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Global Agenda

Global Fiscal Systems: From Crisis to Sustainability

Global Agenda Council on Public Finance and Social Protection Systems

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Introduction

Fiscal Systems after the Great Recession

By Olli Rehn, Minister of Economic Affairs of Finland, and Jeromin Zettelmeyer, Director-General for Economic Policy, Federal Ministry for Economic Affairs and Energy, Germany

Following the Great Recession, public finance remains high on the global policy agenda. The expansionary monetary policy and quantitative easing of the major central banks, including the latecomer European Central Bank (ECB), have taken immediate collapse off the agenda and provided a lifeline to the world economy. Yet, without lowering debt and ensuring sustainable fiscal systems (including in a social sense) two risks emerge: either the system cracks, or at best, growth is too slow for structural changes required. And without reducing structural and long-term unemployment, the social consensus to address the fiscal problem cannot be created.

This is the politically charged context in which the World Economic Forum's Global Agenda Council on Public Finance and Social Security is working in and is looking to find solutions. The council aims to provide answers on how to ensure sustainable public finances and adequate social security in a post-recession, low-growth economic environment that some regard, right or wrong, as the "new normal".

This leads the work towards three critical questions focusing, respectively, on economic growth, public finance and social security. The starting point is that one cannot really discuss public finance without discussing growth – sustainable growth. By definition, economic activity measured in GDP is the denominator measuring the burden public expenditure and public debt create in an economy; thus, stronger and sustained GDP growth is essential for sustainable public finances and social security systems. These factors are intimately intertwined and affect each other, which is why they make up the key elements in the equation that defines economic and social success.

1. What kind of policy mix of monetary policy, fiscal policy and structural reforms can support stronger and more sustainable growth?

This is related to the recent debate on "secular stagnation", where competing theories exist to explain the sclerotic performance of advanced economies. Many underline demand-side weaknesses and the constraints low inflation creates for monetary policy to keep activity close to the potential. Others refer to supply-side barriers, due to demographics and weakening impact of technological change on total factor productivity.

While Europe was the epicentre of the crises in 2010-2013 (and returned to the forefront in early 2015 with the victory of Syriza in Greece), it is important to take a global perspective. The emerging market economies, particularly China, India and Brazil, were able to grow throughout the financial crisis. However, recently China's growth has slowed down, while Brazil and other emerging economies have been hit by declining raw material prices and exchange rate changes. And Russia's economy is in a recession, partly due to the lower oil price and the country's inability to modernize its economy, and partly due to the sanctions after it broke the rules of the European security order.

What can we learn from the policy choices of the emerging economies? What can we learn from the experience of the Asian financial crisis in the late 1990s, especially on how the majority of Asian countries put their fiscal houses in order and maintained solid growth rates during the recent crisis?

And what about the policy mix in the US and United Kingdom compared to the Eurozone? Did the US combination of the early financial repair and expansive monetary policy bring better results than the half-hearted monetary stimulus and delayed financial repair of the Eurozone? What lessons are there to be learned from comparing Europe and the United States in the current debate on sustainable growth?

Did the UK policy mix of expansive monetary policy and rigorous fiscal policy defy the critics and bring the economy back to growth better than they expected? A recent study of the IMF, relying on historical evidence from 91 adjustment cases in 1945-2012, concludes that "the size of fiscal adjustment is significantly associated with several important factors… fiscal adjustment tended to be larger when accompanied by an easing of monetary conditions".

This issue may have played a key role in the story of European economic policy in the wake of the financial crisis. Would robust fiscal consolidation in the early years of the crisis, while necessary to restore confidence, have had much less negative impact on short-term growth in case the ECB had started its outright monetary transactions (OMT) and quantitative easing (QE) earlier than in the autumn of 2012?

The subsequent decisions of the ECB on OMT in August-September 2012 appear to be the turning point in the Eurozone crisis. While the years 2009-2012 were illustrated by stop-and-go policies due to the recurring threats to financial stability in many parts of the Eurozone, the recovery followed soon after the ECB's decisive action.

But these elements were fundamentally intertwined. OMT promised monetary easing but required fiscal discipline. Moreover, if the ECB had not taken decisive action, Eurozone member states could not have slowed down the pace of fiscal consolidation, now focusing on the structural balance of public finances over the medium term, which has less negative impact on short-term growth.

Structural reforms in member states in product and labour markets have been equally important. Of course, the recovery in Europe is still relatively slow, although it has been recently strengthening despite external headwinds. Moreover, the Eurozone needs to pursue further reform of its governance and especially implement its recent reforms, such as the banking union.

2. What form should fiscal adjustment take?

The *quality* of fiscal adjustment has been a subject of long-standing academic and policy debate. For instance, during the Eurozone debt crisis the European Commission advocated, as a rule of thumb but based on empirical evidence of growth impact in the EU member states, to do two-thirds of fiscal consolidation by expenditure cuts and one-third by tax increases.

Meanwhile, the OECD[1] has suggested a method for choosing the instruments of consolidation so that they contribute to – or minimize trade-offs with – the goals of promoting near-term activity, long-term growth, income equality and global rebalancing. Simulations based on data from 31 countries point out that half of OECD countries can reduce excessive public debt mainly through moderate adjustments in instruments that have limited side-effects on growth, such as subsidies, pensions or property taxes. A smaller group of countries face more difficult choices and must do larger fiscal adjustment through expenditure cuts and tax increases while trying to minimize their negative side-effects. The OECD underlines the significance of structural reforms to counter and mitigate the negative effects on medium-term growth.

A recent study by Alesina et al[2] concludes that fiscal adjustments relying on expenditure cuts were much less costly in terms of output losses than those based on tax increases – "the difference between the two types of adjustment is very large". The authors of the study also conclude that there is no sufficient evidence to claim that recent rounds of fiscal consolidation – when compared to those that took place before the crisis – would have been especially costly for the economy.

In reality, too often fiscal consolidation has been done only or largely through tax increases and cuts in capital expenditure, which tend to damage or even suffocate growth. Take France and Italy, which for many years suffered from the economically damaging combination of sluggish growth and high public debt. Instead of further tax increases, one should seek more growth-friendly ways of pursuing the necessary consolidation of public finances. This is what, for example, Ireland and Spain attempted by mostly relying on expenditure cuts; Ireland almost completely, and even Spain by two-thirds. Over the past years, while both countries have undergone a difficult adjustment and economic reforms, their exports are strong, economy is growing and employment is increasing. The Eurozone countries still in the need of economic reform, such as Finland, should do well to study the Irish and Spanish experiences very carefully.

3. How can the adequacy and sustainability of social protection systems be ensured while making them more supportive to growth?

There are several dimensions to this question. Virtually all countries face the challenge of how to design protections systems that maximize effectiveness given limited fiscal space. Another challenge, which applies particularly to advanced but increasingly also to developing countries, is

adapting social protection to ageing societies. The objective of safeguarding social protection has important implications for the management of crises.

Designing effective protection systems is far from easy due to both technical and political economy reasons. In this regard, OECD and EU countries can learn from each other, but should also draw on the experiences of developing countries. Furthermore, in the pursuit of reform, countries should think outside the box. For instance, how can we better capitalize on information technology to enhance productivity, provide improved social and healthcare services and reduce the budgetary costs of their provision? Digital technology has revolutionized the service economy in the private sector, but the public sector is still clearly behind in using ICT and developing e-government and e-services. Cloud computing will only accelerate the trend. We need to be more innovative and also more effective in how we provide services.

With crisis-hit public finances and ageing populations, European societies in particular are currently facing a true stress test of their pension and social systems. In reaction, there is a wave of reforms going on: in 23 out of 28 EU member states, significant pension reforms have been decided in recent years. It may still not be enough, particularly in countries that have not yet linked the retirement age to life expectancy.

Finally, safeguarding social protection is also about avoiding deep and protracted spells of fiscal adjustment that cut into the bone of protection systems. This requires, first and foremost, responsible fiscal policies that build up buffers in normal times. But it also has to do with how crises are managed.

One implication is that cases of genuinely unsustainable debt problems have to be spotted and acted on earlier than is usually the case. This may call for better legal procedures to restructure sovereign debt, particularly in the Eurozone, where countries' macroeconomic tools to deal with deep debt crises are more limited and the externalities of catastrophic debt crises may be larger than elsewhere.

Through the work of the Global Agenda Council on Public Finance and Social Security, we want to listen to fresh and innovative insights on these three intertwined sets of issues. We do not think there is a single policy prescription – a silver bullet – one can recommend to all countries around the globe. Our level of ambition is more modest but yet, perhaps paradoxically, more relevant: to provide analytically sound and politically realistic policy advice for reformers all over the world in order to underpin a sustained recovery, secure sound public finances and provide adequate social protection systems.

[1] OECD (2013), "How much scope for growth and equity-friendly fiscal consolidation?, OECD Economics Department Policy Notes, No. 20 July 2013.

[2] Alesina, Alberto, Omar Barbiero, Carlo Favero, Francesco Giavazzi and Matteo Paradisi, "Austerity in 2009-13", Economic Policy, pp. 385-437, July 2015.

From Crisis to Sustainability in the Euro Area

Lessons from the Eurozone Financial and Debt Crisis, 2008-2015

By Olli Rehn, Minister of Economic Affairs of Finland

In the wake of Michael Lewis's best-selling book "The Big Short", and the subsequent Oscar-winning movie by the same title, it is the right time to reflect the lessons learned from the Eurozone financial and debt crisis. In the past years, there have been intensive popular and academic debates on its root causes and on the right or wrong policy mixes to contain and overcome it. Southern European interpretations have tended to call for more solidarity and the pooling of debt burden, while Northern European analysis has underlined the need to build a stability union and stick to fiscal prudence and structural reform.

Many economists, political scientists and other commentators have questioned the Eurozone's institutional structure, policy choices and overall management of the crisis. Such debate is necessary to learn the lessons of the crisis to avoid repeating past mistakes. It is also important to continue to reform the Eurozone in order to support sustainable growth and job creation so as to prevent or withstand the next crisis.

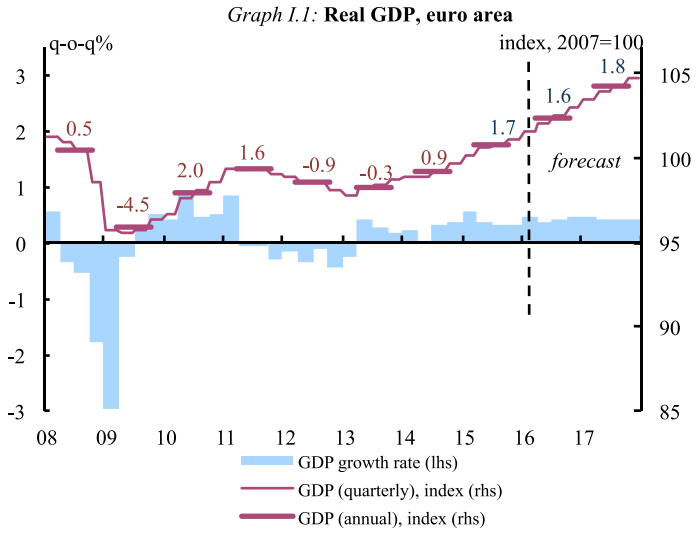
Leading ex post analyses of the Eurozone's relatively weak performance during the crisis focus on both institutions and policies. The structural shortcomings and unfinished construct of the EU's Economic and Monetary Union (EMU) – such as the weakness of the Stability and Growth Pact or, from another angle, the lack of a lender of last resort due to the limited mandate of the European Central Bank (ECB) – have been among the main institutional explanations. A further one often expressed is the original absence of any Eurozone-wide banking supervision and financial stability mechanism, such as the European Stability Mechanism (ESM) since 2012.

Excessive fiscal rigour ("austerity"), the slow pace of structural reform, and the long accumulated macroeconomic imbalances and subsequent massive indebtedness are among the main policy-related explanations, even if they may have been rooted in the construct of the EMU. The macroeconomic imbalances are considered the usual suspect – rightly in my view, since this time it was not so different. As Baldwin et al coin their argument, "The core reality behind virtually every crisis is the rapid unwinding of economic imbalances. In the case of the Eurozone crisis, the imbalances were extremely unoriginal – too much public and private debt borrowed from abroad."

In this article, it is assessed how these policy-related explanations perform in the light of empirical evidence. The analysis is based on OECD data on economic growth and fiscal position for both the Eurozone and the United States in 2009-2015. Note that the data is for the Eurozone in aggregate and represent the general government balance public in the respective jurisdictions. The statistical comparison is supplemented by real-world historical observations of the time that are relevant for policy outcomes.

Before entering the comparative analysis, we take a look at the overall narrative of the Eurozone economy in the crisis, seen from the perspective of real GDP in the Eurozone in 2008-2015 (see Figure 1 below).

Figure 1. Level and growth of GDP in the euro area, 2008-2017



Source: European Commission: European Economic Forecast, 2016. http://ec.europa.eu/economy_finance/publications/eeip/pdf/ip020_en.pdf

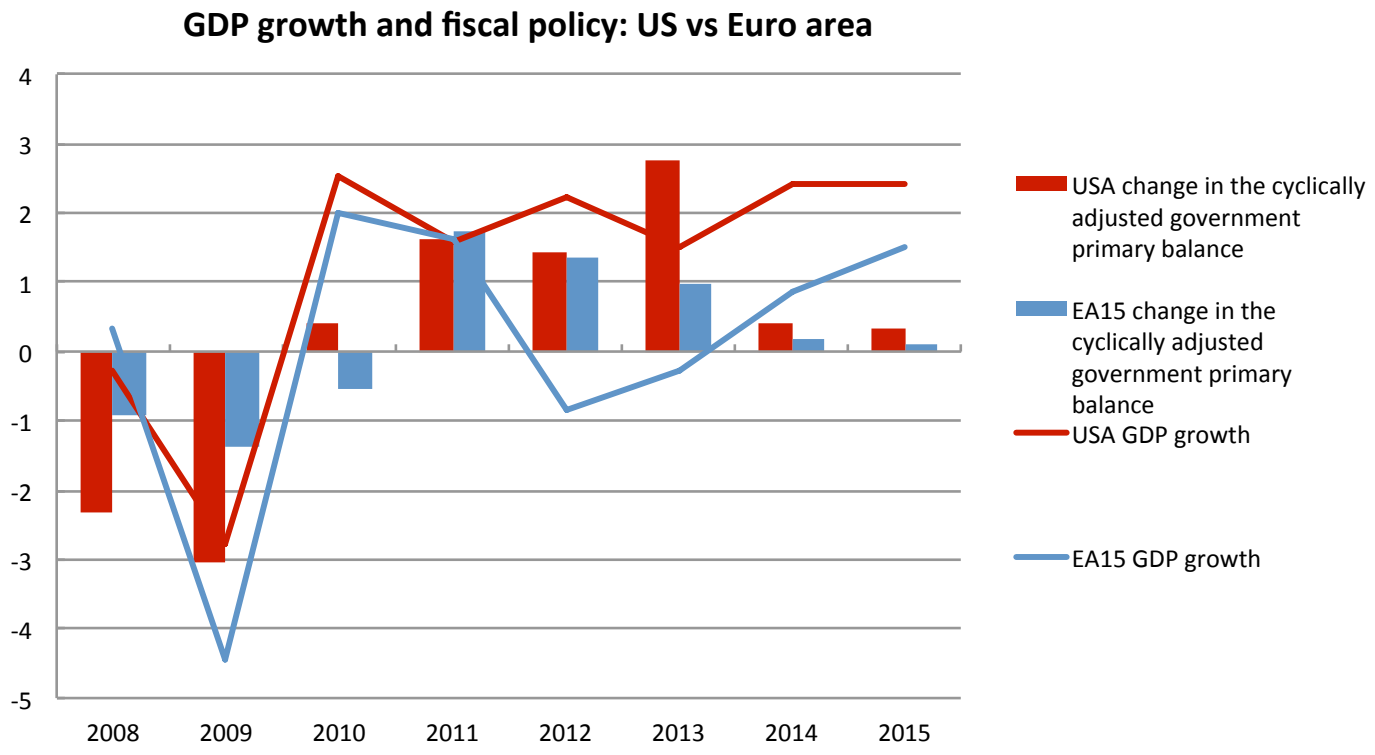
We can see the -4.5% fall in GDP in 2009 and the recovery in 2010-2011, which implies that the first phase of the Greek crisis and the subsequent Irish financial rescue, both in the course of 2010, did not profoundly damage growth in the Eurozone. The rescue programmes of conditional financial assistance contained the contamination of sovereigns and financial market turbulence at this stage. Yet, the Eurozone entered a recession in 2012, which followed – and was largely caused by – the Italian and Spanish crisis in 2011-2012. Finally, we saw a return to recovery from 2013 onwards.

In the analyses of the management of the Eurozone debt crisis, the main explanatory factors are usually the following: fiscal policy, structural reform, monetary policy and financial turbulence. Which of these explanations carries most weight in the light of empirical experience? We can compare these explanations during three distinctive periods of the crisis: 2008-2010; 2011-2012 and 2013-2015. By comparing the respective stages in the Eurozone and in the United States economies, we can assess the relative weight of these main explanations.

1. Financial-crisis recession (2008-2010)

As we can see from Figure 2 below, in terms of cyclically adjusted fiscal balance, both the US and Eurozone reacted to the first phase of the financial crisis in 2008-2009 with fiscal stimulus.

Figure 2. Growth and fiscal policy in the US and Eurozone (2008-2015)



Source: OECD Economic Outlook, Autumn 2015

In the US, the stimulus was about twice as strong as in the Eurozone, as fiscal balance was -2.3% of GDP in the US vs. -0.9% in the Eurozone in 2008, and -3.0% in the US and -1.4% in the Eurozone in 2009. In line with expected short-term fiscal multipliers, growth dipped more in the Eurozone than in the US – the difference in 2009 was 2 percentage points as the US growth rate was -2.8% and the Eurozone rate was -4.5%. Even though there were other factors at play, we can conclude that the growth outcomes are consistent with the smaller fiscal stimulus applied in the Eurozone than in the US. In other words, the fiscal multipliers seemed to have behaved "normally" in the early period of the financial crisis, apparently reacting logically to the fiscal stimulus provided by the governments on both sides of the Atlantic.

2. Debt-crisis recession (2011-2012)

Does the same story hold in the trough of the Eurozone debt crisis? Apparently not if we are to believe the empirical evidence. Some things did seem to change, and they were probably other than fiscal policy. Let us look at the trough of the crisis in 2011-2012. The recovery was still rather even in the US and Eurozone when moving from 2009 to 2010, despite the Eurozone's smaller fiscal stimulus in 2009, which probably takes into account the normal time lag in policy effect. But the surprising fact, at least in light of the general thrust of the ex post debate, is that the aggregate fiscal policy stance in the critical year 2010 was less contractionary in the Eurozone than in the US. The change of the cyclically adjusted fiscal balance in the US was positive i.e. +0.4% of GDP, while it was only marginally expansionary, i.e. -0.5% in the Eurozone.

In 2011, the aggregate fiscal balance was clearly positive and thus contractionary, and even in the same magnitude, in both the US and the Eurozone, with +1.6% and +1.7%, respectively. While growth rate was virtually the same in both the US and Eurozone in 2011 (1.60% vs 1.63%), it suddenly dropped to the negative territory (-0.8%) in the Eurozone but stays solidly positive (+2.2%) in the US in 2012. Moreover, in 2012 the US had even a more contractionary fiscal stance than the Eurozone. Yet, the Eurozone recovery is delayed by two years from 2011 onwards, and it returns to recovery and growth only gradually in the course of 2013.

