# GREECE AND THE EURO AREA

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## Introduction

Greece's second international bailout programme ended tumultuously with the Troika (EU Commission, ECB and IMF) refusing to disburse the bailout's final instalments, Greece delaying two payments to the IMF and Greece on the verge of an exit from European monetary union. The introduction of capital controls and apparent acceptance of bailout terms seemingly unacceptable to the Greek government earlier in the year appears to have stopped an exit, at least for now.

It is within this context that we present our modal forecast. Crucially we assume that agreement on a third bailout is reached and this ensures the Greek government is able to meet its obligations to creditors in the short term. In the absence of such a bailout, the government will almost certainly default on its mammoth debt stock, and with a banking system requiring recapitalisation, in all likelihood introduce a new currency.

Further bailouts in themselves do not mean Greece's public finances are sustainable. Transitioning to a sustainable debt position will require reductions in Greece's national debt. One would expect that Greece, a country which accounts for less than 2 per cent of Euro Area GDP, could be supported and restructured without extreme cost, however serious the initial over borrowing/lending. The IMF (2015) has suggested a reduction of at least 30 per cent of GDP. On the basis of our forecast, Greece needs a reduction of at least 55 per cent of GDP to lower the debt stock to around 130 per cent of GDP. From such levels a target of 120 per cent GDP for general government debt is at least possible. We have not factored in a haircut for Greek government debt, as the magnitude or timing of such an event is unclear. The majority of the European Financial Stability Fund's (EFSF) loans have had their interest payments deferred until after 2022. The EFSF will surely need to be involved in any meaningful restructuring of outstanding debt, and as such this has little bearing on the government's budgetary position in the short term. However, the continued insistence on inappropriately large primary surplus targets while the economy remains depressed will not allow meaningful growth to resume and undermine the overarching ambition of ensuring the irreversibility of the Euro project.

## Greek banks: ongoing capital flight

Since November last year household and businesses deposits have flowed out of the banking system at an increasing rate. Figure 1 shows a €40bn decline in deposits in the first half of this year, equivalent to 23 per cent of GDP. Figure 1 also shows the decline in credit to the domestic private non-financial sector has accelerated. As an indication of the state of the banking system, they are unable to replace deposit finance with money or capital market finance. Banks have resorted to ELA by pledging collateral to the central bank at an appropriate discount which can then borrow from the Euro system. Bank of Greece liabilities through ELA have increased by €71bn while a substantially greater share of banking system assets have become encumbered. ELA now accounts for approximately 33 per cent of the overall liabilities of the Greek banking system (see figure 2).

A critical question is how long this process can continue. Capital controls were introduced forbidding the outflow of capital without Ministry of Finance approval and limited deposit withdrawals. Assuming that the ECB continues to permit ELA (supposedly for solvent banks) then the key questions are the rate of deposit outflow, the value of unencumbered eligible collateral remaining, the amount of bank capital, which

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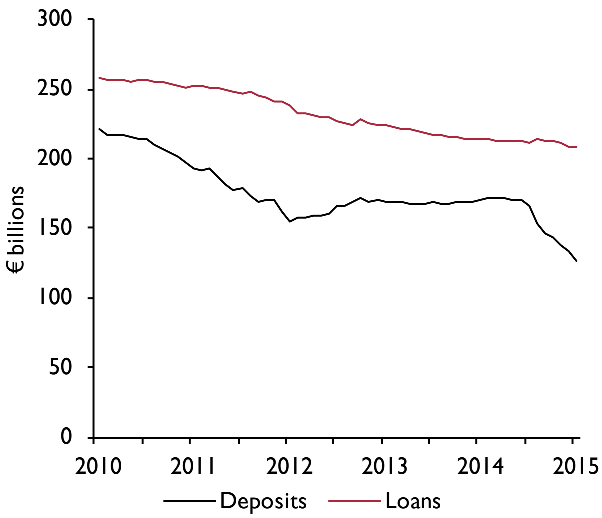
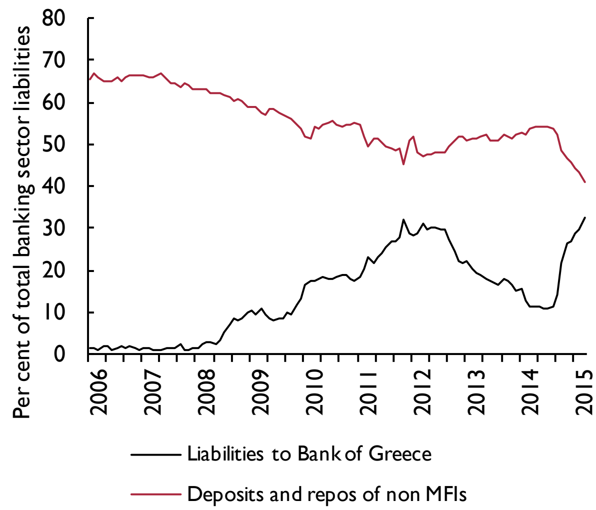
Figure 1. Domestic private non-financial loans and deposits




Source: Bank of Greece.

