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REGIONAL AND GLOBAL FINANCIAL SAFETY NETS: THE RECENT EUROPEAN EXPERIENCE AND ITS IMPLICATIONS FOR REGIONAL COOPERATION IN ASIA

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Abstract

This paper compares financial assistance programs of four euro-area countries (Greece, Ireland, Portugal, and Cyprus) and three non-euro-area countries (Hungary, Latvia, and Romania) of the European Union in the aftermath of the 2007/08 global financial and economic crisis—which were supported by the International Monetary Fund (IMF) and various European financing facilities. These programs have distinct features compared with assistance programs in other parts of the world, such as the size of imbalances, financing, unique cooperation of the IMF and various European facilities, and membership of a currency union in the case of euro-area countries, in which countries faced adjustment through low inflation. We evaluate the programs by assessing their success in creating conditions to regain market access, the degree of compliance with loan conditionality, and actual economic performance relative to program assumptions. We conclude that the rate of compliance with loan conditionality was not a good predictor of program success and that deviations from gross domestic product program assumption correlate strongly with fiscal performance and unemployment, highlighting the key role of macroeconomic projections in program design. While the Troika institutions had reasonably good cooperation, there were major disputes among them in some cases, primarily related to the assessment of fiscal sustainability and cross-country spillovers. Asian countries can draw several lessons from European experiences, including the coexistence of the IMF and regional safety nets, cooperation issues, systemic spillovers, and social implications of program design.

Keywords: current account adjustment, euro crisis, financial assistance, financial safety nets, policy coordination, policy design

JEL Classification: E61, F32, F33, F34

Contents

1. INTRODUCTION

The recent global financial and economic crisis, which started to develop in summer 2007 in the United States (US), shocked Europe. After the September 2008 collapse of Lehman Brothers, one of the top-five US investment banks, several European Union (EU) countries had to ask for financial assistance one after the other.

Three non-euro-area countries—Hungary, Latvia, and Romania—were the first victims of the crisis in the EU, requesting financial assistance shortly after the collapse of Lehman Brothers. Assistance to these countries were provided jointly by the EU medium-term financial assistance facility for non-euro-area EU countries and the International Monetary Fund (IMF), in partnership with the World Bank (for all three countries), European Bank for Reconstruction and Development (for Latvia and Romania), European Investment Bank (for Romania), and several countries (Czech Republic, Denmark, Estonia, Finland, Norway, Poland, and Sweden for Latvia).[1] The total volume of lending was not extraordinary large, given the relatively small size of the public debt of these countries.

Shortly after the collapse of Lehman Brothers, euro-area member states seemed to be shielded from the crisis. In fact, in Denmark, an EU country that is not a member of the euro area but keeps a fixed exchange rate to the euro, the central bank had to raise interest rates to support the peg, while the European Central Bank (ECB) cut interest rates. Based on this development, many commentators applauded the good choice of euro-area members with weaker fundaments to join the euro earlier, which seemed to protect them from the global financial crisis.

However, in the second half of 2009, tensions started to increase initially concerning Greece, and later concerning other peripheral euro-area countries too. There were general elections in Greece in 2009 and soon after it more information became available, indicating that the budget deficit of the country will be several factors higher than the 3.6% of gross domestic product (GDP) deficit initially planned. Actually, the Greek budget deficit became 15.1% of GDP in 2009. In early 2010, there were intense discussions on whether a euro-area country could ask for financial assistance, and in particular, whether the IMF could participate in the bailout of a euro-area country.[2] Moreover, the EU did not have a crisis management framework and an appropriate fund to help out a euro-area country. The EU medium-term financial assistance facility (which supported Hungary, Latvia, and Romania in 2008–2009) was especially dedicated to non-euro-area countries.

However, the blast of the financial crisis made it necessary to develop European financial assistance facilities for euro-area member states. Four euro countries requested full financial assistance programs: Greece, Ireland, Portugal, and Cyprus. In addition, Spain requested a special banking program from the EU. Since the 2010 Greek financial assistance program tragically failed, the country negotiated a second assistance program in 2012 and, subsequently, a third one in 2015.

The full-fledged financial assistance programs of Greece in 2010 and in 2012, Ireland, Portugal, and Cyprus were under the auspices of the so-called “Troika”: the IMF, the European Commission, and the ECB. These three institutions cooperated in the design, monitoring, and financing of the financial assistance programs.

[1] See Table 1 in Darvas (2009) for the contribution of the different lenders to these three financial assistance programs.

[2] See Pisani-Ferry and Sapir (2010).

At the time of writing this article, the IMF has not yet decided whether to participate in the third financial assistance program of Greece, because of major disagreement between the IMF and European institutions on the sustainability of Greek public debt.

What were the special aspects of euro-area and non-euro-area EU programs? Were these programs successful? What major tensions emerged between the IMF and European institutions? And what are the implications of the European experiences with cooperation with the IMF for regional financial assistance facilities in Asia? These questions are answered in this paper by comparing the four euro-area and three non-euro-area EU financial assistance countries and Germany, the largest EU country, which acts as an anchor in many aspects.

2. THE DISTINCTIVE ASPECTS OF EURO-AREA PROGRAMS

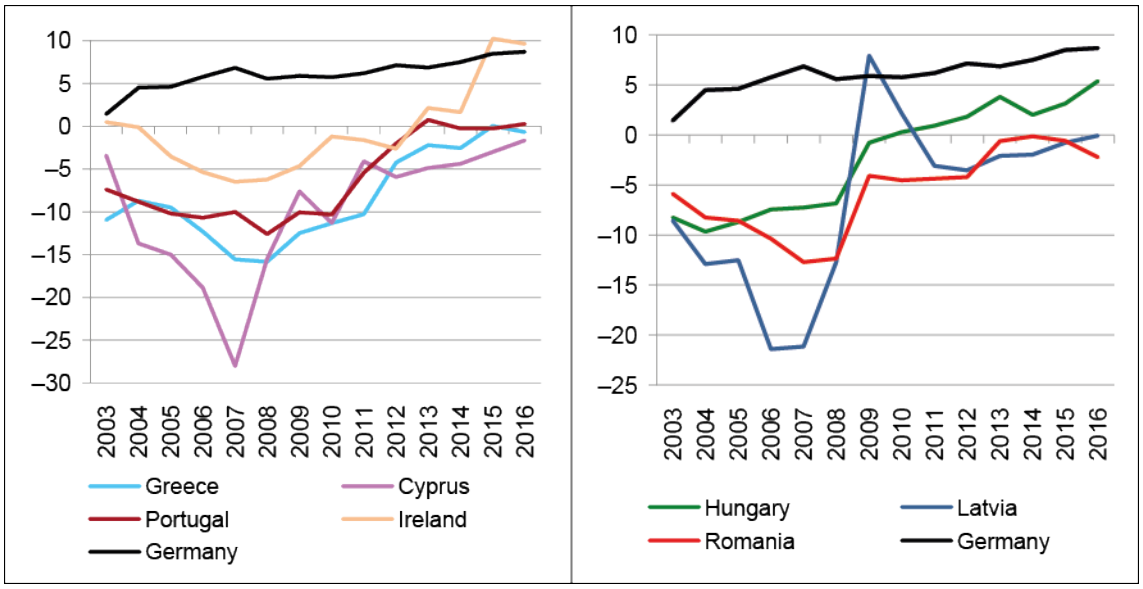
Financial assistance programs for euro-area countries had several distinctive features compared with other financial assistance programs (see, for example, Pisani-Ferry et al. 2013). We highlight six specific characteristics. Only a few of these features characterize the non-euro EU countries that received financial assistance.

2.1 Large Imbalances

Very large imbalances were accumulated in the precrisis years. The current account deficit of several southern euro-area member states exceeded 10% of GDP (Figure 1). Similarly, high current account deficits were observed in a number of (non-euro area) central and eastern European EU countries. These large current account deficits made these countries vulnerable to a stop in private capital inflows. The consequence of persistently large current account deficits was the accumulation of a very large negative net foreign asset position, which increased to about 100% of GDP in peripheral euro-area countries and in Central and Eastern European countries. In the euro-area periphery, the net negative foreign asset position mostly comprised of debt liabilities (Table 1), while in Central and Eastern European countries, foreign direct investment (which is a more stable funding source) also had a significant role. It is also notable that Ireland and Cyprus, two financial centers, have huge gross foreign assets and liabilities.

Divergence within a monetary union, such as divergence in current account balances, is not necessarily a detrimental development. Capital flows across regions and the ensuing current account deficits and surpluses may reflect the improved utilization of resources when capital moves to fast-growing regions to the benefit of the entire monetary union. However, the booms and busts in the Irish and Spanish housing sectors (see Ahearne, Delgado, and von Weizsäcker 2008) exemplify capital misallocation. Moreover, the accumulation of “excessive” regional debt is undesirable, and there are good reasons to conclude that the external debt of Greece, Portugal, and Spain became excessive (Darvas 2012d).

Figure 1: Current Account Balance
(% GDP)



GDP = gross domestic product.

Source: European Commission's February 2017 AMECO database.

Table 1: Gross and Net International Investment Position, End-2009
(% GDP)

		Hungary	Latvia	Romania	Greece	Ireland	Portugal	Cyprus	Germany
Gross assets	FDI	139	5	1	11	224	26	529	36
	PI equity	5	2	0	3	174	12	20	16
	PI debt	1	6	0	27	454	54	204	40
	OI	18	46	7	44	365	53	246	73
	Total	**163**	**59**	**8**	**85**	**1,217**	**145**	**1,000**	**165**
Gross liabilities	FDI	–183	–35	–30	–11	–209	–42	–574	–27
	PI equity	–9	–1	–1	–7	–380	–22	–11	–15
	PI debt	–27	–4	–2	–73	–300	–75	–50	–54
	OI	–63	–101	–40	–64	–410	–95	–449	–54
	Total	**–281**	**–141**	**–73**	**–155**	**–1,299**	**–236**	**–1,084**	**–150**
Net assets	FDI	–44	–30	–29	0	15	–16	–44	9
	PI equity	–3	2	–1	–3	–206	–10	9	1
	PI debt	–25	2	–2	–46	154	–21	154	–13
	OI	–45	–55	–34	–21	–44	–43	–203	19
	Total	**–117**	**–82**	**–65**	**–70**	**–82**	**–90**	**–84**	**16**

Note: FDI = foreign direct investment; PI = portfolio investment; OI = other investment.

Source: calculations using the Eurostat datasets "International investment position – quarterly and annual data (BPM6) – [bop_iip6_q]" and "GDP and main components – Current prices [namq_10_gdp]".

2.2 Lack of a Crisis-resolution Mechanism for Euro-area Countries

There was no crisis-resolution mechanism for euro-area countries when the crisis erupted. We note that the same is the case in stand-alone countries—for example, the US and Canada do not have a financial facility to bail out states and provinces in trouble. And when studying the conditions required for a fiscal union to function smoothly and successfully, Bordo, Markiewicz, and Jonung (2011) concluded that "the first and probably the most important condition is a credible commitment to a no-bailout rule."

Still, the fear of cross-country contagion and negative spillovers across the euro area led to the design of various euro-area financial assistance facilities to help member states in trouble. The first Greek financial assistance program, which started in May 2010, was financed by bilateral loans from other euro-area member states (coordinated by the European Commission), while two financing mechanisms were created, the temporary European Financial Stability Facility (EFSF)[3] and the European Financial Stability Mechanism (EFSM),[4] with a combined lending capacity of €500 billion. Later, the EFSF was replaced by a permanent institution, the European Stability Mechanism (ESM).[5]

2.3 Large Financial Support

Exceptionally large loans were granted to governments (by the various EU funds and the IMF) and huge amount of liquidity was provided to banks (by the ECB). Figure 2 shows the committed financing of the assistance programs to governments both in nominal terms and as a share of GDP, for the seven EU countries that received full assistance programs. Ireland and Portugal were granted about 40% of their GDP (not counting Ireland's own contribution to the total volume of financing); Cyprus was granted about 50% of GDP, and the three Greek programs (which have some overlaps) committed to more than 150% of Greek GDP. Concerning only the loans granted by the IMF, Figure 7 of Pisani-Ferry et al. (2013) compares all IMF programs in 1993–2012 and shows that loans to euro-area countries (as a share of the receiving country's GDP) were larger than loans to emerging economies. And IMF loans comprise only a small share of total financing: as Figure 2 indicates, the share of IMF funding in total funding was about one-third in Ireland and Portugal and one-tenth in Greece and Cyprus.

Bank financing via ECB liquidity support was also huge. The ECB, or put it correctly, the Eurosystem (which consists of the ECB and the national central banks of those countries that have adopted the euro)[6] provided massive amounts of liquidity to banks throughout the euro area during the crisis, but especially to those peripheral countries that suffered from the triple problem of weak banks, difficulties in financing public debt, and weak competitiveness.

Figure 3 shows that financing via regular Eurosystem operations exceeded €100 billion in the cases of Irish and Greek banks and about €60 billon in Portugal. In Cyprus, the peak was at €8 billion, which is almost half the Cypriot GDP.

