate and the rate on 10-year Treasury bonds. As can be seen in the graph, the effective interest rate on the debt has declined pretty much continuously over the past 23 years; there were no sharp movements in response to recessions or crises, e.g., the financial crisis and Great Recession of 2008–2009, or the crisis of the euro in 2011–2012.

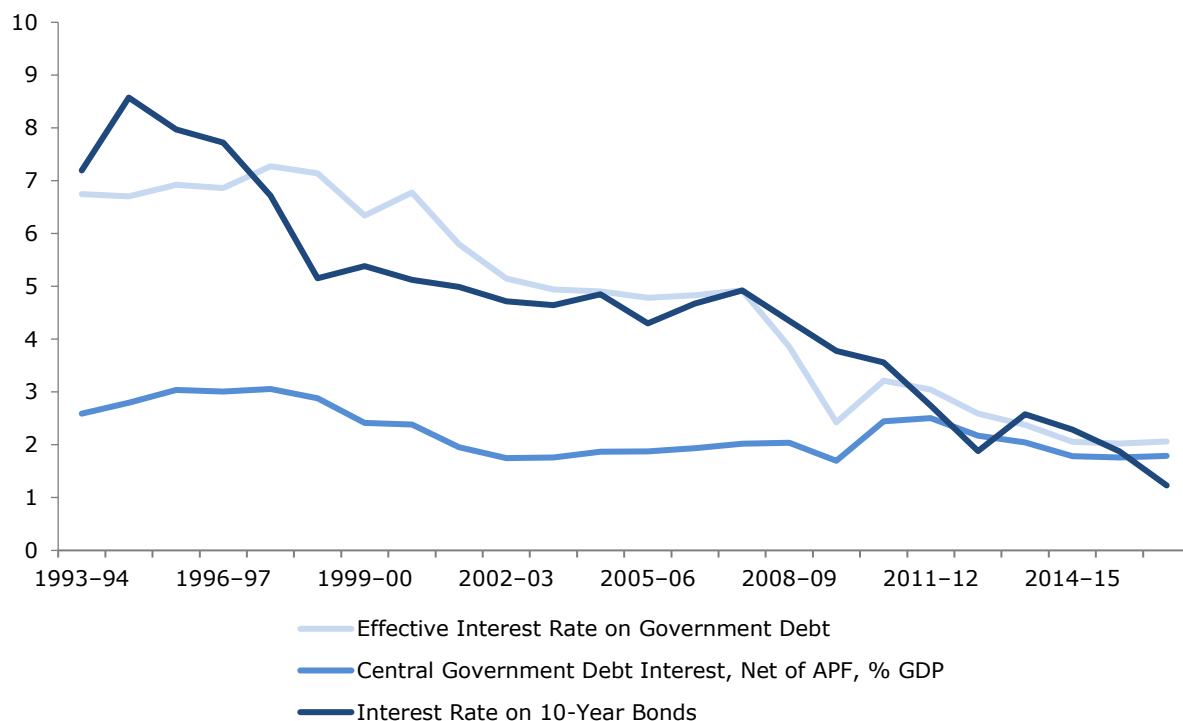
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<sup>33</sup> The combination of 1.7 percent GDP growth over the past 12 months (ONS estimate) and 2.0 percent inflation.

<sup>34</sup> Budget deficit for 2017/18 is provisional. ONS (2018).

<sup>35</sup> OBR (2017b).

**FIGURE 9**  
**Interest Burden on UK Sovereign Debt**



Sources: ONS (2018), OECD (2018), authors' calculations.

Furthermore, in terms of estimated known risks of tightening by other central banks — to the extent that the BOE feels pressure to follow them — the bond futures markets currently indicate that the US Federal Reserve will raise policy interest rates by 0.5 to 0.75 percentage points over the next year,<sup>36</sup> and the ECB by 0.14 percentage points.<sup>37</sup>

It is therefore difficult to imagine a large increase in UK sovereign borrowing costs due to various external shocks, without having a period of many years for the government to adjust its borrowing and revenues. Furthermore, we must consider what is the most likely scenario that would cause international borrowing costs (for the high-income countries) to rise more than expected. We would expect that such an increase in borrowing costs would accompany increased inflation and GDP growth, i.e., nominal GDP growth. This would lower the real burden of the debt.