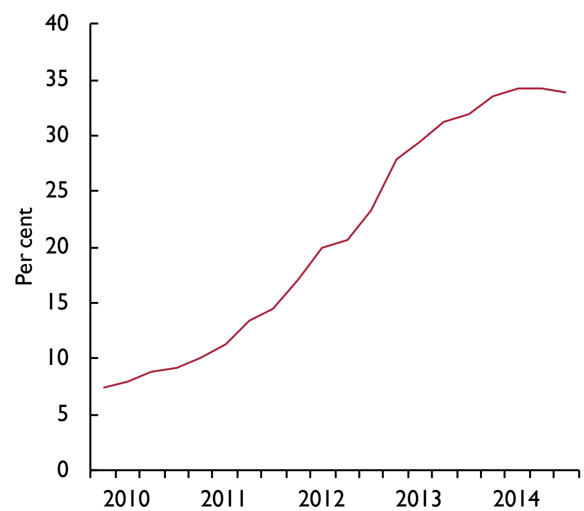
Figure 2. Funding by deposits and support from the Bank of Greece




Source: Bank of Greece.
Note: Liabilities to Bank of Greece in ECA support.

itself is eroded by rising provisions for non-performing loans and discounts (or 'haircuts') applied by the ECB. Non-performing loans have risen substantially (see figure 3). Market estimates of unpledged collateral are €25–30bn, the average deposit outflow in the second quarter was €5.7bn and a non-performing loans rate of 35 per cent.

Figure 3. Non-performing loans as a percentage of total loans




Source: IMF Financial Soundness Indicators.

The Euro Summit of 12 July recognised the need to restore financial sector stability under the European Stability Mechanism (ESM). As we note below, one of the pre-conditions is for the Greek Parliament to transpose the Bank Resolution and Recovery Directive (BRRD) into law. This allows the ECB in its role as Euro Area bank regulator to resolve failing banks and implement bail-in procedures where unprotected creditors (unsecured creditors and large depositors) are converted into equity.

## The outlook for the Greek economy

Our forecast for the Greek economy presented in table 1 is a more detailed version of that published in the World chapter of this *Review*. The outlook has deteriorated significantly since our last forecast. The evidence from recent indicators of economic conditions and sentiment suggest a significant contraction of output in both the second and third quarters of this year although we have assumed that the rate of contraction eases towards the end of the year. This implies a decline of 3 per cent of GDP in 2015. Given recent events, one could envisage a rather more substantial contraction in output. A significant offsetting factor is a rapid decline in import volumes related to capital controls. Uncertainty about the near-term path of the economy is large, even before we factor in the political uncertainty around Greece's continuation as a Euro Area member. It must be stressed that under our central forecast Greece does not withdraw from the monetary union, however

Table 1. Summary of the forecast *Percentage change*

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|
| GDP | –8.9 | –6.6 | –4.0 | 0.7 | –3.0 | –2.3 | 0.8 |
| Consumption | –10.7 | –7.9 | –2.2 | 1.4 | –2.5 | –5.1 | –1.7 |
| Private Investment | –13.8 | –30.4 | –9.1 | 3.5 | –6.5 | –9.1 | 32.6 |
| Government : consumption | –6.3 | –6.6 | –5.2 | –0.8 | –1.9 | –4.9 | –1.8 |
| : investment | –29.9 | –19.5 | –11.6 | 0.2 | –4.5 | –0.3 | 11.9 |
| Stockbuilding[(a)] | 0.1 | 1.3 | –1.0 | –0.6 | 0.5 | 0.3 | 0.6 |
| Total domestic demand | –10.8 | –9.5 | –4.7 | 0.5 | –2.3 | –5.0 | 2.0 |
| Export volumes | 1.0 | 1.0 | 1.5 | 8.7 | 0.2 | 11.8 | 2.7 |
| Import volumes | –7.8 | –9.4 | –2.9 | 7.4 | –1.8 | 2.2 | 6.5 |
| Average earnings | –4.4 | –3.5 | –6.7 | –5.3 | –4.9 | 0.4 | –2.7 |
| Harmonised consumer prices | 3.1 | 1.0 | –0.9 | –1.4 | –1.3 | 2.4 | –0.7 |
| RPDI | –10.0 | –10.6 | –12.8 | –2.5 | –3.0 | –4.0 | 1.1 |
| Unemployment, % | 17.9 | 24.5 | 27.5 | 26.5 | 26.4 | 27.3 | 24.8 |
| Govt. balance as % of GDP | –10.2 | –8.7 | –12.3 | –3.6 | –1.9 | –2.3 | –1.9 |
| Govt. debt as % of GDP[(b)] | 171.2 | 156.8 | 175.1 | 177.4 | 186.9 | 186.9 | 184.3 |
| Current account as % of GDP | –9.9 | –2.3 | 0.6 | 0.8 | 0.2 | –0.2 | 0.0 |