3. Turnaround and recovery (2013-2015)

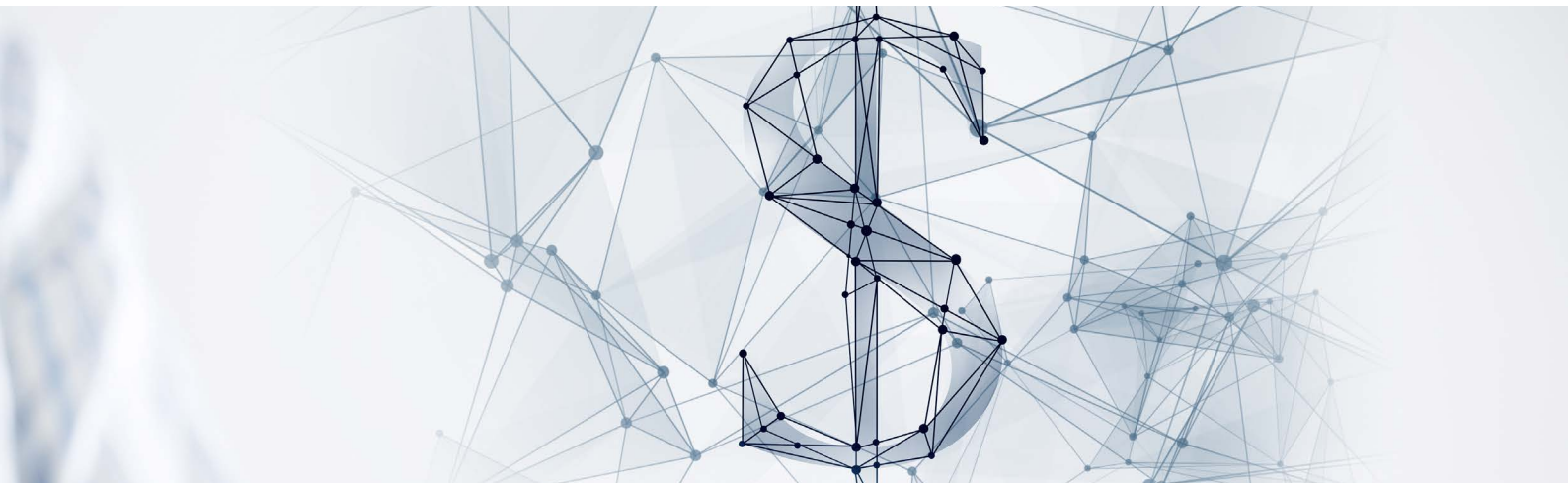
The Eurozone economy has been on the path of recovery and growth, albeit weak and fragile, since spring 2013. This follows the setting up of the European stability mechanisms in 2010-2012 and the member states' commitment to consolidate public finances, which helped contain the panic in financial markets, and the landmark decision of the ECB to commit to Outright Monetary Transactions (OMTs) in August-September 2012 and, later on in 2014, to implement quantitative easing. The ECB's decision was taken as a reaction to the recession in 2011-2012 and against the backdrop of the renewed turbulence in the summer of 2012, which represented the height, or trough, of the Eurozone debt crisis.

From 2013 on, the Eurozone has continued with the gradual recovery, which has been weaker than in the US. Still, its fiscal stance has been less contractionary than in the US. For instance, in 2013 the Eurozone fiscal stance was +1.0%, while in the US it was +2.8%. In this period, the correlation between fiscal policy and growth rate seems to behave logically again and we are witnessing a return to "normality".

The financial accelerator as an explanation

It seems that the correlation between aggregate fiscal stance and growth rate falls down, in the light of the OECD data. What is the logical conclusion?

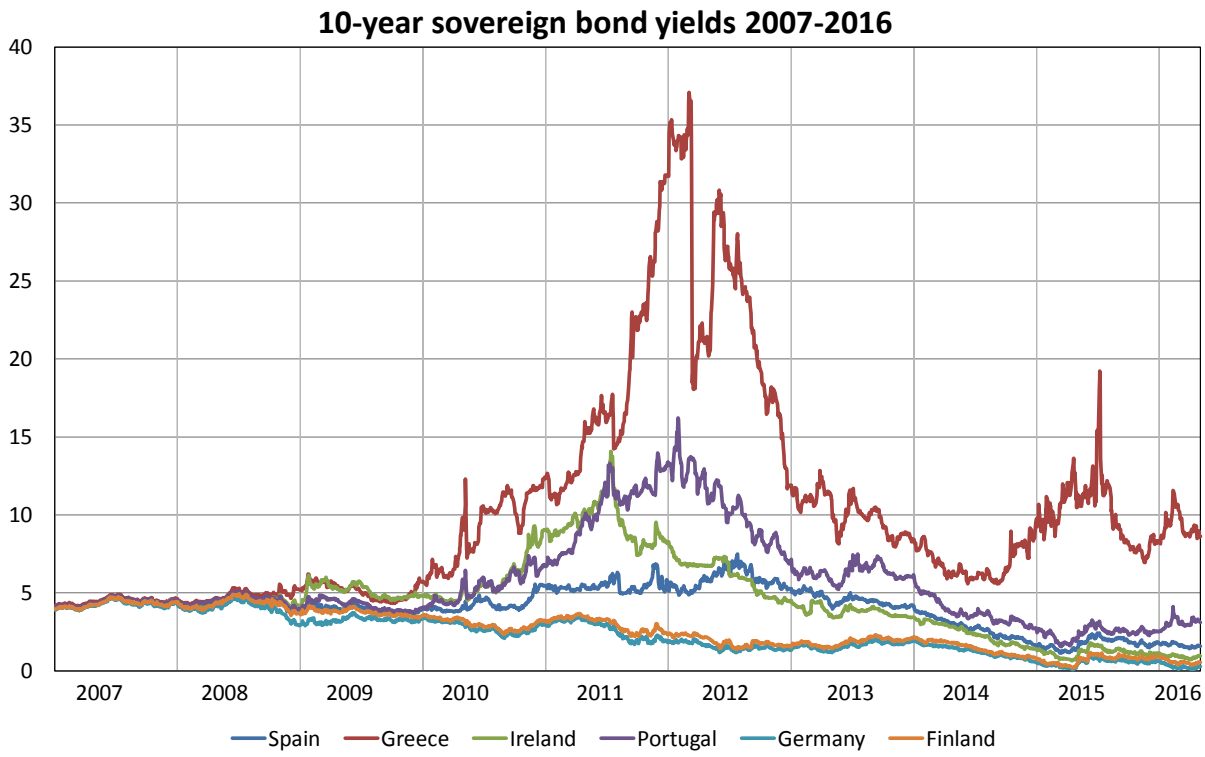
If one still wants to entertain a fiscal explanation for the Eurozone weakness in 2012 and 2013, a variation of fiscal policy multipliers could help explain the outcome. As we know, fiscal policy was tightened most in the peripheral countries and much less so in the "core". It is plausible that when the financial intermediation is not functioning properly, as undoubtedly was the case in the peripheral countries, fiscal tightening can have a stronger effect on demand than when financial markets function well. However, one can doubt that this difference could be significant enough to explain the much weaker growth in the Eurozone than in the US in this period. After all, the countries that were forced to tighten fiscal policy most were relatively small.



Thus, we must search for an explanation elsewhere. An obvious alternative to a fiscal explanation is either a financial or monetary explanation, or both together. The period when the Eurozone growth performance really started to weaken relative to the US – the second half of 2011 – coincides with a widening gap between the long-term interest rates between the Eurozone and the US. Part of that is accounted for by the increase in the ECB policy rates.

But a clearly more important factor was the intensification of the euro crisis, reflected in the significant increases of the spreads between the bond yields of the so-called "vulnerable" member states, on one hand, and the core countries, on the other hand (see Figure 3 below).

Figure 3. 10-year sovereign bond yields, 2007-2016



Source: Macrobond / Ministry of Finance of Finland

The higher sovereign bond yields impacted on growth in the countries concerned not only through the standard interest rate mechanism where yields of financial instruments are an opportunity cost for real investment, but also – and perhaps primarily – through the impact on the availability and cost of financing to the private sector. The refinancing costs of the banks increased and asset values decreased, which weakened the availability of collateral, led to more rapid deleveraging and caused a financial squeeze in the private sector. In addition, a vicious circle set forth in the public finances: higher yields increased public sectors' financing burden, accentuating the insolvency fears, as well as the fears that the sovereigns could not guarantee the functioning of the banking sector should it face serious solvency problems. "Financial accelerator" – a concept developed by Ben Bernanke when he was a scholar of the Great Depression long before becoming chairman of the US Federal Reserve – set truly in reverse.

This explanation is also supported by facts as we look at the events that preceded or coincided with the alleviation of the financial stress. In London in July 2012, ECB President Mario Draghi gave a speech that soon became legendary, promising to do whatever takes to save euro – "and believe me it will be enough". Draghi's speech started to have a rapid impact on the yields of vulnerable Eurozone countries. Soon after, in August-September, the ECB Council made its decisions about direct market inventions, after which the Eurozone's debt crisis gradually subsided.

After Draghi's speech, the ECB finally started to behave like a lender of last resort. Since then, the ECB has stood behind individual member states' debts in the critical sense that it has been willing to buy any amounts of debt if the yields suggest of "redenomination" risks. As Adair Turner has observed, a dramatic consequence of this constraint during the crisis was that, on average, Eurozone countries had to pay higher interest rates than say Japan, although the average public debt in Japan was 138% while in the

Eurozone "only" 74%. Consequently, the Eurozone had to keep fiscal deficits at the mere 2% of GDP compared to 6-7% in Japan, the US and the United Kingdom.

Links to fiscal policy and financial repair

But the ECB alone did not change the course of the Eurozone. The measures taken to calm down the financial market turbulence by first creating the European Stability Mechanism and later on the decision to set up a banking union were likewise crucial for the turnaround. Furthermore, it is important to bear in mind that there would have been no OMT without the return of reasonable fiscal prudence in the Eurozone. Let us not forget that for Draghi and the ECB (and Germany), the Fiscal Compact was a *sine qua non* for launching the stronger measures of financial containment, like the OMT and the long-term refinancing operation (LTRO).

The European Commission was never a big fan of the Fiscal Compact, which was conceived in Berlin and Frankfurt, as the Commission preferred the "six pack" reinforcement of economic governance of the Eurozone, in line with the Community Method. But for the sake of facilitating the ECB's room of manoeuvre and activism, the Commission had to play the rhythm guitar for the Fiscal Compact.

In fact, the financial accelerator, or in this case "decelerator", better explains the Eurozone's recession and weak growth performance. The Eurozone vacillated and acted with slow motion and too little financial firepower when the crisis hit. For this reason, the financial system was out of oxygen for too long to support credit (see Figure 4 below).

Figure 4. Credit growth in the euro area

Source: ECB

The United States, on the other hand, once the crisis had hit in September 2008, almost immediately embarked on a crisis mode to implement very expansionary monetary policy and fix the badly damaged bank and finance system. The repair of the United States' banking system was carried out mainly in 2008-2009, whereas in the Eurozone the financial repair was seriously conducted only in 2012-2014.

Not that it was not tried earlier. Yes, this was done especially with the stress tests of the summer of 2010. But the Eurozone's fragmented and weak bank supervision of that time, non-existent common institutions and the *financial nationalism* – to use the expression invented by Nicolas Véron – of the Eurozone member states did not make success plausible then.

As one of the early lessons of the crisis, the European Commission's non-paper in January 2011 called for a comprehensive crisis response, in which a pivotal set of parallel policy measures was suggested. First, reinforce the financial firewalls (EFSF/ESM) to make the Eurozone sturdier to withstand turbulence from speculative attacks. Second, pursue the recapitalization of banks once the EFSF/ESM had been reinforced and tentatively tested. Third, pursue consistent consolidation of public finances, with the focus on structural balance over the medium term. And last but not least, drive economic reforms to support sustainable growth and job creation.

It didn't quite work out. As Draghi said in the end of 2011, after a particularly dangerous crisis phase: "But ideally, the sequence ought to have been different. We should have had the EFSF in place first. This would have had… a positive impact on the capital positions of the banks with sovereign bonds in their balance sheets… That may exert pressure on banks to achieve better capital ratios by simply de-leveraging. De-leveraging means two things: selling assets and/or reducing lending… the second option is by far the worst."

When we look at the course of events with the benefit of hindsight, the order was regrettably pretty much the reverse.

Conclusion

There are several lessons to be learned from the hard experiences of the Eurozone crisis for economic governance and financial firefighting.

An essential conclusion drawn by the then policy-makers (including myself) was that a convincing financial repair was necessary before the Eurozone could return to a sustainable path of recovery and growth. This pushed the Eurozone to build a banking union, which has advanced to the construction phase at the time of writing. Two of the three building blocks of the banking union are in place – the Single Supervision Mechanism and the Bank Resolution Mechanism and Fund. Meanwhile, a common deposit guarantee scheme, the missing link, is still pending in the Eurogroup. A complete clean-up of the vulnerable banks balance sheets is nevertheless still necessary to return to confidence in many member states.

In retrospect, the Eurozone debt crisis seems to reflect the crucial point made by the maverick-turned-mainstream economist Hyman Minsky: while stability is destabilizing, the effect can be contained by an apt use of regulation and policy, but even that can never be permanent, and policy will have to continually adjust to new circumstances.

As much as the reform of Eurozone economic governance 2010-2012 was necessary to correct the flaws in its original design, it was incomplete from the start, which is why the reconstruction of EMU cannot wait forever. It should aim less for a transfer union and, instead, more for creating a real stability union with a strong focus on pre-emptive measures of financial stability and on economic reforms, for the sake of sustainable growth and job creation.

Another lesson is that when there is an emergence or a major threat of recession or deflation, or both at the same time, monetary policy must be forcefully used to bring back higher employment and normal inflation. The ECB was rather slow, or restrained, to take action, although it acted decisively in the autumn of 2008 and again in the summer of 2012.

Economic policy-makers must act decisively and with a massive force to secure stability in the financial system and to maintain normal credit flows. The ESM was conceived in 2012, which together with the OMT commitment of the ECB belatedly created the much-needed "Big Bazooka", based on the bold but also bitter experiences from its weaker predecessor EFSF that was born in May 2010. But alone they were obviously not enough to contain the crisis.

The central banks cannot do all the heavy lifting and stay as "the only game in town". It has become evident that the capacity for real-economy adjustment is crucial in a monetary union. This is clear when comparing the economic growth rates between the reformers Ireland and Spain with the laggards France and Italy. The previous ones are the fastest-growing economies in the Eurozone today, while the latter have fallen into semi-permanent trap of stagnation – although the very recent growth figures refer to a turning point.

Last but not least lesson is simple but crucial: the real economy matters. In other words, we have to do whatever it takes to sustain and strengthen the still fragile economic recovery of the euro area. In this regard I see three key elements, a kind of *relance à trois*, or a "recovery by three".

First, countries like France and Italy (and Finland) have to commit themselves to a very serious implementation of economic reforms. The experiences of Spain, Ireland and Latvia provide empirical evidence how to pursue reforms in a successful way.

Second, the ECB has to do everything in monetary policy to combat the deflationary spiral. The crisis and prolonged slow recovery certainly has changed ECB's monetary policy approach in this regard. Actually, the change in the approach has been so dramatic that one might describe ECB's evolution as "from a Bundesbank to a Federal Reserve".

Third, the surplus economies of the Eurozone should boost domestic demand and domestic investment to support economic activities throughout the entire Eurozone. That would also help to convince other countries to pursue economic reforms.

Lessons from the Greek Crisis

By Louka T. Katseli, Professor of Economics, University of Athens and Chair, National Bank of Greece, Greece

The Greek crisis which erupted in 2009 and is still underway will undoubtedly be the subject of many analyses and studies in the years to come. Economists, political scientists, public policy analysts and experts on European governance and policy-making will continue to debate the nature and origins of the crisis, the effectiveness of the policies pursued by successive Greek governments and the role of the so called troika, consisting of representatives of the European Commission, the European Central Bank and the IMF, in shaping the policy mix and imposing conditionality in the context of three successive MoUs, signed in May 2010, February 2012 and July 2015.

At the core of the debate is the evaluation of the policy mix pursued, namely the effects of sharp fiscal consolidation and of substantial internal devaluation on growth, employment and the sustainability of public finances. Between 2008 and 2014, the cumulative loss of GDP exceeded 25%,[3] the unemployment rate rose above 27%[4] and the general government gross debt-to-GDP ratio increased from 126.8% at the beginning of the crisis to 195% today (European Commission Country Profile 2015).

There are many who argue that the "cure" imposed has in fact been "toxic"; others attribute these results to the lack of willingness or capacity of the Greek governments to implement the pro-growth structural reforms embedded in the programmes. Still, others point to more technical policy design failures and/or legacy problems, including the underestimation of multipliers, the lack of coherence across fiscal and monetary policies, the deleterious effects of a massive debt-overhang on investment incentives, etc.

In view of the fact that such crises are likely to reoccur in the future in the context of the Eurozone, it is important to draw some pertinent lessons from the Greek crisis that could pertain to other Eurozone member countries, with a special focus on the interplay between growth, sustainable public finances and social protection systems.

A brief overview of the crisis

By 2009, Greece had allowed itself to become vulnerable to a speculative attack. For a number of decades, the principal sources of growth were rising private and public consumption expenditures coupled with a rapid expansion of construction investment, largely financed by EU transfers, relatively cheap foreign borrowing and short-term capital inflows. Since Greece's entry into the Eurozone in 2001 and especially after 2004, foreign and domestic banks, underestimating the risks involved, extended credit to households, enterprises and state entities on the assumption that rising debt would continue to be rolled over under the same favourable conditions as those prevailing for Germany and other Eurozone members. While the large current account and budget deficits provided a clear signal of unsustainability, policy-makers delayed timely action.

A speculative attack against Greek sovereign bonds and the euro erupted between December 2009 and January 2010 with spreads on Greek bonds rising to unprecedented levels. Speculators who had proceeded since 2007 to cover themselves against a possible default through purchases of CDSs unloaded Greek sovereign bonds. European institutions were caught unprepared. Unwilling or unable to address the debt-overhang problem under fear of a "systemic crisis" and big losses for European banks with large exposures, they proceeded to create the EFSF and extend a bail-out loan to the Greek government in exchange for stringent austerity measures.

Actual disbursements from EU institutions and the IMF that were extended under the two stand-by agreements signed in 2010 and 2012 amounted to €215.7 billion. So far, only 11% of bail-out loans went to finance the government accounts. The rest has been used to repay creditors, avoid the write-down of previous bad loans, pay back interest and capital operations. A third agreement was signed in July 2015 extending further loans of up to €86 billion for the period 2015-2018.

The policy mix adopted under the conditionality embedded in the agreements, including severe cuts in wages, pensions and asset prices, resulted in an approximate loss of 25% of GDP, a dramatic rise of unemployment, increasing poverty and inequality. As living standards deteriorated sharply, there was a rise of support for "outsiders" to the traditional bi-party system, which brought into power a small, left-wing party, SYRIZA, with a call for a credible "policy regime switch".

