

Josef Bonnici: Economic growth in turbulent times

Address by Professor Josef Bonnici, Governor of the Central Bank of Malta, at the annual dinner of the Institute of Financial Services – Malta, Saint Julian's, 14 December 2012.

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Hon. Minister, Excellencies, Members of the Institute, Distinguished Guests

Let me start by thanking the Malta Institute of Financial Services for extending this opportunity for me to address this distinguished audience. Mr President, your Institute's leading role in banking and financial education in Malta is well known, as are its endeavours to establish forms of collaboration with other educational institutions. As a result, a wider range of relevant courses are available to professional staff within the financial services industry.

I understand that a notable development over the last year was the relationship that you established with the Chartered Institute for Securities & Investments as a strategic partner for the offering of specialised Investment-related courses. I also note with interest the recent introduction of a Masters in Wealth Management, a development which will certainly enhance the skills and expertise of many. This is a relevant achievement and we look forward to further success in expanding your reach to all members of the financial community through the activities that your Institute organises and the training facilities it provides.

The economic crisis in Europe is now in its fifth year, and a number of countries remain in various degrees of distress, while most forecasts continue to revise downwards their output and employment projections. The latest Eurosystem projections published in December 2012 indicate a small euro area GDP contraction of 0.3% in 2013. Deleveraging goes on in several member states as banks continue to repair their balance sheets, limiting their lending activity and hence impeding the transmission of monetary policy in those member states.

The build-up of these problems took place over a fairly long number of years, and the resolution is proving to be a gradual and hesitant process.

In this light, it may be useful to start by taking stock of the general euro area situation and then make a number of related remarks on the domestic economy.

Retrospective on the euro area

As is well recognized, the origins of the crisis can be traced back to the excessively high public sector debt, slippage in competitiveness, inappropriate banking practices and weak bank regulatory environment on both sides of the Atlantic. The crisis has had various intertwined dimensions, each with implications for the avoidance of similar problems in the future.

One observes that in several countries, fiscal problems led to sovereign debt downgrades that in turn damaged the banks' balance sheets. The consequences of the lack of fiscal discipline were aggravated by the erosion of competitiveness and the failure to implement structural reforms. However, in several instances, banking sector difficulties were the trigger for fiscal problems. Indeed, adherence to the Stability and Growth Pact was not a sufficient condition to keep countries out of difficulties. For example, in Ireland and Spain, banking sector difficulties have necessitated bail-outs by the governments concerned. This led to sovereign downgrades which in turn increased the government

borrowing costs, in some cases to unsustainable levels. All these problems were compounded by instability in financial markets and volatility in sentiment.

Chart 1 shows that prior to the formation of the monetary union yields started to converge – regardless of the fiscal position or economic fundamentals – and then stabilised within a fairly narrow band during the first years of the euro until the crisis of 2009. Many countries failed to reduce the debt to GDP ratio during this period as shown in Chart 2.

The market's focus and sentiment changed drastically in 2009, by giving full recognition to the importance of fiscal sustainability, such that yield spreads widened sharply. Market complacency turned into market volatility, and it is only lately that this has been somewhat mitigated after the announcement of the OMT programme, a subject that I will come back to later.

Fiscal excess and inappropriate banking practices were not the only causes of the crisis. There was also an erosion of private sector competitiveness, as shown by the relative increase in unit labour costs in several of the weaker economies (see Chart 3). In many countries, the deterioration in competitiveness was the result of wage increases that were not matched by higher productivity.

Fiscal excesses in several countries camouflaged the erosion of competitiveness, resulting in a wider deficit in the external trade accounts, as shown in Chart 4. Inside a monetary union the alarm bells caused by current account deficits are not as loud as they are when each country has its own currency. Before monetary union, such problems were countered, with questionable effectiveness, by currency depreciation. But inside the monetary union these current account deficits were simply financed by capital inflows, largely flowing from the countries in the north to most countries in the periphery.

Chart 4 also highlights the separation within the euro area between selected countries in the north, running a generally current account surplus, and selected countries in the periphery with a negative balance. The upper band depicts the maximum and minimum of the data range for Germany, Luxembourg and the Netherlands. Similarly, the lower range depicts the corresponding boundaries for Cyprus, Greece, Italy, Portugal and Spain. It is not surprising that those countries in the lower part of the chart featured prominently in the unfolding crisis. Eventually, when markets reoriented their focus towards economic unsustainability, the flow of capital reversed direction; market discipline now took the form of capital flight.

There is also no doubt that financial institutions took on excessive risk, including investments in complex and, as is now well known, mispriced financial instruments. Crucially, the heightened degree of riskiness was not complemented by adequate capital buffers. In addition, cross-country debt holdings and linkages between financial institutions led to contagion and the spread of systemic risk.

Moving on to the macroeconomic dimension, it can be observed that in various countries, governments with large fiscal imbalances have now resorted to the narrowing of such imbalances, through the application of inevitable fiscal consolidation measures. These corrections have often met strong social dissatisfaction and political resistance. And yet, the budgetary restraint has not always been viewed as adequate from the point of view of the financial markets that seem to have limited patience for the measures to have a discernible impact on fiscal imbalances. For many governments, bond spreads remain wide.

This fiscal restraint has also slowed down economic growth and this in turn has aggravated the budgetary deficit. Chart 5 shows the deficit as per cent of GDP for the euro area as a whole, along with the corresponding cyclically adjusted ratio. The light blue line in the chart shows where the deficit would have been without the economic

slowdown that was caused in part by fiscal consolidation. The gap between the two lines illustrates the inevitable contribution of the economic slowdown to the deficit ratio. Still, the relatively small size of this gap post 2009 indicates that there is a strong structural element in the fiscal deficit. This explains why structural adjustments are so necessary.

In response, the ECB has taken policy rates lower than any time during its history (as can be seen in Chart 6). It has also provided ample liquidity to the banking system, as shown in Chart 7, in which the red lines represent the rise in the monetary base (which consists mainly of central bank provision of bank reserves). However, as I have noted on previous occasions, a large part of this liquidity has been deposited back with the ECB, as reflected in considerably slower growth in loans (the blue lines). This is an indication of the hesitancy on the part of the banks to buy securities, or to extend loans, whether to other banks or to the non-financial sector.