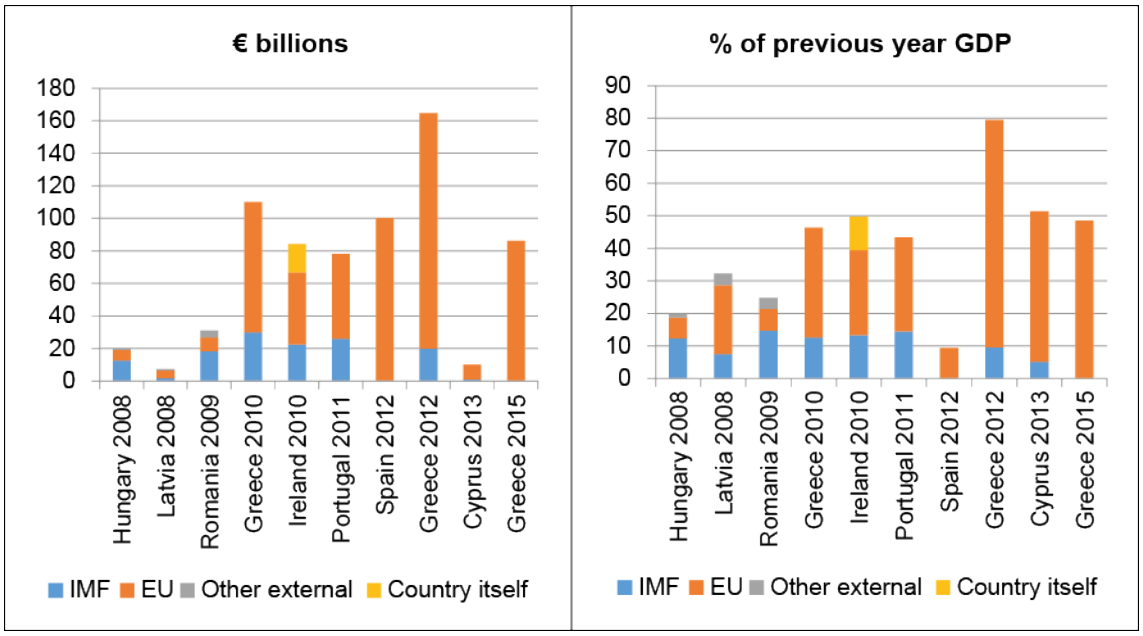
[3] https://www.esm.europa.eu/efsf-overview

[4] http://ec.europa.eu/economy_finance/eu_borrower/efsm/index_en.htm

[5] https://www.esm.europa.eu/

[6] See more details at: https://www.ecb.europa.eu/ecb/orga/escb/html/index.en.html

Figure 2: Size and Composition of Financial Assistance Programs of European Union Countries

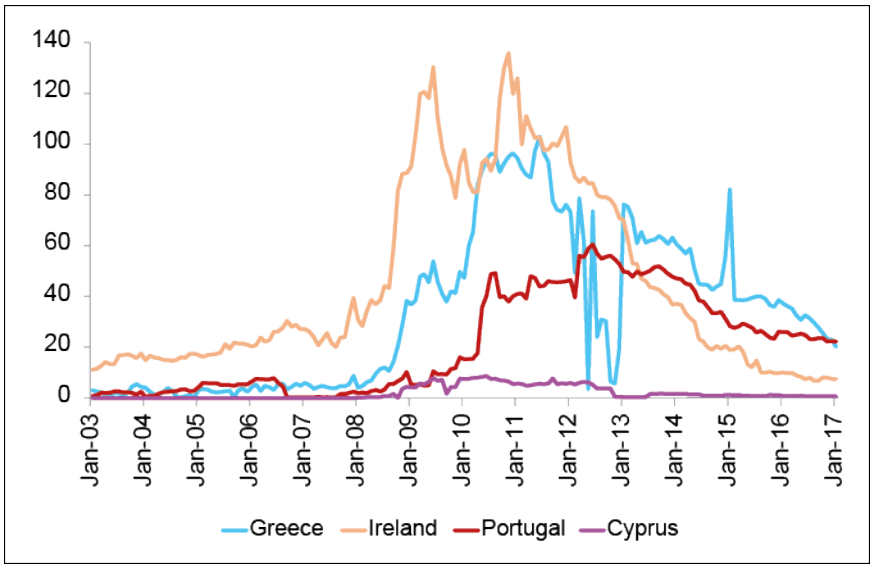


EU = European Union, GDP = gross domestic product, IMF = International Monetary Fund.

Note: Committed amounts, in billion euros (left panel) and as a percentage of previous year GDP (right panel). There is overlap between the first and second Greek programs, since the first program was terminated when the second program was agreed and some of the unused funds of the first program were reallocated to the second program. The EU includes all kinds of European Union facilities (including bilateral loans). "Other external" includes the World Bank and the European Bank for Reconstruction and Development.

Source: Euro values (left panel): Data collected from the European Commission's website: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-financial-assistance_en. For the right panel, these euro values were divided by gross domestic product at current market prices (source: European Commission's AMECO dataset).

Figure 3: Use of Eurosystem Main and Longer-Term Refinancing Operations by Banks, January 2003–January 2017
(€ billion)



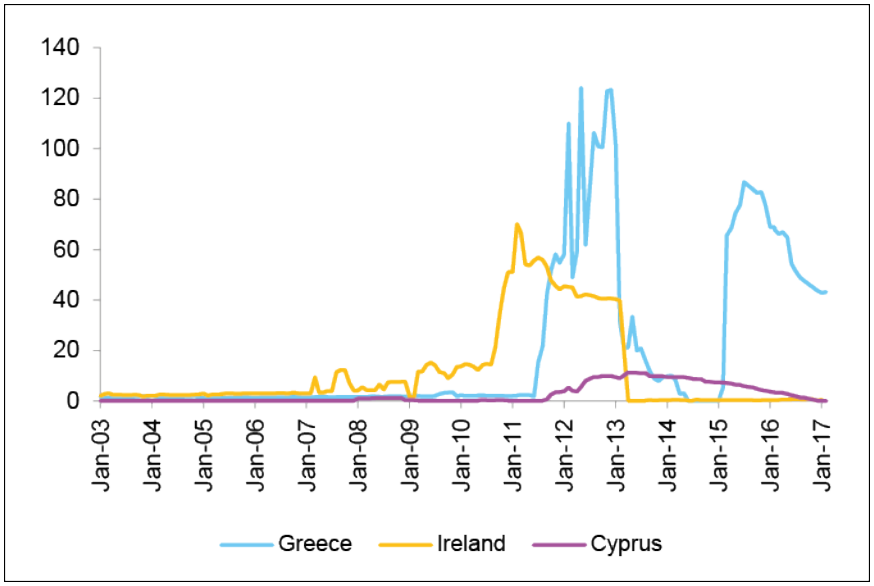
Source: Bruegel database of Eurosystem lending operations developed in Pisani-Ferry and Wolff (2012).

However, regular Eurosystem operations can be accessed only against suitable collateral. Even though the ECB has relaxed its collateral standards several times (Darvas and Merler 2013), a number of banks in hard-hit countries run out of enough (or sufficiently high quality) collateral to access normal Eurosystem operations. Under such cases, national central banks provided emergency liquidity assistance (ELA) to banks that were considered solvent, but exceptionally and temporarily running out of eligible collateral. The ELA operations are under the sole risk of the national central bank concerned, yet the ECB's Governing Council has to agree to it in advance, can set the limit for the total ELA funding, and can at any time order an ELA program to be stopped. While the ELA statistics are opaque, certain items in central bank balance sheets likely indicate ELA.

Figure 4 shows available data for Greece, Ireland, and Cyprus, but unfortunately we could not collect data for Portugal. In Greece, ELA exceeded €100 billion and fluctuated widely—it typically increased when standard Eurosystem refinancing fell (Figure 3), suggesting a persistently high funding gap of banks, which was filled be a combination of standard and emergency financing. In Cyprus, ELA increased to €11 billion, well over the volume of standard financing, and thereby total central bank liquidity assistance amounted to more than 100% of Cypriot GDP.

Since the height of the crisis, both regular (Figure 3) and emergency (Figure 4) liquidity support has fallen in all four countries, suggesting that the trust in the banking systems of these countries is gradually returning, possibly because their soundness improved.

Figure 4: Use of Emergency Liquidity Assistance by Banks, January 2003–February 2017
(€ billion)



Note: Emergency liquidity assistance is provided by a national central bank after obtaining authorization from the European Central Bank Governing Council. Data for Portugal is not available.

Source: National Central Banks.

2.4 Low Inflation Contributed to the Real Exchange Rate Adjustment in the Euro Area

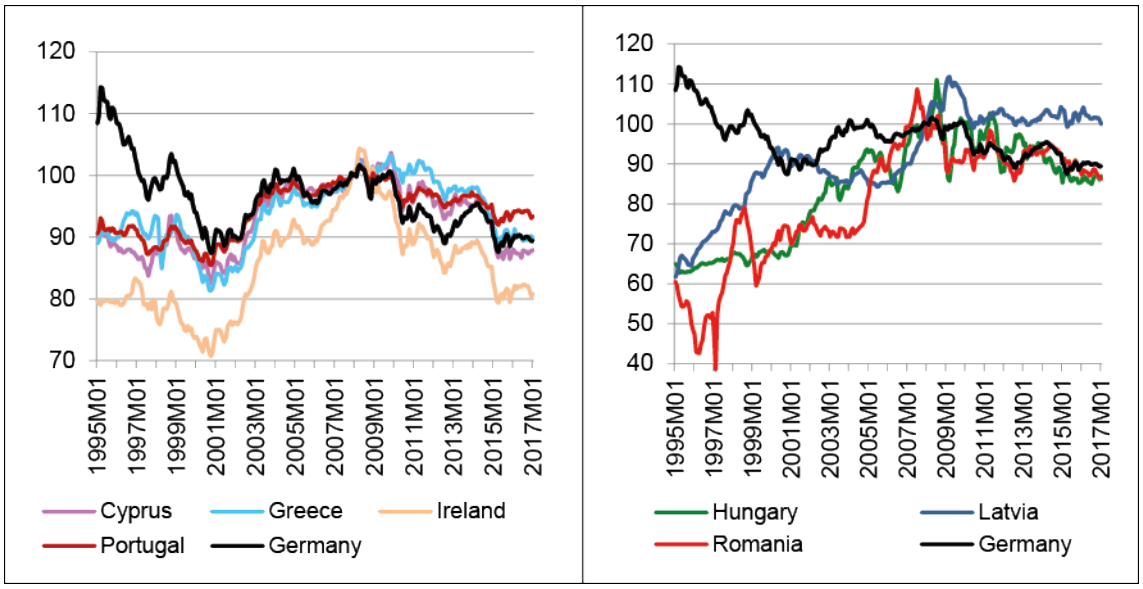
Within the euro area, there is no possibility of currency devaluation to quickly regain competitiveness and there is no stand-alone central bank that could align monetary conditions to the special needs of the country. A key problem of euro-area periphery countries is that in the precrisis period wages and prices rose much faster than productivity, which led to an overvaluation of the real exchange rate. These developments also reflected in the huge widening of current account deficits and the consequent increase in external debt, as we discussed in the first point above. At the same time, wages in Germany and some other core euro-area countries rose at a smaller pace than productivity, improving wage competitiveness in these countries. The euro crisis made it clear that a large macroeconomic adjustment is needed: the misaligned real exchange rates of euro-periphery countries had to depreciate, while current account deficits needed to turn to surpluses. However, given euro-area membership, the role played by nominal depreciation of the exchange depreciation is limited, for two reasons.

On the one hand, euro exchange rate changes depend on the developments in the euro area as a whole. Arguably, if euro periphery countries had their own currencies, depreciation of those currencies would have been much larger than the magnitude of actual depreciation of the euro was. Hungary and Romania adopted a floating exchange rate system and the depreciation of the Hungarian forint and the Romanian leu was much larger than the depreciation of the euro.

On the other hand, euro depreciation can address the real exchange rate relative to non-euro countries. However, about half of foreign trade of most euro countries is with other euro-area countries, and as we argued above, the real exchange rate of euro periphery countries became overvalued relative to core euro-area countries. This necessitates an intra-euro real exchange rate adjustment. The adjustment of the real exchange rate between euro members is possible only through prices and wages, that is, prices and wages of periphery countries have to fall relative to prices and wages in core countries. The same applies to Latvia too, which maintained a fixed exchange rate against the euro until the country eventually joined the euro area on 1 January 2014.

Figure 5 shows that considering the monthly consumer-price-based real effective exchange rate (REER) calculated relative to 138 trading partners, all financial assistance program countries, but Latvia, experienced depreciation. Among the euro countries, only Ireland achieved a much larger real depreciation than Germany. The two floating exchange rate countries, Hungary and Romania, experienced a sudden depreciation in the aftermath of the collapse of Lehman Brothers in late 2008, yet the overall depreciation in December 2007–January 2017 was rather similar to that of Germany.

Figure 5: Real Effective Exchange Rates Based on Consumer Prices, January 1995–January 2017, (December 2007 = 100)



Note: The monthly real effective exchange rate is calculated against 138 trading partners, using country-specific trade weights.

Source: Updated data set of Darvas (2012a). http://bruegel.org/publications/datasets/real-effective-exchange-rates-for-178-countries-a-new-database/

Table 2 decomposes the change in the real effective exchange rate to nominal effective exchange rate changes and changes in relative prices. We use annual data between 2007 and 2016 in order to focus on the broader trends and minimize the noise inherent in monthly data due to short-term volatility of nominal exchange rates.

Table 2: Change in the Real Effective Exchange Rate, 2007–2016
(%)

	Greece	Ireland	Portugal	Cyprus	Germany	Hungary	Latvia	Romania
Real effective exchange rate	–8.1	–15.1	–5.4	–8.1	–9.0	–12.3	8.0	–14.8
of which:								
Nominal effective exchange rate	1.6	–3.2	0.2	3.2	–1.6	–19.7	12.3	–23.5
Relative prices	–9.5	–12.3	–5.6	–10.9	–7.5	9.2	–3.8	11.3

Note: The annual real effective exchange rate is calculated against 172 trading partners, using country-specific trade weights.

Source: Updated data set of Darvas (2012a). http://bruegel.org/publications/datasets/real-effective-exchange-rates-for-178-countries-a-new-database/

The two floating exchange rate countries indicate a rather different pattern from euro-area countries and Latvia (which maintained a pegged rate and joined the euro in 2015): in Hungary and Romania, the nominal effective exchange rate fell by about 20% from 2007 to 2016, while there was higher inflation in these countries than in their trading partners.

In euro-area countries, prices fell relative to trading partners and nominal depreciation was much smaller, or there was even a nominal appreciation. The same applies to Latvia, a country that maintained a fixed exchange rate until it joined the euro in 2015. Therefore, the real exchange rate adjustment largely fell on relative price adjustment in euro-area countries, including in Germany, reflecting the generally low inflation in the euro area in recent years. On the contrary, floating exchange rate countries relied on nominal exchange rate adjustment, which is a faster way of adjustment, and also easier, since prices and wages tend to be sticky downward. However, when a country has large foreign debt and domestic credit creation predominantly relies on foreign currency lending (as in many central European countries), nominal depreciation can create balance sheet problems.

Beyond these overall trends, there are some differences between the euro countries. Prices relative to trading partners fell in Germany by 7.5%, even more than in Portugal. The largest relative price fall was observed in Ireland (12.3%), suggesting that the Irish economy was more flexible than other euro-area countries. The overall nominal exchange rate change ranged between minus 3.2% in Ireland and plus 3.2% in Cyprus, reflecting the different composition of their foreign trade. One reason for the larger nominal depreciation of Ireland is the rather high share (19.5%) of the US in Ireland's trade basket, while the share of the US in the trade basket of Greece, Cyprus, and Portugal is between 4.2%–6.6%, and 12.2% in Germany. Therefore, the depreciation of the euro against the US dollar had a much larger effect on the nominal effective exchange rate of Ireland than in other euro countries. In Latvia, there was a rather large (12.3%) nominal effective exchange rate appreciation, partly reflecting the larger share of the Russian Federation in Latvia's foreign trade, since the Russian currency depreciated enormously in 2007–2016.

The overall real effective depreciation from 2007 to 2016 was the largest in Ireland (15.1%), followed by Romania (14.8%) and Hungary (12.3%). Germany had a larger depreciation (9.0%) than Greece, Cyprus, and Portugal, which leads us to the next issue, the lack of a symmetric adjustment.

2.5 Asymmetric Intra-euro Adjustment

While in the pre-crisis period there was a symmetrical divergence in price/wage competitiveness among euro area deficit and surplus countries (i.e. wages and prices increased at a slow rate in Germany and Austria and at a fast rate in Spain and other periphery countries), intra-euro adjustment during the euro-crisis was largely asymmetric. Periphery wages started to adjust (wage decline or at least a stop in wage increase), but wage growth hardly accelerated in Germany and other euro-area surplus countries. This made the adjustment of periphery countries more difficult. A symmetric adjustment, whereby wage growth decelerates in periphery countries and accelerates in core countries, would facilitate the intra-euro adjustment.