Protracted negotiations between the newly-elected government and the European institutions ended in an impasse, which resulted in the expiration of the second stand-by programme on 30 June 2015 and the imposition of a bank holiday and capital controls. Under the threat of an imminent Grexit, with weekly credit provided by the European Central Bank (ECB) solely through its Emergency

[1] GDP at market prices was reduced from €241.9 billion in 2008 to €177.6 billion in 2014 (Eurostat).
[2] Unemployment rate peaked in 2013 at 27.5%; in 2014 it was still 26.5% (Eurostat).

Liquidity Assistance window, a third agreement was signed in July 2015, extending a new loan of up to €86 billion to Greece under a three-year programme. The new programme foresees a more reasonable fiscal consolidation programme, the recapitalization of the banks, a new framework for the effective management of non-performing loans, product-market reforms and further pension reform, the restructuring of Greek debt and the creation of a fund to manage public assets over a 30-year period.

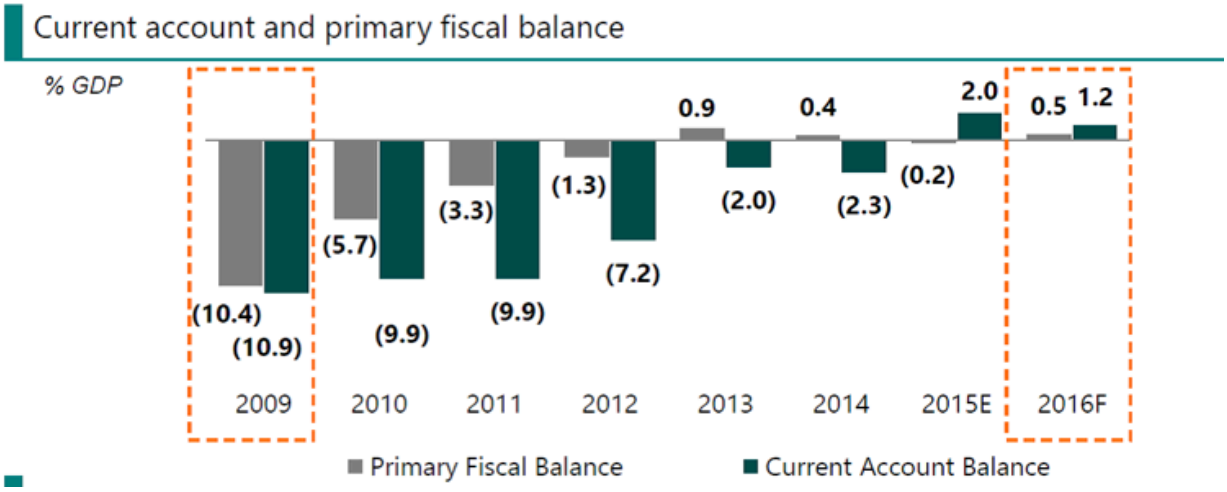
Amid the challenges to comply with MoU prior actions and persisting funding and liquidity pressures, the four systemic Greek banks proceeded to raise approximately €5 billion from private investors to cover the capital needs identified by the ECB following a Comprehensive Assessment of banks' portfolios and required provisions conducted in September 2015. By the end of 2015, following the injection of additional €5.4 billion of state-aid by the ESM for two of the banks, all four systemic banks have been adequately capitalized with their Core Tier 1 ratios exceeding 18%. They are expected to become eligible for normal financing from the ECB, once the first evaluation of the new programme is completed. This would allow the lifting of capital controls hopefully within 2016 and the channelling of necessary liquidity to the real economy which will be a major boost to new investment and growth.

Despite the many challenges and risks ahead, a Greek restart appears plausible. For this to happen, however, all stakeholders need to work closely together and exhibit realism and flexibility in the implementation of the programme by taking into account not only conditionality requirements, but also the need for equitable burden-sharing and policy coherence. Drawing the necessary lessons from the past six turbulent years is a first step in this direction.

Lesson 1: Aggressive front-loaded restrictive policies can erode the sustainability of public finances

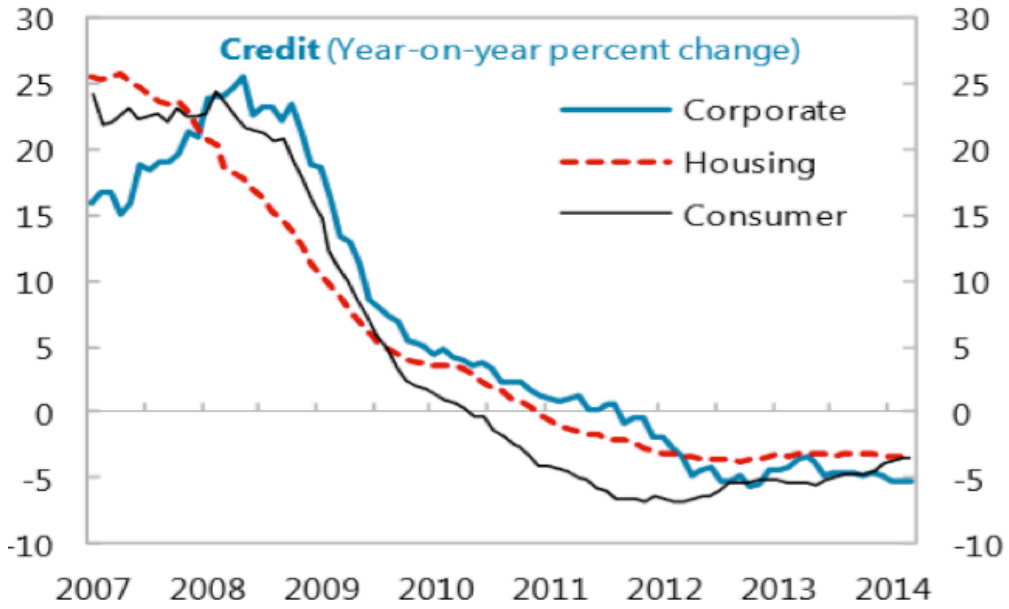
Between 2009 and 2015, the Greek economy achieved significant fiscal and current account rebalancing as a consequence of aggressive front-loaded fiscal consolidation and a sharp reduction of credit availability. Within six years, the primary fiscal balance and the current account balance improved by approximately 10 percentage points and 13 percentage points of GDP, respectively (see Figure 1). This has been the fastest and most intensive fiscal correction among all countries that underwent an economic adjustment programme in Europe. The severity of fiscal adjustment was coupled with a severe credit crunch (see Figure 2); contractionary fiscal and monetary policies thus resulted in a cumulative loss of GDP amounting to 25 percentage points since 2007 and an unprecedented rise in unemployment rates.

Figure 1. Primary fiscal balance has declined sharply



Source: Ministry of Finance of Greece (2015)

Figure 2. Credit expansion, 2007-2014 (year-on-year percentage change)



Source: Bank of Greece (2015)

The recessionary impact of these highly restrictive policies was exacerbated due to the predominance of micro and small-sized firms in the Greek economy. Unable to cover fixed costs or borrow from the banking system as demand fell, more than 200,000 firms have shut down[5] in the course of five years. A number of companies have relocated abroad.[6] The melt-down of Greece's productive and entrepreneurial base is one of the fundamental factors that explain the prolonged recession and the inability of the country to jump-start growth relative to other countries' experience with similar economic adjustment programmes.

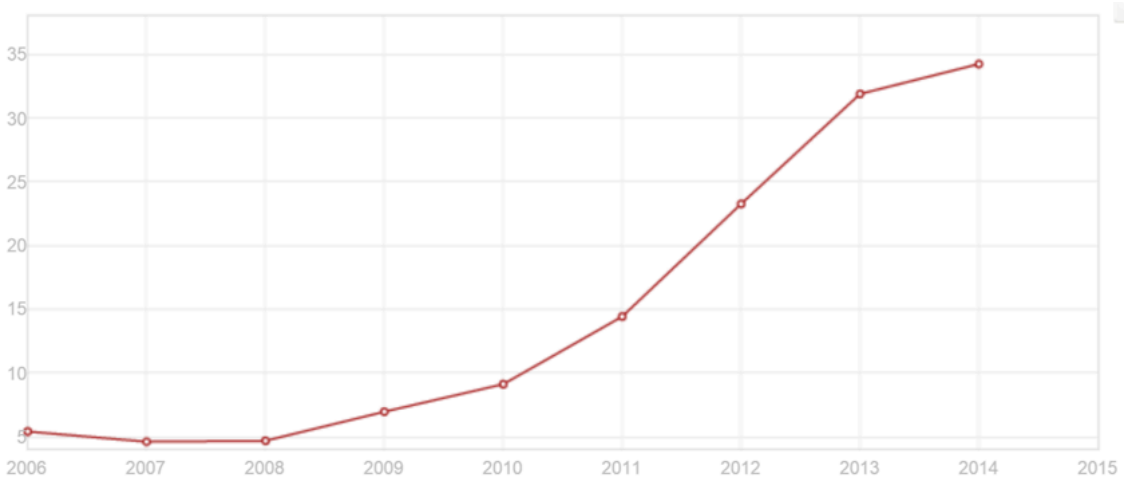
As disposable incomes of both households and firms declined sharply, tax receipts and social security contributions fell dramatically. Non-performing loans rose sharply across all portfolio categories – consumer and mortgage loans, SME and large corporate loans – forcing banks to set aside increasing amounts of provisions to mitigate risks (see Figure 3). In December 2015, €46 billion were set aside as loan loss provisions by the banking system,[7] exacerbating further the liquidity squeeze in the real economy (see Figure 4).

[5] IME GSEVEE, Survey, February 2014, Hellenic Confederation of Professionals, Craftsmen & Merchants (GSEVEE) Small Enterprises' Institute.

[6] In a recent study by Endeavour (2015), of 300 Greek businesses surveyed between 13 and 17 of July 2015, 23 percent planned to transfer their headquarters abroad and another 13 percent had already done so.

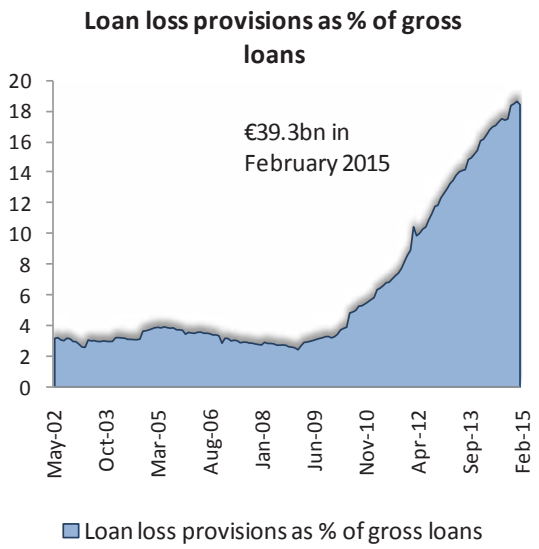
[7] Loan loss provisions amounted to 6 billion euro in December 2007.

Figure 3. Bank non-performing loans to total gross loans (%)



Source: World Bank (2015)

Figure 4. Loan loss provisions as % of gross loans



Source: Bank of Greece (2015)

Last but not least, the recessionary impact of fiscal consolidation in conjunction with recourse to expensive short-term or emergency financing sources, such as Treasury Bills and ELA, increased the Gross Public Debt-to-GDP ratio by almost 70 percentage points of GDP from 127% in 2008 to195% in 2015 (Ministry of Finance of Greece, 2015).

Excessive austerity policies have thus been a toxic cure. Due to their deep and prolonged negative growth effects, they have exacerbated rather than abated the sovereign debt problem while spreading the "over-indebtedness disease" to the domestic private sector. In so doing, they have put under serious threat the solvency of the banking system and the sustainability of public finances.

Lesson 2: The choice and sequencing of accompanying structural reforms is critical

Structural reforms, a critical component in all three MoU agreements, were aimed to enhance competitiveness and to bring rapid economic recovery. Empirical evidence, however, suggests that on average structural reforms do not appear to have strong short-run positive growth effects (Rodrik, 2015; Babecky and Campos, 2010). In fact, in the context of weak aggregate demand, these effects can even be negative, if structural measures end up reducing further disposable incomes and overall labour productivity (Caldera Sánchez, de Serres and Yashiro, 2015). The sequencing of reforms is equally important since positive growth effects from a given reform often hinge on the prior implementation of other reforms.

The Greek labour market reform agenda – a key component of the structural programme of the past years – provides a telling example of the distortions that can ensue as a consequence of improper and untimely policy design and sequencing, largely due to an inadequate understanding of the macroeconomic environment in which these reforms are introduced and the structural features of the economy on which they are applied.

Labour market deregulation, mostly through the introduction of intermittent, temporary or part-time labour contracts and the reduction of employment protection started in 2010. By the end of 2011 and especially in 2012, while the economy was entering into a severe recession, they were complemented by the dismantling of collective agreements and favourable labour employment provisions as well as by the drastic reduction of the minimum wage. As a consequence, wages across the economy were reduced by approximately 30%, aggravating the recessionary effects of fiscal consolidation.

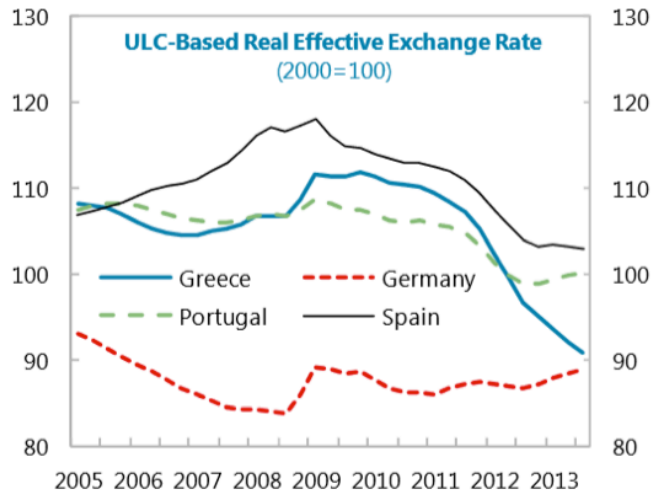
By 2014, gross wages and salaries in Greece fell below the corresponding wages in other European countries (see Figure 5). The substantial internal devaluation did not succeed in raising employment or investment demand, as growth prospects remained bleak, credit was severely restricted and uncertainty prevailed.

Figure 5: Gross wages and salaries

Source: IMF Country Report No. 14/151 (2014)

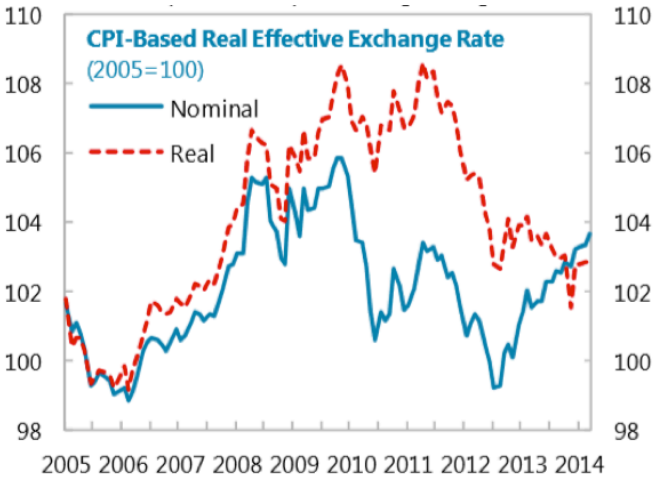
Unemployment rates in fact peaked in 2013 while gross fixed capital formation plummeted from 25.7% of GDP in 2007 to 11.6% in 2014 (see Figure 6). Last but not least, while price competitiveness as measured by relative unit labour costs (ULC) has improved by 16.5% since 2005, energy and indirect tax cost increases resulted in a limited improvement of competitiveness as measured by final good prices[8] (see Figures 7 and 8).

Figure 7. ULC-based real effective exchange rate



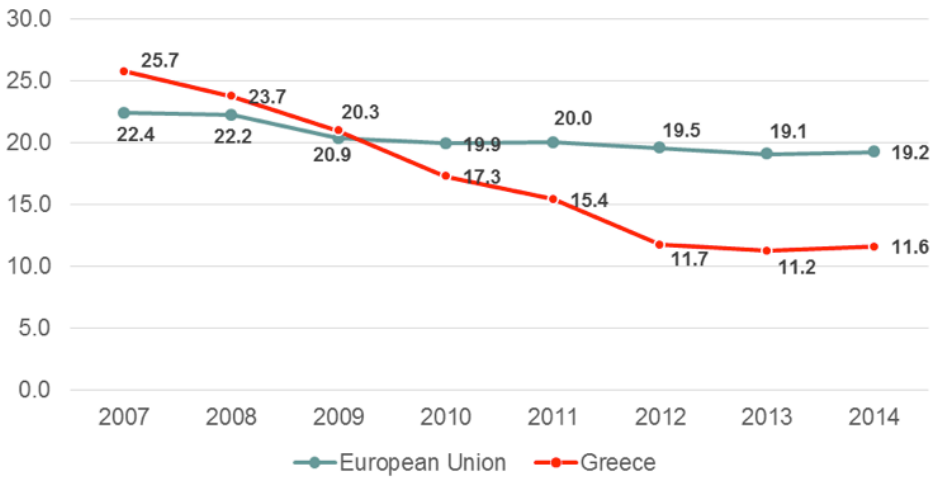
Source: IMF Country Report No. 14/151 (2014)

Figure 8. CPI-based real effective exchange rate



Source: IMF Country Report No. 14/151 (2014)

Figure 6. Gross fixed capital formation (% of GDP)



Source: World Bank (2015)

[8] The CPI-based real exchange rate depreciated by only 5.6% since 2009.

Apart from energy and indirect tax cost increases, non-wage costs remained high due to increases in social security contributions and delays in product-market reforms to reduce oligopolistic practices, promote competition and lower the cost of doing business.

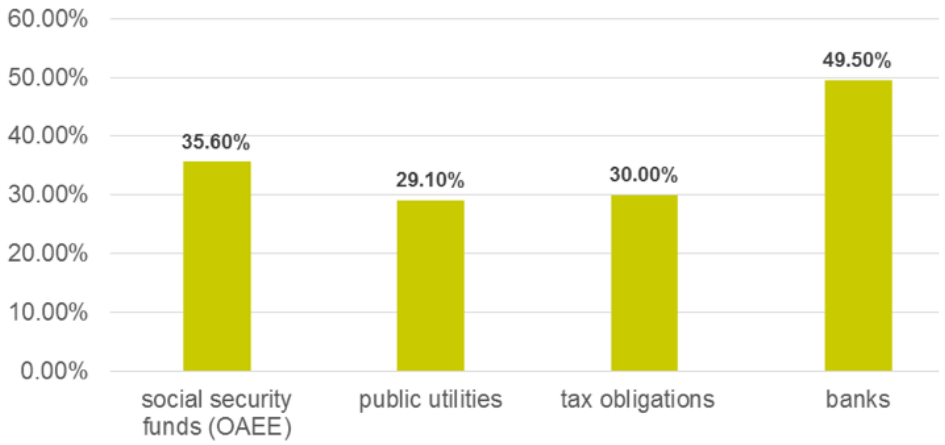
While product market reforms were mentioned on paper, neither the Greek governments nor the troika placed them, at least till recently, on their "high-policy agenda": with some exception in the 2012 programme, no product market reforms were identified as prior actions for a positive evaluation of the programme. Even under the 2012 programme, actions to improve the business environment and competition were limited to legislative amendments to remove disproportionate regulatory restrictions in four sectors (food processing, retail trade, building materials and tourism) and for opening the mediators' profession to non-lawyers; no priority was given to the urgent need for a drastic simplification of procedures and/or the reduction of costs for business licensing and operations across sectors, removing barriers to entry end enhancing competition in key sectors such as energy or transportation. As a result, a massive redistribution of income took place from wages to profits and from debtors to creditors.