Note: (a) Change as a percentage of GDP. (b) End–of–year basis; Maastricht definition.

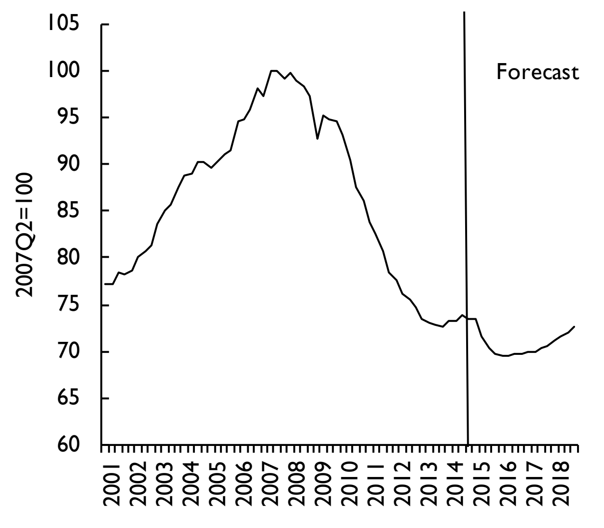
the probability of such an outcome is significant and represents a substantial risk.

The recession is forecast to end in the second quarter of 2016. However, GDP then remains broadly flat through the rest of the year. This leaves the level of GDP in 2016 around 2 per cent lower than in 2015. All in all this would mean that the Greek economy would be over 30 per cent smaller than at its peak in 2007, and incredibly around 7 per cent smaller than when it first joined the Single Currency in 2001 (figure 4). Over our forecast period Greece is not expected to make up even this pre-Euro Area size, let alone the heights of 2007.

Unemployment rates have risen dramatically since 2009 and are currently around 25 per cent. The anticipated recession is likely to intensify this situation, with unemployment increasing in 2016. But more worrying perhaps is that with persistently weak output growth there is little chance of significant job creation over the medium term and unemployment is expected to remain extremely elevated for a prolonged period (figure 5). This has serious implications, especially for the young unemployed as they have so far been hit the hardest and are at risk of hysteresis which may leave a permanent scar on their employability and on Greece's productive capacity.

The fall in output is expected to be broadly based across expenditure components, with consumption and

Figure 4. Real GDP




Source: NiGEM database and NIESR forecast.

investment both contracting significantly. Households' ability to consume will have been constrained by the withdrawal limits imposed on bank accounts since early July. €60 a day or €420 a week is not far from the average income in Greece, which means a significant proportion of the population finds itself with a tighter budget constraint while the restrictions remain in place. What is more, the

## Box A. Implications of recent changes in VAT

On 20 July 2015 legislation was passed which changed the rate of VAT payable on a number of goods and services. Although Greece's three tax bands remained – headline VAT at 23 per cent, a reduced rate at 13 per cent and a super reduced rate of 6 per cent[1] – a number of goods and services were moved from a reduced rate to the headline, or from the super reduced to the reduced, with immediate effect. The increased tax rates are payable on a number of relatively essential items. These included an increase to the headline rate for certain meats, clothing and even salt and to the reduced rate for hotels and restaurants. All else equal, this will lower consumers' disposable income available to spend on other, non-essential items.

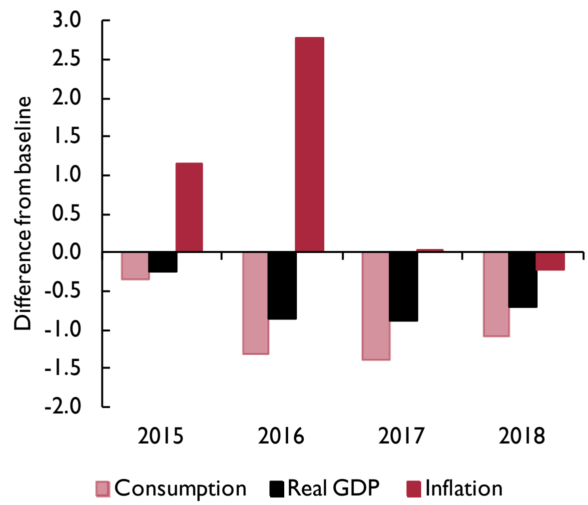
To analyse the impact of this change on the economy we must first calculate the implied increase in the effective average VAT rate paid on the consumption basket. To do this we weight the changes in tax rates of specific goods and services by their weighting in the Harmonised Consumer Basket. This implies that the average VAT rate paid has increased by approximately 3.4 percentage points.