Furthermore, lack of sufficiently fast wage growth in core countries necessitates even larger wage and price falls in periphery countries, which make the sustainability of both public and private debts more difficult. In contrast to a stand-alone country, where low inflation is typically followed by reduced nominal interest rates, in a heterogeneous monetary union like the euro area, low inflation in a particular (periphery) country is unlikely to lead to lower interest rates there. Such divergence between inflation and interest rates was also observed in the precrisis period, when interest rates converged between euro-area countries, despite major differences in inflation rates. In more recent years, nominal interest rates of periphery countries were well above the interest rates observed in core euro-area countries despite lower inflation, due to increased risk

of sovereign default in the periphery. Therefore, wage and price falls in the periphery may not be followed by reductions in the nominal interest rates, while lower prices increase debt/income ratios, challenging debt sustainability further. A more symmetric intra-euro adjustment would have helped to find a better balance between regaining price competitiveness and maintaining debt sustainability in the periphery (see a detailed discussion of this issue in Darvas 2013).

Additionally, the overall macroeconomic situation in the euro area was generally weak, at least in 2010–2013, i.e., during the initial years of the euro-area financial assistance programs. Weak external conditions made the adjustment of periphery countries even more difficult.

2.6 Unique Troika Formation

Finally, the Troika arrangement was unprecedented, with three institutions operating under different rules and mandates.

The IMF's role was similar to all other IMF-supported programs: its own staff assessed and negotiated program modalities and the IMF Board made the final decisions. The key novelty for the IMF was to share program discussions and financing with European partners and to coordinate the assessments and financing: program financing had to be approved and actually disbursed by both the IMF and European facilities to have adequate funding.

The roles of the European Commission and the ECB were more unusual. As explained by Pisani-Ferry et al. (2013), the European Commission merely acted on behalf of the member states, rather than as an independent institution representing the general interest of the EU, which is its normal function. The European Commission's role was complicated also because of its task of safeguarding the proper application of European treaties. For example, it should ensure that European fiscal rules enshrined in the Stability and Growth Pact are followed by all member states, yet in the case of a country under financial assistance, considerations different from the Stability and Growth Pact rules could emerge. Another example is bank recapitalization from public funds, which was an element of all financial assistance programs. Yet, the Commission has a clear mandate to avoid competitive distortions arising from state aid to financial institutions.

The role of the ECB was also unusual. In a standard IMF program, including the joint IMF–EU programs for Hungary, Latvia, and Romania, the national central bank negotiates along with the receiving country's government. Program conditionality used to set measures to be adopted in connection with the national central bank. However, in the case of euro-area programs the ECB negotiated in the team of the lenders, along with the IMF and the European Commission.

The ECB's participation in the design and monitoring of financial assistance programs creates potential conflicts of interest with its other tasks, which may bias program conditionality and expose the ECB to pressure from the other Troika institutions (Darvas and Merler 2013).

- There is a potential conflict with the ECB's price stability mandate. In the program negotiations, the fear that fiscal unsustainability in a particular country might result in pressure on the central bank to soften its monetary stance might lead the ECB to overemphasize the need for fiscal consolidation. In the implementation phase of programs, the ECB might be tempted to deviate from its price stability objective to help improve fiscal sustainability in a given program country. The experience so far has demonstrated that the ECB had

indeed argued for very ambitious fiscal adjustment strategies, yet there is no evidence at all for inflationary bias and in fact the major problem is that inflation undershoots the target.

- There is a potential conflict of interest with the ECB's function of lender of last resort to banks. Banks in program countries are typically under high stress and need to rely heavily on ECB liquidity. In the program negotiations, the ECB might seek to minimize liquidity operations that constitute a risk to its own balance sheet, and to label banking problems as solvency problems that would need to be addressed through state bailout or through bail-in of private shareholders and creditors. In the implementation phase of programs, however, the ECB might actually be inclined to provide liquidity on soft terms, as would any central bank interested in the success of the program.
- There is a potential conflict of interest with the ECB's bond-purchase programs. By buying bonds of vulnerable countries, the ECB becomes formally a creditor of the governments receiving financial assistance, and this may influence its position in the negotiations. Fear of losses stemming from its bond holdings might lead the ECB to be especially tough on fiscal consolidation or especially timid on debt restructuring—if the latter were needed—to reduce the likelihood of losses on its holdings. The Greek case, in which the ECB loudly rejected debt restructuring even a few weeks before such a decision was made by euro-area heads of state, and then negotiated a special position so that ECB holdings of Greek government bonds were not restructured, clearly underlines this threat.
- Furthermore, the 2012 announcement of the ECB's Outright Monetary Transactions (OMT) introduced a very unusual situation, which could be best described as "monetary policy with conditionality." Undoubtedly, the OMT announcement in 2012 was a major turning point of the euro-area crisis and was a wise decision by the ECB Governing Council (see Darvas 2012c). However, OMT is regarded as a monetary policy instrument, but it can be activated only if there is a European Stability Mechanism program in place, which is implemented properly. Therefore, a monetary policy instrument is activated subject to considerations that would not strictly pertain to a central bank in the exercise of its monetary policy competencies. And the ECB explicitly commits to terminate the OMT not only—as would be logical—in case the latter is no longer warranted from a monetary policy perspective, but also in case the beneficiary country fails to comply with the required conditionality.

3. THREE DIFFERENT WAYS TO ASSESS PROGRAM SUCCESS

There are three ways to assess the success of financial assistance programs (Pisani-Ferry et al. 2013):

- Success in creating conditions to regain market access;
- Degree of compliance with loan conditionality; and
- Actual economic performance no worse than planned.

3.1 Criterion 1: Creating Conditions to Regain Market Access

All countries but Greece were able to return to market borrowing. Since a major goal of any financial assistance program is to help the country return to borrowing from the market on a sustainable basis, six of the seven EU financial assistance countries should be considered successful in this regard.

However, two euro-area countries, Portugal and Cyprus, have to pay a relatively high spread to Germany, at about 300/350 basis points at 10-year maturity borrowing (Figure 6). Given the still high level of public debts of these countries as a share of GDP (131% in Portugal and 107% in Cyprus at the end of 2016),[7] these countries may face market tensions once the ECB will stop quantitative easing and interest rates will rise, unless a very robust economic recovery starts and thereby spreads fall.

The Irish return to market borrowing was so successful that its current 10-year government bond spread to Germany is only about 50–70 basis points. In fact, the cost of market borrowing was so much lower than the interest rates on IMF loans and, therefore, Ireland repaid the IMF early in 2014–2015, saving about €1.5 billion in interest.

Latvia, a country that joined the euro area in 2014, also experienced a marked fall in its borrowing costs and, in fact, it can borrow at a lower rate than Ireland. In autumn of 2016, the spread over the German 10-year yield fell below 20 basis points and was still at a rather low level of 64 basis points in January 2017, following a general global increase in government bond yields after the November 2017 US presidential elections. Public debt is very low in Latvia at 39% of GDP (end-of-2016 data) and the Latvian government demonstrated its determination to keep the budget under control even in the midst of a 20% GDP fall during the recent crisis, which likely explains the low borrowing cost.

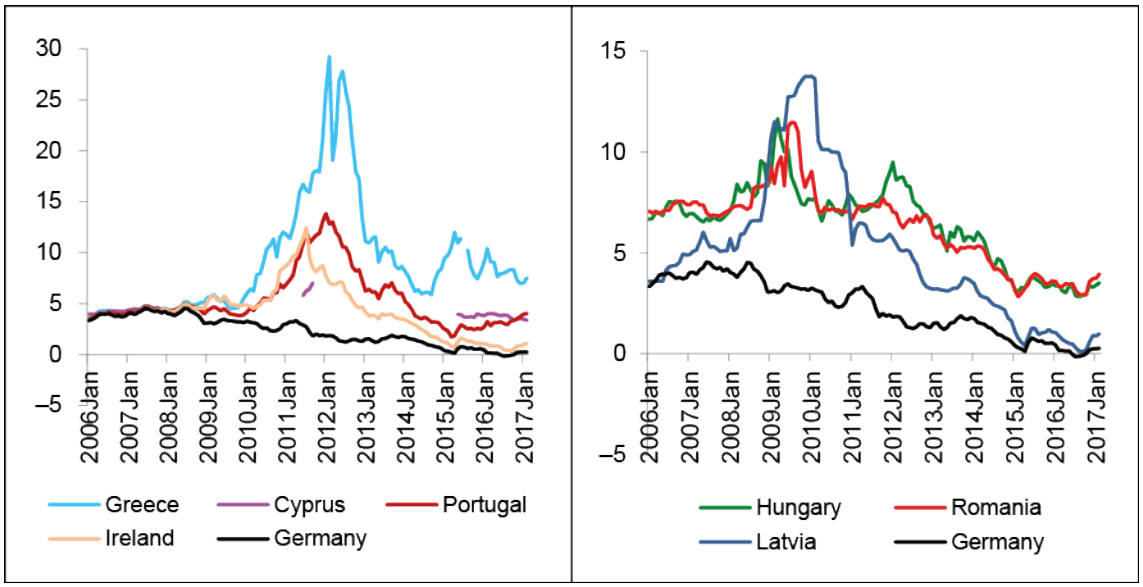
In the two floating exchange rate countries, Hungary and Romania, the 10-year spread to Germany is currently at about 300 basis points. While the spreads of these countries is similar to the spreads of Portugal and Cyprus, they should be assessed more favorably, for three reasons:

- First, these countries could borrow at about the same spread to Germany in the precrisis period when there were huge capital inflows into these countries (see Darvas and Szapáry 2010), while the spread of Cyprus and Portugal to Germany was almost zero in the precrisis period. Therefore, current spreads of Hungary and Romania have just returned to the favorable precrisis values, while in Portugal and Cyprus current rates are much higher.
- Second, according to current forecasts, Hungary and Romania are expected to grow faster and thereby expected to have higher inflation than Cyprus and Portugal, implying that the real interest will be lower in Hungary and Romania than in Cyprus and Portugal.
- Third, the level of public debt as a share of GDP is much lower in Hungary and Romania than in Cyprus and Portugal, which combined with the lower real interest rates, implies that the real resources needed to service public debt is much lower in these two central European countries than in Cyprus and Portugal.

[7] Data source: February 2017 AMECO data set of the European Commission.

As regards Greece, we also note that the Greek government issued €4 billion of bonds in April 2014 at a rate of 4.95% at 5-year maturity, which was assessed favorably by the government and boosted plans of market return.[8] However, the 4.95% rate was still very high (and the 10-year interest rate we considered so far was at 6.2% that time, an even higher rate) and, in our assessment, borrowing at such a rate would have led to an unsustainable debt trajectory. Also, the volume of this 2014 bond issuance was relatively low and the bond was issued under English law, which offered a relatively strong protection. Therefore, even if the second financial assistance program would have been finalized smoothly and the stalemate between the new Greek government and official creditors in the first half of 2015 would have been avoided, Greece would not have been able to return to market borrowing in 2015 in our view.

Figure 6: 10-Year Government Bond Yields, January 2006–February 2017
(%)



Note: For Cyprus, correct data for several months is not available.
Source: European Central Bank.

Finally, we note that in our assessment there is no prospect for Greece returning to market borrowing at the end of the current third financial assistance program in 2018. Even if economic growth will accelerate in 2017–2018, as we expect, and thereby the public debt/GDP ratio will decline, it will be still very high, and more than 80% of it will be due to official creditors. Greek politics and economic development will continue to be characterized by major uncertainties. It is inconceivable to us that under such conditions Greece will be able to borrow at an affordable interest rate from the market. So either a big restructuring of official loans will be needed or a fourth financial assistance program. The Eurogroup indicated already at the inception of the third financial assistance program in summer of 2015 that some form of debt relief could be provided if Greece will meet loan conditions. There does not seem to be a political willingness to offer Greece a major haircut in debt, so the debt relief will likely take the form of even longer maturities for loans, longer grace periods, slightly lower interest rates, and interest rate deferral or even holiday. Such measures would be helpful in

[8] See the Reuters report, "Greece returns to bond markets, says end of bailout nears" at http://www.reuters.com/article/greece-bonds-idUSL6N0N21X220140410

reducing the cost of annual debt service and repayment, but in our view they will not be sufficient to avert a fourth financial assistance program.

3.2 Criterion 2: Compliance with Conditionality under Various Headings

Program conditionality typically involves measures to improve fiscal sustainability, finance sector stability, and better functioning of various institutions and markets in order to foster productivity growth.

Table 3 indicates a large variation both in the number of conditions as well as their composition across the key headings.[9] The number of conditions ranges from 21 in Hungary to 108 in the second Greek program.[10]

Table 3: Total Number of Conditions by Reform Headings

	Greece 1	Greece 2	Portugal	Ireland	Cyprus	Hungary	Latvia	Romania
Total	**45**	**95**	**55**	**36**	**50**	**19**	**48**	**24**
General government	23	45	20	9	11	1	15	12
Central Bank	1	1			5			
Civil service and public employment reforms, and wages	2	4	4				2	2
Pension and other social sector reforms	3	4	2		2	1	3	2
Public enterprise reform and pricing (nonfinance sector)	4	3	8		1	1	3	
Finance sector	7	22	10	27	20	16	21	8
Exchange systems and restrictions (current and capital)			–		4			
Labor markets, excluding public sector employment	3	6	4		–		3	
Other structural measures	2	10	7		7		1	

Note: empty cells indicate no condition under a particular heading.

Source: International Monetary Fund's Monitoring of Fund Arrangements database, considering the final (or last completed) program reviews.

Key headings are related to the general government with 21 conditions on average (ranging between 1 in Hungary and 52 in the second Greek program), and the finance sector reform with 19 conditions on average (ranging between 7 in the first Greek program and 29 in Ireland).

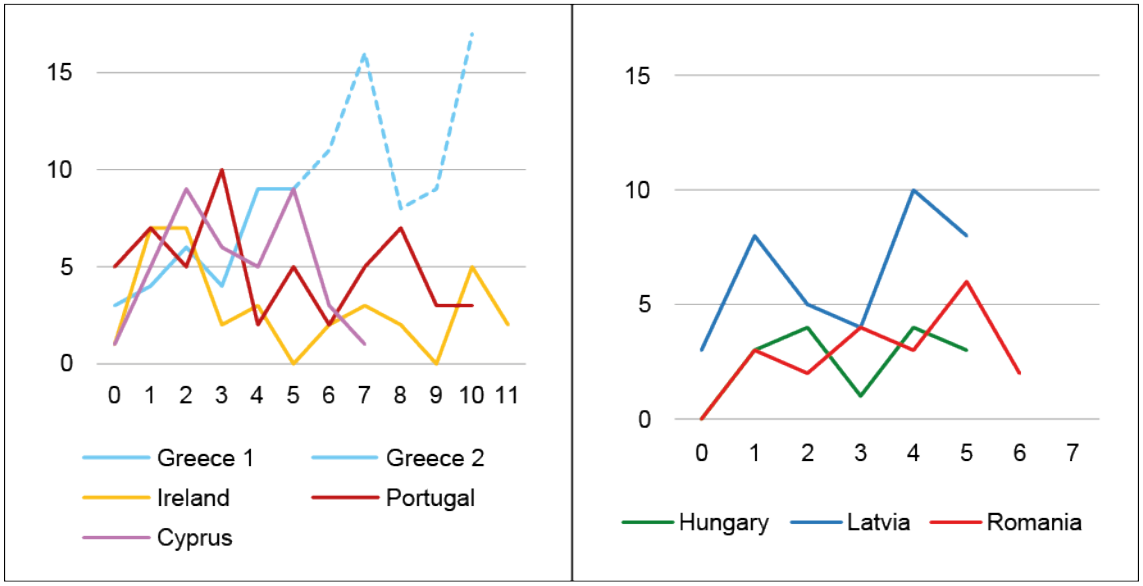
[9] The third Greek program is not included, because the IMF has not yet decided to participate in this program and therefore it is not included in the IMF's Monitoring of Fund Arrangements (MONA) database. The second and third programs for Romania are not included either, because Romania considered those programs as precautionary and no money was disbursed from these programs.