Lesson 3: Upholding an effective social protection system is a prerequisite for sustainable public finances

The sharp reduction of net disposable incomes and the dramatic rise in firm closures have increased poverty and inequality to record levels. More than 44% of Greeks found themselves at risk of poverty in 2013, up from 20% in 2008 (ILO, 2014). An estimated 400,000 families with children have no single working parent. Pensioners in particular suffered from sharp reductions in pensions, amounting in some cases to 50%. The inability to access the health system or afford medical treatment for a large number of the population increased vulnerability and lowered productivity. The Gini coefficient rose from 33% to 34% during the same period.

The severity of the austerity programme, coupled with the weakening of the social protection system, has affected further the sustainability of public finances. Sharp cuts in personal after-tax disposable wage income and pensions of middle-income families have reduced their purchasing power and living standards as well as their capacity to pay taxes, social security contributions and debt obligations. By July 2015, delinquent obligations to social security funds only by SMEs rose to 36% of total obligations (see Figure 9), increasing the deficit in the social security system and delinquent obligations of the government to private providers of health services. In addition, as a growing number of productive-age, relative skilled adults and professionals have sought employment abroad, the ratio of working population to retirees has been reduced putting added pressures to public finances.

Figure 9. Delinquent obligations for small and medium-sized enterprises (July 2015)



Source:Small Enterprises' Institute of the Hellenic Confederation of Professionals, Craftsmen and Merchants - IME GSEVEE 2015 survey

Looking ahead: In search of greater policy coherence

Given the lessons learned from past experience, effective implementation of the third MoU programme requires greater policy coherence across fiscal policy measures, structural reforms and social policies. This is essential to promote growth, safeguard the sustainability of public finances and support social cohesion.

The main challenge for the country so as to exit the present crisis and avoid future ones is to promote a sustainable economic transformation that would expand productivity and competitiveness through investment and technological change mainly in dynamic tradable sectors. Priority should thus be given to expand gross fixed capital formation by at least 10 percentage points of GDP till 2020 in sectors where Greece enjoys a comparative advantage in world markets, including the agro food sector, tourism, cultural and business services, shipping, ICT, pharmaceuticals, communications, etc.

To do so, the structural reform agenda needs to give top priority to investment - promoting measures, for example, through the simplification of licensing and business operations procedures, more stable, transparent and business-friendly tax provisions, timely resolution of disputes in courts and strengthening competition policies; it also needs to re-establish funding at reasonable cost to viable firms and promising investments.

Fiscal policy, most notably tax policy, should support these efforts rather than work against them. Governance reforms should also seek to promote public- private sector dialogue and partnerships, transparency and accountability (Katseli, 2014; Katseli, 2015). It is to the interest of all stakeholders to have Greece return to a sustainable growth path. The challenge is to agree on how to do it.

The arguments above and the lessons drawn from the Greek crisis should be interpreted not as a call for non-action, but instead as a call for the adoption of timely and coherent reforms by governments to mitigate vulnerabilities before the eruption of financial crises. As stated in the introduction, Greece allowed itself to become vulnerable to a speculative attack in 2010 by postponing for two decades needed reforms that would have allowed it to enhance its price and structural competitiveness, expand greenfield investment and productive capacity, and prevent the growth of deficits and over-indebtedness that triggered the crisis. The crisis could therefore have been avoided; once it erupted, the adoption of an adjustment programme was inevitable.

In view of the inability of the ECB to act as a lender of last resort and in the absence of institutional mechanisms to address such crises within the Eurozone, not adopting a programme would have been highly problematic both for Greece and the Eurozone. The provision of funding allowed Greece to continue paying its debts and to avoid sovereign default; it also prevented the eruption of a systemic crisis within the Eurozone with potentially devastating effects for major European banks and the euro.

With hindsight, both the first and the second programmes could have been designed in ways that could have mitigated their severe deflationary and redistributive effects: fiscal adjustment could and should have been less severe, indirect tax and energy cost increases much smaller, and debt restructuring should have been addressed much earlier. Greater upfront emphasis should have been placed on product market reform and less emphasis – at least

initially – on labour market and governance reforms that exacerbated the programme's deflationary bias. [9]

In summary, priority should have been given to policy measures and pro-growth reforms with a view to lower the cost of doing business and enhance investment prospects. Such an alternative programme was feasible and would have probably required less external financing; it would have led to a more effective, sustainable and politically acceptable internal adjustment process, which could have prevented the impasse that led to the third programme and to a third recapitalization of the Greek banking system.

It would have implied, however, a vastly different political arrangement between Greece and EU institutions, one built on greater consensus as to the origin and nature of the Greek crisis, the effectiveness of the reforms proposed in view of the characteristics of the Greek economy, and, more importantly, the need for more equitable burden sharing across the various stakeholders. Under such an arrangement, European banks would have borne greater losses while European tax payers, not to speak of Greek wage earners and pensioners, would have borne a much smaller burden of adjustment.

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[9] The governance reforms through major administrative reforms adopted did not enhance the efficiency of government services, but focused on the exit of 5,000 employees and the transfer of 25,000 civil servants to the mandatory mobility scheme instead.

Dealing with Debt Overhang

By Agnès Bénassy-Quéré, Professor, Paris School of Economics, France

Both the 2008 financial crisis and the 2010 Eurozone crisis can be interpreted first and foremost as debt crises. Whether excess leverage came from the private or public sector is second order in these crises, as exemplified by the comparison between Greece (excess government debt) and Ireland (excess private debt). In some countries (Japan, Italy), excess leverage is less toxic because it is mostly internal: the private sector holds a large, positive asset position on the public sector. In other countries (notably peripheral European countries), excess leverage was built up vis-à-vis the rest of the world, which made the countries vulnerable to sudden stops of international capital inflows.

Since the beginning of the crisis, aggregate leverage has continued to increase in advanced economies (Buttiglione et al., 2014). Some deleveraging has taken place for households and financial institutions, but this has been overcompensated by rising public debts.

High leverage raises three types of macro-financial risks:

1. *Multiple equilibria.* Because debt accumulation crucially depends on the gap between the interest rate and the GDP growth rate, a high-debt country may easily be subject to a self-fulling crisis whereby the very fact that investors start questioning debt sustainability makes the debt unsustainable due to rising interest rates. As argued by De Grauwe and Ji (2013), this problem is more acute in euro area countries versus "stand alone" ones, because only in the latter is the central bank ready to play the role of a "buyer of last resort".[10] The problem is magnified by the risk of redenomination in case of a major banking crisis. In such case, the government may have no other choice than to re-introduce a national currency in order to provide liquidity to the banks. Then, the redenomination risk adds to the credit risk to increase the spreads and make the debt unsustainable.
2. *Large spillovers.* One lesson from the global financial crisis is that financial vulnerability depends on gross rather than net positions. When gross positions are large, an individual failure may have large spillover effects notwithstanding small net positions. The spillovers may be internal (like in the case of the sovereign bank loop) or cross-border (like after the failure of Lehman Brothers). They may arise from direct or indirect exposures, or from pure contagion effects (wake-up call).
3. *Low monetary and fiscal space.* An economy with high leverage may find it more difficult to implement counter-cyclical monetary and/or fiscal policies. First, the process of deleveraging puts downward pressure on aggregate demand. If the equilibrium real interest rate (the one that would equalize aggregate supply and aggregate demand) falls in negative territory, it is almost impossible for monetary authorities to deliver such negative real rate. Then, the risk is that of debt deflation whereby negative inflation raises the debt burden, which puts downward pressure on aggregate demand, hence on prices, etc. In such circumstances, it may appear necessary to have fiscal stimulation. However, if government debt is already high, an even temporary fiscal deficit would perhaps trigger a sovereign debt crisis. Hence, high debt involves living in dangerous territory in terms of macroeconomic policy.

To avoid such detrimental outcomes, it is necessary to bring sovereign debts back to safe territory. There are different ways to reduce the debt-to-GDP ratio, with different implications in terms of the distribution of the losses.

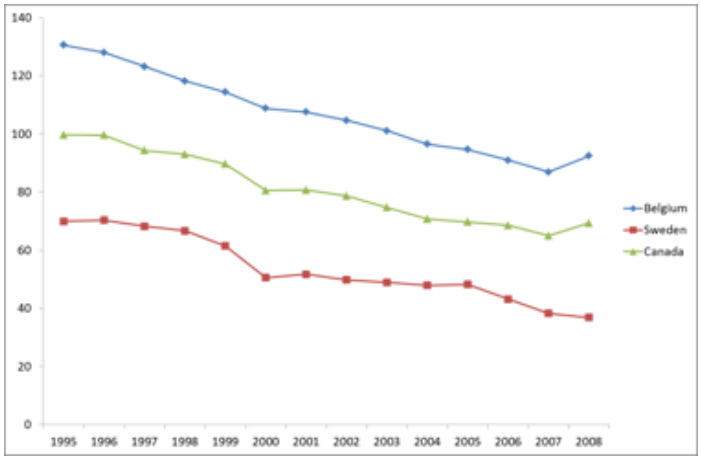
[10] In fact, "stand alone" countries may suffer a self-fulfilling currency crash rather than a self-fulfilling debt crisis when investors express their doubts over debt sustainability, because investors expect debt monetization rather than a default.

Fiscal adjustment

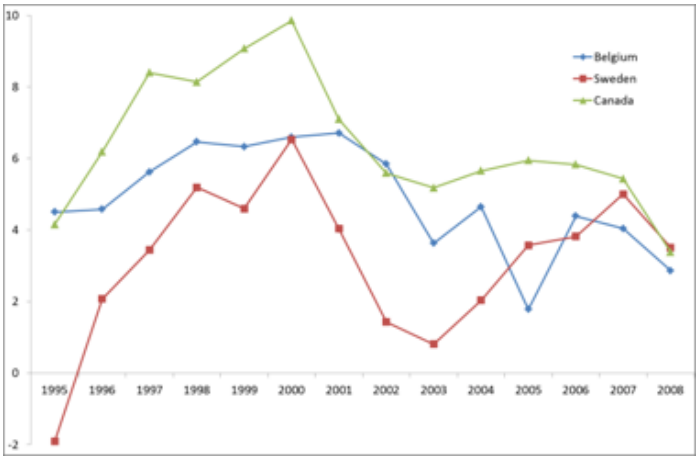
The orthodox way of reducing a debt ratio is to implement a fiscal adjustment, i.e. to eliminate at least the primary deficit, or even run a primary surplus when the implicit interest rate on the debt is higher than the GDP growth rate. This strategy was successfully implemented in Belgium, Canada and Sweden in the 1990s (Figure 1).

Figure 1. Government deleveraging through fiscal adjustment: Belgium, Canada and Sweden

1a. Gross government debt (% of GDP)



1b. Primary surplus (% of GDP)



Source: Ameco

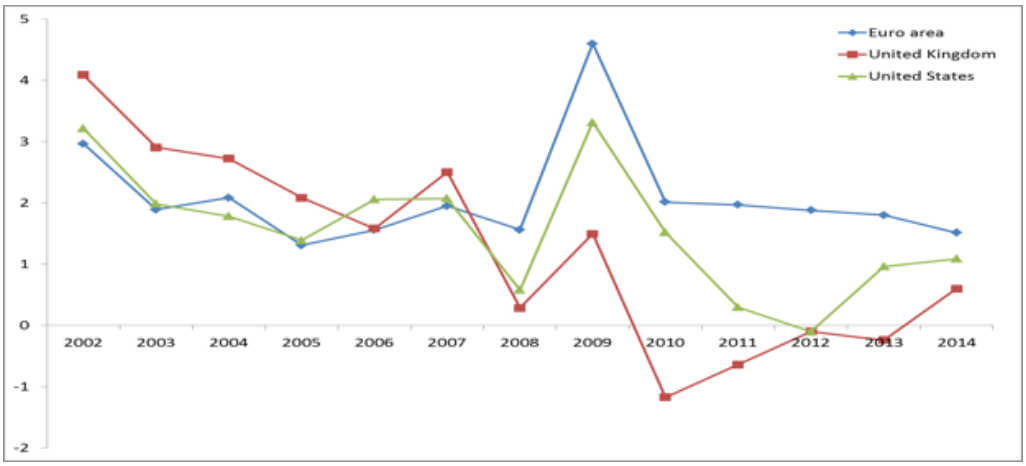
There are three problems with fiscal adjustment:

1. Large fiscal adjustment may fail to reduce the level of the debt when it is implemented in a period of slow growth. Over 1995-2008, GDP growth averaged 2.3% per year in Belgium, and almost 3% per year in Canada and Sweden, while inflation was over 2% in Belgium and Canada, and 1.3% in Sweden. The post-2008 context is very different, especially in the euro area where headline inflation is close to zero and GDP growth is also very weak. Empirical evidence (Escolano et al., 2014) suggests that to be successful fiscal adjustment needs to be accompanied by monetary easing, which may not be possible at the zero lower bound.
2. Large fiscal adjustments over the past have generally affected the generosity of social transfers (see Henriksson, 2007; Bourgon, 2009). Then, there is a problem of equity but also of acceptability. For instance, while it is important to safeguard the transfers to the poorest, more targeting also means that there will be many losers from the reform, which may raise a problem of acceptability.
3. The third problem is that of collective action. If the different kinds of agents try to deleverage simultaneously in several highly integrated countries, the result may be a recession. The sequencing of deleveraging is important.

Financial repression

The second way to reduce sovereign debt is through financial repression, i.e. a negative real interest rate like in the 1970s. In a period with very low inflation, however, a negative rate is difficult to engineer since the nominal interest rate can hardly fall well under zero (Figure 2).

Figure 2. The long-run real interest rate in the United States, euro area and United Kingdom (%)



Source: Ameco

A negative real interest rate amounts to a transfer from debtors to creditors, but recent ultra-loose monetary policies have fuelled a debate on their impact on inequalities through asset prices; by inflating asset prices, quantitative easing would raise inequalities. However, as argued by Claeys et al. (2015), this effect through asset prices is only part of the story. Through their impact on interest rates and employment, unconventional monetary policies tend to reduce inequalities.

Debt restructuring

Debt restructuring is the third way to reduce the debt burden. Obviously, debt restructuring will hurt the holders of the bonds. These may be residents or foreign investors. In some cases, the debt is partially held by official investors, hence its restructuring involves losses not only for the private sector but also for taxpayers of foreign countries. Then, if the failed government is of significant size, the problem turns political. Debt restructuring itself covers a wide range of schemes from rescheduling and interest reductions to outright haircuts on the face value of the bonds. The extensive literature on debt restructuring highlights the need to balance two risks: the risk of making debt restructuring an easy way of fixing excess leverage, which would involve moral hazard and strategic defaults; and the risk of procrastination, which may involve impossible adjustment programmes and ultimately political unsustainability. The balancing between the two risks is made by market discipline (i.e. market exclusion after a default) and/or accompanying adjustment programmes (with close monitoring by the IMF and, in the European case, by the "troika" or the "institutions").

Sovereign deleveraging in the euro area takes place in a specific context. On the one hand, both debt monetization and bail-in are proscribed by the treaty. On the other hand, debt restructuring was initially thought to be out of the picture. Logically, debt reduction was supposed to come only through fiscal adjustment. However, the experience of Greece has shown that a large fiscal adjustment in itself is no guarantee of bringing public finances back to a sustainable path.[11] In 2012, a first debt restructuring was carried out involving the private sector. In 2015, in the context of a third adjustment programme, the idea of a second restructuring, this time involving public creditors, was intensively discussed.

Fiscal discipline in the euro area is supposed to arise from a mixture of market discipline (as a result of the no bail-out rule) and compliance with fiscal rules (the Stability and Growth Pact). The debt crisis in the euro area is partially the result of a failure of both mechanisms. While the SGP has been strengthened and completed with a macroeconomic surveillance process, market discipline may have been weakened through several official assistance programmes. Consistently, several scholars have proposed to introduce a debt restructuring regime.[12] However, the problem of debt restructuring in the euro area may come less from the lack of a rule than from the fear of serious financial disruption in the event of a debt restructuring.[13] Then, the key point is to make a debt restructuring credible in practice when a government is insolvent. This involves more efficient collective action clauses, but also a diversification of bank exposures to sovereign risks (with the progressive introduction of large exposure limits or risk weighting of sovereign exposures, in combination with baskets of sovereign bonds); and a strengthening of the European Stability Mechanism so that it can deal with pure contagion effects.[14]

Even with full implementation of the SGP, it will take a long time before public debts are back to safe territory. In the meantime, the area will have to live in dangerous territory with high debt ratios involving macro-financial vulnerability, while the process of deleveraging itself may involve slow growth and social unrest. These challenges will undoubtedly require stronger institutions and stronger coordination, but also a firm commitment of EU member states to maintain the integrity of the euro area and overcome major challenges such as climate change or security issues. In fact, coordinated governments can go a long way in reviving private investment through making the future less uncertain. This is where they can find the solution to the excess leverage conundrum.

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[12] See e.g. CIEP (2013), or more recently Corsetti et al. (2015).
[13] See the discussion by Jeromin Zettelmeyer in the same booklet.
[14] See Bénassy-Quéré, Ragot and Wolff (2016).


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A Sovereign Debt Restructuring Mechanism for the Euro Area?

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In response to the great financial crisis of 2008-2009 and the ensuing crises in the euro area, the European financial architecture has been reformed and greatly expanded. It now consists of: an extended set of sanctions-backed rules to ensure fiscal soundness and prevent macroeconomic imbalances (the revamped Stability and Growth Pact, SGP, plus a Macroeconomic Imbalance Procedure, MIP); a formalized surveillance process that checks compliance with these rules and engages in policy dialogue (the European Semester, leading to country-specific recommendations for every EU member); a large crisis lender, the European Stability Mechanism (ESM), that can lend directly to euro area governments subject to an adjustment and reform programme; a European Central Bank (ECB) policy, outright monetary transactions (OMT), under which the bank will, under similar conditions, intervene in bond markets so as to prevent "run" on the debt of a euro member; centralized euro area banking supervision, the single supervisory mechanism (SSM); and a common bank resolution agency, the Single Resolution Mechanism (SRM), which is in turn backed by its own fund, the Single Resolution Fund (SRF).

All these come on top of a number of EU-wide agencies created after 2010 to coordinate financial sector regulations and policies, and recent EU directives that align country-level deposit insurance and bank regulation.