Some concern has been expressed about the size of the build-up of liquidity across various economies that could be mobilized by the banks in the eventual post-crisis expansion of loans. However, it must also be noted that the excess liquidity can be eventually reabsorbed by the central banks. In any case, it should also be noted that the provision of additional liquidity by the ECB (as shown by the red lines in Chart 7) has been somewhat more moderate than is true for other major central banks such as the Federal Reserve, as shown in the chart.

The ECB has now gone a step further by announcing an Outright Monetary Transactions programme, designed to repair the link between policy rate cuts and ample liquidity provision, on the one hand, and lower borrowing costs, on the other. It is also meant to counter the so-called redenomination or convertibility premium that compensates investors for the perceived risk of a breakup of the monetary union.

It ties intervention to strict conditions: it will be used only for countries under an EFSF or ESM programme. Transactions are limited to the shorter end of the yield curve, and would complement ESM intervention at the longer end. Moreover, the ECB will not take on a senior position in the debt's structure, therefore safeguarding the interest of private-sector investors. As is well known, the announcement of the OMT programme has already helped to stabilize the financial markets and reduce sovereign spreads (see Chart 1). It is really equivalent to traditional open market operations that central banks have long resorted to in order to provide stability and a better functioning of the monetary transmission process that can get impaired in certain circumstances.

The Maltese situation

The Maltese economy has encountered some persistent headwinds. Still, the recession observed in the last quarter of 2011 and the first quarter of 2012 was relatively short and mild. Since then, the economy has shown a modest recovery. During the second and third quarters of this year, real GDP was up 1.6% on the same period of 2011.

The inflation rate in Malta has recently exceeded that of the euro area average. The HICP measure of the year-on-year rate of inflation stood at 3.2% in October 2012, compared with a rate of 2.5% in the euro area as a whole. In recent months, Malta's HICP inflation may have been biased upwards because of methodological changes related to the measurement of tourist accommodation. Meanwhile the RPI, which is unaffected by accommodation prices, stood at 2.9%. It is the RPI that determines with a lag the COLA increase. The core RPI inflation rate, which is a good gauge of persistent inflation, stood at 2.0%.

On the other hand, a number of labour market indicators remain positive. As seen in Chart 8, the most recent LFS unemployment rate is 6.5%, the same as it was on average in 2007, prior to the euro area crisis. In fact, Malta's unemployment rate is at the lower end of national unemployment rates across the euro area. Meanwhile the latest registered unemployment rate stands at 4.2%, in June.

Malta has avoided the two essential sources of the Euro area crisis: the deficit ratio has been moving in the right direction while the banking model followed by the core domestic banks remained prudent. In Malta, the core banks generally rely on traditional, domestic sources of funds, specifically retail deposits. Malta's banks remained largely unaffected by the euro area crisis, averting the need for any government assistance and avoided what in other countries became a major source of fiscal overruns and distress.

Malta must position itself in a way that builds on the strengths of the economy and minimises its vulnerabilities. In doing so, it would steer clear of the pitfalls that other countries have fallen into and maintain its growth path. In this respect, I will focus on a number of important considerations.

On the fiscal side, government spending can be increased on a sustainable basis if government revenue increases on the back of a growing economy. Furthermore, increased expenditure on pensions and health services must be financed in a sustainable way. As the population ages we have to pay sufficient attention to the dynamics that this implies, and of the options available, such that the chosen path would not impinge on economic growth. Government policies must, above all, enhance the efficiency of the productive system, promote investment and incentivise entrepreneurial initiative.

Labour market

The local higher level of labour force skills and qualifications, as well as its adaptability, have been instrumental in attracting investment in new areas of activity and have therefore reduced the vulnerability of the domestic economy to shocks in foreign demand. Chart 9 shows how Malta's wages compare with those abroad. On the basis of the purchasing power standard which measures wages by taking into account the cost of living, the average Maltese wage ranks towards the middle of a broad range of selected countries that are shown in the chart. The issue arises as to how to increase living standards in a sustainable way, without losing competitiveness.

One should be mindful of the relationship between all costs (including wages) and productivity. A subject that often comes up for discussion is the cost of living allowance or COLA. It has to be recognized that in Malta the allowance is determined on the basis of a basic or social wage, and COLA is a flat euro amount, granted regardless of the level of pay. This limits its impact on competitiveness.

Nevertheless, the award of COLA is disconnected from productivity gains and hence may constrain firms' ability to respond to changing market conditions. It also raises the risk of secondary cost increases after an initial price shock, which may come for example from an increase in imported prices. It may not be possible to neutralise such increases in imported prices and simply compensate for them in wages without significantly losing competitiveness of the enterprises concerned, especially if our competitors are absorbing these external shocks through an internal devaluation. It is relevant to note that the world economy is going through unusual times where some countries are undergoing internal devaluations. Malta cannot afford to be oblivious of the impact that these realities exert on its competitiveness. The list of euro area countries passing through significant corrections is impressive, namely: Ireland, Portugal, Spain, Italy, Slovenia, Cyprus and Greece. This apart from other non-euro area member states that are also going through difficult and corrective changes in their economies. These developments may place our

competitors in an advantageous position once the recovery is underway, and this will raise the bar that must be exceeded if competitiveness is to be maintained and improved.

Returning to the COLA issue, this should not be imposed on collective agreements by legislation as happens today, but really should form part of the negotiation process. Indeed, already a number of collective agreements incorporate the COLA increase, and I suggest that this should be the norm.

It is the whole wage that has to be supported by productivity, and negotiations at the firm level are best placed to ensure that the balance between productivity growth and wage increases is not lost. Otherwise competitiveness would be eroded and jobs endangered.

Moreover, the COLA is not the sole impediment to adjustments in relative wages. In particular one has to realize that the minimum wage too constrains wage adjustments. It should be kept in mind that this wage is the legally set minimum compensation of employees with limited or no skills, such as school-leavers who unfortunately have not acquired any particular skills.

Returning to the minimum wage issue, one commonly used criterion of the impact of minimum wages measures the minimum wage relative to the average wage level, and then compares it with other countries, as shown in Chart 10. As one can see in the chart, the relative minimum wage in Malta is the fourth highest in the euro area, and this may impact the incentive to acquire additional skills or pursue more advanced education.