The second change to the VAT regime is the abolition of the 30 per cent tax break for the Greek Islands.[2] Currently the Islands are subject to the same three VAT bands as the rest of the country, but each is reduced by just under a third compared to the rates paid on the mainland, so 5, 9 and 16 per cent respectively. As of 1 October this concession will be removed and Greek Islands will pay the same rates as the rest of Greece.

To convert this into a shock to the economy we weighted the 30 per cent increase in VAT by the contribution the Islands (excluding Crete) make to total Greek GDP. Given that as of 2013 the Islands represented around 8½ per cent of Greece's output, then this equates to an increase in the effective VAT rise of just over 2½ percentage points on top of the general increase already implemented.

Both shocks were then applied to the National Institute's Global Econometric Model (NiGEM) with the first being introduced in the third quarter of 2015 and the secondary increase implemented in the fourth quarter. Both consumption and output are negatively affected, with the VAT rise weighing down on output by ¼ per cent this year and almost 1 per cent next. Inflation is pushed up this year by around 1 percentage point as the VAT increase is passed on to consumers. This rises to 3 percentage points in 2016, before price growth quickly falls back as the change in tax rate drops out of the year-on-year comparisons. In the medium term, output and consumption remain subdued as weak demand bears down on employment and household incomes.

Figure A1. The impacts from changes to Greek VAT rates




Source: NiGEM simulations.

Notes: Consumer spending and GDP are per cent difference from baseline. Inflation rate is percentage point difference from baseline. VAT for a proportion of the basket of goods and services increases from 13 to 23 per cent at the end of July, and for another proportion from 6 to 13 per cent. The 30 per cent reduction on VAT rates for the Greek islands (excluding Crete) is assumed to disappear at the start of 2015Q4. The shock for the Greek islands has been calibrated on the basis of the Greek islands' share of Greek GDP.

NOTES

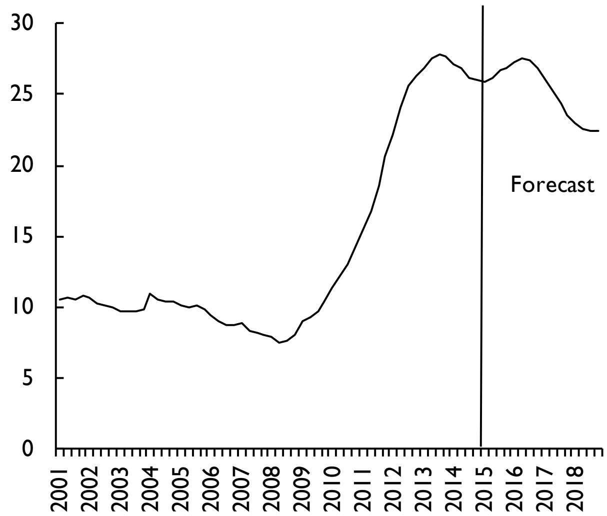
1 This rate was actually lowered from 6½ per cent under the new legislation, though it only applies to a very limited number of goods.

2 Crete does not have a VAT tax break.

uncertainty around the ability to withdraw funds, and the time cost involved, will amplify this effect. As shown in Box A, consumption will also be adversely affected by the recent changes to VAT rates. The increase in VAT rates actually prolongs the period of recession in Greece.

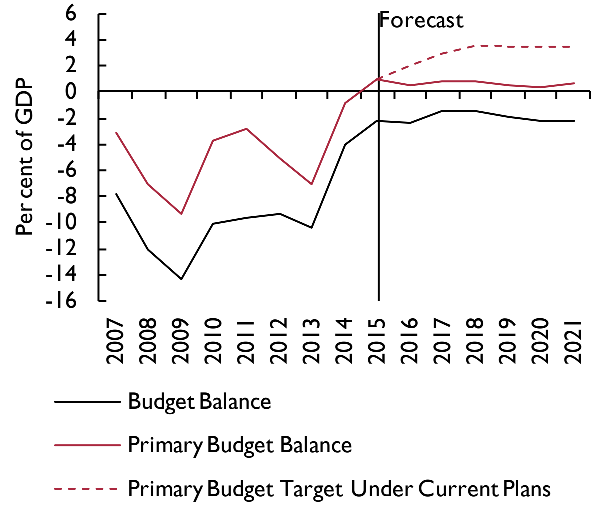
Private sector investment is expected to contract this year because of uncertainty on a number of fronts. This includes uncertainty around the banking system, the political environment, prospects for future demand and Greece's membership of the euro. While this will all dramatically curtail the demand for credit, supply has also been limited by an embattled banking sector increasingly reliant on liquidity support from the ELA. Given the low

Figure 5. Unemployment rate (per cent of labour force)




Source: NiGEM database and NIESR forecast.