However, in spite of this rather impressive set of new institutions, rules and procedures, there is a widespread view that the European financial and fiscal architecture remains incomplete. Chief among the calls to "complete" the architecture are the creation of a European Deposit Insurance Mechanism (EDIS); a Capital Markets Union; a fiscal capacity for the euro area, such as a euro area budget or a European unemployment insurance mechanism; and a restructuring procedure for euro area sovereign debt. Most of these ideas have been around for years, but all have been recently restated by official bodies, suggesting that the European Commission and/or member states continue to view progress in at least one of these dimensions as important.[16]

This paper deals with the last of these ideas – the creation of a sovereign debt restructuring mechanism for the euro area.[17] It first offers an interpretation for why the idea has not gone away, in spite of the significant enhancements to the euro financial architecture since 2010; on the contrary, it seems to have picked up support. It then goes on to survey a number of recent proposals, followed by a brief assessment.

The debate

The standard argument for a sovereign debt restructuring mechanism for the euro area is that it would fill an important gap in the present financial architecture. While the ESM can deal with liquidity and "conditional solvency" crises that can be resolved with a mix of fiscal adjustment, economic reform and official financing, it cannot deal with crises involving unsustainable debt. As a result, such crises will either result in a messy default, or a risky and ultimately unsuccessful attempt to prevent insolvency through a combination of ESM/IMF lending and protracted austerity. The case of Greece, in which the ESM, the IMF and the Greek government tried but failed to prevent a debt restructuring, arguably at great economic and social cost, is sometimes cited as an example for the latter.[18]

While this view has attracted support among academics – both lawyers and economists, across the political spectrum – it has so far failed to gain traction among official European

[15] This note draws on joint work with Lee Buchheit, Anna Gelpern, Mitu Gulati, Ugo Panizza and Beatrice Weder di Mauro. Discussions with Jean Pisani-Ferry, Olli Rehn and Philipp Steinberg and comments by participants at an ECB workshop held in March 2016 are gratefully acknowledged. This note reflects the private views of the author and not necessarily those of the German Ministry for Economic Affairs and Energy or of any of the individuals acknowledged.

[16] Proposal to create a European deposit insurance and a capital markets union were recently submitted by the European Commission. The Italian Ministry of Economics and Finance has called for a euro area budget and a European unemployment insurance mechanism. The case for of a sovereign debt restructuring procedure has been recently reiterated by the independent German Council of Economic Experts, but also the German government in the context of discussions on how to "complete" the banking union.

[17] For an in-depth discussion of Capital Markets Union, see Véron and Wolff (2015). For reactions to the Commission's EDIS proposal, see Schuknecht (2016) and Véron (2016). For recent discussions of a possible euro area fiscal capacity, see Enderlein and Haas (2015) and Bénassy-Quéré et al. (2016).

[18] See Zettelmeyer et al. (2013) and Katseli (2016), in this volume.

[19] Unlike other "big ideas" such as the creation of a European Deposit Insurance System or a fiscal capacity mechanism for the euro area, there is no mention of the idea in the "Five Presidents' Report" of June 2015, which outlines the official view of the presidents of the European Commission, European Council, Euro Group, European Central Bank, and European Parliament on reform of economic and monetary union.

institutions, particularly the European Commission.[19] Roughly, the critics argue as follows: Even if there were a "gap" in the sense that no formalized procedure exists to deal with unsustainable debt cases, this would be very narrow. The euro area procedures, policies and institutions created since 2010 would likely have prevented the Greek sovereign debt crisis, as well as other euro area crises that originated in the 2000s. Furthermore, the ESM can help even highly indebted countries regain solvency without any need to restructure their private sector debts (or, indeed, posing much of a risk to the ESM itself), by providing potentially large volumes of low-cost financing conditional on economic reform. And in the very unlikely case that debts nevertheless have to be restructured, this can be done ad hoc – as successfully happened in the case of Greece – including by relying on the new "collective action clauses" introduced in all euro area bonds since 2013.

The critics also argue that a sovereign debt restructuring mechanism could create considerable costs, because introducing it at a time when many European countries still face high debt levels could well destabilize European debt markets. An often cited cautionary tale in this context is German Chancellor Angela Merkel's and former French President Nicolas Sarkozy's October 2010 call for a permanent crisis resolution mechanism in Europe "comprising the necessary arrangements for an adequate participation of the private sector", which triggered a sharp widening of bond spreads in a number of euro area countries, arguably fanning the debt crisis.

The last point – that announcing a debt restructuring procedure at times of high debt could backfire – is not controversial. With respect to the first point, however – that in light of stronger policies and institutions, there is essentially no problem that would require a sovereign debt restructuring procedure – there are two objections. The first is technical, the second political.

1. The debt restructuring procedure that was used in Greece does not necessarily carry over to other European cases, mainly because Greece was fairly unique in having issued almost all its debt under domestic law, making it easier to restructure backed by a change in domestic law.[20] Furthermore, collective action clauses introduced in European law since 2013 are of the sort that are not particularly helpful in a restructuring, because they require agreement not just by a supermajority of all bond holders, but also by a supermajority of the holders of each individual bond series. This makes it relatively easy for an individual to buy a majority of the outstanding volume of a bond series and hold out for full repayment. If there are enough "hold-outs", this will undermine the debt restructuring. So with respect to existing and future debt problems in the euro area, the view that a debt restructuring regime is not really needed rests entirely on the capacity of the ESM and the government to restore solvency in ways that do not require debt restructuring.

2. The argument that stronger rules and the presence of the ESM obviate the need for a sovereign debt restructuring mechanism in the euro area presumes both that the rules are applied as intended and that conditional ESM support works as intended if any case falls through the cracks. However, the experience since the rules were tightened and extended in 2011 shows both that they are not always applied as intended, and that they have created considerable resentment among the countries that are asked to comply – including a broad-based resentment against "Brussels" and the European project. Similarly, while adjustment dictated by the SGP and/or ESM-IMF supported programmes was successful in restoring solvency to European crisis countries (except Greece), they caused social and political tensions that boosted anti-establishment, anti-austerity and sometimes anti-EU parties in Greece, Spain, Portugal, Italy and even France. In Greece and Portugal, this led to governments opposing preceding ESM-IMF adjustment programmes. As a result, Greece almost left the euro area in the summer of 2015.

   In light of these tensions, the European Commission is coming under pressure to take a more flexible view of the rules and demand less adjustment, be it in normal times or under ESM programmes.[21] In this case, however, the argument that the euro area does not need a sovereign debt restructuring mechanism breaks down. Even if strict observance of the SGP and MIP were to prevent future debt crises, it is politically unrealistic to expect such strict observance. Similarly, ESM programmes may in the future have to require less adjustment effort of countries than they did in the past.

To make the case a bit differently: a debt restructuring procedure can help resolve the tension between euro area countries that may need to fiscally adjust and/or reform, but resent being told at what pace and in what form, and creditor countries that fear that unless SGP rules are strictly followed, the ESM will become a source of moral hazard. By strengthening market discipline, a debt restructuring procedure may require less "Brussels discipline". Even if market discipline fails, resolving debt crises will require less austerity if adjustment is accompanied by an orderly procedure to restructure debts owed to private creditors. As a result, adjustment programmes may be viewed as fairer on the general population, which in turn might strengthen country ownership of these programmes and increase the chances that they will actually work.

[20] See Zettelmeyer et al. (2013) and CIEPR (2013).
[21] Fiscal conservatives would argue that the Commission's January 2015 guidance on how to apply the rules of the Stability and Growth Pact (European Commission, 2015a) was a step in that direction.

Proposals

Figure 1 below lists a number of proposals published since 2010 – as the full extent of Greece's debt problem was becoming clear – to create a procedure to deal with deep debt crises in the euro area. Some of these are short notes or opinion pieces (Gros and Mayer, 2010; Weder di Mauro and Zettelmeyer, 2010; Weber et al., 2011; Buchheit et al., 2013), others longer papers (Gianviti et al., 2010; Paulus and Tirado, 2013; Fuest et al., 2014) and yet others reports or report chapters (EEAG, 2011; CIEPR, 2013; Corsetti et al., 2015, 2016).

Figure 1. Proposal to deal with deep sovereign debt crises in the euro area

	Does proposal attempt to address the:		
Proposal	Hold-out problem?	Commitment problem?	Transition problem?
Gianviti et al. (2010)	**Yes**	No	No
Gros and Mayer (2010)	No	**Yes**	No
Weder di Mauro and Zettelmeyer (2010)	No	**Yes**	**Yes**
EEAG (2011)	A bit	**Yes**	No
Weber et al. (2011)	**Yes**	Yes	**No**
Buchheit et al. (2013)	Yes	No	No
Paulus and Tirado (2013)	Yes	No	No
CIEPR (2013)	Yes	Yes	**Yes**
Fuest et al. (2014)	**Yes**	**Yes**	**Yes**
Corsetti et al. (2015, 2016)	**Yes**	**Yes**	**Yes**

The columns state whether the proposals attempt to address three key problems alluded to in the discussion so far:[22]

- The "hold-out problem" refers to the possibility that a single creditor may refuse to participate in a restructuring even when this is in the collective interest of creditors, hoping to free ride on a restructuring agreed to by a majority.
- The "commitment problem" refers to the problem that even if a legal mechanism exists that solves the hold-out problem, euro area governments may choose not to use it – even in cases of doubtful debt sustainability – as long the ESM offers an easy way to postpone the day of reckoning. The reason for this is the classic time consistency problem: euro area governments may *wish* to use the ESM only in cases when debts are clearly sustainable (as prescribed by the ESM treaty), including to maintain an incentive to allow debt from becoming unsustainable in the first place. Once a country is at the point where crisis prevention has failed, however, it may be optimal to let bygones be bygones and lend to this country, even when the success of the programme is doubtful. Anticipating this, domestic policy-makers may not have sufficiently strong incentives to prevent crises – at the ultimate expense of either the European taxpayers backing the ESM, or the domestic citizens who will be forced into austerity in order to ensure that the ESM is repaid.[23]
- Finally, introducing a debt restructuring procedure at times when debts are high may make debt holders nervous and actually *trigger* a crisis, particularly when the procedure entails a commitment device that may prevent the use of ESM lending unless sovereign debts are restructured or rescheduled ("transition problem"). High debt creates a chicken-and-egg problem: without a commitment device, incentives to reduce debt may not be strong enough and countries may remain vulnerable to crises; at the same, the introduction of such a device may make things worse. The question is how to manage the transition from the present state to a state in which a debt restructuring procedure can be safely introduced.

[22] This misses some important related aspects of the debate, in particular, how to regulate euro banking systems to reduce its exposure to sovereign debt (Corsetti et al., 2015, 2016), and whether and how to create a seniority structure in sovereign debt (see Corsetti et al., 2015; Wendorff and Mahle, 2015).

[23] See Jeanne and Zettelmeyer (2005) and Jeanne et al. (2008) for an analysis of these issues in the context of IMF crisis lending.

It is not possible to go into the details of the proposals listed in Figure 1. What follows instead is a broad-brush characterization of how the three key problems are addressed in the proposals, if at all.

Hold-out problem
There are essentially three approaches in the literature:
- Gianviti et al. (2010) and Paulus and Tirado (2013) argue for a full-fledged, treaty-based sovereign debt restructuring mechanism resembling corporate bankruptcy, involving a sovereign bankruptcy court (e.g. a chamber of the European Court of Justice); decisions of that court would be binding for all creditors.
- Buchheit et al. (2013) – and based on their paper, also CIEPR, 2013; Fuest et al., 2014, and Corsetti et al., 2015) – argue for a change to the ESM treaty that would extend immunity from judicial process to sovereigns that negotiated a debt restructuring with a (super)majority of creditors in the context of an ESM programme.
- Several authors argue for contractual approaches such as bond clauses that allow "one-limb aggregation" of bondholders – that is, clauses that change the payment terms of each bond following a debt restructuring agreed by a supermajority of *all* bondholders (as opposed to "two-limb" voting rules, which do not just require agreement of a supermajority across all bonds but also a supermajority of the holders of each individual bond series).

Commitment devices
Making sovereign debt restructurings credible also come in three shades:
- Rules that limit ESM support either in time (e.g. to 2 or 3 years, as in EEAG, 2011 or Fuest et al., 2014) or financially (e.g. 30% or 60% of GDP, see EEAG 2011 and Gros and Mayer, 2010). Once the limit has been reached, further ESM support requires a debt restructuring of some kind.
- Rules that condition ESM support on economic indicators such as debt levels (Weder di Mauro and Zettelmeyer, 2010; CIEPR, 2013; Corsetti et al., 2015); highly indebted countries could only access the ESM if they also agreed to restructure their debts.
- Finally, bond clauses that require an automatic maturity extension if the country becomes the recipient of an ESM programme (Weber et al., 2011; note that these clauses would simultaneously deal with the holdout problem).

Transition problem
Several authors ignore the transition problem, even when they propose commitment devices. Those that do not tend to offer two solutions, sometimes in combination:
- *Delayed commitment*. While the commitment device is agreed today (in a manner that makes it hard to revoke), it only comes into effect after a long period – say, 15 years. During this period countries have both time and an incentive to adjust their debts, assuming, of course, that the commitment is credible (Fuest et al., 2014).
- *A common transition plan*. The commitment device would come into effect only after a transition accelerated by offering high debt countries conditional incentives to adjust. These usually take the form of guarantees or some other form of financial support (Weder di Mauro and Zettelmeyer, 2010; CIEPR, 2013; Corsetti et al., 2015). In Corsetti et al. (2015), euro area would countries commit a revenue source to a new European fund, which issues common debt and uses the proceeds to buy back or swap national debts. Unlike all other transition plans, national debt stocks are hence reduced in one "stock operation". At the same time, the sovereign debt restructuring regime is introduced (including a commitment device to deter countries from building up excessive new dates). The scheme works, both because it creates a commitment to dedicate a portion of national revenues to debt reduction and because the swap exchanges potentially risky national debt with common European debt, hence reducing national debt overhang.

Discussion

Hold-outs
Collective action clauses allowing "one limb aggregation" of bondholders provide an easy and by now uncontroversial approach to address the hold-out problem (see above). They were endorsed by the Executive Board of the IMF in October of 2014 and appear to have caught on in emerging market and developing countries. The IMF (2015) reports that about 60% of new international bond issues issued between October 2014 and August 2015, involving 21 issuers, contained the new clauses. Euro area countries are not among these issuers, but there are no reasons why the euro area should not use these clauses. The "two-limb" aggregation clauses that are currently in use in the standard euro area bond contract should be upgraded to "one-limb" as soon as possible.

The main disadvantage of relying on bond contracts to address the hold-out problem is that they do not address the stock of bonds that have already been issued. This is achieved by treaty-based "statutory" changes such as the Buchheit et al. (2013) proposal, which maintains the rights of hold-outs but protects sovereign property inside the euro area from judicial action, and more elaborate procedures such as Gianviti et al. (2010) and Paulus and Tirado (2013), who would in effect create a euro area level – or perhaps even EU-level – sovereign bankruptcy court.

Unsurprisingly, these proposals involve a trade-off between simplicity and coverage. The Buchheit et al. (2013) proposal would not require any new institution or procedure; all that would be required is the insertion of one paragraph in the

ESM treaty. This would not, however, protect euro area sovereign assets outside the euro area. A new specialized sovereign debt court for euro area countries would do just that for all (new) sovereign bonds issued under its jurisdiction. Debt disputes between holders of these bonds and euro area sovereigns would be adjudicated by the court. The chances of legal action outside the euro area would be slim, as foreign courts would refer the bond holder to the jurisdiction of the euro area court.

Commitment devices
Borrowing from the language of statistical testing, all commitment devices discussed in the context of sovereign debt restructuring in the euro area involve a trade-off between Type I and Type II errors. Type I is the kind of error that a test tries to control. In the context of the debate on debt restructuring in Europe, the Type I error is that countries that should have restructured their privately held debts are instead bailed out by official lenders. According to the proponents of commitment devices, the likelihood of committing this error under the status quo is too high. The role of the commitment device is to reduce it. But by attempting to do so, the commitment device could introduce, or increase, another type of error – the Type II error, which is the probability of ending up with a "false positive": requiring a restructuring even though a conventional conditional adjustment programme would have done just fine.

All commitment devices involve lower Type I errors and higher Type II errors than the status quo (Type II errors seem virtually impossible in the status quo, unless the Greek precedent leads to a fundamentally different behaviour of the ESM Board than has been the case until now). However, just like statistical tests may differ in their "power" to keep Type II errors low for given Type I errors, so may the commitment devices discussed in the previous section. For example, devices based on a simple debt-based rule (no ESM lending to countries with more than X percent of GDP of debt unless there is also a restructuring or at least a maturity extension) probably involve fairly high errors of both types, because debt-to-GDP is such a crude measure of solvency. However, they probably still do better than the status quo, because by setting the threshold appropriately high, one achieves some reduction in Type I error without a notable cost in terms of Type II error.

One simple thought experiment to assess the probability of Type I error associated with a particular commitment device is to ask whether the device would have prevented official lending to Greece in 2010 without an accompanying debt restructuring or rescheduling. This would not have been the case for devices relying purely on temporal or volume-based constraints to ESM lending, such as Gros and Mayer (2010) or Fuest et al. (2014). To the extent that one views the 2010 Greek bailout as the "original sin" that a commitment device should have helped to avoid, this is probably a reason to disqualify these types of devices.

Finally, contractual devices such as the Weber et al. (2011) bond clauses that lead to an automatic maturity extension in the event of an ESM programme may occupy a special place. They reduce the Type I error to zero, at the expense of a large Type II error (assuming that the majority of ESM programmes do not require a debt restructuring). However, the cost of these Type II errors is arguably low, because contractually triggered rollovers do not constitute defaults, do not require negotiations and do not raise a coordination problem across creditors. They also should not cause reputational damage to debtor countries beyond that already caused by the fact that the country requires an ESM programme, and they have the advantage that they lower the financing volumes needed under the programme (in addition to keeping the option of a deep restructuring open if the need arises).

This makes these clauses attractive except for the fact that they may – perhaps unnecessarily – subject creditors to (in effect) additional involuntary lending. In anticipation of this, incorporating these clauses may increase borrowing costs, and countries may lose market access earlier than under the status quo.

Transition problem
Ideas to deal with the transition problem should be judged on first, whether they are likely to succeed in avoiding an unnecessary market panic during the transition period, and second, whether they create a new time consistency problem that weakens the credibility of actually ending up with the desired debt restructuring mechanism at the end of the supposed transition period. Schemes that simply set a deadline and do nothing else clearly run that danger – if there is insufficient adjustment during the transition period, it will be in everyone's interest to further put off the date on which the commitment device is supposed to bite. Hence, the strength of these schemes depends on irrevocability of the initial legal commitment to let the debt restructuring regime come into force at the end of the deadline, come what may. But legal commitments are seldom that strong. And even if they were possible, it would not be very wise to adopt an iron-clad commitment without any escape clause (for example, to deal with a major crisis that disrupts the transition process).

The only proposal in figure 1 that offers a clean solution to these problems is the one by Corsetti et al. (2015, 2016), because it cuts the length of the transition period to zero by way of a debt swap. However, it does so at the (political) cost of issuing common euro area debt in unprecedented volumes (in the order of €750 billion, if the objective is to reduce the debts of all euro area countries to under 100% of GDP). Even if the scheme does not lead to transfers ex post (because ultimately each country repays the portion of the fund used to buy back its own debt) this raises difficult questions about how the risks of common issuance are to be shared ex ante.