It is worth reflecting on the experience of other countries in this respect. For example, Slovenia increased the minimum wage by 23% in 2010. The IMF, in its reaction to this increase, remarked that this will “hurt employment in labour intensive sectors and put upward pressure on the general wage level, exacerbating already high unit labour cost compared to regional peers. The increase is also likely to reduce incentives for workers to increase their human capital by compressing the wage differential between unskilled and specialized low-skilled workers.”¹ From discussions I have had with officials from the Central Bank of Slovenia, it is their considered opinion that the IMF as well as the Commission were right in their assessment. Indeed, a major reason for Slovenia’s increased fiscal gap and loss of competitiveness can be laid at the door of this large increase in minimum wage a few years ago. A similar picture emerges from the experience of Greece and Cyprus that also had significant increases in minimum wages, while labour market inflexibilities have contributed to the loss in competitiveness in Spain and Italy.

The most sustainable way to raise living standards is through structural reforms along with investment in education and physical capital (that is, through the promotion of investment in human and fixed capital.) Wage increases are not sustainable unless they are financed from higher productivity and economic growth.

Financial stability

The financial sector clearly plays a crucial role in the economy. This sector is a prominent employer of trained professional staff, with financial and insurance activities on their own employing 7,280 persons or 4.3% of the gainfully occupied population and contributing 8.5% of gross value added in 2011. The gap between these two ratios is a sign of the relatively high level of productivity in this sector.

¹ International Monetary Fund 2011 *Article IV Consultation – Staff Report*, May 2011.

As a matter of fact, as shown in Chart 11, productivity – as measured by the value added per employee in the sector – has risen considerably in recent years and in 2011 stood at nearly EUR 65,000, significantly more than the corresponding per capita value added in the services sector in general, which stands at around EUR 34,000.

Bank credit remains the main source of external funding for non-financial businesses in Malta. Moreover, as in most other European countries, bank financing is regarded as the main, if not the only, avenue of external financing for SMEs.

External funding is however primarily suitable for large corporates, given the costs and regulatory requirements associated with debt issuance. A more active and innovative debt market is in the interest of the country's economic growth potential. Undoubtedly this needs to be harnessed through an appropriate macro-prudential policy safeguard of financial stability.

Additional sources of financing that deserve further exploration are through the European Investment Bank, and in particular through the European Investment Fund. The latter offers a venture capital facility whereby it helps venture capital and private equity fund managers to provide risk capital to SMEs. Companies can also benefit from the JEREMIE programme (Joint European Resources for Micro to Medium Enterprises), which promotes increased access to finance for the development of micro, small and medium-sized enterprises in the EU.

Over 80% of the balance sheet value of the core domestic banks is funded through customer deposits, considerably higher than the 30% average in the euro area.² Indeed, customer loans extended by core domestic banks continue to be fully funded from customer deposits.

Meanwhile, Maltese banks' recourse to Eurosystem funding has been modest, as shown in Chart 12, which measures Eurosystem funding as a proportion of the balance sheet. This in itself is a good sign, reflecting the absence of banking distress. Banks must also exercise caution in the use of such sources. Although conditions are currently very favourable, it must be clear that such terms will not last forever. Banks are thus encouraged to continue using such facilities but not become overly dependent on them. Business models which are based on a disproportionate use of Eurosystem funds are not banking models that the Central Bank feels comfortable with.

However, the word "disproportionate" is very relevant, since it seems that some Eurosystem funding could be put to a better purpose than lying idle as deposits with the Eurosystem. For example, one possible use is to extend low cost credit for investments that promote restructuring and competitiveness and thus improve potential economic growth. For instance in the case of hotel upgrading or manufacturing restructuring to higher value added activities, banks could explore areas of growth that would benefit the economy and such niche markets could be kept distinct from existing uses of funds, to avoid cross-overs and refinancing of existing loans. The interest rates on such loans may be linked to the MRO rate, plus of course a margin for credit risk. This would provide a clear link to the provision of lower cost funding by the ECB and serve to break this apparent barrier in Malta of providing lower cost loans in tandem with ECB policy.

On this issue of interest rate charges in Malta, it is somewhat paradoxical that despite the excess liquidity in the system, several institutions seem to be competing through higher deposit rates offered to customers. Competition is healthy and certainly depositors are better served by having such competition leading to higher returns.

² ECB, Changes in bank financing patterns, April 2012.

However, it would be more appropriate if depositors are more fully aware of the basic fact of finance: higher returns are generally accompanied by a higher degree of risk and possible volatility, and depositors should be fully aware of this fact. The deposit guarantee scheme should not be exploited to hide this basic fact of finance.

Furthermore, higher deposit rates would require increased loan rates or investments in higher yielding assets. Both of these carry risks which, in the current lower interest rate environment, may lead to greater risk being assumed than perhaps would be the case in normal circumstances. It is therefore prudent for such institutions to hold an increased level of capital buffers so as to compensate for the elevated risk. Indeed, in recent discussions which I had with another euro area central bank governor, an approach that his institution uses is to require higher capital requirements when deposit rates exceed Euribor by more than 300 basis points. This is an interesting proposal which merits further analysis.

At the international level, the limitations of current regulation and supervision have become more and more evident with the severity of the financial crisis. Too much attention was focused on individual institutions thereby overlooking the macro-prudential risks. In reaction to this, European institutions and member states have engaged in a major overhaul of bank regulation and supervision, with the objective of making financial institutions safe, sound and transparent.

One step towards effective early intervention is the establishment of the Single Supervisory Mechanism (SSM). This will endow the ECB with the ultimate responsibility for specific supervisory tasks related to the financial stability of banks across the euro area. The need for a single supervisory mechanism arises from the increasing interconnectedness between financial institutions and financial markets across the euro area, such that problems that originate at a national level can quickly spread across national borders and imperil the entire European banking system. A central authority is better placed to spot these risks. However, the SSM framework alone will not be sufficient to successfully address significant threats to financial stability across the euro area, particularly in the light of the possibility of cross-border spill-over effects in the event of bank crises and the link between sovereign debt and bank debt.

The European Commission has therefore identified the need for a banking union to strengthen the banking sector and restore confidence in the single currency, and this is projected as part of a longer term vision for economic and fiscal integration.

Hence, the idea goes beyond the SSM or single-rule book. As President Van Rompuy points out in his report entitled *Towards a genuine Economic and Monetary Union*, the components of this integrated financial framework have to include not only bank supervision (as delivered by the SSM), but also bank resolution as well as bank deposit insurance. Vitor Constancio, Vice-President of the ECB, defines the banking union as a transfer to the European level of the regulatory and institutional framework responsible for safeguarding the robustness and stability of the banking sector.