What else could trigger a scenario in which UK sovereign debt becomes a problem for the economy? About 27 percent of UK debt is held by foreign nationals.<sup>38</sup> For many of these investors — those who do not plan to spend or reinvest their returns on these bonds in the UK economy — the value of the

<sup>36</sup> Rennison (2018).

<sup>37</sup> Dmitrieva (2018).

<sup>38</sup> HM Treasury (2017).

pound internationally matters, since a depreciated pound will buy less in their home currencies. If the pound is expected to fall far enough against other currencies, we would expect some fall in international demand for UK debt, and this could at least potentially push up UK borrowing costs. However, this does not seem to be a serious threat in the foreseeable future. The value of the pound internationally, as measured by its real effective exchange rate (REER), fell by about 15 percent in 2016, in the run-up to and aftermath of the Brexit vote.<sup>39</sup> This does not appear to have had a measurable effect on the interest rates on UK bonds, as seen in **Figure 9**. One reason could be that foreign ownership, excluding those who plan to reinvest in the UK or are otherwise unwilling to change their foreign currency holdings in response to a fall in the pound,<sup>40</sup> is not large enough to make a difference. Another possibility is that foreign investors do not expect the pound to continue falling, since most of the decline since 2016 appears to be associated with Brexit.

Of course, if the UK were to run into serious balance of payments problems, that could be another story. **Figure 10** shows the current account deficit since 2006. As can be seen, from 2011 to 2016 there was a sharp increase in the deficit, from -2.4 to -5.9 percent of GDP — the latter being the highest on record.

However, most of the run-up in the current account deficit is not, as is usually the case, a result of trade. The trade deficit increased from -1.5 to -2.2 percent of GDP, or 0.7 percentage points. The big increase in the deficit came from the primary income balance, which moved from a positive balance of 0.4 percent to -2.6 percent of GDP, or 3 percentage points. The primary income balance is mostly income from investment. It is a net figure that subtracts the income that foreign residents receive from investments in the UK from the investment income that UK residents get from overseas. According to Office for National Statistics (ONS) data, the big decline results from a fall in UK income from foreign direct investment.<sup>41</sup> Specifically, the rate of return on the UK companies' foreign direct investment fell, according to the ONS.<sup>42</sup>

The UK's balance of payments is complicated by the fact that it has enormous stocks of both international assets and international liabilities. In 2016, these amounted to 568.5 and 569.6 percent of GDP, respectively.<sup>43</sup> Relative to the economy, these are among the largest stocks of international

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39 ONS (2018): Effective Exchange Rate Index.

40 For example, the pound is also held as a reserve currency, making up about 4.5 percent of the reserves held by the world's central banks. IMF (2017a): COFER. Although theoretically these central banks should reduce their holdings of pounds if the currency is expected to depreciate, for various reasons central bank reserve holdings are not that sensitive to exchange rate changes.

41 Income paid to foreign investors, which is subtracted from the earnings on UK foreign direct investment, remained roughly constant during this period.

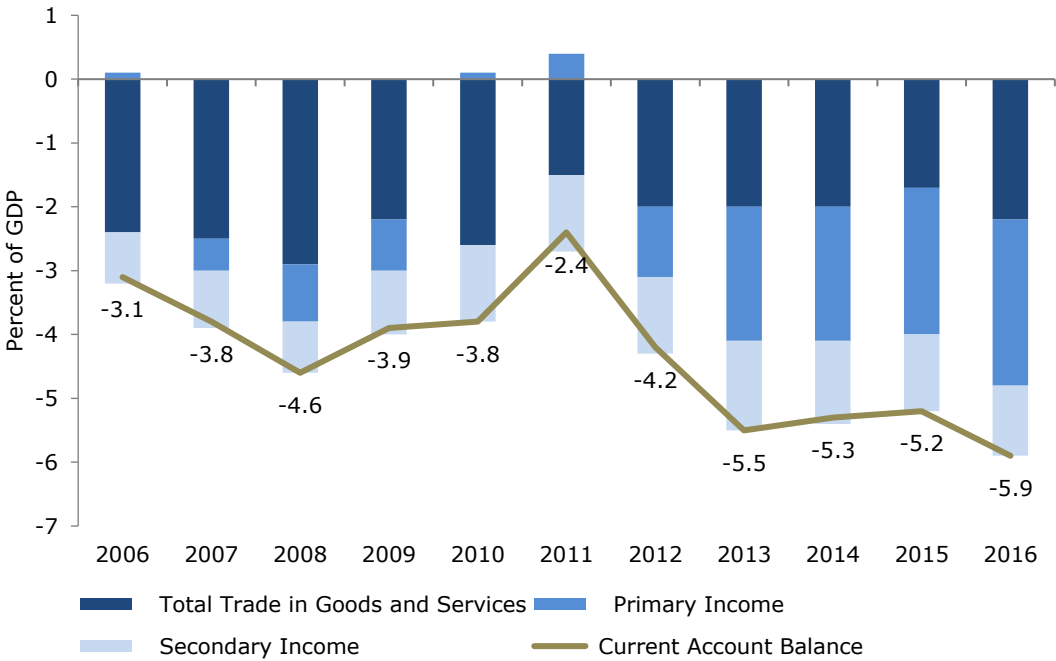
42 ONS (2017b). However, the IMF takes a somewhat different view, arguing that the decline in net primary income was not the rate of return on UK companies' FDI that fell, but rather that net FDI, which had a net positive rate of return, fell relative to the balances of portfolio and equity investment, which had a negative net rate of return. See Bordon, Mrkaic, and Shirono (2016).