Figure 6. Government budget balance



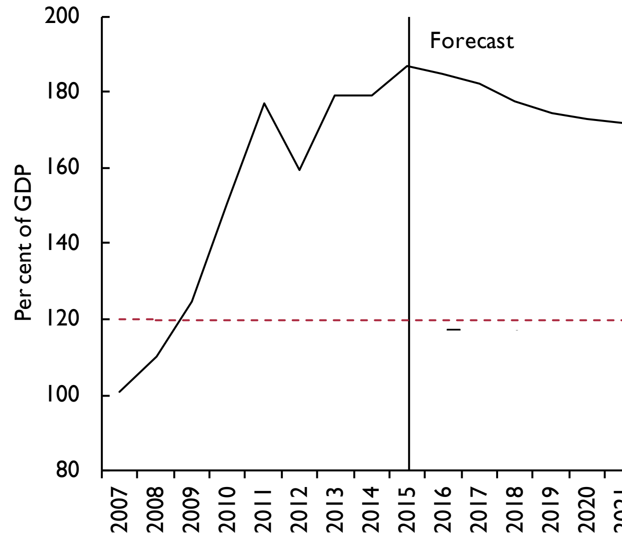

Source: NiGEM database and NIESR forecast.

level of investment, currently half the fraction of GDP it was in 2009, one would expect investment opportunities to exist, simply to maintain the desired capital stock for the economy, and when uncertainties subside we expect a strong rebound in investment to be one of the first signs of returning growth. Private sector investment growth of close to 33 per cent in 2017 may look high, but in reality it is a modest €1¼ billion increase.

The outlook for inflation is complicated by the recent and impending VAT changes. Weak demand and high unemployment will weigh down on inflation over our forecast horizon, but the increase in the effective VAT rate paid on the consumption basket should act to elevate price growth in a mechanical sense, both this year and next, leading to a shallower deflation than we would otherwise expect this year, and inflation of over 2 per cent per annum for 2016. Our simulations suggest that without the VAT changes, prices in Greece would be forecast to fall by 2.5 and 0.6 per cent per annum in 2015 and 2016, respectively. Once the temporary upward effects of the VAT changes on the rate of inflation subside, deflation in a heavily depressed economy is expected to resume.

Public sector spending and investment will be weak this year and next as the government aims to achieve its primary surplus targets in the context of a contracting economy. The improved budget position recorded in the first quarter of 2015 was achieved largely through the delaying of government expenditures due and these will still need to be honoured. Given this, and the worsening economic

Figure 7. General government debt to GDP ratio




Source: NiGEM database and NIESR forecast.
Note: Red dashed line indicates Troika's target for the debt to GDP ratio in 2020.

outlook, we expect the budgetary position to deteriorate throughout 2015, averaging –2 per cent of GDP. Since the grace period for interest payments on government bonds held by large institutions is keeping Greece's government interest payments artificially low, the outlook for the primary balance is similar and we do not see much chance of Greece achieving the primary surplus targets set for it

## Box B. The proposed third bailout

The government has requested a third bailout of around €86 billion to cover 2–3 years. Initially it had been hoped that this would be provided jointly by the European Stability Mechanism, the IMF and proceeds from the sale of state assets. However, the involvement of the IMF, which it had been hoped would supply around €20 billion of the total amount, has been called into question after it announced on 30 July that it is unable to extend a loan to Greece as things currently stand because it fails to meet two of the Fund's qualifying criteria, namely that "there is a high probability that the member's public debt is sustainable in the medium term" and that "there is credible political will to implement the required structural changes". In essence, this means that to qualify for IMF assistance, Greece would require both a substantial haircut on its debt stock and a show of commitment to making the reforms asked of it.

Without IMF involvement, the remainder of the bailout funding would appear to be in jeopardy as this was seen as a vital condition for the German parliament to authorise further funds. However, at the time of writing, negotiations continue between Greece and the Eurogroup on the detail of the third bailout, and so it may be that a revised plan emerges soon.