More recently, the Liikanen Report recommends a structural reform of the EU banking sector to limit the likelihood of banking crises, to improve the resolvability of banks and to protect taxpayers' interests. In this respect, the Liikanen Group concludes "that it is necessary to require legal separation of certain particularly risky financial activities from deposit-taking banks within a banking group." This form of separation is also being discussed in the U.S. and U.K., although with some variations.

It is evident that if this separation is effected, the resilience of banks will be enhanced, systemic risk reduced and tax payers safeguarded. The implications of this proposed framework will also have to be taken into account by the banking industry so as to adjust the banking models used to this now safer but more constrained model.

Closing an institutional gap

The concept of sustainability can also be applied to the funding of the government's capital expenditure programme. In particular, the funding of infrastructure and public utilities through fiscal resources may also have to be reviewed in light of the public sector funding constraints.

The domestic financial sector has witnessed remarkable structural developments over past years. However, there still appears to be an institutional gap in respect of the financing of certain types of projects for which the hitherto traditional sources of funding – commercial bank loans and government budgetary resources – may not necessarily remain the ideal financing avenues in view of the new challenges facing the financial system. I firmly believe that a development or promotional bank needs to be established. Such a public sector institution would be geared to the promotion of economic activity in its wider sense complementing commercial banks.

In my speech during the course of last year's IFS annual dinner, I had made reference to the important role that the possible establishment of such a bank could play in promoting the economy and assisting the Government in social and environmental projects. Tonight I would like to elaborate further.

In my view, a promotional or development bank could be instrumental in contributing to a more effective mobilisation of the substantial excess liquidity characterising the financial sector and to a more efficient deployment of certain types of Government assets, especially underutilised real estate. It should also serve as a catalyst to support the structural, economic, social and environmental policies of the Government, particularly in connection with the long term financing of priority projects. Moreover, there are strong indications that the deceleration in domestic credit activity in Malta is not due to any shortage of liquidity in the banking sector but rather to the reluctance on the part of banks to extend their exposure beyond certain limits to a number of economic sectors. A promotional or development bank could enable such sectors to gain better access to financing support that may not be readily available from other sources on reasonable terms.

A promotional or development bank can thus complement the domestic financial sector in instances where free market conditions may appear to be insufficient to achieve the desired public policy objectives. Such an institution would normally be underpinned by certain privileges geared to optimise promotional activities and therefore one would need to ensure that the promotional operations of such a bank would not give rise to any distortions in competitive conditions in the market. More specifically, it would have to ensure that its activities will be fully in line with EU State Aid regulations at the final beneficiary level.

A promotional or development bank would be on similar lines as in many EU countries, particularly Germany, where such banks undertake very successfully at a regional level a role in promoting the economy and assisting the government in social and environmental projects. Such banks have the backing of a government guarantee and thus can borrow on the basis of the sovereign rating of the government either locally or from supranational institutions. In this way such an institution can serve to unlock further the financial potential available to spur competitiveness and economic growth without adding to the debt burden of the government. The funding model is based on the repayment of loans and thus is on a sustainable path separate from that of the national debt. This is why such loans raised by such institutions are not captured under the Maastricht criteria of debt to GDP ratios. However, such an institution has to be managed and administered in a prudent and responsible manner.

The Central Bank has been looking more thoroughly into this matter and intends to put forward its submissions to the Government with respect to the rationale and feasibility regarding the setting up of such an institution.

Conclusion: The importance of sustainability

At a time of recession in Malta's export markets, the preservation of competitiveness is a must, in order to sustain continuing economic growth. In today's world, economic sustainability requires the adaptation to an evolving external environment and allows the continued improvement of the standard of living without jeopardizing that of future generations. In the eventual post-recession world, many of Malta's competitors will have gone through a restructuring process and would pose an even stronger challenge. Sustainability has three dimensions.

First, a sustainable financial system requires a prudent business model on the part of the banks and other financial institutions and a vigilant oversight of these institutions.

The European Systemic Risk Board (ESRB), which is an EU-level body established with a mandate to oversee the macro-prudential oversight of the financial system, recommended the setting up of an authority or body to make recommendations on macro-prudential aspects of the financial system. The Central Bank in its capacity as the macro-prudential authority has agreed with the MFSA, to set up a Joint Financial Stability Board which will be formally constituted in a few weeks. The objective is to enhance the cooperation between the two bodies for the assurance of the stability of the financial system. The intention is to strengthen the resilience of the financial system and to mitigate the build-up of systemic risks. To these ends, the Board's mandate includes the development of mechanisms that would identify risks to financial stability, and the establishment of the necessary macro-prudential policy tools. The Joint Financial Stability Board will also be able to make recommendations to the CBM or MFSA boards on macro or micro prudential issues, as the case may be. The board is also responsible to follow-up on recommendations made by the ESRB.

Second, in the current situation, it must be ensured that fiscal consolidation is not compromised and the commitments under the Fiscal Pact are achieved. The room for fiscal manoeuvre is very limited at this present juncture of contraction in the euro area economy and the current debt-to GDP levels in the Maltese economy.

Third, higher productivity allows sustainably higher wages and living standards. The quality of human capital has to evolve to meet the changing needs of both the domestic and export markets, and for that purpose the educational system must provide the required skills and qualifications profiles. For productivity to maintain its upward trend there must be a continuous upgrading of current investment and a stream of new investment to maintain the necessary structural change to higher value added activities. As I have emphasised in various parts of this presentation, the financial sector plays a crucial role in maintaining the momentum of change in the economy and meeting the financing needs of an evolving economy. In addition it is also a sector of expansion in itself, with its own dimension to the contribution of further growth. Current financial stresses in the euro area will also require updating banking business models and ensuring that new regulatory requirements are met. Prudent banking practices remain a cornerstone of our present stability in a period of heightened international financial stresses and strains.

Thank you for your attention.