[10] Certainly, not all conditions are similarly difficult within and across countries, yet the number of conditions and its distribution across the various headings can indicate the intrusiveness and the key emphases of the programs.

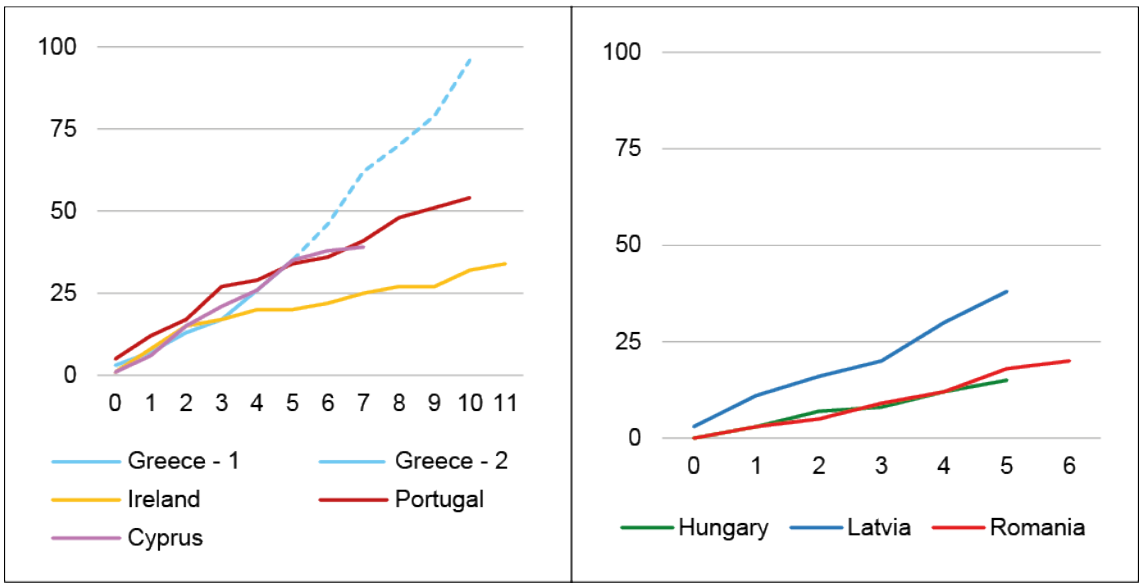
The Hungarian program concentrated heavily on the finance sector, with only three conditions in other areas. The Irish program included only general government and finance sector measures. The programs for Latvia, Romania, and Cyprus included conditions in a few other areas too, while the two Greek programs and the Portuguese program were rather comprehensive in the sense of having several conditions in various other areas too.

Figure 7: Number of Reforms Implemented

(A) By each review



(B) Cumulatively



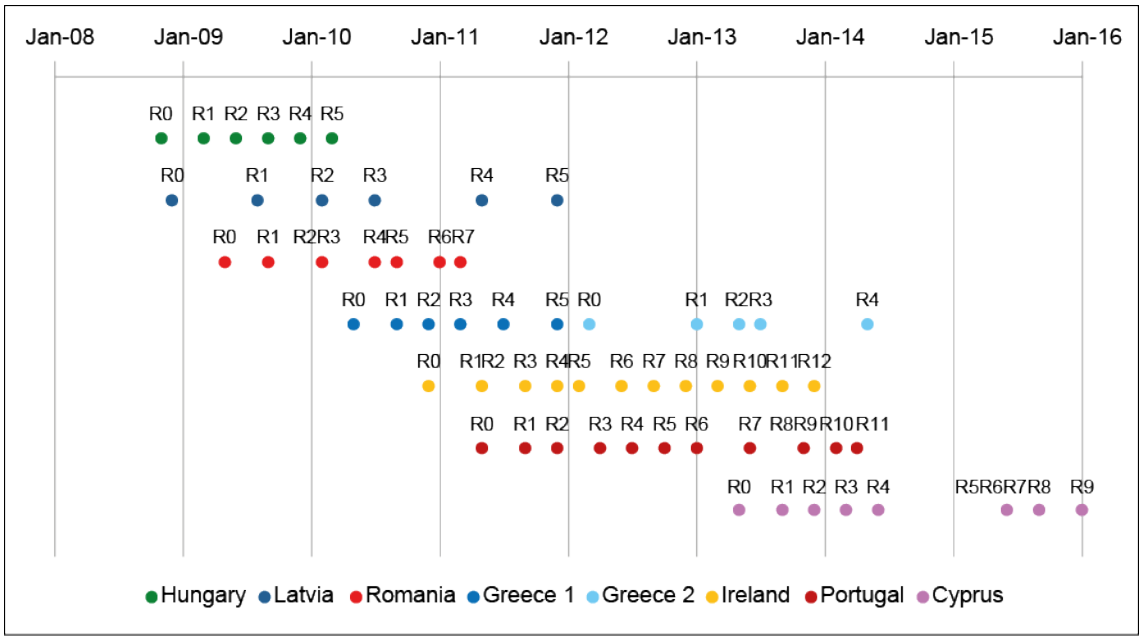
Note: The numbers on the horizontal axis indicate the number of the program review. The time between subsequent reviews was not always the same, see Figure 8.

Source: Calculations based on the International Monetary Fund's Monitoring of Fund Arrangements database.

Conditions related to exchange systems and restrictions were added only for Cyprus in relation to the capital controls that were introduced. None of the seven countries received conditions related to "international trade policy, excluding customs reforms" and "economic statistics excluding fiscal and central bank transparency and similar measures,' two headings which were included in many other IMF programs. Trade policy is an EU-level competency. Statistical methodologies are harmonized in the EU and the production of statistics are supervised by Eurostat, the EU's statistical office, and specific conditions for fiscal statistics were added in some cases. Greece was asked to revise the methodology of government finance statistics, while Ireland, Hungary, and Portugal received some related recommendations, like passing a budget responsibility law.

Building on but modifying the methodology of Terzi (2015), the dynamics of reform efforts measured by the number of conditions met by each review is displayed on Figure 7. It is difficult to observe a general pattern, though in Ireland, Cyprus, and Portugal there seem to be some decline toward the end of the program. The largest number of reforms was implemented by Greece, which is not surprising, given that Greece received the largest number of conditions (Table 3).

Figure 8: Timeline of the Reviews



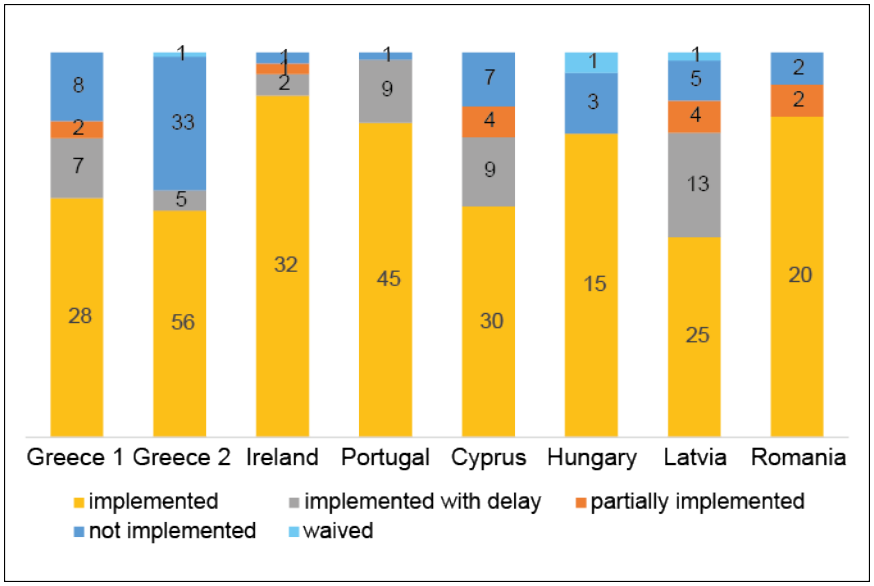
Source: Figure 5 of Terzi (2015) updated with the International Monetary Fund's Monitoring of Fund Arrangements database.

However, not all conditions were met. Figure 9 shows that on average only about 70% of the conditions were met on time, another 11% with a delay, and another 4% were implemented partially, leaving, on average, 15% of the number of conditionally unmet and 1% waived.

The best performers in terms of on-time implementation are Ireland, Romania, Portugal, and Hungary, while in terms of any kind of implementation (on-time, delayed, and partial) Portugal is followed by Ireland, Romania, and Latvia. The second Greek program had the weakest implementation record, which is not surprising given the widely reported tensions between the Greek government and official creditors in the second half of 2015 and the reluctance of the new Greek government that was elected

in January 2016 to complete the second program. The implementation record was not great in Cyprus either.

Figure 9: All Conditions – Implementation Record
(share of the total number of conditions)



Note: For each case, we considered the final (or last) review included in the Monitoring of Fund Arrangements (MONA) database, which classifies implementation status as five categories reported in the figure plus conditions which were still outstanding. Given that we considered the last review for each program, we considered outstanding conditions as not being met. In the case of Greece, some of the outstanding conditions were incorporated in the next assistance program. The numerical values on each portion of the bar indicate the number of conditions.

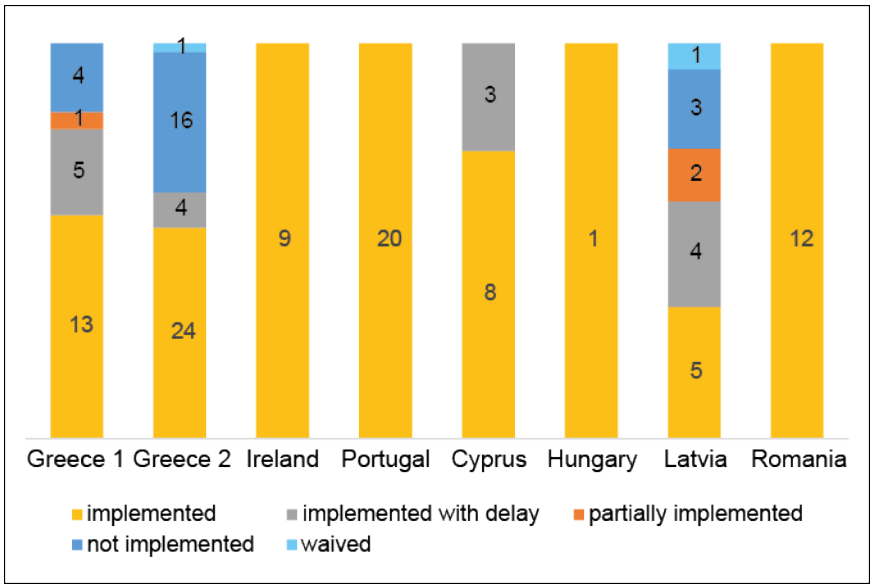
Source: International Monetary Fund's MONA database.

We also focus on the two key aspects of the conditions, general government and finance sector reform. Hungary shows a 100% score for implemented general government reform, given that its single condition, the passage of draft fiscal responsibility law, was done. Excluding Hungary, the average on-time implementation rate was 71% (Figure 10), slightly above the overall implementation rate. Portugal, Ireland, and Romania had the best record in this regard and the second Greek program the worst.

A key aspect of general government conditions was fiscal consolidation, since budget deficits increased to high levels by the inception of financial assistance program (Figure 11). The only exception was Hungary, where large budget deficits were recorded in the mid-2000s and, by 2008, the budget balance already improved due to a major fiscal adjustment.

Unfortunately, there is no good up-to-date measure of fiscal adjustment. The most widely used indicator, the so-called structural budget balance, suffers from a number of conceptual weaknesses and is subject to large revisions, as demonstrated by Claeys, Darvas, and Leandro (2016). Still, lacking a better measure, Figure 12 indicates the dynamics of the primary structural balance of the general government, which can be illustrative of the fiscal efforts made by the governments.

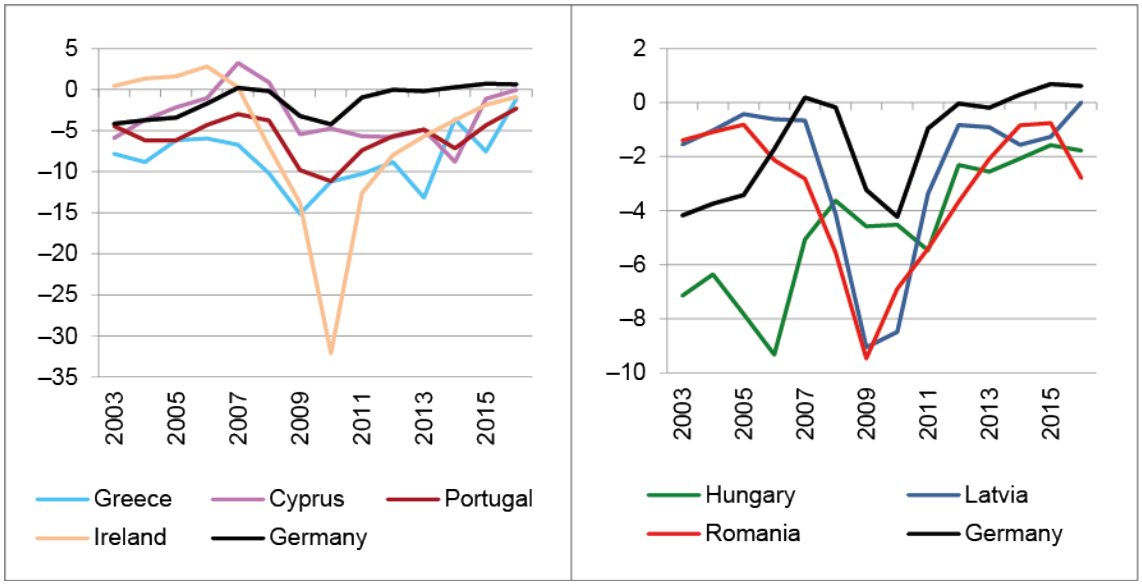
Figure 10: General Government Conditions – Implementation Record
(share of the number of conditions)



Note: For each case, we considered the final (or last) review included in the Monitoring of Fund Arrangements (MONA) database, which classifies implementation status as five categories reported in the figure plus conditions which were still outstanding. Given that we considered the last review for each program, we considered outstanding conditions as not being met. In the case of Greece, some of the outstanding conditions were incorporated in the next assistance program. The numerical values on each portion of the bar indicate the number of conditions.