One approach to ensuring a time-consistent transition regime might be to combine the contractual approach of Weber et al. (2011) with a statutory device (e.g. a debt-based rule) that becomes effective at a future date (say, in 20 years). Because the contractual approach introduces automatic maturity extensions in the event of an ESM programme only for new bonds, it should not have effects on the secondary market prices of existing debt (although it could have effects on the cost of primary issues, see

below). By the time that the transition period is up, the incremental change of the statutory device would be minor, because at this point most of the outstanding debt stock (with the exception of non-bonded debt) would include an automatic extension clause. Hence, introducing the statutory device at the end of this period might be credible.

The open flank of this idea is that introducing automatic extension clauses in new bond issues during the transition phase could sharply increase the cost of new borrowing in high debt countries, before they have had a chance to adjust. This problem can be mitigated, but not fully avoided by committing to, but delaying the time at which extensions clauses are introduced (albeit at the price of a new time consistency problem), or choosing extension clauses that are designed specifically for the transition phase. For example, they could require a "second trigger" (in addition to an ESM programme) involving a country-specific (rather than common) debt threshold, which takes into account the starting position of each country. Furthermore, the maturity extensions might apply only to bonds with residual maturity of three years or less (the standard length of an ESM programme). The latter would allow countries to maintain market access via longer-dated bonds, even if investors are nervous about the possibility of an ESM programme in the near term.

Conclusions

First, there are low-risk, straightforward reforms to deal with hold-out creditors, and hence allow orderly debt restructurings to go forward as a last resort to deal with intractable sovereign debt. They include adopting collective action clauses that allow the aggregation of bondholder votes across all issues and legal protections for sovereigns who have undertaken a debt restructuring with the consent of the majority of their bond holders and the ESM.

Second, there is also a case for changes in bond contracts and/or the ESM treaty that would protect the ESM from inappropriate use, by forcing private sector creditors to maintain their exposure when the ESM lends to countries whose debt sustainability is not assured. At the same time, devices of this type may get it wrong in the sense that they could force a maturity extension even when the country's debt was, in fact sustainable. This might be an argument not to anchor such devices in statutes but rather bond contracts that extend maturities when a country enters an ESM supported programme, perhaps subject to some additional conditions. While bond clauses of this type may also get it wrong, the consequences of doing so are relatively mild, since maturity extensions would not require a renegotiation of existing contracts.

Third, the most difficult aspect about introducing commitment devices of this type is to ensure that the desired increase in "market discipline" in the long term does not turn into *excessive* market discipline while countries are trying to adjust from high debt levels. For example, bond clauses that automatically extend maturities when countries enter ESM programmes may be too tough if they were to lead to sharp increases in the borrowing costs of new issues, and perhaps lead to premature loss of market access. One way to deal with this might be to design bond clauses that take account of country-specific differences in initial debt stocks, or committing to introduce these clauses only after a delay that gives countries a number of years to adjust. While the latter may not fully credible (including because of the need to incorporate an escape clause to deal with large shocks during the transition phase), it would clearly have a greater effect than not having any commitment device at all.

One radical solution of the transition problem would be to shrink the transition period to zero by combining a swap of a portion of national debts for European debt with a jump to the "long-run" debt restructuring regime (Corsetti et al., 2015, 2016). The problem with this approach is that the common debt that would need to be issued to make it work might be very large, requiring exceptional political courage (as well as trust across euro area government). However, the general logic of the Corsetti et al. (2015, 2016) approach may transcend their specific proposal. In an environment in which debt in many European countries is still very high, inflation is too low and growth is too weak, the introduction of a sovereign debt restructuring regime in Europe may work only in the context of a broader plan, in which greater market discipline in some areas is combined with more risk sharing and/or common institutions in others. Ultimately, it is difficult to see the euro area moving forward without a grand bargain of this sort.

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Global Fiscal Systems

Towards Effective and Efficient Social Protection Systems in Times of Crisis

By Monika Queisser, Head, Social Policy Division, Directorate of Employment, Labour and Social Affairs, Organisation for Economic Co-operation and Development (OECD), Paris

The financial and economic crisis has led to a steep decline of employment and has seriously weakened public finances in many developed countries. Countries that experienced the deepest and longest downturns have been seeing profound knock-on effects on people's job prospects, incomes and living arrangements.

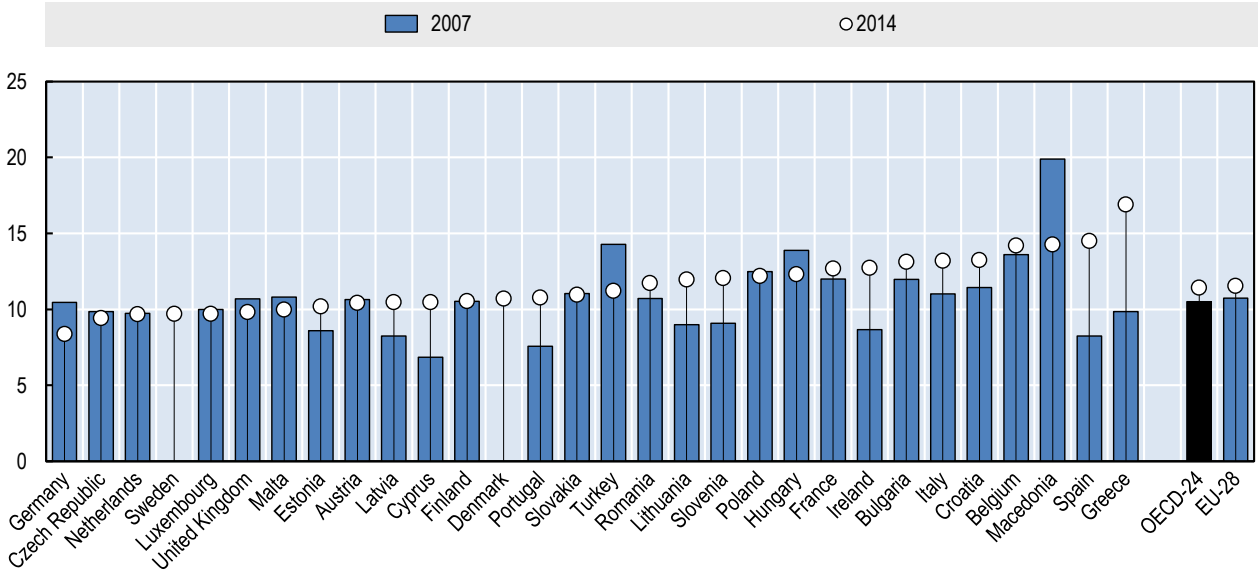
Real average household income stagnated or fell in most countries in the period from 2007 to 2011-2012 (the latest years for which data are available). The declines were particularly striking in the countries hit most severely by the crisis. In Greece, the average household lost over 8% of its real net income annually, and in Spain, Ireland and Iceland, the falls exceeded 3.5% per year.

The crisis period also saw a marked rise in income poverty in OECD countries, especially when measured in terms of "anchored" poverty, i.e. when fixing the real low-income benchmark to pre-crisis level. Between 2007 and 2011, the OECD anchored poverty rate rose by just over one percentage point to 9.4%. In Greece, anchored poverty more than doubled to 27% and in Spain it almost doubled to 18%.

The number of people living in households without any income from work has risen most dramatically in Greece, Ireland and Spain. Among the hardest hit were households with low incomes, young people and families with children. There was also a shift in the age profile of poverty, with young people replacing the elderly as the group most at risk of poverty; this trend of declining poverty among the elderly has been lasting for the past 30 years.

Very large increases in the number of workless households in countries hardest hit by the global crisis are a major test for social policies.

Share of adults living in workless households (%)



Note: Population aged 15-74 excluding workless households composed solely of students or solely inactive aged 65 and over. Households are defined as "workless" if all household members are either unemployed or labour-market inactive. (Source: European labour force survey, OECD)

Some of the social consequences of the crisis, for example on family formation, fertility and health, will be felt only in the long term. Fertility rates have dropped further in many countries since the start of the crisis, deepening the demographic and fiscal challenges of ageing. Often, families have also cut back on essential spending, including on food. It is still too early to quantify the longer-term effects of this situation on people's health, but unemployment and economic difficulties are known to contribute to a range of health problems, including mental illness.

Social protection systems put to the test

In 2014, OECD countries on average devoted more than one-fifth of their economic resources to social spending. Public social spending-to-GDP ratios are highest at over 30% of GDP in Denmark, Belgium, Finland and France (highest at almost 32% of GDP), with Italy, Austria, Sweden, Spain and Germany also spending more than a quarter of their GDP in this area.

In the beginning of an economic downturn, social spending-to-GDP ratios usually increase as public spending goes up to address greater need for social support, while simultaneously economic growth falters (GDP as in the denominator). At the onset of the Great Recession both these features contributed to a rapid increase in public social spending-to-GDP ratios on average across the OECD from 18.9% in 2007 to 21.9% in 2009, and estimates for recent years suggest it has declined a little since: it was 21.6% of GDP in 2014.

Given the large size of social outlays as a share of total public spending, the limits to taxation (for example, difficulties in taxing mobile capital, the desire to reduce labour costs, etc.) and many governments' current interest in prioritizing investment spending, it is not realistic to assume that fiscal consolidation will exclude reductions in spending on social protection.

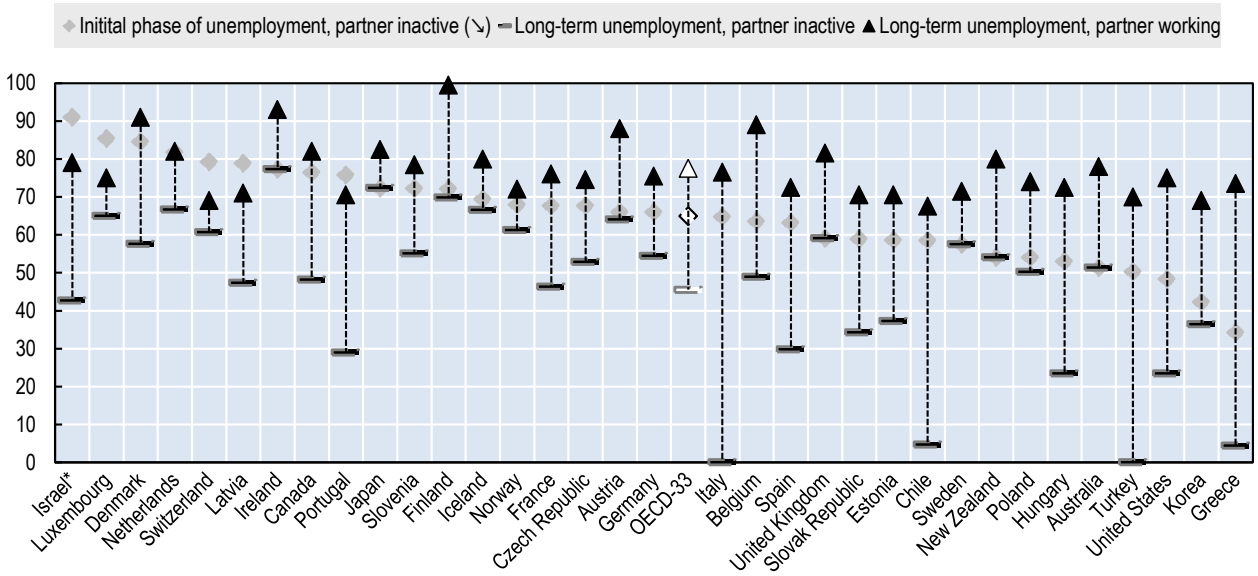
In some OECD countries there has indeed been a significant decline since social spending peaked in 2009, with spending-to-GDP ratios having gone down by 1.5 to 2.5 percentage points in Canada, Germany, Hungary, Iceland, Ireland, the United Kingdom, and by 3.5% of GDP in Estonia. The most rapid decline was recorded for Greece, where the social spending-to-GDP ratio fell by almost 2 percentage points since it peaked in 2012.

Setting priorities in social spending

How and when social spending is reduced should be weighed carefully. As long as job markets are weak, there is little room for cuts in spending on unemployment benefits, social assistance and active labour market programmes. In some countries, long-term unemployment affecting people living in households where no one works will result in families receiving no or only very low incomes, increasing risks of poverty and social exclusion. Therefore, the introduction or maintenance of targeted safety-net benefits should be a priority in countries where such support either does not exist at all, where it is difficult to access, or where large numbers of long-term unemployed are exhausting their eligibility to contribution-based unemployment support.

In most countries, benefit incomes decline significantly for people with long unemployment spells.

Net incomes of after unemployment, with and without working partner, % of in-work incomes 2013

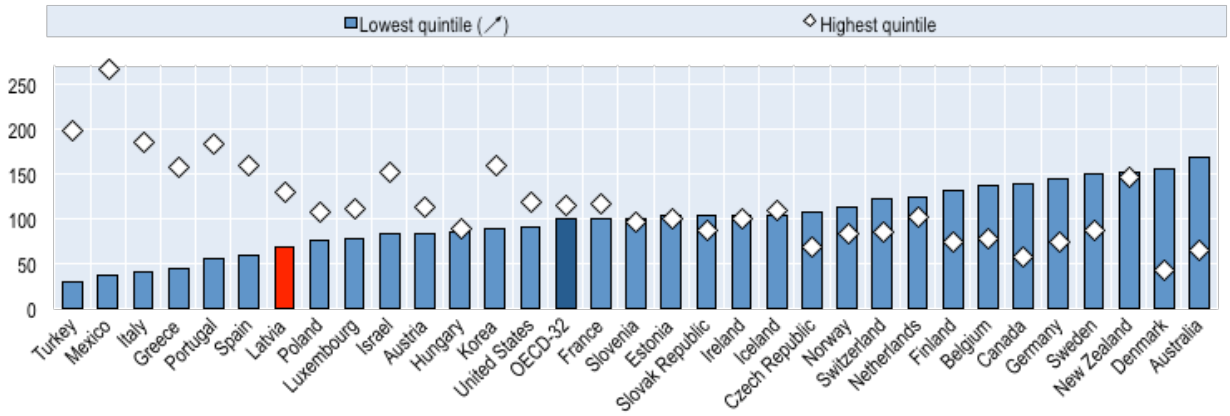


Source: OECD tax-benefits models

Any savings on these types of programme should be undertaken in line with the pace of recovery.
Across-the-board cuts in social transfers, such as housing and child/family benefits, carry substantial risks, as these transfers frequently provide vital support to poor working families and lone parents. In countries where social expenditures are already strongly targeted on low-income groups, for example in Australia and Denmark, cutting social spending will hit the poorest far more than the richest 20% of the income distribution.

When social transfers are highly targeted, spending cuts are more likely to hurt the poor.

Cash transfers received by low- and high-income groups, % of average transfers in 2012 or latest year available



Source: Calculations from OECD Income Distribution database

Cuts in social spending can generate short-term savings, but they may translate into much higher costs in the future. Spending on children, for example, has long-term benefits for physical development but also lays the foundations for young adults' cognitive, emotional and social skills. Spending on families enables parents to combine work and family responsibilities and is especially important for those who have lost their jobs and need to be able to focus on training and job-search knowing that their children are in good care during this time.

Similar risks occur with cuts in health spending. In a number of European countries, healthcare expenditure has fallen drastically since 2008, with Greece and Ireland cutting the most at 11% and 7%, respectively. Other hard-hit countries such as Iceland, Portugal and Spain have also reduced health spending.

Often, the efficiency of healthcare spending can be improved by reducing waste, reducing medical errors, cutting inappropriate care and spending on unnecessary treatments, improving care coordination and removing administrative inefficiencies. But poorly designed reductions can trigger rising healthcare needs – and in turn higher spending – in the future. Structural measures that strip out unnecessary services and score efficiency gains are preferable to untargeted cuts that limit healthcare access for the most vulnerable. Cuts unfortunately tend to happen where it is easy to cut, not where there is a need or opportunity to improve health. The clear example here is prevention; spending in this area has been reduced since 2009, even though it is a much more cost-effective way to improve health outcomes than other health spending.

Governments should make funding of investment-type programmes a priority. Especially hard-hit countries should ensure access to quality services for children and prevent labour market exclusion of school leavers. To be effective, however, social investments need to be embedded into to an overall strategy which provides adequate support for the poorest.

There is a strong case for designing government support in ways that harness and complement – rather than replace – households' own capacities to cope with adversity. Labour market activation and in-work support should be maintained at reasonable levels. Australia, Denmark and Switzerland provide examples for this approach, as they automatically adjust the resources devoted to active labour market policies in line with the conditions of their labour markets.

Where there are large numbers of households without work, policy efforts need to focus on ensuring they benefit quickly once labour market conditions improve. For instance, to be as effective as possible, work-related support and incentives should not be restricted to individual job seekers but should be made available to non-working partners as well.

More effective targeting can generate substantial savings while protecting vulnerable groups. However, fine-tuning of targeting is necessary in order to avoid creating perverse incentives that deter people from finding work. For instance, unemployed people who are about to start a job may suffer losses or may gain very little as they switch from benefits to earning a salary, due to the fact that they will have to start paying taxes and social insurance contributions.

To "crisis-proof" social policies and to maintain effective support throughout the economic cycle, governments must look beyond the recent downturn. They need to

find ways to build up savings during upswings to ensure they can meet rising costs during downturns. In addition, economic recovery alone is in most cases unlikely to undo the damage inflicted by recessions, as income losses have often become entrenched. Some countries, such as France, Portugal and the United States, therefore extended the payment duration of out-of-work benefits when the crisis struck.

Effective social protection requires a strong and sustainable resource base. On the revenue side, countries should therefore take measures to broaden tax bases, reduce the reliance on labour taxes and adjust tax systems to account for rising income inequality.

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Demographic Challenges and Social Security

Hans-Horst Konkolewsky, Secretary General, International Social Security Association

Global demographic trends

Demographic trends are multi-dimensional. Unprecedented increases in life expectancy combined with declining birth rates have revolutionized demographic structures around the globe. The world is ageing, as the UN report on World Population Ageing 2013 shows:

- Globally, the number of older persons (60 years or over) is expected to more than double, from 841 million in 2013 to more than 2 billion in 2050.
- The share of older persons will grow from the current 11.7 per cent of the world population to 21.1 per cent in 2050.
- The share of older persons aged 80 or over is expected to grow more than threefold by 2050.

Population ageing is a reality in industrialized countries. The average old-age dependency ratio of high-income countries is at 24.5 per cent in 2015 and is expected to increase to 44.2 per cent by 2050. Japan and Italy lead the trend with 2050 projected ratios of 63.8 and 63.1 per cent respectively.

Increasingly, emerging and developing economies witness the same demographic development. Already today, two-thirds of all older people live in developing countries and this rate will be 80 per cent in 2050. The average old-age dependency ratio of the less developed regions, excluding least developed countries, is expected to grow from 10.2 per cent in 2015 to 26.3 per cent in 2050. Only the least developed countries are not, so far, part of this general trend.

Demographic ageing is accompanied by, and interacts with, a number of additional demographic and social transformations that significantly impact on the need for, and sustainability of, social security systems:

- Urbanization and the related transformation in lifestyles;
- Changes in family structures, including the trend to smaller and more unstable families;
- Life-cycle desynchronization, with the blurring of the previously standardized lines between education, working life and retirement;
- Increased migration flows, with increased population mobility at both national, regional and international levels.
- Increased prevalence of chronic diseases or health conditions, related to the increase in risk factors related to ageing, changing lifestyles and urbanization.