43 ONS (2017b).

assets and liabilities in the world, having mushroomed from 159.8 and 156.4 percent of GDP in 1997.<sup>44</sup> By comparison, US international assets and liabilities are about 135 and 172 percent of GDP, respectively.

The UK's huge international asset positions can cause wider fluctuations in the current account (by altering net income flows from investment) than were seen in the past, as has happened in recent years. However, this does not mean that markets will see these fluctuations as reflecting underlying fundamental problems. The deterioration in the current account balance since 2011 does not seem to have pushed down the value of sterling; rather the decline has been mostly in the run-up to the Brexit vote and its aftermath. So long as the trade balance does not deteriorate, and is reduced by a depreciation in the pound, the primary-income-based fluctuations in the current account that we have seen in recent years are not necessarily a problem. On the positive side, the primary income balance also improves with a depreciation in the pound, due to the composition of the UK's net international investment position.

**FIGURE 10**  
**Current Account Balance (Percentage of GDP)**



Source: ONS (2018).

<sup>44</sup> Ibid.

# Monetary Policy

One possible threat to the UK's current economic expansion could come from the monetary policy of the BOE. Traditionally, central banks in high-income countries have often been too quick to raise interest rates when the economy is weak, and/or there is no serious threat that inflation will accelerate to harmful levels in the absence of tighter monetary policy. In the United States, for example, almost all of the post-World-War II recessions were triggered by Federal Reserve interest rate hikes, with the exception of the last two, which were caused by the bursting of asset bubbles (the stock market bubble in 2000, and the housing bubble in 2007). Or, as the economist Rudiger Dornbusch famously noted in the late 1990s, "None of the U.S. expansions of the past 40 years died in bed of old age; every one was murdered by the Federal Reserve."<sup>45</sup> The story of the post-World-War II recessions in the UK is similar.<sup>46</sup>

The BOE responded to the financial crisis and Great Recession by lowering the Bank Rate. Although it was lowered too slowly at first, it plunged from 4.5 percent in October 2008 to 0.5 percent five months later, and stayed there for the next seven and a half years, with a further cut after the Brexit vote, to 0.25 percent in August 2016.<sup>47</sup> In addition, the BOE began a quantitative easing program in August 2008, buying long-term bonds in order to bring down long-term interest rates. As noted above, the BOE has accumulated 435 billion pounds in assets under this program, which continues to this day.

There is no doubt that this expansionary monetary policy contributed significantly to the recovery. For example, there were estimates of the impact of the first 200 billion pounds of quantitative easing implemented from March 2009 to January 2010, with an increase in GDP of between 1.5 and 2.5 percent.<sup>48</sup>

However, in November 2017, the BOE raised interest rates by 25 basis points. There were two dissenting votes, by Sir Jon Cunliffe and Sir David Ramsden. Both argued against the rate increase primarily on the grounds that there was little evidence of wage pressures that would lead to sustained increases in inflation. Cunliffe noted:

Given the uncertainties ... and the serial disappointments we have had in recent years in forecasting the impact of unemployment on pay growth, there is, in my view, a not immaterial risk that the trade-off is not as it currently appears and that domestic inflation pressure will undershoot the Committee's collective expectation.

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<sup>45</sup> Dornbusch (1997).