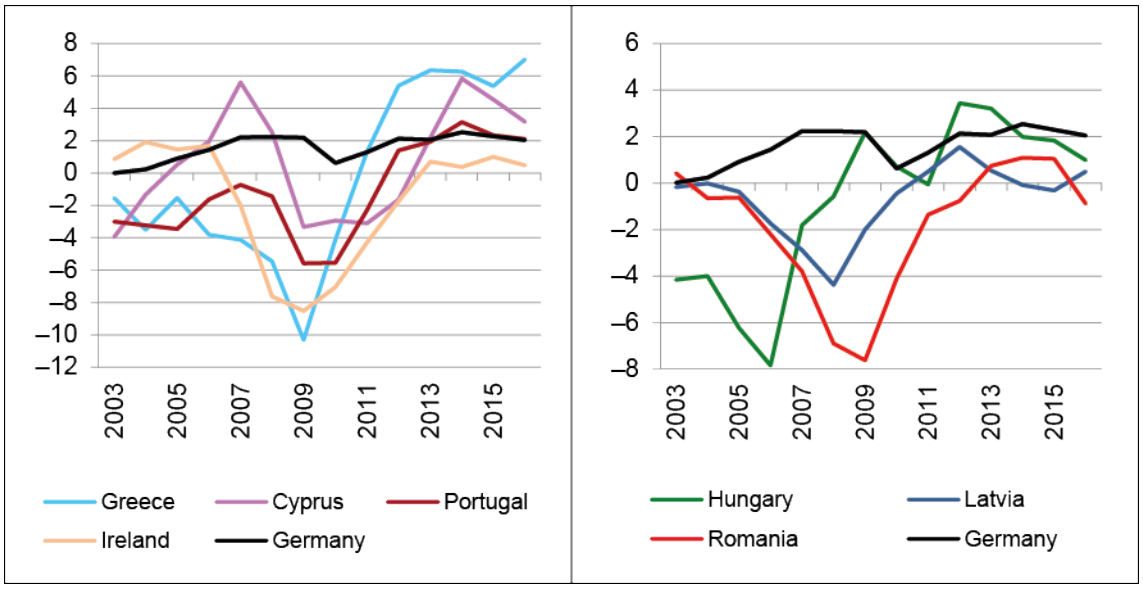
Source: International Monetary Fund's MONA database.

Figure 11: Overall Budget Balance of the General Government
(% of GDP)



Source: European Commission's February 2017 AMECO database.

Figure 12: Primary Structural Budget Balance of General Government
(% of GDP)



Note: The structural balance is an estimate of the "underlying" budget balance, by excluding the estimated impacts of the economic cycle and one-time items from the budget balance. The primary balance is the overall balance excluding interest. The November 2016 database includes data starting from 2010. For earlier years, we use the May 2014 estimates adjusted by the difference between the November 2016 and May 2014 estimates for 2010.

Source: European Commission's May 2014 and February 2017 AMECO databases.

The largest structural primary deficit, 10% of GDP, was attained in Greece in 2009 and the largest fiscal adjustment was also made by the subsequent Greek governments amounting to about 16% of GDP. The change in the structural primary balance as a share of GDP was about 8%–9% in Cyprus, Ireland, Portugal, and Romania and 6% in Latvia. Hungary started its fiscal adjustment in 2006 and, by 2008, the structural almost reached a balanced position. That is, by the time the country was forced to ask for financial assistance, it had a rather favorable fiscal situation, which likely explains why there was no condition on fiscal adjustment and the sole general government condition required to pass the draft budget responsibility law. Still, after the structural primary surplus fell from 1% of GDP to zero, the Hungarian government also implemented a fiscal adjustment of about 3% of GDP.

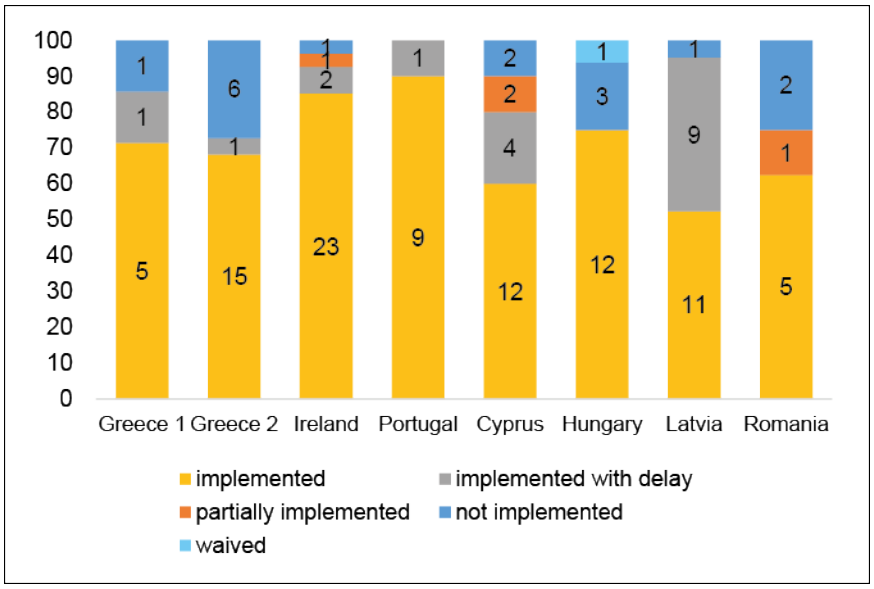
On the other hand, Germany implemented a rather modest fiscal adjustment by changing its structural primary balance from a surplus of about 1% of GDP to a surplus slightly below 3%.

The second key aspect of financial assistance programs was finance sector reforms. The on-time implementation record was slightly better (at 70%) than the overall implementation rate, with Ireland and Portugal having the best scores. Latvia implemented most of the conditions if we also consider delayed implementation.

On average, one-quarter of the finance sector reforms were not implemented and, in some cases, there were problems with quality of implementation, as for example highlighted by Véron (2016) by analyzing the Portuguese program.

Furthermore, the high share of nonperforming loans, especially in Greece and Cyprus, signals persistent problems (Figure 14).

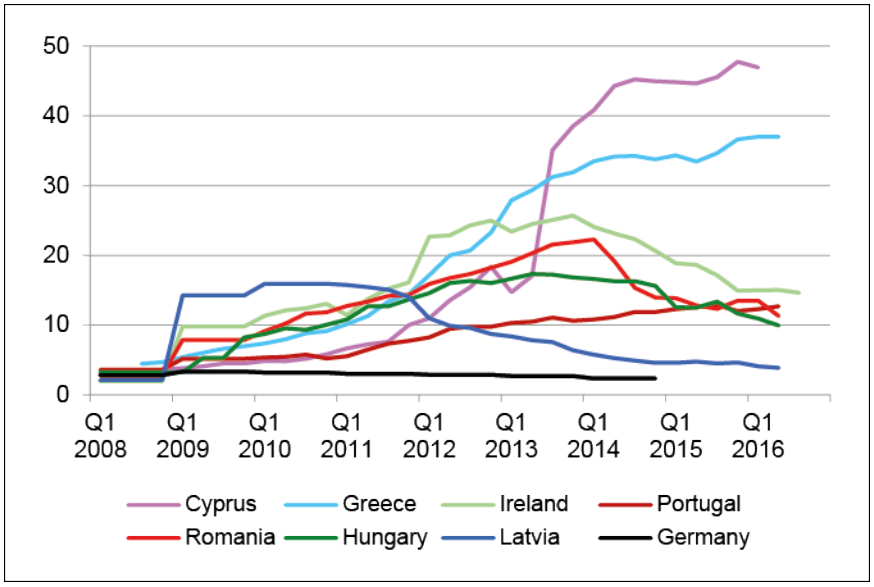
Figure 13: Finance Sector Conditions – Implementation Record
(share of the number of conditions)



Note: For each case, we considered the final (or last) review included in the Monitoring of Fund Arrangements (MONA) database, which classifies implementation status as five categories reported in the figure plus conditions which were still outstanding. Given that we considered the last review for each program, we considered outstanding conditions as not being met. In the case of Greece, some of the outstanding conditions were incorporated in the next assistance program. The numerical values on each portion of the bar indicate the number of conditions.

Source: International Monetary Fund's MONA database.

Figure 14: Share of Nonperforming Loans, Q1 2008–Q2 2016
(%)



Note: Quarterly data are not available for Ireland, Portugal, and Romania in 2008 and 2009; for Latvia in 2008, 2009, and 2010; for Hungary in 2008; and for Germany in all years; for these years, the corresponding annual data is indicated in each quarter.

Source: International Monetary Fund Financial Soundness Indicators database.

3.3 Criterion 3: Expectations versus Outcomes

A key aspect of the design of financial assistance programs is a medium-term macroeconomic projection. The projection determines (among others) the amount of tax revenues to be collected and the amount of economic-cycle-dependent spending such as unemployment benefits. Thereby, the macroeconomic projection determines the volume of loans to be provided by the financial assistance program, which is then fixed (in nominal terms) at the beginning of the program.

A funding gap of the government emerges if economic outcomes turn to be worse than planned in the program. Since a country under financial assistance typically cannot borrow from the market, such a funding gap can be closed by additional fiscal consolidation or privatization, which in turn will likely have an effect on economic developments. Therefore, the macroeconomic projection has a crucial role in financial assistance programs, since macroeconomic underperformance relative to the projection has serious consequences.

Table 4 below summarizes key macroeconomic projections made at the inception of the assistance programs and actual outcomes up to the date when projections were made public. For comparison, the table also includes Germany, by comparing the October 2010 IMF World Economic Outlook projections with the most recent data. We chose the October 2010 projection because that was made around the time when the first three euro-area financial assistance programs were designed. The figures in the Annex report the annual development of GDP and unemployment rate relative to projections.

Before assessing the key findings based on this table and the Annex charts, we would like to highlight that it is not possible to assess whether projections were "unbiased" or "optimistic" or "pessimistic." Such an assessment would require a detailed analysis of the various assumptions behind the projections, along with an assessment of the models used. This task cannot be performed by relying on publicly available information.[11] We can only compare whether actual outcomes became better or worse than the projections, but cannot assess whether any deviation was due to bad program design or unexpected factors.

The key observations from Table 4 and the annex charts are the following:

- GDP:
    - In Germany, actual growth was practically the same as the October 2010 projection, suggesting that it was possible to make an accurate GDP projection in 2010 for a relatively stable country.
    - In five countries (Greece, Portugal, Hungary, Latvia, and Romania), growth was significantly worse than planned, and especially in Greece. The reason behind this underperformance is not known: possible explanations include overly optimistic program design, unexpected negative shocks, or perhaps the difficulties in making projections for vulnerable countries in the midst of the worst economic and financial crisis since the Second World War.

[11] The evaluation report of the Independent Evaluation Office of the IMF (2016) concluded that Greek and Portuguese programs incorporated "overly optimistic growth projections," while the Irish program did not.

  - Ireland grew more or less in line with projections up to 2014, while for 2015 statistics show an incredible 26% GDP growth, which was clearly unexpected.[12]
  - Cyprus had better growth than planned. Since the Cypriot financial program is the most recent among the financial assistance programs we consider and for most other programs outcomes became worse than planned, the design of the Cypriot program may have been prepared on a cautious basis.[13]

- Unemployment: Deviation of actual unemployment from program assumption very much mirrors GDP developments. That is, in most countries actual unemployment became higher than planned when GDP growth was lower than planned. The two exceptions are Romania, where unemployment became slightly lower than planned despite much worse growth, and Germany, where unemployment became significantly lower than planned despite no significant deviation of GDP from the projection.
- Public finances: Deviations of general government balance and debt from program assumption also mirror GDP developments. In the five countries with worse than planned GDP growth, the budget deficit became slightly larger, and public debt became much larger than planned, while in Ireland and Cyprus both deficit and debt became lower. Public finances also became more favorable in Germany.
- Current account: There is uniform pattern for seven of the eight countries irrespective of the deviation of actual GDP from its projection: the current account improved more than planned, including in Germany. This development suggests that there were common driving forces for higher surpluses in the whole EU. The exception is Cyprus, where the actual current account balance practically equals the planned balance. This could be explained again by the timing of the Cypriot program: this was the most recent program agreed in 2013, when current accounts of other EU countries already outperformed earlier expectations.
- Inflation: There is no uniform pattern for inflation. Actual inflation turned to be rather similar to projections in Greece, Ireland, and Hungary, while inflation became significantly lower in Portugal, Cyprus, and Latvia. In Romania, inflation became higher than planned.

To sum up, deviation of GDP developments from program assumptions had a decisive role in deviations of public finances and unemployment from program assumptions. There was practically no deviation of GDP from plan for Germany, but for five of the seven program countries (both inside and outside the euro area) actual outcomes became much worse than planned. Overly optimistic program design, unexpected negative shocks, or perhaps the difficulties in making projections for vulnerable countries in a deep crisis may explain this underperformance. Ireland developed along the projections up to 2014, while growth became better in Cyprus, probably because of the timing of its program. The current account balance increased relative to projection in all countries including in Germany, while there is no uniform development in inflation.

[12] We note that a number of commentators question the reliability of the 26% GDP growth number for 2015, see for example Coffey (2016) and Regan (2016).

[13] We do not include the third financial assistance program for Greece in our study, since it is a very recent program, yet we note that outcomes so far also became much better than planned both for GDP (see Annex Figure 15) and public finances.