In order to ensure the Greek government can meet its obligations to creditors, a €7.1 billion bridging loan was provided by the European Commission. This ensured that the Greek government was able to make immediate payment for the Greek bonds maturing on the ECB's balance sheet (acquired through the Securities Market Programme) and repay the accumulated arrears with the IMF. Unless a bailout is agreed soon it is almost inevitable that a second bridging loan of around €5 billion will be needed before 20 August.

The Eurogroup have imposed conditions on the Greek government in exchange for the bailout, which has been agreed in principle. The first half of this year saw the significant depletion of trust between the two sides of the negotiating table. In order to garner trust, the Greek government is undergoing the process of introducing a series of measures before negotiations – measures, we might add, that the Greek Prime Minister has publicly stated he does not believe in. The headline elements of these measures are:

- An increase in the VAT paid on many "reduced rate" goods and services from 6 per cent or 13 per cent to the main rate of 23 per cent (already implemented).
- A removal of the 30 per cent reduction of tax rates paid by Greek islands so they are in line with main land rates (planned for October 2015).
- A range of pension measures including an increase to retirement age to 67, nominal freeze in pension payouts until 2021 and an increase in the health contribution for pensioners from 4 per cent to 6 per cent.
- Legislation to ensure legal independence of national statistics office, ELSTAT.
- Passing of legislation on the Bank Resolution and Recovery Directive (BRRD).

The Greek Government must also create a fund which would monetise (sell) Greek state assets and is expected to generate €50 billion. Of this:

- €25 billion would be used to recapitalise banks.
- €12.5 billion would be used to make debt payments (part of which contributes to the third bailout package).
- The remaining €12.5 billion would be used for investment.

under current plans (see figure 6). In order to do so, they would have to remove a significant amount of further demand from the economy at a time when growth is weak. On our current forecast, this would amount to primary surplus increases of around 2–3 per cent of GDP each year from 2017 onwards. This is of particular importance as the fiscal multipliers in Greece at the moment are likely to be particularly large. As discussed in Bagaria *et al.* (2012), an economy which has experienced a prolonged period of depression will be particularly sensitive to fiscal contractions, as will an economy with central bank rates at the lower bound and unable to provide a monetary offset, both of which apply to Greece. Under these conditions, fiscal contractions which aim to lower the debt to GDP ratio can be self-defeating as they damage the denominator of the ratio by more than they alleviate the numerator.

Our modal forecast is for the government debt ratio to increase substantially this year, to 187 per cent of GDP, as both falling prices and contracting output lower

## Box C: Wider issues for the Euro Area

*The primacy of political union*

In a fixed exchange rate structure governments no longer have direct control of monetary policy or an exchange rate which to share the burden of adjustment. This leaves only fiscal policy. However, if public debt is judged to be unsustainable, then fiscal policy also cannot be used. The outcome is that the exchange rate link is abandoned in anticipation that the national central bank resorts to money creation. Members of a monetary union can mitigate the risk of insolvency by creating a fiscal union. If one nation faces a shock which threatens its solvency, a cross-border transfer can ease this constraint. Indeed, all effective monetary unions have some degree of fiscal union. The difficulty in establishing a fiscal union is that it can only follow from political union; there must be a governance structure for the pooling or transfer of tax revenues from one sovereign state to another. Chancellor Kohl, one of the architects of the Maastricht Treaty, was clear that "the idea of sustaining an economic and monetary union over time without political union is a fallacy".[1]

Since the gravity of the crisis in Europe emerged, the response of the ECB has gradually become less, rather than more, consistent with political union and therefore fiscal union. In 2010, the Securities Market Programme was introduced to buy high grade securities of member states. Most importantly, any profit or loss made was to be 'shared' according the ECB's capital structure (those countries with the largest economy and population take most profit or loss). In June 2012 the EU announced its commitment to a full European Banking Union. This is a very ambitious project. While original plans for a common deposit insurance programme were ditched, the creation of the European Stability Mechanism (ESM), a single regulator (ECB) and single rulebook appeared to cross the Rubicon of fiscal risk sharing. All steps in the right direction.

As the recovery failed to broaden out, and the risk of deflation began to rise, the next major initiative was the Public Securities Purchase Programme (the ECB's quantitative easing). Here policy began to change. There is no doubt about the size and ambition of the programme; over €1.1trillion of assets to be bought by September 2016. Within an expanded asset purchase programme, assets available for purchase now include investment grade European government, agency and EU institution bonds as well as covered bonds and asset backed securities,[2] all in proportion to the ECB capital share, subject to a constraint of the ECB holding less than 30 per cent of the eligible stock of a given member state. However, the ECB itself will only hold 20 per cent of the assets, including the virtually riskless EU institution bonds. The remaining assets are to be held on the balance sheets of national central banks. This is a limitation on risk sharing. Rather than share the risks across members of the Euro Area, the design of the quantitative easing programme concentrates risk in national central banks. This merely re-introduces the solvency links between the financial and government sectors in each member state.