<sup>46</sup> See Ryland, Hills, and Dimsdale (2010).

<sup>47</sup> BOE (2018b).

<sup>48</sup> Joyce, Tong, and Woods (2011).

In my view, the low level of domestic pressure on inflation now, the absence of second round effects from the depreciation of sterling, and inflation expectations around their historical averages, make it possible to wait before tightening policy until there is clear evidence that pay growth is responding to the level of unemployment in line with our forecast.<sup>49</sup>

The data have been consistent with their dissent. By November, the exchange rate had already stabilized, with the same average for the three months ending in November as recorded in the previous three months.<sup>50</sup> Inflation (CPI-H) for the three months ending in November (cumulative 0.67) was slightly less than for the prior three months (0.77).<sup>51</sup> In the third quarter of last year, the number of people employed fell for the first time in a year. And in the fourth quarter, the unemployment rate rose for the first time in two and a half years, from 4.3 to 4.4 percent.<sup>52</sup>

Most importantly from the point of view of the majority of economists, including the BOE's Monetary Policy Committee (MPC), there do not appear to be rising wages that, in their view, could lead to a wage-price spiral of higher inflation and therefore warrant hikes in the Bank Rate. External shocks such as the depreciation of the pound sterling, or an increase in the cost of imported energy, would not normally be a cause for rate hikes since they are not a result of the domestic demand that the Bank Rate is intended to influence. But wage increases are another story. However, the average real hourly wage is still just below its level in 2011 (and below 2005, if we use data that was calculated with a somewhat different methodology).<sup>53</sup> For 2017, the real average hourly wage was up just 0.7 percent over the prior year.

But in its February statement, the MPC said that if its current projections were to hold, “monetary policy would need to be tightened somewhat earlier and by a somewhat greater extent over the forecast period than anticipated at the time of the November Report.”<sup>54</sup> This was despite the fact that the MPC recognized, in the same statement, that “sustained above-target inflation remains almost entirely due to the effects of higher import prices following sterling’s past depreciation.” The MPC’s February statement, although it did not raise interest rates, was more troubling than the November Bank Rate increase.

Of course, the risk is not just that the BOE’s rate hikes will overshoot and push the economy into recession. They could also unnecessarily slow the economy without causing a recession. This could have the effect of prolonging the wage stagnation that has plagued the economic recovery, thereby

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49 Cunliffe (2017).

50 ONS (2018): Sterling Euro Exchange, monthly data, 3 month average.

51 ONS (2018): Inflation and Price Indices.

52 ONS (2018): People in work.

53 ONS (2018), authors’ calculations. There have been a number of changes to the methodology over the years, which has resulted in three breaks in series: in 2004, 2006, and 2011.

54 BOE (2018a).

keeping inequality at high levels. From a longer-run perspective, a premature application of the brakes to the economy also discourages the private investment needed to break out of the UK's unprecedented productivity slump.

A big problem at present is that an official narrative is coalescing which sees UK output already at its potential, and also sees potential growth at 1.6 percent.<sup>55</sup> With population growth at 0.75 percent, that is accepting a future of very low productivity growth and therefore of little improvement in living standards. Those who accept these projections and narrative also — quite logically — argue that the BOE should forge ahead with higher interest rates despite sluggish growth of both GDP and wages. This can easily become a low-growth, low-productivity, low-wage scenario — as we have seen for the past decade — as a long-term future for the UK economy.

Of course it is reasonable to argue, as many economists have, that there is only so much that monetary policy can do; and that it is fiscal policy, including public investment, as well as private investment that is missing. That is why we have emphasized here both the need and the sustainability of a more expansionary fiscal policy and public investment. But monetary policy can play more of a role than is generally acknowledged. For example, we know that as unemployment is pushed lower and remains low for long enough, wages will grow faster. Some lower paying jobs, for example in the service sector, could become higher paying jobs. Over time, as the price of output increases due to higher compensation, these become higher productivity jobs — since productivity is measured by the price of output. (The very high measured productivity of London compared to other regions is partly a result of high salaries in the financial sector.) Of course as wages rise, some low-productivity jobs are replaced by automation, as gas station attendants were, first in Europe and then in the lower-wage United States. But this is also part of the process of increasing economy-wide productivity, and the central bank can help minimize the downside of this transition — especially at the lower-wage end of the labor market — by maintaining full employment.