Challenges

Demographic trends impact on social security needs, income sources and expenditures.

Population ageing, for instance, leads to reduced levels of contributions and increased expenditures. In addition, to maintain the same level of output and economic performance, a reduction in the number of persons in the working age must be compensated by increased productivity or labour force participation.

In this context, governments and societies worldwide face a major challenge: how to ensure financial sustainability of social security systems while at the same time adapting to evolving needs and providing adequate levels of financial security and services. This challenge is compounded by the looming question about intergenerational equity, as financial security for older persons must not come at the detriment of investment in younger generations.

Increasingly flexible life-courses as well as increased mobility are a particular challenge for the relatively standardized schemes in industrialized countries, originally tailored to traditional working careers and family structures. The gradual change to the concept of retirement, not least through the replacement of retirement ages by flexible pensionable ages, signals a transformation of the understanding of old-age as a “risk”.

Responding to the increased prevalence of chronic conditions will be a key factor in ensuring the sustainability and extension of health care systems, in both industrialized and developing countries. Tackling health risk factors related to changing lifestyles requires new approaches and calls for prevention and early intervention across different settings.

Finally, an important issue relates to the fact that a large part of the world population still does not have access to social security protection. The risk of poverty in old age therefore remains a major challenge, and demographic projections call for increased action to extend coverage.

Responses

Current reform trends indicate an evolution of major parameters of social security systems:

- Increases in retirement ages are now common not only in OECD countries, but also in middle income countries;
- Social security benefits and services are increasingly targeted;
- Health care systems are streamlined to reduce inefficiencies and provide adapted care for persons with chronic diseases;
- Complementary provision is being encouraged and the role of individual responsibility continues to grow.

While the policies pursued along these lines will produce short- and longer-term savings, they are unlikely to be sufficient to appropriately address the challenges resulting from demographic trends as rapidly increasing life expectancy is posing important challenges the sustainability of pension systems. Increased life expectancy is closely related to advances in medical technology which is leading to higher overall health expenditure as the demand for new expensive treatments increases even faster.

Policies must therefore seek to reduce the need for benefits and services, and support more than ever labour market participation, activity and productivity. Meeting the challenges of demographic trends therefore requires broad action in many policy fields including in particular a transformation of social security towards a stronger emphasis on *pro-active and preventive* measures as a complementary means to protection.

In other words, social security must complement effective protection by strengthened investment in individuals, societies and economies through effectively supporting health, employment and empowerment. Clearly, an important dimension of all efforts must be to make them accessible to more people, and ultimately the entire population.

Supporting health
Health is a key component of human capital. Investment in reducing health risk factors and better healthcare is a key to creating healthier, more inclusive and more productive societies. Across many countries, efforts are underway to improve health promotion, early detection and access to structured and coordinated health care services. Proactive and preventive approaches favour holistic health systems that are more effective at preventing and controlling non-communicable diseases.

In Mexico, for instance the State Employees' Social Security and Social Services Institute (ISSSTE) has implemented a preventive health model called "PrevenISSTE" which uses a combination of primary care, risk assessment among the beneficiary population, and tailored care through multidisciplinary teams to increase early detection of chronic disease and allow for better care for these conditions.

In Australia, a national partnership on preventive health develops programmes to address lifestyle-related chronic diseases. A key element was the establishment of the Australian National Preventive Health Agency, charged with working across portfolios, jurisdictions and sectors to target lifestyle risk factors for chronic conditions.

Supporting employment and activity
Reaching high employment rates is a result of successful macroeconomic policy, well-functioning labour markets and social security and health policies that facilitate and encourage people to be engaged in productive activity. The global crisis is evidence of how deep recessions reduce employment and in some cases labour market participation, threaten the sustainability of public finances and lead to cuts in social expenditure. At the same time the Global and European crises have prompted reforms in the labour markets which can have important long-term benefits, if pursued consistently.

Proactive and preventive social security approaches constitute a key element in strategies to promote labour force participation and employment rates. The longer a person remains away from work, the more likely it will be that he or she will require long-term social security benefits. The concern to implement social security measures to prevent or shorten absence from work as a result of unemployment, ill-health or occupational accidents has been most prominent in ageing industrial economies, but is increasingly being addressed in other countries.

A good example is provided by the Return to Work program in Malaysia that assists insured members suffering from employment-related injuries and those claiming an invalidity pension to return to work using a disability case management approach. Around three quarters of the workers that participate in the program are able to return to work.

Other important programs promote the employment of older workers, by reforming retirement systems, removing fiscal disincentives, investment in skills, combatting discrimination, and adapted solutions to the diverse situations of older workers. In Finland, for instance, a number of programmes to promote employment of older workers including a national programme on ageing workers were combined with measures to create incentives for both workers and employers and the closing of early retirement options. This has led to an increase in the employment rates of older workers from 47.8% in 2002 to 58.2% in 2012 for workers aged 55-64, with a particularly noteworthy increase in the age bracket 60-64 from 26.1% to 42.9%.

Supporting empowerment
Social security approaches can better enable individuals to self-manage risk and move through an increasingly flexible and changing life-course. Supporting responsibility and empowerment build capacities to substitute or complement income replacement. Investing in education and capacities to better control health risk factors improves employability and reduces poverty risks. Social security measures that support knowledge and skills development contribute to individual security and can also break the intergenerational cycle of poverty. Their effectiveness is particularly strong if focused on children at risk of poverty or from disadvantaged families.

Examples for such measures include education programmes on social security and risks in various social settings, in particular in schools. The Social Security Bank of Uruguay has produced a series of education manuals that explain social security and risks in an adapted format. Social security information on an individual basis such as pension information and communication implemented in Sweden or the United States also contributes to enabling individuals to better manage risks and take necessary steps to make complementary provisions.

Importantly, a series of programmes in developing countries include empowerment as a key component and objective. Brazil's Bolsa Família programme, for instance, provides financial aid to poor Brazilian families. In order to be eligible for cash benefits, families must ensure that the children attend school and are vaccinated. The programme thereby attempts to both reduce short-term poverty by direct cash transfers and fight long-term poverty by ensuring human capital development. An analysis of studies from Brazil, Colombia, Honduras, Malawi, Mexico and Nicaragua found that such conditional cash transfers, in which cash payments are made in return for using health services, resulted in an 11-20% increase in children being taken to health centers and 23-33% more children making visits for preventive healthcare, particularly for poorer populations in low- and middle-income countries.

Extension of social security coverage
Finally, social security's protective, proactive and preventive measures must be accessible to all. Efforts to extend social security coverage are being pursued based on sound political commitment and progress in administrative capacities and can be observed in many regions. Social protection strategies consisting of the coherent combination of measures to extend contributory schemes to more parts of the population and the effective introduction of basic social protection floors for those with no contributory capacities are most promising in this regard.

Impressive progress in extending social security protection has been achieved in a number of countries. The People's Republic of China, for instance, brought an additional 226.5 Million people under pension coverage in the three years of 2012-2014 only, resulting to a total coverage of 842 Million people under different contributory pension schemes by the end of 2014. Other countries have focused specifically on workers in vulnerable and precarious employment situations, such as the Philippines where social security coverage as well as minimum wage coverage for domestic workers was introduced through the Domestic Workers' Bill in 2013.

Conclusion
Demographic trends create significant challenges for social security. To respond, the strengthening of pro-active and preventive social security approaches that support employment, health and empowerment is indispensable alongside the adaptation and extension of income replacement.

Through this extension of role of the social security that promotes human capital, productivity and labour force participation and should create long-term savings through reduced benefit needs, social security more than ever becomes a crucial investment in individuals, social cohesion and economic development. A condition, however, must be continued efforts to extend social security to the important part of the global population that does not yet have access.

Further reading:
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World Economic Forum, A framework for sustainable social security systems, 2014

Pension Sustainability Challenges

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The affordability of a country's pension bill is a key determinant of the sustainability of its public finances. There is by now broad awareness of the looming burden from ageing and the centrality of pensions to the health of the public finances. There is also a fairly broad consensus on the best types of reforms to contain these identified pressures: parametric reforms are being mainstreamed, while systemic regime shifts (e.g. from pay-as-you-go to defined contribution schemes) have disappointed and in some cases have been reversed. But there are also new threats to pension sustainability, notably from the persistence of low interest rates in the wake of the global financial crisis, and perhaps a limit to feasible pension reforms.

Pension systems are currently under stress in many countries, partly because of demographic pressures and partly as countries struggle to recover fiscal sustainability in the wake of the global financial crisis. For instance, a wave of pension reform is taking place in Europe.[25] This note takes stock of the challenges and responses.

The "known" challenge

- Pension spending is one of the largest government budget items in all regions except Asia and sub-Saharan Africa, in many cases exceeding government wages and investment. Hence, public finances are unlikely to be sustainable unless public pensions are sustainable.
- Pension spending is projected to rise significantly faster than GDP in the absence of a change in policy direction, mainly because of ageing but also due to likely broadening of coverage. In advanced countries, the average pension bill will rise by more than 1% of GDP between now and 2030.[26] Of course, the average masks wide variation across countries, depending on their demographics and reforms they have already undertaken: for instance, Luxembourg and Belgium face pension bill increases of more than 3% of GDP, whereas Italy and Japan (with already older populations) expect their pension bills to decline.
- To stay sustainable, many countries will have to reverse the rising trend of pension costs, and in some cases consider cutting their pension bills even below their current levels. The IMF did an illustrative exercise in 2014, estimating that, if advanced countries wish to meet their long-term debt targets by 2030, they will need to cut more than 8% of GDP from their cyclically-adjusted primary balances between now and then, of which about half reflects expected growth in age-related spending (this number includes healthcare as well as pensions).[27]

Reform options and constraints

A first question is whether a pension bill can be kept affordable while keeping existing pension frameworks (by parametric reforms to existing systems) or will require a more fundamental regime change.

Parametric reforms

IMF calculations suggest that parametric reforms alone can be adequate (though sometimes with substantial effort) to fully offset expected future increases in the pension bill. For the average advanced country, a full offset could be achieved by either an increase of 2.4 years in the retirement age, or a 15 % reduction in benefits, or a 3.2 percentage point increase in payroll taxes.[28]

[24] This short note draws on work undertaken in the IMF's Fiscal Affairs Department (see references below), where details of the evidence cited here can be found. However, all opinions are the author's own and should not be construed as the views of the IMF.

[25] Countries have increased retirement ages or tightened early retirement rules (Czech Republic, France, Greece, Ireland, Italy, Netherlands, Portugal, Slovenia, Spain, United Kingdom, Finland); modified benefit formulas to better link contributions to benefits (Ireland, Slovenia, Spain); introduced progressive reductions to pensions (Greece, Ireland, Italy, Portugal); or changed the indexation of benefits (Czech Republic, Spain). See IMF *Fiscal Monitor*, April 2015, Box 1.3.

[26] IMF *Fiscal Monitor*, April 2015, Table A23.

[27] Emerging markets, with lower pensions and younger populations, will need to cut their cyclically-adjusted primary balance by nearly 3½ percent of GDP. See the IMF *Fiscal Monitor*, October 2014, tables 24-25.

[28] IMF *Fiscal Monitor*, April 2014, p. 28. These calculations predate some recent pension reforms, and hence updated averages would be slightly lower. They are based on broad cross-country averages and will vary significantly for individual country cases.

Each of these options has pros and cons, and different combinations of the three measures are likely to respond optimally to different countries' specific political economy considerations:

1. *Increasing the retirement age.* This tends to be seen by economists as the least unpalatable reform. Unlike payroll tax increases, it supports growth to the extent that it promotes higher employment and boosts consumption. It is less linked to old-age poverty than are benefit cuts and is relatively easy to explain to the public in light of increasing life expectancy. That said, there is a risk it will not achieve its intended results, since effective retirement ages are already earlier than the statutory age (by four years on average) and since the availability of disability pensions could allow would-be retirees to circumvent the higher retirement age. For this reason, a parametric reform relying on an increase in the retirement age would best be supported by accompanying reforms to encourage old-age labour force participation.[29] Moreover, the poor, with lower life expectancy, would need to be protected, where not healthy enough to prolong their careers. There is also a fear that increasing the retirement age would crowd out youth employment. However, so far at least, empirical studies have found little evidence that this is happening.[30]

2. *Reductions in benefits/replacement rates.* These are a surer way of containing the pension bill. Many design options have been developed for this type of reform: lower accrual rates, longer averaging periods for pension calculations, less generous benefit indexation (indexing to prices rather than wages), increasing the pensionable base to capture lifetime earnings, or taxing benefits equivalently to other income. These measures have the desirable property of directly strengthening incentives for labour force participation. However, IMF estimates suggest that they have the most direct link to old-age poverty (a 10% reduction in the replacement rate leading to a more than 4% increase in the elderly poverty-risk rate).[31] Hence, it would be important to accompany any reform focused on benefit cuts with improvements in the old-age social safety net – by social pensions, means-testing, or other targeting.[32]

3. *Raising contributions or pension taxation.* These are an alternative to cutting benefits. Variants such as raising ceilings on earnings subject to contributions, or reducing tax deductions on pension contributions or pension assets, proved to be the most accessible measures for many countries needing quick reform responses during the 2008 global financial crisis. The downside to increasing charges is the potential negative impact on competitiveness and growth. Labour demand will be negatively affected (since labour costs to employers rise) as will labour supply (since the real consumption wage of workers declines, discouraging participation). Moreover, the coverage of pensions, or savings rates, may decline in schemes taxed more highly.

Given the great diversity of starting points with regard to retirement age, contribution rates, pension levels and sustainability gaps as well as political economy considerations, no single reform recipe exists for all countries. Nevertheless, economic analysis points to clear benefits of increasing retirement age accompanied by measures to discourage early retirement. In many situations such reforms can best deliver improved sustainability, adequate pensions and equity.[33]

Systemic reforms

Structural regime changes – such as shifting from a defined benefits system (usually pay-as-you-go) to defined contributions (usually funded savings plans) – are an alternative to the type of parametric reform outlined above.[34] The goal of such structural reforms has generally been to cap the state's liability by transferring risk earlier from the government to individuals.[35] They had a wave of popularity in the mid-1990s but proved disappointing, and quite a number of reforms – notably in Eastern Europe but also in Latin America – were reversed or amended for various reasons:

– In some cases, the transition costs associated with the regime shift (loss to the budget for first generation of savers (former taxpayers)) proved intolerably high, especially in the face of pressing budget needs during the global financial crisis. For instance, Hungary and Argentina renationalized private pension funds while Poland, Slovakia and some Baltic countries permanently or temporarily reduced contributions to private schemes.

[29] These might include higher early retirement penalties, tighter rules for disability pensions, lower replacement rates and less generous long-service provisions.

[30] Recent empirical studies for advanced and OECD economies (e.g. Jousten and others, 2008; Gruber, Milligan and Wise, 2009; Eichhorst and others, 2013; Munnell and Wu, 2012) do not find crowding-out effects. Instead, they find a statistically insignificant or in some cases a positive correlation between youth and old employment rates (IMF *Fiscal Monitor*, October 2014, p. 46).

[31] See Chapter 4 of Clements et al (2014) and Appendix 3 of Clements et al (2012).

[32] To avoid changing incentives, targeting should not be based on employment status but on broad immutable characteristics.

[33] See e.g. Määttänen (2015).

[34] This classification of reforms as parametric 'or' systemic is a shortcut, since in some instances a parametric reform amounts to a systemic change. For example, many reforms of defined benefit systems have incorporated automatic defined contribution elements, such as linking pensions or retirement age to life expectancy. These are classified as parametric reforms, but change substantially the risk-sharing properties of the pension schemes.

[35] Eventually any risk borne by the state in the first instance will be distributed in some way among current and future households, through taxes and the level of services and other safety nets.

– Administrative costs of managing the savings of individuals turned out to be higher than envisaged (and difficult to contain), leading to effective replacement rates significantly less favourable than originally calculated.
– In general, the more limited capacity of individuals to bear risk compared with government raises the social cost of such reforms: if replacement rates decline to the extent that poverty becomes important, social pressure can accumulate to reverse the reform.

These drawbacks suggest that additional fundamental reforms may be preconditions for the success of risk-transferring pension regime shifts. Governments undertaking systemic changes are well-advised to have in place ample financial buffers that allow them to withstand expensive transitions (which will take several decades to bear fruit), and to have developed a well-regulated domestic market of efficient fund managers.

"Unknown" challenges may require additional reform effort

While pension reform strategies have largely internalized the impact of worsening demographics on costs,[36] additional challenges are emerging, even in funded and private pension systems, which are likely to put new pressures on state systems and may require some further rethinking of public pension reform strategy.

Social limits to pension reform

A key point is that there are likely to be social limits to attainable savings from pension reform. It may never be possible for the state to transfer all pension risks to the private sector, especially in countries with higher levels of informality in labour markets and in poorer countries. Even in advanced countries, an accumulating number of cases where pension reform efforts have been reversed – either the systemic reform cases mentioned above or parametric reforms which cut too deeply – suggest that containing pension bills to a level consistent with fiscal sustainability can be socially problematic. For instance, in Germany there has been a partial roll-back of reforms (lower retirement age for some categories of workers and increase in some entitlements), and in Italy, the constitutional court reversed a pension indexation freeze.

The lesson to be drawn from these cases is that, to ensure pension reforms remain viable, more care will be needed to design reforms which protect the poor against intolerable pressures and preserve equity across other relevant stake-holder groups.

From a sustainability perspective, a related lesson is that political/social limits to reform support the case for treating pension liabilities as government debt. To date, policy-makers have been reluctant to acknowledge a broad measure of sovereign liabilities (debt plus pension liabilities) on the argument that pension liabilities are more discretionary than debt – governments have a policy choice to decide whether or not to honour them. However, the growing evidence from pension reform reversals suggests that, realistically, no existing liabilities and only a small share of future liabilities can be written off by policy action. In some countries, constitutional protection of pension rights adds to the hurdles for discretionary decisions to reduce pension liabilities.

The impact of the global financial crisis on pensions

A second challenge whose magnitude has yet to be fully estimated is that the global financial crisis and monetary policy efforts to tackle it have eroded the viability of many funded pension plans. Funding ratios of pension plans have fallen significantly since the crisis. *The Economist* (June 27, 2015) reported that one-fifth of US state schemes have a funding ratio below 60%. Cases of failure of subnational and private defined benefit plans (notably in the context of corporate bankruptcies) are growing, and in the face of this, questions are emerging about whether national pension protection schemes set up to guarantee pension plans will be too small to compensate. To the extent that sub-sovereign systems fail, policy-makers should anticipate greater reliance on social pensions than before the crisis, and hence more political pressure for adequate state-run insurance.

A main problem here is the low post-crisis interest rates, which make a shortfall more likely in pension assets compared with liabilities. *The Economist* article cited above noted that US public sector plans discount liabilities at 7.6%, but that long-dated corporate bond yields (used by private plans) in mid-2015 were only 4%. At a discount rate of 4%, public sector funding ratios are down to 45%.