Chart 1

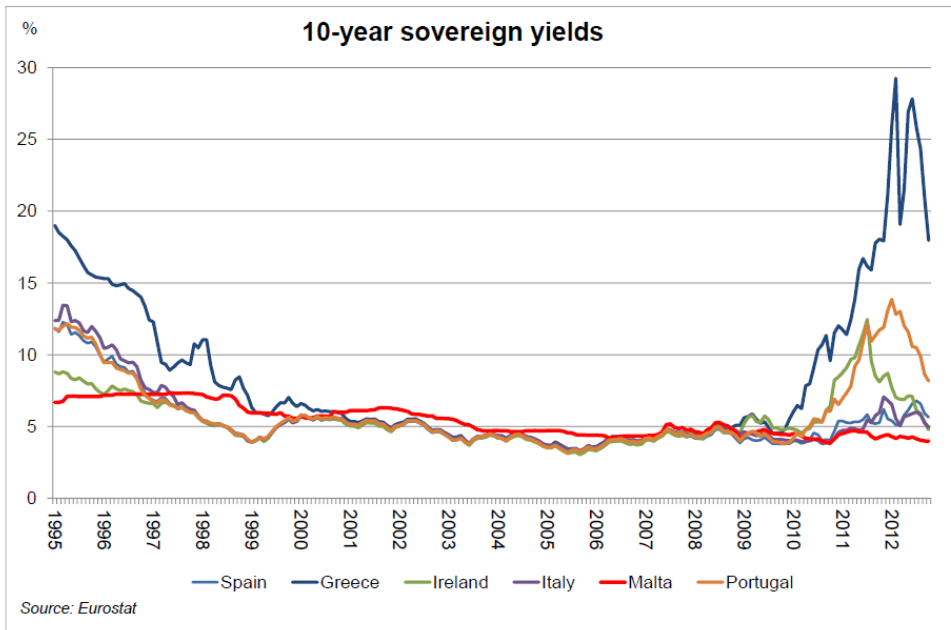


Chart 2

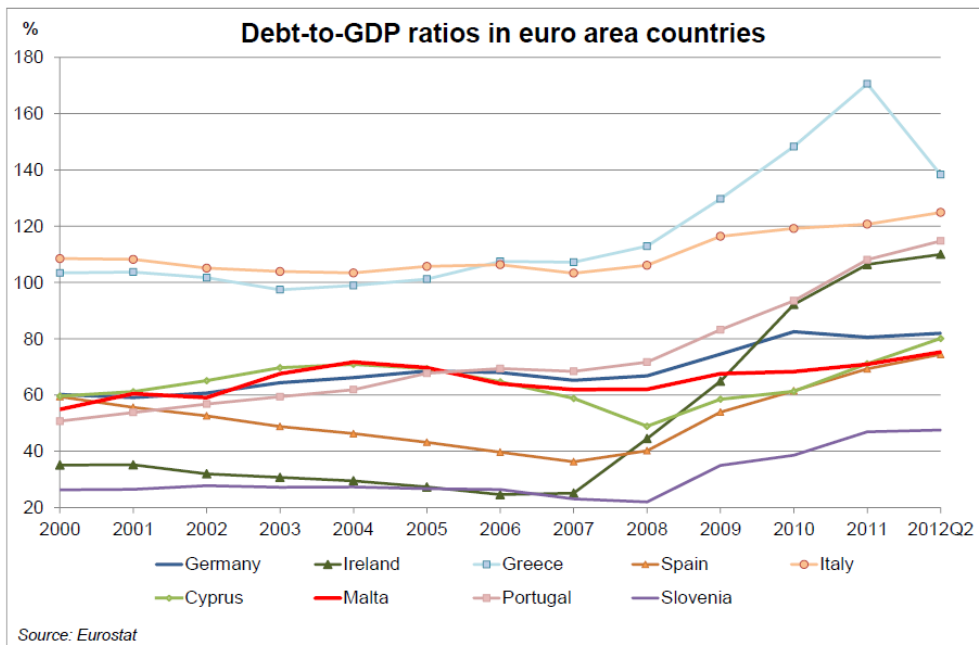


Chart 3

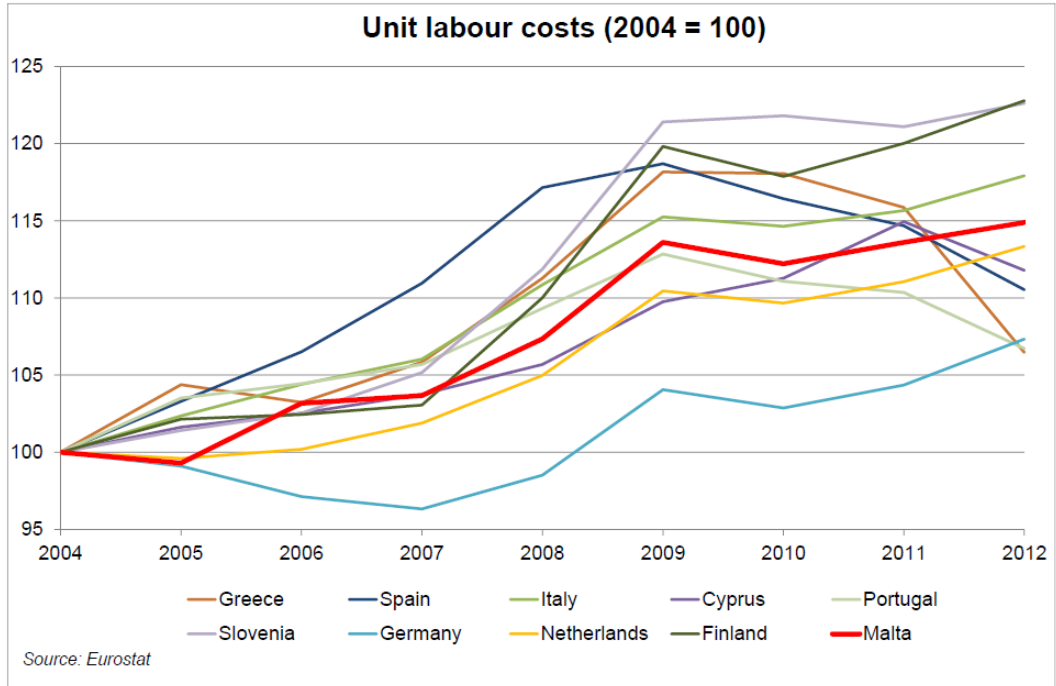


Chart 4

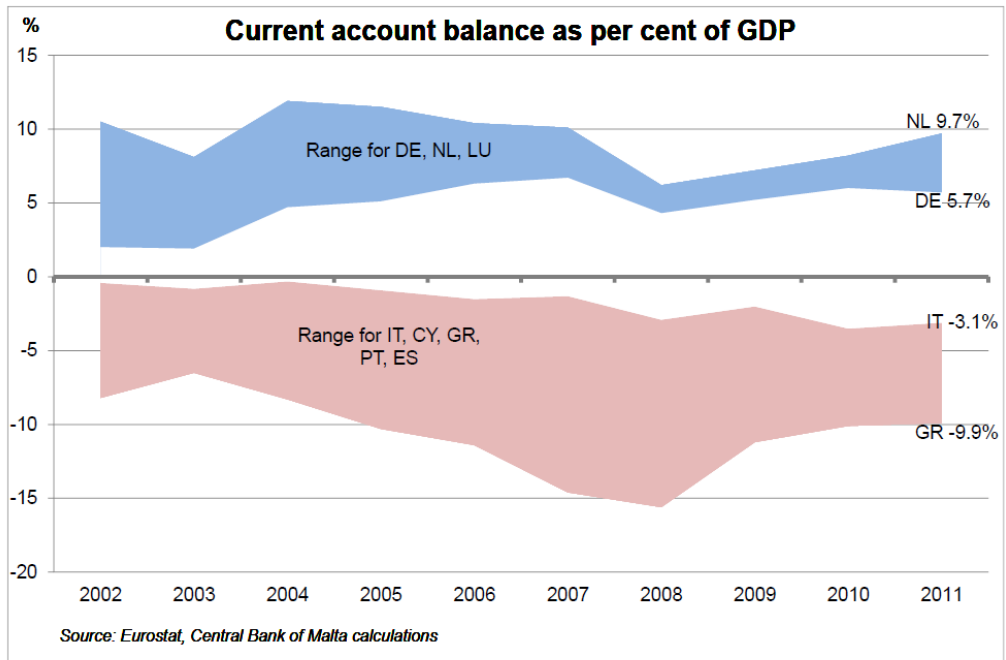