This retrograde step is not isolated to quantitative easing. Several Finance Ministers and even central bankers have warned about the potential fiscal consequences of losses at the ECB. Bundesbank President Weidmann has mentioned that losses from a Greek exit from the Euro would pass to the Federal budget and be more than the €14.4billion discussed thus far.[3] Comments by Dutch and Slovak central bankers raise similar concerns. An important point is that the ECB could be recapitalised, if necessary, by monetary financing as long as this does not violate its price stability environment. There would be no cost to the national governments. Given that the motivation for quantitative easing is to negate the risk of deflation, the inflationary risks are on the down rather than upside. Therefore, the movement away from risk sharing does not appear to be driven by necessity but rather by politics.

*Eurozone: system of pegged exchange rates?*

One of the most durable insights on currencies is Professor Mike Dooley's observation that "international monetary regimes have been born at a conference table and laid to rest in foreign exchange markets." It seems that the Euro Area may become the latest demonstration of the validity of this statement.

The European Monetary System is a highly impressive currency arrangement. If all member states agree to share any losses and re-capitalise the ECB if necessary, and as long as inflation expectations remain stable, then the system cannot fail. It is essentially the same as the Federal Reserve Board with Federal Reserve District Banks or any other national central bank with its own currency. It has one instrument (currently the central bank balance sheet) to achieve its inflation target. Of course, policy makers must take account of the effects of monetary policy on financial stability through its impact on risk premia and there may be a need for the temporary creation of reserves to support financial stability.[4] But as long as this does not threaten the inflation target, there is no inconsistency and the monetary system.

Once member states seek to limit or constrain potential losses at national central banks or the ECB, the Euro Area converts to a hard pegged exchange rate system. There are now two targets: an inflation target and an implicit central bank profitability target. This creates the instabilities illustrated by the so-called 'second generation speculative attack' (see Flood and Garber, 1984). For example, when the UK's was forced out of the ERM it was revealed that the government was implicitly targeting both the exchange rate and domestic economic conditions with the interest rate. In this case, central bank profits act in the same way as an exchange rate target. It becomes a limit on the size of the central bank balance sheet. The correspondence with domestic economic conditions is inflation. The one instrument and two target regime will eventually lead to inconsistent policy. Members of the Euro Area all use the same currency. However, this is of little importance if market participants perceive a different 'shadow price' of the currency and a mechanism by which a country might be forced to leave the monetary union. Once the twin objectives become clear, then funds can be moved across borders to express any divergence between the actual and shadow price of the currency. Dooley's foreign exchange market is simply households and firms moving money outside the national border to avoid being reduced in value by a write-down or inflation. Unless the latest emphasis limiting risk sharing and emphasising the importance of central bank profitability is reversed, the nature of the monetary union has changed and is vulnerable.

### Notes

1 Quoted By Otmar Issing, *Financial Times*, 29 June, 2012.
2 The latter two categories of assets were already eligible for purchase under the existing Third Covered Bonds Purchase Programme (CPBPP3) and Asset-Backed Securities Purchase Programme (ABSPP), both introduced in the fourth quarter of 2014.
3 Reported in *Handelsblatt*, 5 July, 2015.
4 The ability to provide liquidity in this way independently of setting policy consistent with the monetary objective is discussed in Goodfriend (2002) and Box C in the UK section of this Review.

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the denominator which increases further through a combination of bridging loans and the disbursements from a third bailout programme. However, the increase in prices that results from the VAT changes acts to inflate away some of the debt burden and hold the debt to GDP ratio stable in 2016. What seems almost certain is that, on current projections, there is no chance that Greece will manage to reduce its debt stock to 120 per cent of GDP by 2020 (figure 7 and below).

The situation in Greece raises some fundamental issues regarding the design and implementation of the European Monetary Union. Irrespective of whether Greece receives substantial debt relief and remains as a Euro Area member, these issues will need to be addressed if the Euro Area is to operate as a coherent monetary union (see Box C).

## Debt restructuring

The current public debt stock of €320 billion (187 per cent of GDP) is unsustainable. A 55 per cent of GDP reduction would lower the current debt stock by around €95 billion, reducing the debt to GDP ratio to around 131 per cent of GDP (returning the ratio to 2010 levels). From such levels, the target of a debt to GDP ratio of 120 per cent of GDP by 2020 may just be achievable.