In addition — in the aftermath of the Great Recession — following years of low inflation and low productivity growth in developed country economies, there has been important economic research arguing that an inflation target of 2 percent is too low. Last year, Fed Chairwoman Janet Yellen “declared the question of whether inflation targets should be raised to be one of the most critical facing monetary policymakers anywhere in the world.”<sup>56</sup> An IMF paper coauthored by Olivier Blanchard,<sup>57</sup> then chief economist at the Fund, raised the question that a 2 percent inflation target may be too low, in summing up some of the lessons from the Great Recession. Others have also made the argument that a 2 percent inflation target makes it more difficult to lower real interest rates in a period

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55 OBR (2017a).

56 Fleming (2017).

57 Blanchard, Dell'Ariccia, and Mauro (2010).



of low inflation, as policymakers run into the zero lower bound for nominal interest rates. An IMF discussion paper argues that if the inflation target for the 2000s was 4 percent instead of 2 percent, additional cumulative gains for the years 2010–2013 may have exceeded 16 percent of GDP and 8 percentage points of unemployment.<sup>58</sup> The paper also finds that a 2 percent inflation target would have significantly slowed the recovery from at least three of the recessions since 1960.

In sum, in spite of the BOE's low interest rates and aggressive quantitative easing during the past decade, there is still substantial risk that monetary policy might unnecessarily slow the economy, or worse, in the coming years.

## Productivity

Productivity, whether as measured by output per labor hour or total factor productivity, is the basis of rising living standards over time. There has been a long slowdown in productivity growth in most countries, including both high-income and developing countries, since the 1980s. The reasons for this slowdown have not been well-explained nor agreed upon by economists. Nonetheless, even for slow-growing high-income countries, the UK has been an outlier over the past decade, with no productivity growth at all. As Andrew Haldane, the chief economist of the BOE, noted, one would have to look back to the eighteenth century to find a decade of such poor productivity performance for the UK.<sup>59</sup> **Figure 11** shows the collapse of productivity growth since the Great Recession, as compared to the prior trend. If not for this collapse, GDP or income per person in the UK would be about 20 percent higher than it is today.

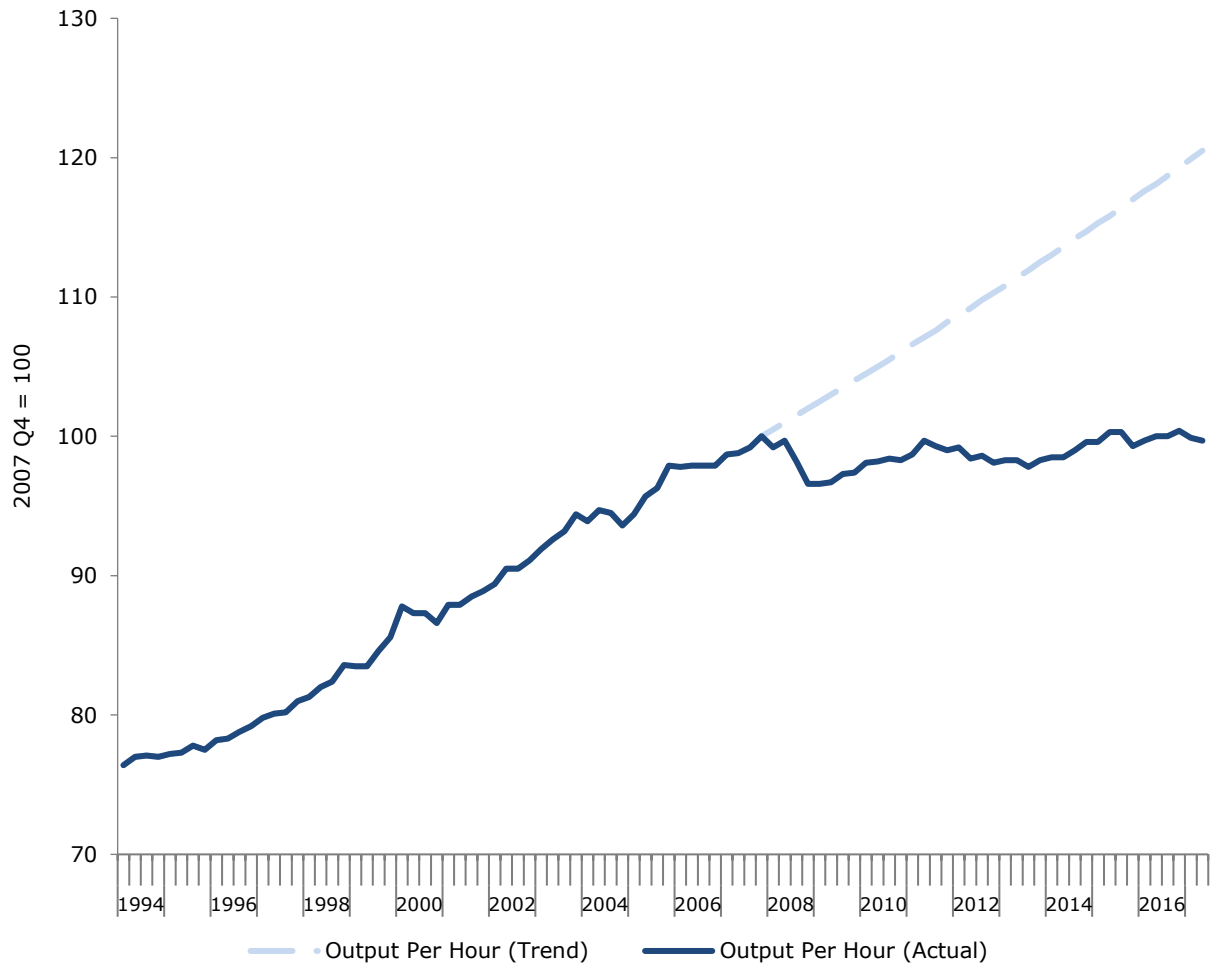
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<sup>58</sup> Ball (2014).