For individuals saving for retirement, lower interest rates translate to lower effective replacement rates. Traditional rules of thumb for sustainable withdrawal rates from retirement portfolios are no longer valid. For a retirement portfolio to last 30 years, instead of withdrawing 4% of the balance each year, current interest rates would now imply a withdrawal of only 2.85%.[37] If this drop is permanent, it means that replacement rates will be more than 25% lower than previously anticipated.[38]

Pension planners are of course taking action. To minimize further cuts in net pension benefits, they have extended asset duration, taken on more risk in search for yield and seek regulatory forbearance (delays in marking to market, on the argument that low interest rates cannot persist). However, these responses imply new vulnerabilities for pensions – and financial markets – which will need a policy response.

[36] This is not the same as saying that the implementation of such strategies is assured or will be easy.
[37] See "New Math for Retirees," *The New York Times*, May 9, 2015, p. B1.
[38] To some extent the low interest rate environment is undoubtedly related to the crisis and the associated policy measures. However, the interest rates are likely to remain at least somewhat lower than what has been projected previously for a long time; after all, the deceleration of productivity growth started already before the financial crisis.

Conclusions

- For sustainability, most countries cannot afford to let pensions grow faster than GDP; where the debt trajectory needs to be moved downward, they will have little option but to curtail them to grow more slowly than GDP.
- The most practical approach to pension reform is usually a package of parametric changes – a combination reflecting each country's specific circumstances.
- Some parametric changes are less distortionary or more supportive of growth, employment or equity; it will be important to take this into account when choosing the package. Often, raising the pension age is to be preferred to cutting benefits or raising contributions.
- Attention to ancillary reforms (such as labour market participation or poverty prevention) can make pension reforms more likely to be effective.
- Structural shifts to funded systems have been less of a panacea than was hoped; there are indications of economic and social limits to the privatization of pensions and risk transfer to individuals.
- Low interest rates create new risks of underfunded pension systems; the state will find it difficult to avoid assuming some part of this burden too.

Further reading

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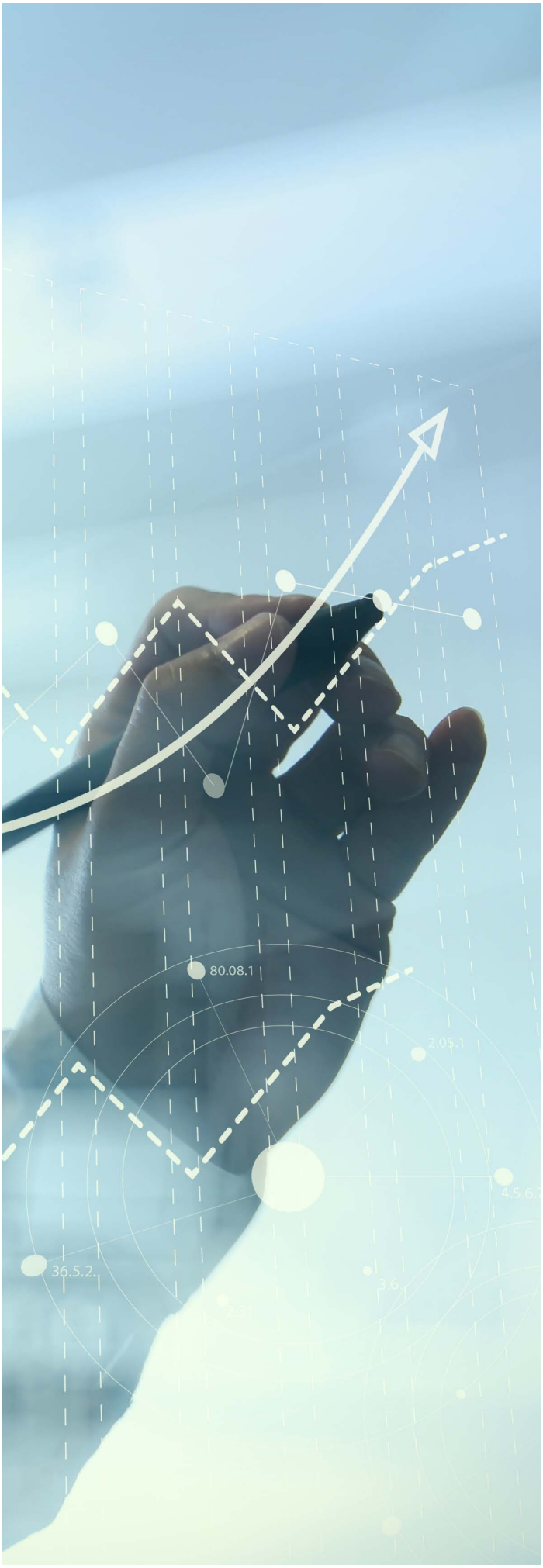


Two Developments Affecting Chinese Fiscal Sustainability

By Zhu Ning, Deputy Dean and Professor of Finance, Shanghai Advanced Institute of Finance, People's Republic of China

As Chinese economic growth gradually slowed down in 2015, two significant incidents took place in China: the introduction of local government debt swap programmes and interest rate liberalization. Combined with China's changing domestic economic growth outlook and increasing integration into the global economic and financial field, these could have a profound impact on China's future economic development and fiscal sustainability.[39]

Local government debt swap programme

In early 2015, China's Ministry of Finance announced that it would exchange 1 trillion yuan (at the time about $160 billion) worth of local government debts that are due to expire in 2015. This amount represents 53.8% of all local government debts maturing in 2015. By the middle of 2015, the total amount of the debt swap programme further rose to 3.2 trillion yuan (over $500 billion), covering almost all local government debts and contingent liabilities maturing in 2015. [40]

The move is intended to reduce fiscal pressure on local governments and extend the maturity of maturing local government debts. Given a softening in the real estate sector – which has been contributing to the lion's share of Chinese local governments' fiscal revenue – and waning investor interest, many local governments face liquidity constraints; some even have difficulty in meeting the basic needs of employee compensation and benefits. [41]

Further, because emerging risks in the real estate sector and defaults in some existing trust products, local governments are in urgent need of raising capital from alternative sources. Because there was little demand from the private sector, the finance ministry had to step in and certify the swap programme with central government creditworthiness.

In implementing the swap programme, commercial banks are encouraged to purchase newly created local government bonds. To induce them to do so, banks are allowed to use the bonds to meet reserve requirement ratios and to use them as collateral to obtain long-term liquidity from the central bank.

The positive aspects of the debt exchange programme are apparent, with many local governments finally finding a way to get around their worsening fiscal situation and debt problem. By exchanging short maturity high-yield local debt into long maturity low-yield debt, local government gets much needed breathing room for fiscal adjustment, and banks manage to further expand their balance sheet with explicit support from the finance ministry and financial sector regulators. In doing so, banks can provide additional loans, which should provide some boost to China's economic growth.

The risks is, however, that with such a swap programme, local government will grow even more confident about their "too big to fail" status. Now that maturing debt can enjoy the benefits of the finance ministry's exchange programme, local governments will have even less incentive to remain financially sound and sustainable. If local governments believe that they can fall back on the Chinese central government's creditworthiness through such exchange programmes, they will remain loose with their fiscal planning and implementation. [42]

In short, local government debt programmes provide short-term solutions to increasingly challenging long-term tasks.

Interest rate liberalization

The Peoples' Bank of China (PBOC) made a somewhat surprising move on 23 October 2015 by lowering both the prevailing interest rate and reserve requirement ratio. Despite the wide expectation that the PBOC would need to cut both the interest rate and reserve requirement ratio at least once to further boost Chinese economic growth, the market was nevertheless shocked by how soon the rate cuts came.[43]

At the same time of the rate cuts, the bank also announced the removal of caps on regular yuan renminbi (RMB) savings rates offered by Chinese banks and prevailing financial institutions. This is quite a significant move. After continuous relaxation of various interest rates in Chinese financial areas, the regular savings rate for RMB remained as the last regulated interest rate, and liberalizing it was the final step of Chinese interest rate liberalization reform. Before this last move, the interest rate for banking loans and, on the savings side, the interest rate for certificates of deposits, and other transferrable savings instruments had already been fully liberalized.

[39] http://www.bloomberg.com/news/articles/2015-12-02/china-said-to-peg-local-government-debt-swap-program-at-15t-yuan-ihomcrti
[40] http://www.cnbc.com/2015/08/27/china-expands-debt-for-bond-swap-plan-to-32-trillion-yuan-xinhua.html
[41] https://www.imf.org/external/pubs/ft/wp/2013/wp13243.pdf
[42] Zhu, 2016, China's Guaranteed Bubble, McGraw-Hill Publisher.
[43] http://blogs.wsj.com/chinarealtime/2015/05/18/interest-rate-liberalization-with-chinese-characteristics/

The PBOC's move to completely liberalize interest rates is fundamentally a correct and decisive move, albeit one that carries risks and will bring profound changes to many involved parties, such as banks, shadow banks, local government financing vehicles (LGFVs) and state-owned enterprises (SOEs). These parties, with their access to cheap and readily available bank loans, are all beneficiaries of the existing financial system and financial repression. Although a deposit insurance programme was introduced in 2014, the programme is still in its incubation stage and many banks are not currently covered. [44]

According to experience of interest rate liberalization in many other countries, interest rate liberalization in China will likely lead to the prevailing market interest rate to go up in the near term. Such an increase in the prevailing rate and the removal of the subsidized interest rate may pose threats to LGFVs and SOEs, which have been relying on subsidized interest rates. With complete interest rate liberalization and the removal of the government's implicit guarantee in most areas, infrastructure and SOEs which are not economically viable to start with will face unprecedented challenges.

These are all taking place in China at a subtle moment, when the country is already facing the challenge of lack of credit and high interest rates to small and medium-sized enterprises. With rising interest rates, the already worsening debt problem – at both the government and corporate level – is likely to get more serious.[45] Local governments, many of which are currently debt laden, may run into the risk of balance sheet recession and lose their ability to further propel local economic growth, which will lead to further weakening of the main driving force of Chinese economic growth over the past decades

At the same time, economic slowdown will pose a threat to fiscal revenue growth at both the central and local government levels. Now that the central government has to prepare more resources for bailing out the troubled local governments, it may increasingly face its own fiscal challenges down the road.

[44] http://www.reuters.com/article/china-economy-banks-idUSL3N12Q4JO20151026
[45] http://www.economist.com/news/leaders/21698240-it-question-when-not-if-real-trouble-will-hit-china-coming-debt-bust

Fiscal Redistribution in Middle-Income and Advanced Countries: A Comparison

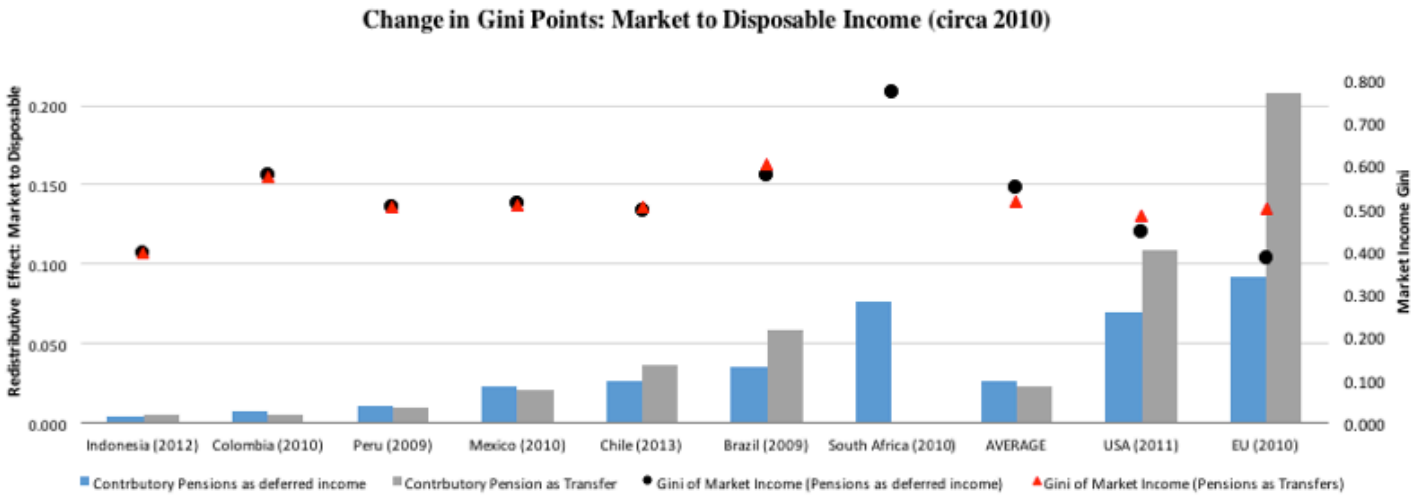
By Nora Lustig, Samuel Z. Stone Professor of Latin American Economics; Director, Commitment to Equity, Tulane University, USA[46]

On average, advanced countries are less unequal than other regions of the world. In 2010, the average Gini coefficient for advanced economies was roughly equal to 0.30 while the Gini coefficient for the rest of the world was approximately equal to 0.40.[47] Advanced countries, however, are not "born" less unequal.

Relatively low inequality is the result of fiscal redistribution on a large scale. In the European Union, for example, the reduction in the Gini coefficient induced by direct taxes and transfers hovers around 21 percentage points if social insurance pensions are considered a transfer and 9 percentage points if pensions are assumed to be deferred income (EUROMOD, 2015).[48] Higgins et al. (2015) find that in the United States, the figures are 11 and 7 percentage points, respectively.[49]

How much fiscal redistribution takes place in middle-income countries compared to advanced countries? This note summarizes research comparing the redistributive impact of fiscal policy in Brazil, Chile, Colombia, Indonesia, Mexico, Peru and South Africa – seven middle-income countries – with its redistributive effect in advanced economies.[50] Due to data limitations, the comparison is limited to the redistributive effect from market to disposable income. In other words, the measured redistributive effect includes direct taxes and transfers only and excludes indirect taxes and subsidies and in-kind transfers. Results are shown in Figure 1.

Figure 1: Redistributive effect: Brazil, Chile, Colombia, Indonesia, Mexico, Peru, South Africa, the EU and the US



Source: EUROMOD statistics on Distribution and Decomposition of Disposable Income

Note: Year of household survey in parenthesis. The Gini coefficients for the United States are for equivalized income. The Gini for Chile is calculated including imputed rent. For definition of income concepts and methodological details, see Lustig (2015).

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[46] This note has is based on: Lustig, Nora. 2015. *Inequality and Fiscal Redistribution in Middle Income Countries: Brazil, Chile, Colombia, Indonesia, Mexico, Peru and South Africa. Evidence from the Commitment to Equity Project (CEQ)*. CEQ Working Paper No. 31, Center for Inter-American Policy and Research and Department of Economics, Tulane University and Inter-American Dialogue, drawing on the following fiscal incidence analyses: Brazil (Higgins and Pereira, 2014), Chile (Martínez-Aguilar and Ortiz-Juarez, 2015), Colombia (Melendez, 2015), Indonesia (Afkar et al.), Mexico (Scott, 2014), Peru (Jaramillo, 2014) and South Africa (Inchauste et al., 2015). Lustig, Pessino and Scott (2014) and Lustig (2015a and b) provide syntheses of the results. These studies use a common fiscal incidence method described in detail in Lustig and Higgins (2013). Results for the European Union are obtained from the EUROMOD website and, for the United States, they are based on Higgins et al. (2015).

[47] The Gini coefficients are simple averages calculated with the following data. Advanced countries: OECD Income Distribution Database: Gini, poverty, income, Methods and Concepts. OECD. Accessed December, 22, 2014. http://www.oecd.org/social/income-distribution-database.htm. Developing countries except for Latin America and the Caribbean: PovcalNet: an online poverty analysis tool. The World Bank. Accessed November 5, 2014. http://iresearch.worldbank.org/PovcalNet/index.htm?0,0. Latin America and the Caribbean: Socio-Economic Database for Latin America and the Caribbean (CEDLAS and The World Bank). Accessed July 22, 2013. http://sedlac.econo.unlp.edu.ar/eng/statistics-detalle.php?idE=35.

[48] If pensions are assumed to be deferred income, they are counted as part of market or pre-fiscal income of people receiving them. The data are for 2010.

[49] Data is for 2011.

[50] Launched in 2008, the CEQ project is an initiative of the Center for Inter-American Policy and Research (CIPR) and the Department of Economics, Tulane University, the Center for Global Development and the Inter-American Dialogue, www.commitmentoequity.org.

Figure 1 compares:

- The *level* of the Gini coefficients for market income (i.e. prior to redistribution through direct taxes and transfers), represented by dots and triangles (right axis). A higher Gini coefficient represents greater inequality.
- The *difference* between the Gini coefficient for market income and for disposable income – that is, how the Gini coefficient *changes* as a result of direct taxes and transfers. This is represented by the blue and grey bars (left axis).

Two methodologies are used, which differ in the way in which pensions are treated. Pensions can either be regarded as differed (market) income, or they can be treated as a transfer. To the extent that pensions are more equally distributed than non-pension income, treating pensions as deferred income will generate a lower Gini coefficient of market income compared to a situation in which pensions are treated as transfers; and lower the redistributory impact of taxes and transfers. This turns out to matter particularly for the EU (see below).

There turn out to be four important differences between the advanced countries and the seven middle-income ones analysed here:

1. Market income inequality tends to be somewhat higher for the middle-income countries, particularly when pensions are treated as deferred income. The average Gini coefficient for the seven middle-income countries for the scenario in which pensions are treated as deferred income and the scenario in which they are considered transfers are 54.7% and 51.3%, respectively. In contrast, in the EU, the corresponding figures are 38.2% and 49.9%, respectively; and in the US, they are, 44.6% and 48.1%, respectively. One important aspect to note, however, is that in the EU, pensions include both contributory and non-contributory social pensions while in the middle-income countries and the US, the category of pensions includes only contributory pensions. If the latter would include non-contributory pensions as part of market income, the Gini would be lower.
2. As expected and shown in Figure 1, the redistributive effect of direct taxes and transfers is larger in the EU countries and, to a lesser extent, in the US (except for South Africa, whose redistributive effect is larger than in the US when in the latter pensions are treated as deferred income).
3. In the seven middle-income countries, whether pensions are treated as deferred income or a transfer makes a relatively small difference. This is not the case in the EU countries where the difference is significant. In the EU, the redistributive effect with pensions as market income and pensions as a transfer is 9.2 and 20.8 Gini points, respectively. In the United States, the numbers are less dramatically different: 7 and 10.9, respectively. In the seven middle-income countries, the numbers are 2.6 and 2.3 Gini points, respectively.
4. In no European country, nor in the United States, are contributory pensions unequalizing. On the contrary, vis-à-vis market income without pensions, they exert a large equalizing force in the EU and less so in the US. Using data for 2010, for example, the difference between the market income Gini and the market income Gini plus pensions is 11.6 percentage points in the EU and 3.5 in the United States. As shown above, pensions are not always equalizing in the seven middle-income countries.

The analysis confirms both that market inequality is somewhat higher in most large emerging market countries than in the US and particularly the EU, and that the redistributive impact of direct taxes and transfers is smaller. As a result, by the time one arrives at disposable income, inequality is much lower in the advanced countries than in emerging markets.

At the same time, the results also show that there are considerable differences both in inequality and redistributive impact of direct taxes and transfers *across* emerging markets. In particular, Brazil and especially South Africa tend to have fairly high market inequality, but also a more redistributive fiscal system than most other emerging markets, whereas a country such as Colombia redistributes fairly little, in spite of having a level of market inequality comparable to that of Brazil.

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