Chart 5

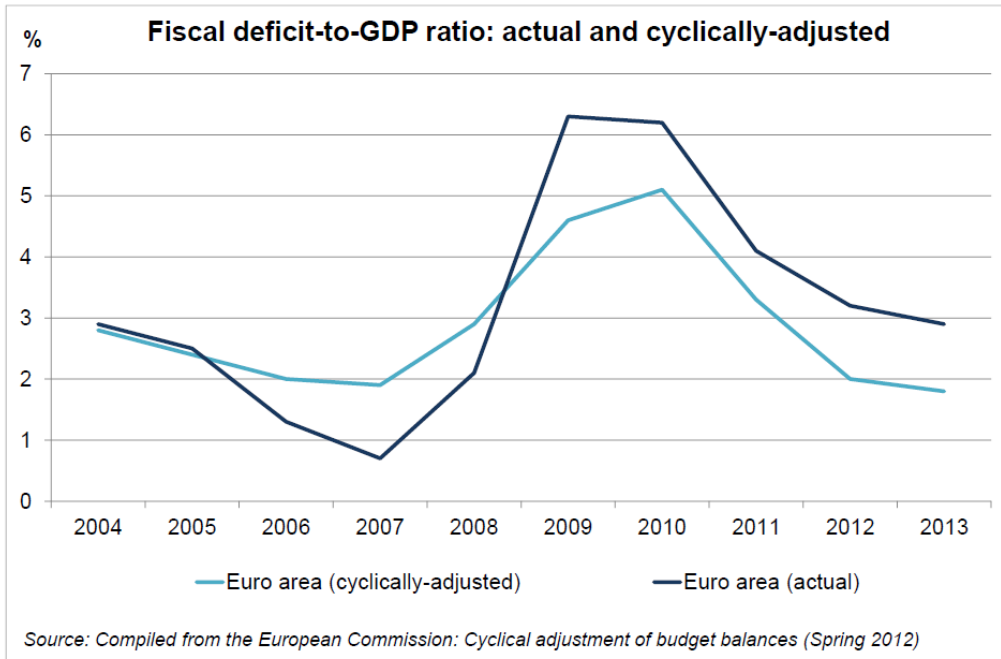


Chart 6

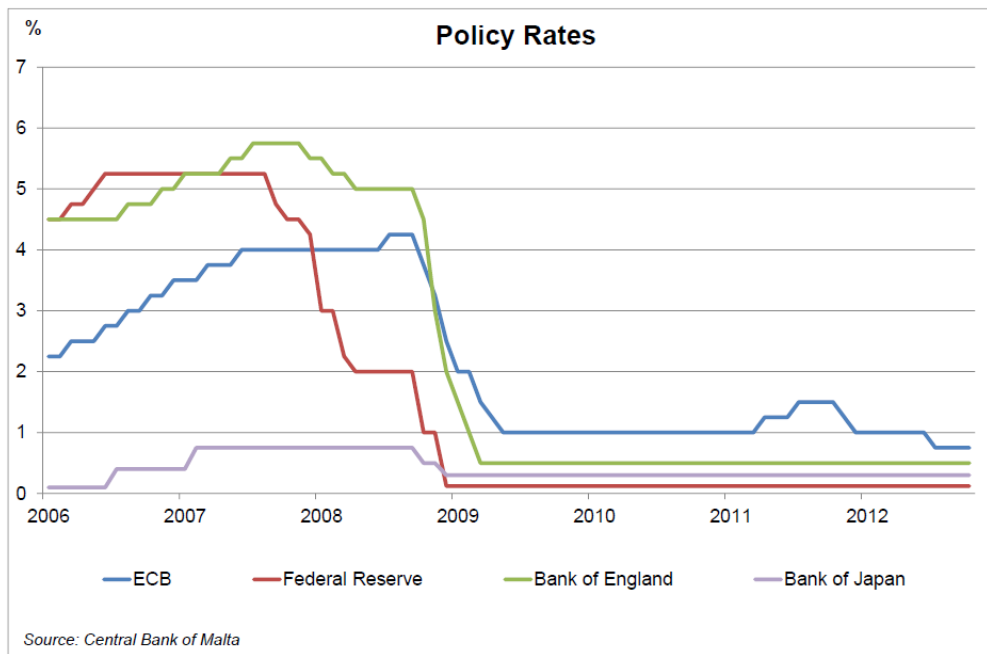


Chart 7

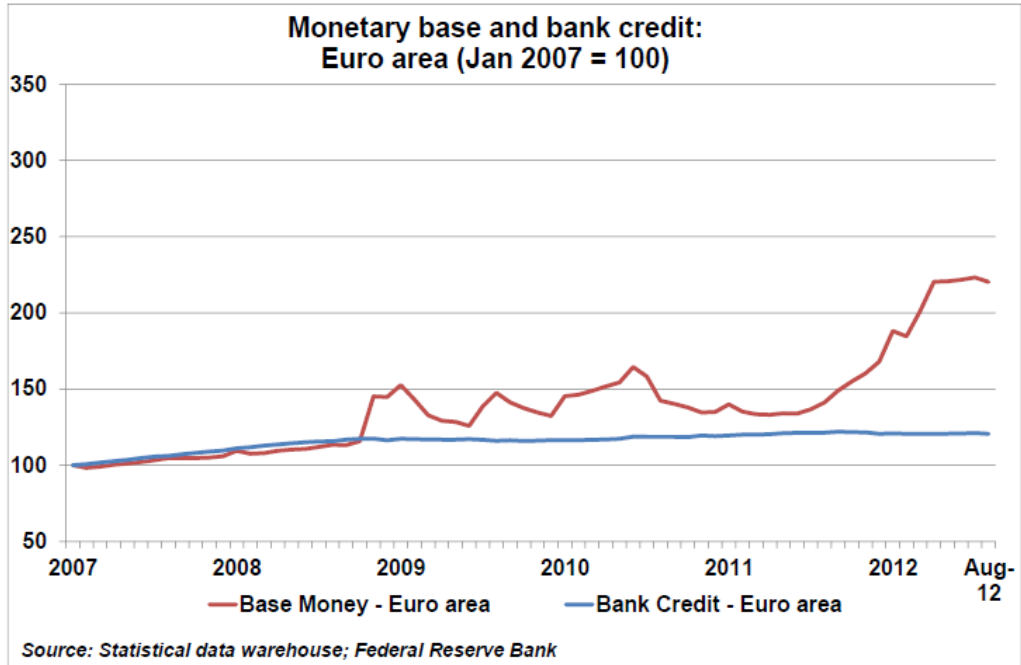


Chart 7 (cont)