Table 4: Macroeconomic Assumptions and Outcomes: The Seven European Union Financial Assistance Countries and Germany

	Greece		Ireland		Portugal		Cyprus	
Source	**Program**	**Actual**	**Program**	**Actual**	**Program**	**Actual**	**Program**	**Actual**
Source Date	May 2010	Oct 2016	Nov 2010	Oct 2016	May 2011	Oct 2016	Apr 2013	Oct 2016
Period	**2009–2015 Cumulated**		**2009–2015 Cumulated**		**2010–2016 Cumulated**		**2012–2016 Cumulated**	
Real GDP (% change)	1.2	–22.6	11.9	39.7	3.8	–3.7	–9.6	–4.4
Inflation (% change)	5.4	5.5	2.4	2.3	12.2	8.1	5.6	–2.4
Period	**2015**		**2015**		**2016**		**2016**	
Unemployment (%)	13.4	25.0	10.7	9.5	9.8	11.2	17.5	13.0
Current account balance (% of GDP)	–1.9	0.0	-0.5	10.2	-2.2	0.0	-1.0	-0.9
General government balance (% of GDP)	–2.0	–3.1	-4.8	-1.9	-1.8	-3.0	-2.3	-0.5
General government debt (% of GDP)	140.0	176.9	123.0	78.7	111.0	128.4	121.7	106.7
	Hungary		**Latvia**		**Romania**		**Germany**	
Source	**Program**	**Actual**	**Program**	**Actual**	**Program**	**Actual**	**IMF WEO**	**Actual**
Source Date	Oct 2008	Oct 2016	Dec 2008	Oct 2016	Apr 2009	Oct 2016	Oct 2010	Oct 2016
Period	**2007–2011 Cumulated**		**2007–2013 Cumulated**		**2008–2011 Cumulated**		**2009–2015 Cumulated**	
Real GDP (% change)	3.3	–3.4	–4.2	–9.7	0.7	–6.8	12.8	12.6
Inflation (% change)	19.3	20.4	29.2	25.3	13.9	18.5	9.6	8.5
Period	**2011***		**2013**		**2011**		**2015**	
Unemployment (%)	8.5	10.1	9.5	11.9	7.7	7.2	6.7	4.6
Current account balance (% of GDP)	–1.0	0.8	–5.5	–2.4	–6.2	–4.9	3.9	8.4
General government balance (% of GDP)	–1.5	–5.5	1.1	–0.6	–2.7	–4.2	–1.4	0.7
General government debt (% of GDP)	66.2	80.8	33.5	35.9	25.7	33.9	75.6	71.0

GDP = gross domestic product, IMF = International Monetary Fund, WEO = World Economic Outlook.

* For Hungary, unemployment rate projections were published only up to 2009 and therefore we report the 2009 values for unemployment and 2011 values of all other indicators.

Notes: The reference period is determined by the year before the program started and the latest year for which the program documents reported detailed projections. For Germany, we report the October 2010 IMF WEO projections, which were made at a time around the negotiations for the Irish program.

Sources: IMF country reports at the inception of the program and the October 2010 and the October 2016 WEO databases.

3.4 Why has Greece Suffered so Much?

While we argued earlier that it is difficult to identify the reasons for a discrepancy between actual and projected macroeconomic developments, Greece has suffered so much from a 25% GDP depression, necessitating reasoning.

Clearly, the precrisis growth model of Greece was unsustainable (see e.g., Darvas 2015), which made some GDP contraction inevitable. The Greek economy was characterized by widespread state control, inefficient public administration, corruption, excessive increases in public sector employment and wages, large increases in private sector wages well over productivity growth, and insufficient structural reforms.

This model led to very unfavorable business conditions, which was reflected in Greece being ranked 108th out of 181 countries in the World Bank's Ease of Doing Business indicator in 2008. Major vulnerabilities emerged, such as the –16% GDP current account balance in 2008, large foreign debt, and the huge budget deficit and public debt. Public debt increased to 127% of GDP in 2009 and was on an exploding path.

Clearly, the Greek crisis that erupted from late 2009 onward was self-inflicted and certain GDP contraction was inevitable. However, the key question is whether the first Troika program exacerbated the output fall. Hard evidence cannot be provided to answer this question and different people have different opinions. In my view, the answer is yes, for the following reasons.

The European Commission and the ECB vehemently opposed public debt restructuring in 2010 and early 2011. While the IMF staff had concerns about the sustainability of Greek public debt, the IMF agreed to join the program without debt restructuring.

In the absence of debt restructuring, the large 2009 budget deficit and the large and exploding public debt painted a very dark picture about the future trajectory of public debt. To compensate for that, some key assumptions of the financial assistance program were designed in a way that seemed overly optimistic even back in 2010–2011 (see Darvas, Pisani-Ferry, and Sapir 2011):

- Macroeconomic projections foresaw a short-lived and modest economic contraction: a 4.0% GDP decline in 2010, a 2.6% decline in 2011, and accelerating economic growth starting already in 2012.[14]
- Primary budget balance target required an extremely ambitious adjustment: change from –8.6% of GDP in 2009 to 5.9% by 2014 and 6% in each year between 2015 and 2020.[15]
- Extremely ambitious privatization receipts were planned: €5 billion by the end of 2011, €15 billion by the end of 2012, and €50 billion by the end of 2015, which totals 20% of GDP in 5 years.[16]

From late 2010, markets started to worry about the sustainability of Greek public debt as it became clearer that the above three main program assumptions will not be met. But all three Troika members, including the IMF, continued to oppose vehemently public debt restructuring in 2010 and in most of 2011, while the initial proposals for debt restructuring in the second half of 2011 were very timid. Therefore, a major uncertainty arose about the sustainability of Greek public debt, which led to uncertainty about Greek euro membership. The uncertainty receded only sometime in 2012, after the large public debt restructuring.

However, the persistent uncertainty about the sustainability of Greek public debt and the euro-area membership of the country in 2010–2012 reduced investments in Greece and led to capital flight from the country, which weakened the economy further. GDP also became weaker due to negative confidence effects, a large fiscal multiplier, financial fragmentation in the euro area, and weak overall euro-area economic

[14] See Table 1 on page 26 of http://www.imf.org/external/pubs/ft/scr/2010/cr10110.pdf

[15] See Table A.1 on page 38 of http://www.imf.org/external/pubs/ft/scr/2010/cr10110.pdf

[16] The initial May 2010 program included a much more modest target: €5 billion in total by the end of 2015. The second review by the IMF published in December 2010 noted that "the authorities are preparing a more ambitious three year privatization strategy than originally foreseen in the program." In early 2011, the target was increased to €50 billion; see the third program review by the IMF published in March 2011 (https://www.imf.org/external/pubs/ft/scr/2011/cr1168.pdf), which puts this plan into the perspective of earlier privatization programs of other countries, and pages 13–16 and page 82 of the updated Memorandum of Understanding: https://www.imf.org/external/np/loi/2011/grc/070411.pdf

developments. Weak Greek GDP developments increased the budget deficit above the program assumption, which necessitated further fiscal adjustment. This is turn led to an even weaker economy and an unfortunate vicious circle of fiscal adjustment and weaker output.

Therefore, in my assessment the uncertainty related to the sustainability of Greek public debt and the consequent uncertainty in Greece's euro-area membership in 2010–2012 were major negative factors behind the collapse of Greek GDP. These uncertainties relate to program design by the Troika and were approved by euro-area member states and the IMF Board, so the lenders also have a responsibility for program failure.

Greece did not meet all program conditions, but in my view this did not play a major role in the huge output collapse. As Figure 9 shows, the implementation record of the first Greek program, measured as the percentage of conditions that were implemented, was not so weak and quite similar to the implementation record of Cyprus. The economic performance of Cyprus was much better than foreseen in its program. While many factors may have influenced Cypriot developments and beyond the implementation record the types of non-implemented measures and the quality of implemented measures matter too, the Cypriot example suggests that less-than-perfect implementation of program conditionality should not necessarily imply weak economic development.

4. DISAGREEMENTS WITHIN THE TROIKA

Some studies assessed the cooperation within the Troika. For example, Pisani-Ferry, Sapir, and Wolff (2013) concluded that

> despite a number of tensions stemming from their different remits and rules, the EU and the IMF have succeeded in cooperating in Greece, Ireland and Portugal.

In a recent study, the Independent Evaluation Office of the IMF (2016) concluded that

> the troika arrangement … proved to be an efficient mechanism in most instances for conducting program discussions with national authorities, but the IMF lost its characteristic agility as a crisis manager. And because the European Commission negotiated on behalf of the Eurogroup, the troika arrangement potentially subjected IMF staff's technical judgments to political pressure from an early stage.

In this section, we do not contemplate a similarly comprehensive assessment of the cooperation within the Troika institutions. Instead, our goal is to highlight four specific episodes when there was a major disagreement between the Troika members, which could allow drawing lessons from these experiences for the cooperation between the IMF and regional safety nets in Asia.

4.1 Disagreement between the International Monetary Fund and the European Commission: the 2008 Latvia Example

The Latvian program was designed by the "duo" of the European Commission and the IMF. Latvia was not a member of the euro area in 2008 and therefore the ECB did not participate formally in the program.

Latvia has maintained a fixed exchange rate ever since the country became independent from the Soviet Union in the early 1990s. After entering the EU in 2004, the Latvian lats joined the European Exchange Rate Mechanism (ERM II) on 2 May 2005, which fixed the value of the lats to the euro with standard fluctuation margins of ±15%. However, Latvia unilaterally maintained a ±1% fluctuation band around the central rate.[17]

Latvia asked for financial assistance in 2008. A major disagreement developed about the Latvia lats exchange rate between the IMF and the European Commission.

The IMF and the European Commission institutions had diverging priorities:

- The IMF's priority: restore stability and promote growth in Latvia.
- The European Commission's priority: help the country in a way that sets good precedent for others and helps the stability of neighbors.

The IMF and the European Commission had different assessments and proposals:

- The IMF concentrated its attention on the Latvian exchange rate, which was "fundamentally misaligned" according to IMF staff assessment. Therefore, the IMF proposed currency devaluation, or at least allowing the exchange rate to fluctuate in the full ±15% wide band.
- The European Commission insisted that the narrow exchange rate band should be preserved, which was in line with the priority of the Latvian government and central bank.

Resolution of the dispute:

- The IMF conceded; the narrow ±1% fluctuation band was not widened.
- Very large fiscal adjustment was implemented (see Figure 12).
- GDP contracted by 20% and unemployment skyrocketed (see Figure 20 in the Annex); 9% of the population (including about 20% of young cohorts) emigrated from Latvia in 2008–2011 (see Darvas 2013a).
- Latvia adopted the euro in 2014.

It is difficult to assess which institution was right. Latvian authorities, along with the European Commission, regard the program successful, for three main reasons: (a) the exchange rate peg was maintained, (b) there was fast economic growth after the 20% GDP collapse (see **Figure** 20 in the Annex) and (c) Latvia could join the euro area in 2014.

It is not possible to set a counterfactual scenario on what would have happened with devaluation. Most likely, GDP contraction in 2008–2010 would have been smaller, fiscal adjustment could have been smaller, fewer people would have emigrated from Latvia, and Latvia could have still joined the euro area in 2014.[18] A key question whether devaluation (or at least the full use of the ±15% wide exchange rate fluctuation band) in Latvia would have necessitated a similar change in neighboring Estonia and Lithuania, and whether that would have had benign or adverse economic, financial, and social consequences in these two countries.

[17] https://ec.europa.eu/info/business-economy-euro/euro-area/euro/eu-countries-and-euro/latvia-and-euro_en

[18] The exchange rate criterion for joining the euro area requires a country to keep its exchange rate in a +/–15% wide exchange rate band 2 years prior to entering the euro area and therefore devaluation in 2009 would have not excluded euro entry in 2014.

4.2 Disagreement within the Troika: The 2010/2011 Greek Example

The Greek situation in 2010 was exceptional because of the large public sector and external imbalances and because of Greek membership in the euro area. It came as a surprise to European institutions that a euro-area member requires financial assistance, as we discussed in Section 2. One of the central issues in the 2010 negotiations was the sustainability of Greek public debt and whether debt restructuring was necessary.

The three institutions had diverging priorities:

- The IMF: restore stability and promote growth in Greece.
- Europeans: ensure stability of the euro area (fear from contagion) and address Greek debt problem later, if needed.

The three institutions had diverging assessments and objectives:

- Up until early 2010, for exceptionally large lending, IMF articles required that "a rigorous and systematic analysis indicates that there is a high probability that the member's public debt is sustainable in the medium term." As Schadler (2016) notes, the consensus report submitted by IMF staff to the IMF Board stated that "on balance, staff considers debt to be sustainable over the medium term, but the significant uncertainties around this make it difficult to state categorically that this is the case with a high probability." Therefore, IMF staff had doubts about Greek public debt sustainability.
- Major European creditor countries did not have consensus about how to help Greece. A large share of Greece's debt was owed to banks of other EU countries that had weak balance sheet that time.

Resolution of the dispute:

- Greek public debt was not restructured in 2010 as part of the financial assistance program. Instead, extremely ambitious assumptions were made, as we discussed in Section 3.4.
- Before granting a loan to Greece in 2010, the IMF Executive Board approved a major revision to the exceptional access criteria: "However, in cases where there are significant uncertainties that make it difficult to state categorically that there is a high probability that the debt is sustainable over this period, exceptional access would be justified if there is a high risk of international systemic spillovers."
- There were huge economic and social costs in Greece.
- Debt was eventually restructured in March/April 2012, after the negative downward spiral of the economy intensified, as we argued in Section 3.4.

There was dramatic economic and social hardship in Greece after the first financial assistance program. It is again difficult to assess a counterfactual scenario under which debt was restructured in 2010 and thereby the financial assistance program was based on more reasonable assumptions. However, there was practically no contagion to other weaker euro-area countries when debt restructuring was agreed in late 2011 and implemented in March/April 2012, which suggests that an earlier debt restructuring would have not caused major negative spillovers.

It is sometimes argued that by the 2012 date of the Greek debt restructuring, the euro area had a stronger institutional framework to tackle spillovers. However, we find this argument weak. Arguably, the two most important measures that helped to contain the euro crisis were the decision on the establishment of the European banking union and the announcement of the ECB's Outright Monetary Transaction (OMT) instrument.[19] Both of these announcements were made in summer of 2012, well after the decision on Greek debt restructuring.

4.3 Disagreement within the Troika: The 2010/2011 Irish Example

Ireland was the fifth EU and the second euro-area country that asked for financial assistance in the aftermath of the global and European financial crisis. Ireland primarily suffered from a massive banking crisis, which was especially severe because of the large size of the banking system: the balance sheet of Irish-owned banks was 3.7 times GDP in 2007, while with international financial centers the ratio was 7.1 times GDP. Early in the crisis, the Irish government guaranteed most liabilities of Irish-owned banks—a decision made entirely by the Irish authorities. But later, when the problems with the blanket guarantee became clearer and the issue emerged in political debates, the Irish government wished to restructure the banks' senior debt.

The three institutions had diverging priorities:

- The IMF: restore stability and promote growth in Ireland.
- Europeans: ensure stability of the euro area (fear from contagion).

The three institutions had diverging proposals:[20]

- The IMF urged imposing losses on senior bank bondholders and estimated that it would benefit Ireland by about €16 billion–€17 billion (10% of GDP).
- The ECB expressed its resolute opposition, motivated by the fear from destabilizing senior bank bond markets, and more generally a disruption of bank-funding markets throughout the euro area.

Resolution of the dispute:

- The IMF conceded; senior bank bonds were not restructured.
- However, the episode left a sense of unfairness against Ireland, which played a big role in later enabling a financial restructuring known as the "promissory notes transaction," which was beneficial to Ireland (Véron 2016).

4.4 Disagreement between the International Monetary Fund and European institutions: The 2015/2017 Greek Example

Greece held snap elections in January 2015 and the new government rejected the implementation of the ongoing second financial assistance program. After a half-year stalemate between the Greek government and the Troika institutions, a third financial assistance program was agreed between the Greek authorities and euro-area partners in summer of 2015. The new loan was provided fully by the European Stability

[19] See Darvas (2012c).