Table 2. General government debt (€ billion)

| General Government | 2014Q4 | Share (%) |
|---|---|---|
| Total financial liabilities | 319 | 100.0 |
| Bank of Greece (BoG) | 13 | 4.1 |
| Domestic excluding BoG | 35 | 11.1 |
| Rest of the world | 271 | 84.8 |
| *of which:* | | |
| *ECB loans* | *27* | *8.5* |
| *EU loans* | *197* | *61.8* |
| *IMF loans* | *24* | *7.5* |
| *Other rest of the world* | *23* | *7.1* |

Source: Greek Finance Ministry.

An important question is which creditor would bear the cost of the debt restructuring. As table 2 shows, private holdings of Greek government debt, both foreign and domestic, account for 18 per cent of the outstanding stock, at most. If we assume that the loans provided by the IMF are not subjectr to a restriction and the authorities prefer to avoid imposing losses on the ECB and Bank of Greece, then the Euro agencies, and in particular the EFSF, must be involved. This seems to suggest that restructuring of EFSF loans consistent with a debt stock reduction of €38 billion would be needed. Since the Eurogroup have ruled out 'haircuts' this would seem to imply further maturity or reduction in interest rates that are already extremely low (EFSF lending rates to Greece are less than 2 per cent per annum).[1] If the EFSF member nations were to accept a reduction in the value of loans to Greek of €95 billion, then this would amount to a permanent transfer of approximately 1 per cent of EFSF members' GDP. Given that the restructuring affects loans that mature over the period 2022 to 2054, the implied permanent fiscal transfer amounts to a relatively modest sum.

Even if haircuts were to be introduced on EFSF loans, the impact on the primary balance would be minimal. The EFSF has already deferred interest payments on the majority of its lending to Greece until 2022 (on €109 billion of the outstanding stock of loans). Estimates suggest this will lower Greek interest payments by a cumulative €12.9 billion between 2012 and 2022 (equivalent to 7.2 per cent of GDlP in 2014 terms).[2] However, from 2022 the Greek government is expected to start repaying these deferred payments as well as the 'normal' interest payments on EFSF loans.

The amount of debt relief extended to Greece is important. The critical issue is whether investors and citizens perceive the debt relief to be enough to put Greek finances on a sustainable footing. The public are often far more astute than regulators or politicians credit; nothing focuses the mind better than losing one's savings. This will depend on the trajectory of the economy and the outlook for non-performing loans. Based on a reasonable assumption of loan deterioration, a return to growth is essential for the stabilisation of the financial system. The sustainability of the sovereign debt position is also intertwined with the economy's growth. Given the uncertainties involved, the authorities do not appear to have heeded one of the the lessons of earlier financial crises: it can turn out to be a lot cheaper to buy too much insurance than too little.

This prompts the question of what happens if the third package is not enough to stabilise the banks. Once the eligible collateral is exhausted, the next line of defence is the recapitalisation fund from the ESM. If that too is exhausted then the financial asset holdings of the Greek government would seem the next likely candidate. Since deposits are needed for the normal course of governing, this would leave assets such as equity and investment fund shares. At the end of the first quarter of this year, estimates suggest the Greek government held approximately €36 billion of these. What proportion would be available depends on the amount that has been allocated to the privatisation fund as part of the third bailout. At the extreme, once all avenues have been exhausted, the final option would be to default. Without access to any new euros we would expect this to coincide broadly with the introduction of a new currency.

Our central forecast is predicated on substantial debt restructuring forthcoming and therefore Greece remaining in the Euro Area. However, if this restructuring does not occur by the amounts suggested in this note then Greece will default on its obligations and be required to introduce a new currency. While Greece would have the ignominy of being the first country to leave the Euro Area, the belief that the Euro Area is an irreversible monetary union would be lost forever. How a Greek exit might occur is extremely uncertain and, as discussed in Holland and Kirby (2011), this fundamentally determines the implications for the Greek economy.

As the prospects for Greece inside the Euro Area deteriorate, the government would be remiss if it did not consider what a future outside the Euro Area might entail. There are numerous examples of countries which have introduced a new currency. It is likely that the IMF and EU would seek to stabilise the economy as the geopolitical risks move against the EU. This outcome is clearly fraught with risks, but there may come a point where the calculus no longer favours remaining within the Euro Area. It may seem surprising that Germany, in particular, appears prepared to accept these risks. However, this is consistent with the behaviour of creditor nations in monetary unions in the past: creditor rather than debtor nations are always the ones to determine the final outcome of monetary unions. The irony is that if Greece is forced to leave the single currency, the losses which creditors would face are greater than the debt write-down required to stay in the Euro Area.

## NOTES

1 The domestic political and legal wrangling poses a significant hurdle to any haircuts on EFSF or other loans by European agencies.

2 For details, see http://www.efsf.europa.eu/about/operations/esm_efsf_and_greece.htm.

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