<sup>59</sup> Haldane (2017).

**FIGURE 11**

**Lost Output from Productivity Slowdown**



Source: ONS (2018).

There are many explanations offered for the declining productivity both worldwide and in the UK, including declining innovation; a slowdown in the diffusion of innovation from leading firms to “laggards”; and deficient management and other weaknesses. For the purposes of this analysis, there are a few things of note.<sup>60</sup> First, manufacturing has declined from 17 percent of employment in 1990 to 7 percent today.<sup>61</sup> Since manufacturing has a much higher rate of productivity than the rest of the economy, this could be responsible for a small but significant fraction of the overall collapse of productivity growth.

Second, it is noteworthy that since the Great Recession, the collapse of productivity seems to have included all different sectors of the economy. This indicates that a lack of innovation may not be the

<sup>60</sup> See Haldane (2017) for more discussion of these issues.

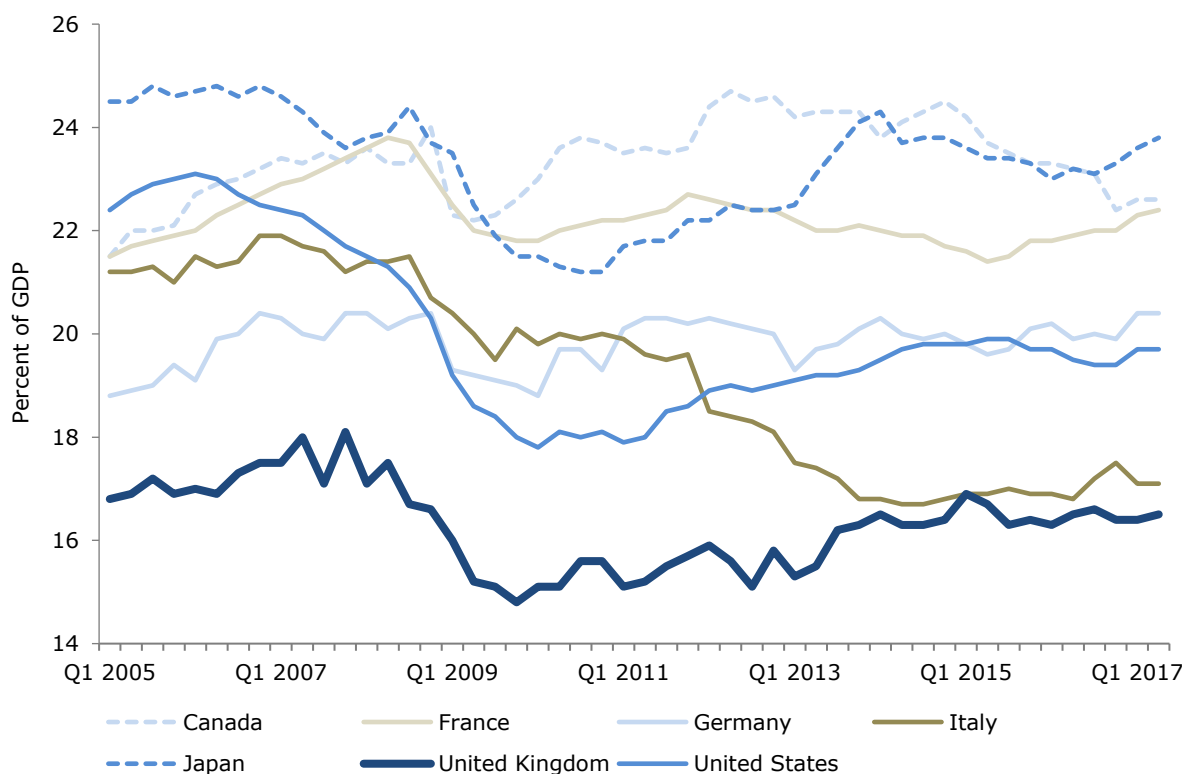
<sup>61</sup> ONS (2018).