[20] See Brennan (2010), Lane (2011), and O'Rourke (2011) for arguments for and against the restructuring of senior bank debt.

Mechanism (ESM), the new permanent safety net of the euro area. The IMF was not among the signatories of this third assistance program because it had a major dispute with European partners about Greek debt sustainability, but did not exclude its later participation. By February 2017, the time of finalizing this paper, the dispute has not yet been solved and the IMF has not yet decided about its participation in the assistance program.

Because of the negative associations with the name "Troika" in Greece, this name was dropped and instead the IMF, the European Commission, the ECB, and the ESM are called "institutions."

The four institutions had diverging priorities:

- The IMF: learn from the mistakes of the previous two Greek assistance programs, listen more to the voices of non-European members of the IMF,[21] and ensure the repayment of existing IMF loans to Greece.
- Europeans: ensure a consistent implementation of financial assistance programs in the euro area.

The four institutions had diverging assessments and proposals:

- The IMF staff concluded that Greece cannot reach a 3.5% of GDP primary balance target (or if it is reached, it will not be maintained for long) and significantly downgraded Greek growth outlook. Therefore, IMF staff concluded that Greek public debt is not sustainable. Since the bulk of Greek debt is due to official creditors, the IMF proposed to restructure EU loans, but full repayment of IMF loans.
- Europeans argued that meeting the conditionality of the program (i.e., structural reforms) is more important than giving a debt relief, given that Greece has major structural weaknesses but no market borrowing for years. Europeans criticized the IMF for overly pessimistic assumptions and argued that certain easing of the debt burden can be discussed only after program conditionality is properly implemented.

Resolution of the dispute:

- No resolution so far.
- The IMF has not yet decided about its participation in the third financial assistance program to Greece.

5. IMPLICATIONS FOR ASIA

While financial assistance for EU countries, and in particular, to euro-area countries, have many distinctive features, Asian countries can draw several lessons from the experiences of European countries, which can be classified into three main categories:

- Euro-area countries (Greece, Ireland, Portugal and Cyprus), where assistance programmes had a number of unique features;
- Latvia, a country that maintained a fixed exchange rate throughout the assistance programme;
- Hungary and Romania, two countries with floating exchange rate regimes.

[21] The IMF received major criticisms from its emerging/developing country members for its earlier handling of the euro-area crisis.

We highlight four key issues: coexistence of global and regional safety nets, their cooperation, systemic spillovers across countries, and social implications of assistance programs.

5.1 Coexistence of the International Monetary Fund and Regional Safety Nets

A key lesson from the financial assistance programs to the four euro-area and three non-euro EU countries is that joint programs between the IMF and regional safety nets are possible and can be successful. As Pisani-Ferry, Sapir, and Wolff (2013) highlight, the US and European countries opposed the creation of an Asian Monetary Fund in the late 1990s, which now seems to be unjustified, and an expression of unequal treatment, given that the IMF cooperated with European institutions for financial assistance of seven EU countries.

EU countries were in a special situation, given that they have a strong influence on the Fund: the share of EU representatives in the IMF Executive Board is higher than the share of EU countries in the combined GDP of all IMF members, and IMF's managing directors have been Europeans so far. A key question for Asian countries therefore is whether the IMF would be ready to cooperate with Asian regional institutions to a similar degree as it cooperated with European institutions. It is difficult to answer such a question. However, the IMF has showed the capacity to change its view toward more pragmatic approaches in many issues,[22] which suggests that it may not exclude the cooperation with regional safety nets from other regions, provided that certain preconditions exist. A key precondition for cooperation seems to be that the regional safety net should have a sufficient own capacity to partner with the IMF in terms of analysis, advice, and financing. The European experiences show that when this is the case, the IMF and regional institutions can work together. A possible cooperation between the IMF and regional institutions may also be helpful in reducing the "stigma effect," which has been associated with IMF programs since the Asian financial crises of 1997/98. The cooperation in Europe was burdened with major disagreements in the cases of Latvia and Greece, and to a lesser extent Ireland, while disagreements were less important in the cases of Hungary, Romania, Ireland, and Cyprus.

Some of the joint European programs were more successful (e.g., Ireland, Cyprus), while the first two Greek programs were major failures. Therefore, cooperation between the IMF and regional safety nets does not guarantee, nor exclude, success.

[22] For example, the IMF and its policies have evolved significantly in post-1997/98 Asian financial crisis and is moving beyond a "one size fits all" approach. For example, the IMF (1) recently endorsed capital controls under certain conditions, while strongly opposed such controls earlier; (2) conducted extensive research on social issues like income inequality, while there was hardly any such research earlier; (3) published several papers on fiscal multipliers and entered into a major debate with the European Commission on this issue, by arguing that multipliers tend to be large in a recession, which should be considered in the design of fiscal strategies; and (4) for Greece, while the IMF wholeheartedly endorsed the 6% of GDP primary balance target of the first financial assistance program of 2010 and the 4.5% of GDP target of the second financial assistance program of 2012, since 2015 it argues that even a 3.5% target is too ambitious and instead a 1.5% target would be appropriate. We assess many of these changes as "pragmatic."

5.2 Cooperation between the International Monetary Fund and Regional Safety Nets

European experiences with jointly funded assistance programs by the IMF and regional institutions suggest that cooperation could be more efficient if there is a prior agreement on

- how to settle possible disputes between institutions,
- division of labor between the institutions,
- information sharing, and
- synchronized decision making.

Furthermore, the major disputes that emerged in the cases of Latvia and Greece suggest that it may be preferable to design the cooperation in a way to allow withdrawal of either the IMF or the regional institution in case a major dispute is not solved. Such a design can be possible if the remaining party has sufficient financial resources to replace the funding of the withdrawing party. This could be the case either with programs requiring relative small amount of funding, or if either the IMF or the regional institution accepts to be a junior partner in terms of financing, in which case the junior partner could withdraw its participation and funding.

Another key lesson from Europe, which was also emphasized by the Independent Evaluation Office of the IMF (2016), is that the risk of political interference in technical analysis should be minimized. Final decisions typically involve political considerations too, but the technical work by the staff should be prepared independently of any political influence.

5.3 Better Monitoring and Assessment of Systemic Spillovers across Countries

A major source of disagreement between the IMF and European partners was related to the different perception of the systemic cross-country implications of certain measures, such as the following:

- the possible impact of a devaluation, or the utilization of the full ±15% wide exchange rate fluctuation band in Latvia in 2008/2009, for the other two Baltic countries;
- the possible impact of a Greek public debt restructuring in 2010 for other euro-area countries with weaker fundamentals; and
- the possible impact of a restructuring of Irish senior bondholders in 2010/2011 for the bank funding markets in the euro area.

Disagreements arose because of the different methodologies and assessments of these cross-country spillovers. In such cases, it seems advisable that technical level experts from the IMF and regional institutions discuss thoroughly the reasons for their disagreements and submit a joint report to the decision-making bodies of both the IMF and the regional institutions in which they clarify the reasons for their disagreement.

The same advice applies to the assessment of fiscal sustainability, another topic in which there were major disagreements between the IMF and European institutions.

5.4 Social Impacts of Financial Assistance Programs

Last but not least, European cooperation between the IMF and regional safety nets suggests that too little attention was paid on the possible social impacts of the programs. While the ultimate goal of returning to robust GDP growth remains crucial, which can also help to ease social tensions, program design should focus on social impacts during the adjustment period, including the distribution of the burden.

For example, even during the relative successful Irish program, major social problems emerged. As Figure 13 of Darvas, Hüttl, De Sousa, Terzi, and Tschekassin (2014) shows, the share of children aged 0–17 living in jobless households increased to the highest value in Ireland among the 28 EU member states by 2012, while the share of people aged 18–59 living in jobless households became the second highest in Ireland, after Greece.

The social impacts of loan conditionality and the distributional implications of various measures should be considered more prominently, which would also increase the ownership of the program.

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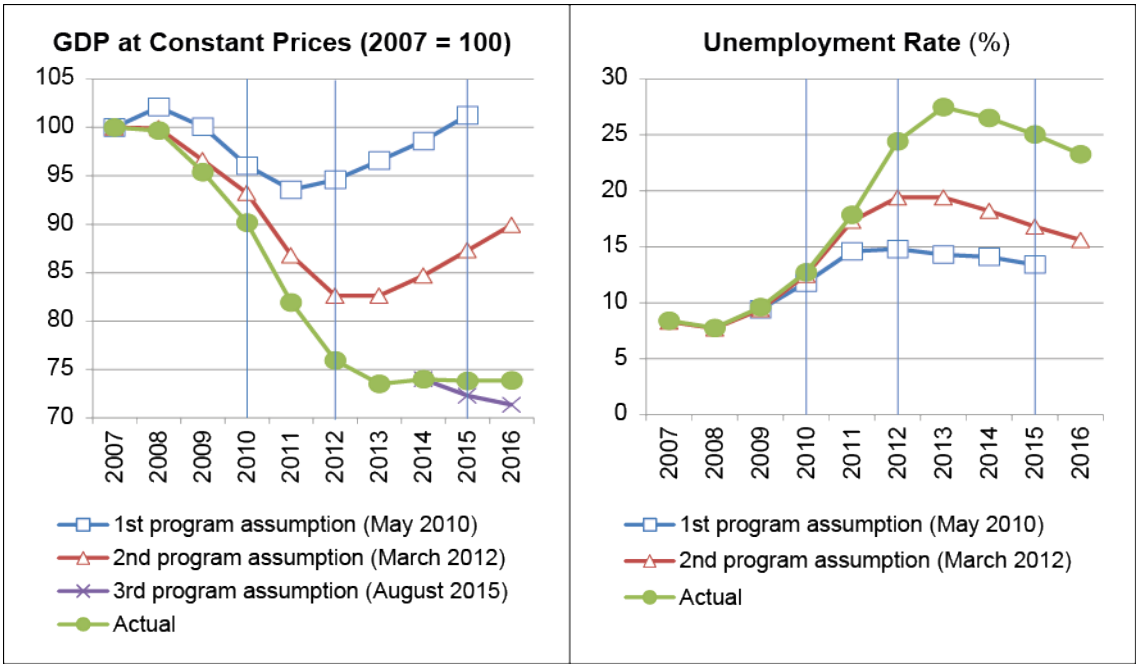
ANNEX: GDP AND UNEMPLOYMENT PROJECTIONS VERSUS OUTCOMES

Figure 15: Greece: Gross Domestic Product and Unemployment Projections versus Outcomes

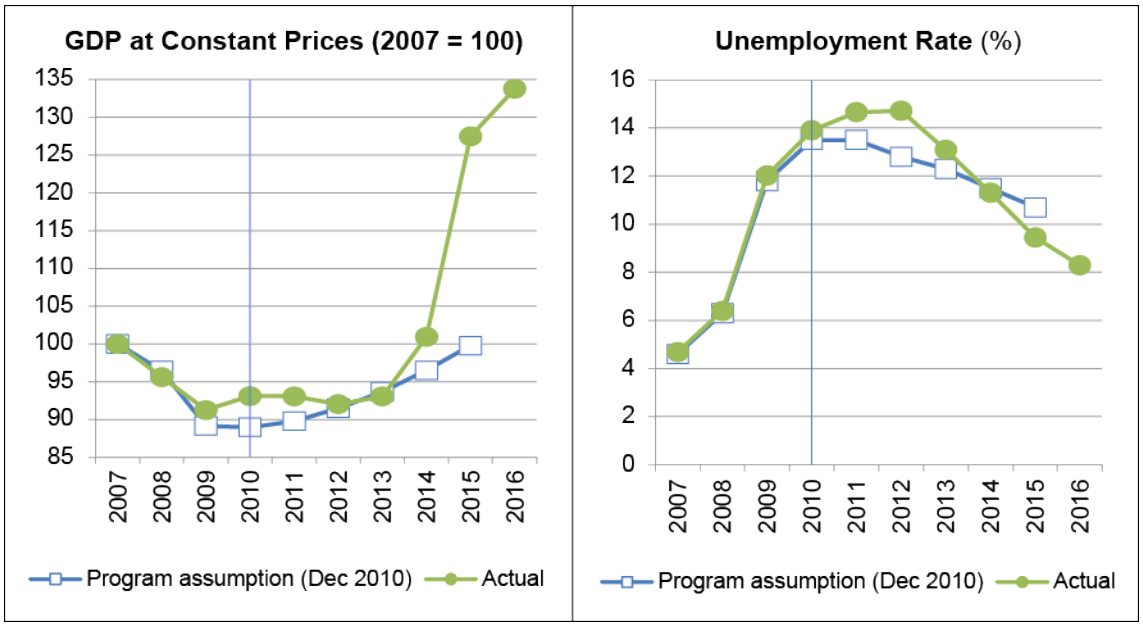


GDP = gross domestic product.

Note: The vertical lines indicate the year of financial assistance program negotiations. The brief program documentations issued by the European Commission and the European Stability Mechanism in the context of the third program do not include unemployment rate projections. The International Monetary Fund (IMF) did not participate in the third program and therefore did not issue a detailed standard program documentation.

Source: IMF program documents at the inception of the first two programs (Table 1 and Table A3 from http://www.imf.org/external/pubs/ft/scr/2010/cr10110.pdf and Table 3 and Table 9 from http://www.imf.org/external/pubs/ft/scr/2012/cr1257.pdf), Table 1 of first review document published by the European Commission (http://ec.europa.eu/economy_finance/assistance_eu_ms/greek_loan_facility/pdf/cr_full_to_ewg_en.pdf); and IMF World Economic Outlook October 2016 for actual data.

Figure 16: Ireland: Gross Domestic Product and Unemployment Projections versus Outcomes

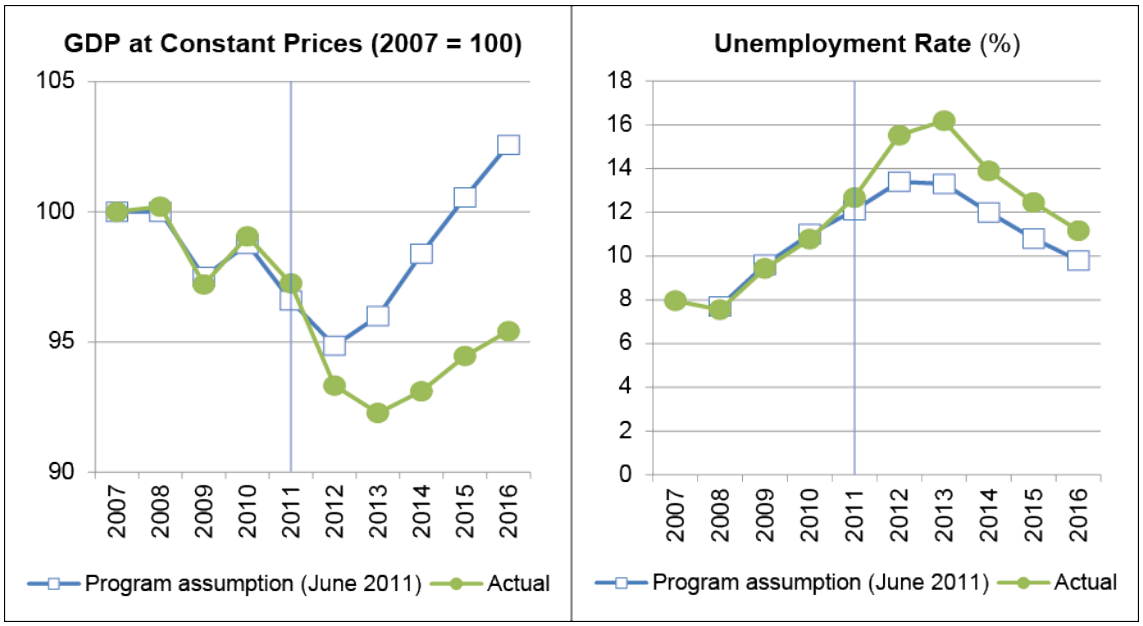


GDP = gross domestic product.