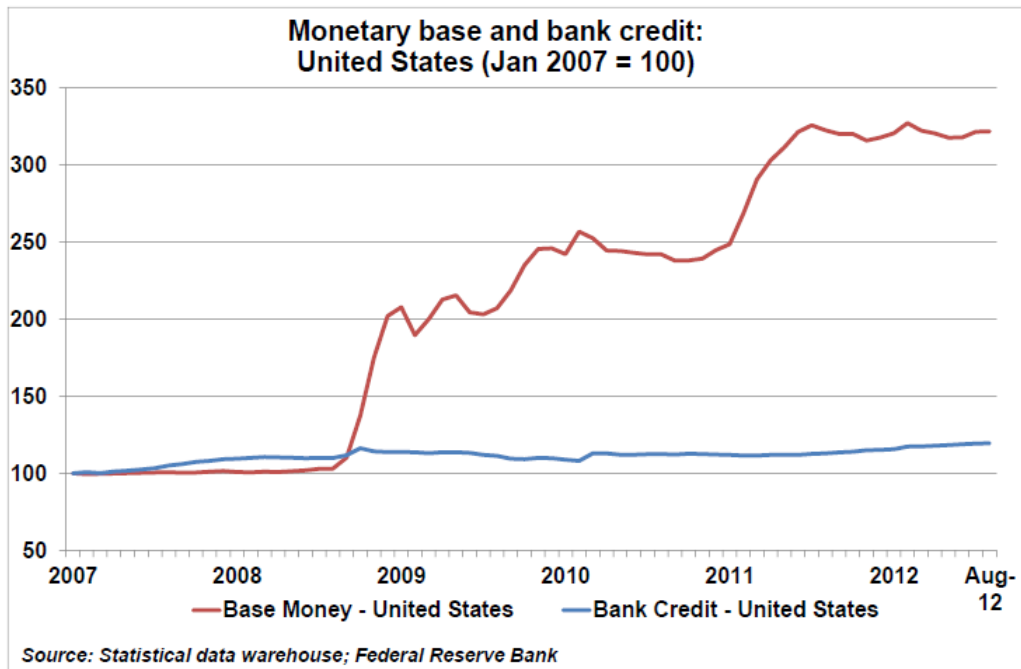


Chart 8

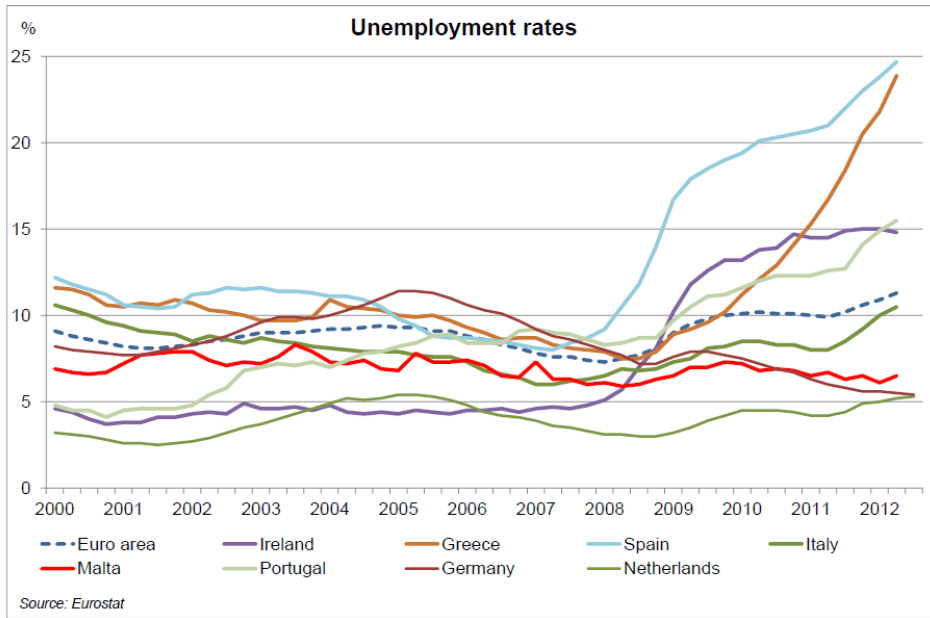


Chart 9

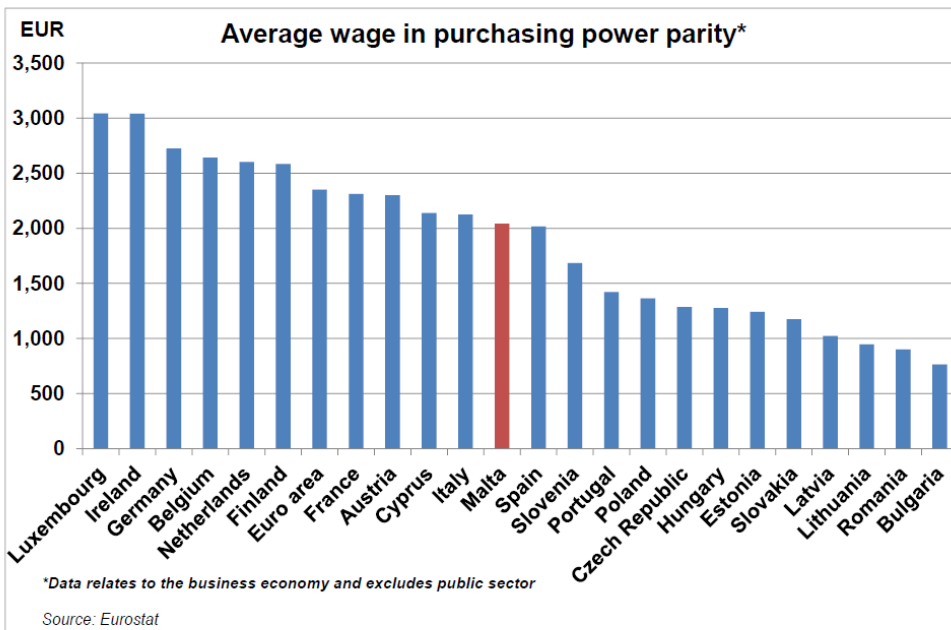