driving force, since there were firms in each sector with high productivity growth rates; this was accompanied by an increasing dispersion of productivity among firms within the various sectors.

Third, it appears that these large differences in productivity among firms could account for a large share of wage inequality, with lower-productivity firms paying lower wages, on average, than those with higher productivity.

Not surprisingly, since productivity growth depends on investment, the UK has had a long-term problem of low investment. As can be seen in **Figure 12** below, the UK's gross fixed capital formation has been the lowest of the G7 countries since 2005.

**FIGURE 12**  
Gross Fixed Capital Formation in G7 Nations (Percentage of GDP)



Source: OECD (2018).

It seems that there is a clear role for public investment to create the infrastructure and, at least temporarily, the demand that would induce private investment to increase to levels that would allow for normal productivity growth. Indeed, economists at institutions across the political spectrum, including the IMF and the OECD,<sup>62</sup> have called for increased public investment in the UK. This

<sup>62</sup> IMF (2017b), OECD (2017).

would allow the current generation of UK residents to increase their living standards, as previous generations over the past century and more have done; if not, it is not clear when this overall growth in living standards will resume.

## Conclusion

The UK economy faces a number of long-term challenges, not the least of which is Brexit, which this paper did not address. However, the most immediate threat to economic progress that would benefit the vast majority of UK residents, could well remain in the realm of macroeconomic policy — and this would almost certainly be even more important in the context of the uncertainty and disruption associated with Brexit. As we have seen, there is little economic reasoning behind popular concerns over the public debt, with net public interest payments on the debt at the low level of 1.8 percent of GDP, and when the government can borrow for 10 years at negative real interest rates. Furthermore, the extraordinarily high average maturity of the current stock of public debt implies that changes in the burden of government debt, even with unanticipated external shocks, would take place only gradually, with much time for adjustment. Nor does the government face any impending balance of payments crises.

In such a macroeconomic environment, it makes economic sense for the government to finance infrastructure, education, and other public investments that have a positive rate of return, in order to increase the productivity of the economy, which has over the past decade suffered its worst growth in more than a century. Prudent public investment could also help reduce the UK's glaring regional inequalities, something that the private sector on its own has not been able to do.

The popular idea of prioritizing debt reduction runs the risk of cutting off the (relatively weak) expansion before it can reach its potential in reducing income inequality, and before the majority of wage earners have been able to catch up with their prerecession level of wages. Public pension cuts would undermine the most important income-equalizing force of the last decade, and as shown above are fiscally quite marginal, as well as unnecessary. And access to health care is a matter of life and death for tens of thousands of citizens.

The BOE has had one of the better monetary policies of the world's central banks since the Great Recession, and has contributed significantly to the economic recovery through very low policy interest rates and quantitative easing. However, the BOE's recent announcement of accelerated rate hikes this year, following the unnecessary November increase in the Bank Rate, is particularly troubling, and

could perpetuate the sluggish, low-wage, low-productivity trap in which the UK economy has become entangled.

There is much that can be done legislatively to help reverse the increase in inequality that has surged since the late 1970s. But sound macroeconomic policies that allow for full employment and the necessary public investment are the prerequisite for success in most other positive reforms.

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