Note: The vertical line indicates the year of financial assistance program negotiations.

Source: IMF program document at the inception of the program (Table 2 of http://www.imf.org/external/pubs/ft/scr/2010/cr10366.pdf) and IMF World Economic Outlook October 2016 for actual data.

Figure 17: Portugal: Gross Domestic Product and Unemployment Projections versus Outcomes

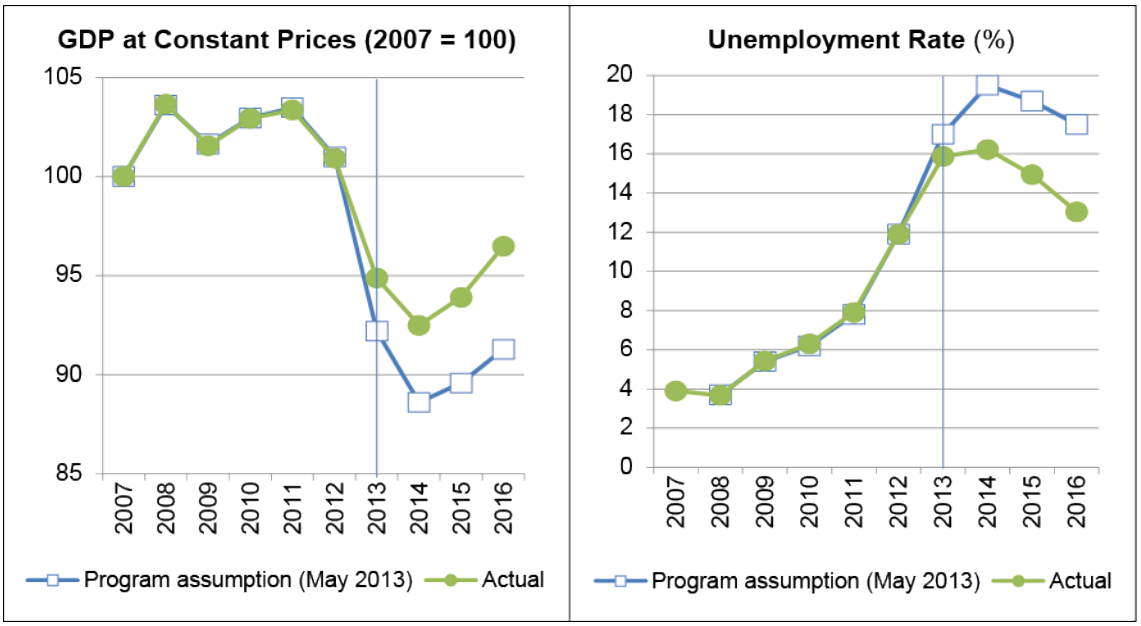


GDP = gross domestic product.

Note: The vertical line indicates the year of financial assistance program negotiations.

Source: IMF program document at the inception of the program (Table 1 of http://www.imf.org/external/pubs/ft/scr/2011/cr11127.pdf) and IMF World Economic Outlook October 2016 for actual data.

Figure 18: Cyprus: Gross Domestic Product and Unemployment Projections versus Outcomes

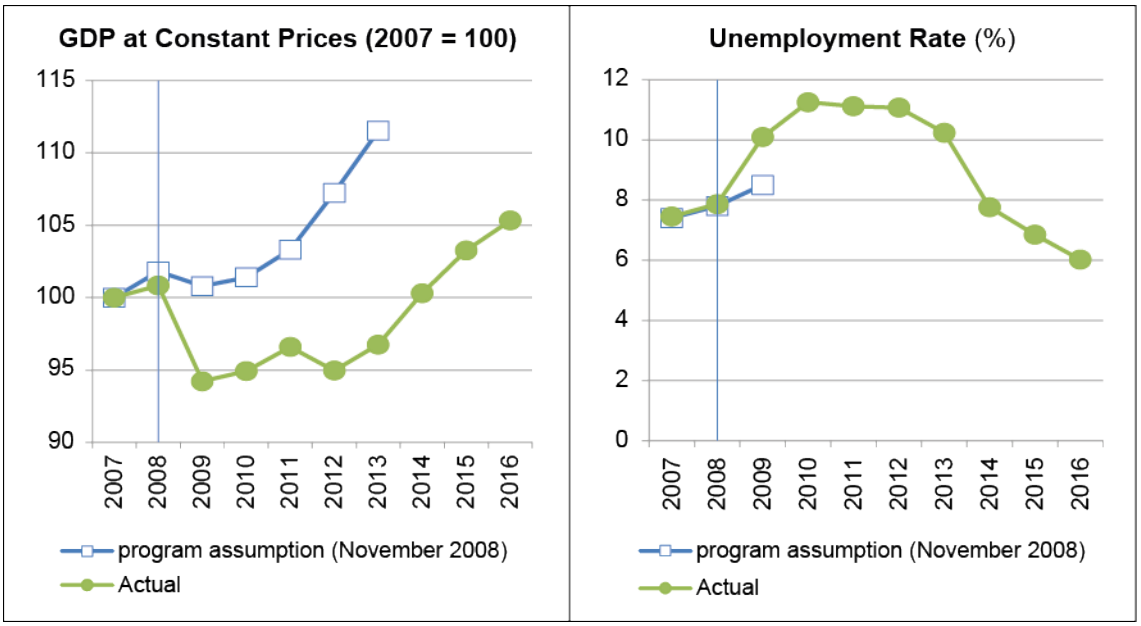


GDP = gross domestic product.

Note: The vertical line indicates the year of financial assistance program negotiations.

Source: IMF program document at the inception of the program (Table 1 of https://www.imf.org/external/pubs/ft/scr/2013/cr13125.pdf) and IMF World Economic Outlook October 2016 for actual data.

Figure 19: Hungary: Gross Domestic Product and Unemployment Projections versus Outcomes

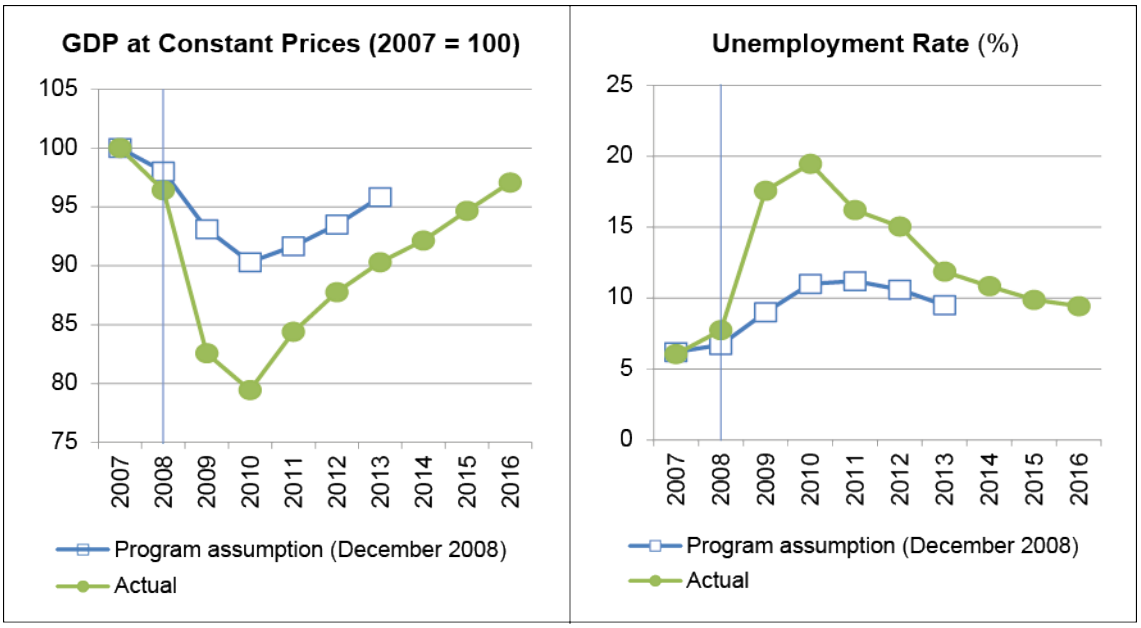


GDP = gross domestic product.

Note: The vertical line indicates the year of financial assistance program negotiations.

Source: IMF program document at the inception of the program (Table 3 of https://www.imf.org/external/pubs/ft/scr/2008/cr08361.pdf) and IMF World Economic Outlook October 2016 for actual data.

Figure 20: Latvia: Gross Domestic Product and Unemployment Projections versus Outcomes

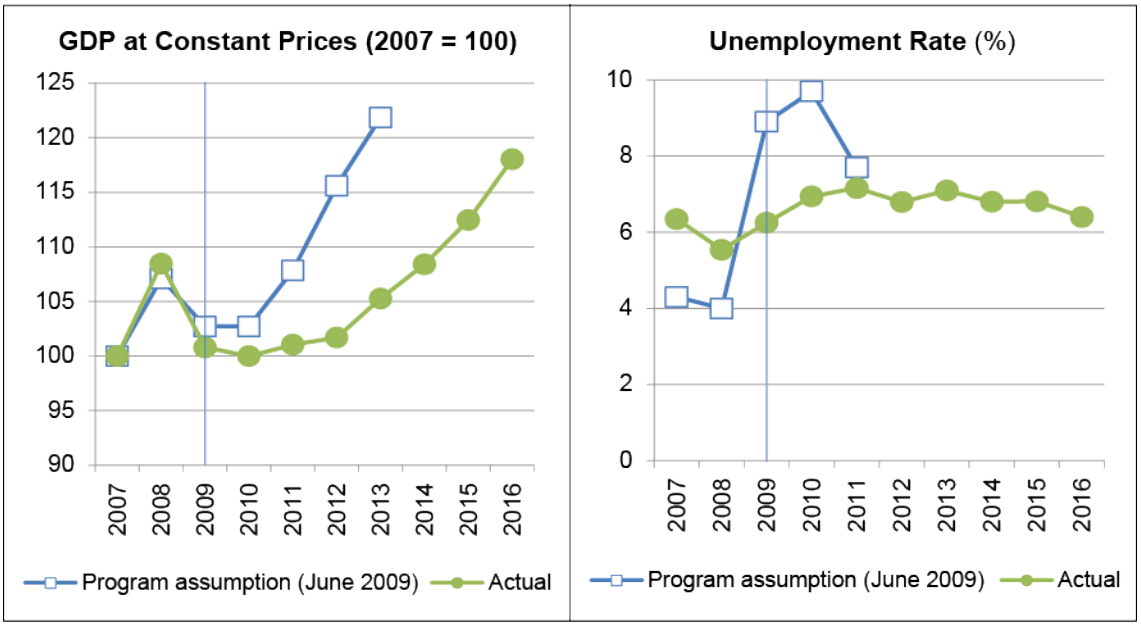


GDP = gross domestic product.

Note: The vertical line indicates the year of financial assistance program negotiations.

Source: IMF program document at the inception of the program (Table 8 of https://www.imf.org/external/pubs/ft/scr/2009/cr0903.pdf) and IMF World Economic Outlook October 2016 for actual data.

Figure 21: Romania: Gross Domestic Product and Unemployment Projections versus Outcomes

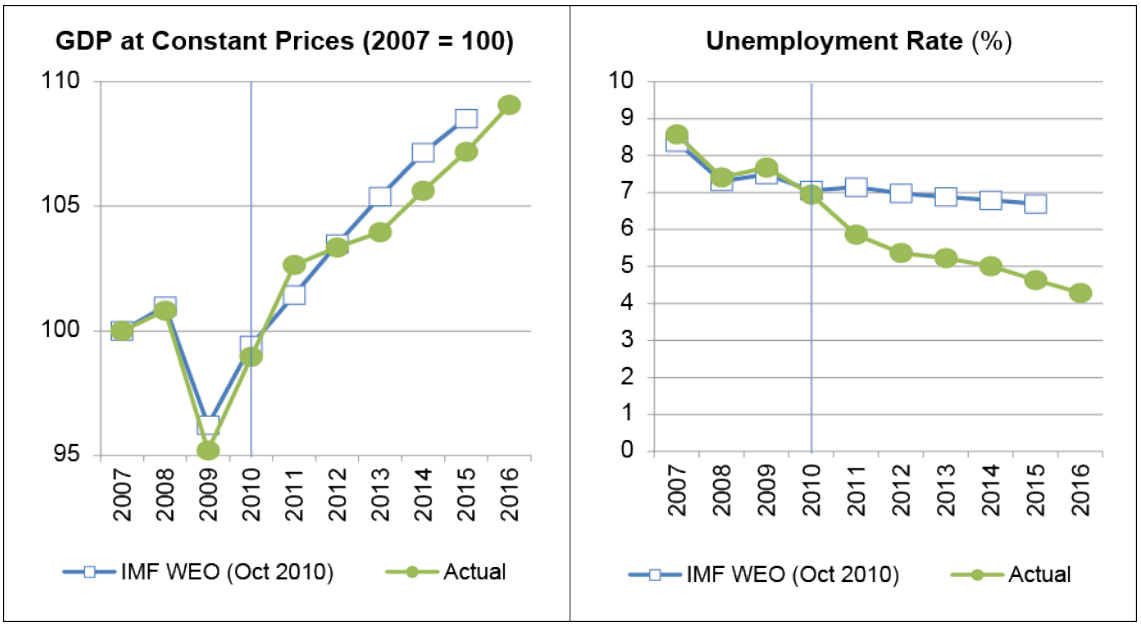


GDP = gross domestic product.

Note: The vertical line indicates the year of financial assistance program negotiations.

Source: IMF program document at the inception of the program (Table 1 of https://www.imf.org/external/pubs/ft/scr/2009/cr09183.pdf) and IMF World Economic Outlook October 2016 for actual data.

Figure 22: Germany: Gross Domestic Product and Unemployment 2010 October Projections versus Outcomes



GDP = gross domestic product, IMF = International Monetary Fund, WEO = World Economic Outlook.

Note: The vertical line indicates 2010, the year from which we used IMF WEO projections. Note that historical data were also reviews and the total growth from 2009 to 2015 was almost the same (12.6%) as the October 2010 IMF projection (12.8%).

Source: IMF World Economic Outlook October 2010 and October 2016.