Chart 10

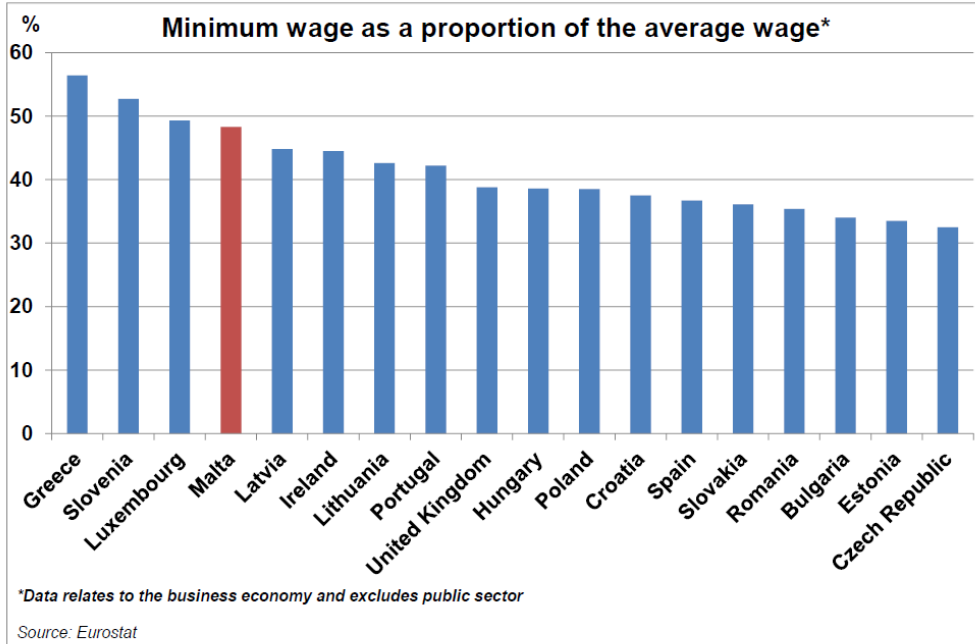


Chart 11

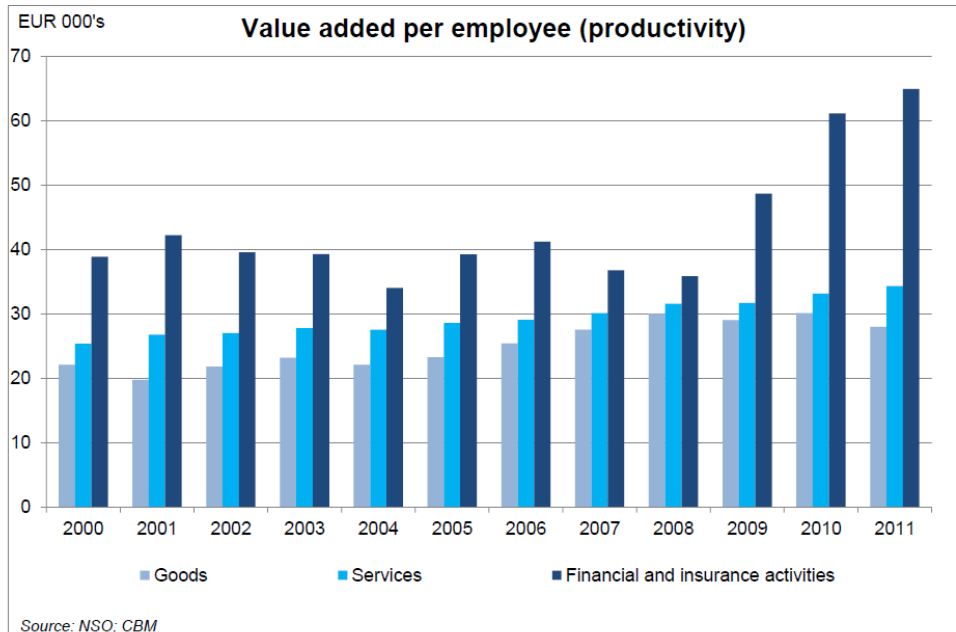


Chart 12

