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Greece: How to Take a Turn for the Better

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1. A new chapter of the Greek crisis?

Already at the turn of the year 2012/2013 the Eurogroup and the European Commission heralded the message that the worst crisis in Greece would be over. According to this message, the Greek government had delivered the promised steps of structural and fiscal reforms and had agreed with a tough timetable for further reforms (EU Commission 2013a: 56). But until attaining the break even point in the Greek tragedy it took one more year: In the course of the year 2014 there were evidence that Greece's economic situation would turn for the better – highlighted by the first positive growth rate since the beginning of the crisis, a current account surplus and a primary surplus of the Greek state budget as well as progressing structural reforms that improve the conditions of doing business in Greece. The reform and austerity policy of the coalition government supervised by the troika of EU, IMF and ECB seemed to pay off.

But the early elections on January 25, 2015, resulting in a landslide victory of the left wing Syriza party challenge the previous fiscal and economic policy of Greece and the policy targets set by the troika. The new political leaders argued during the election campaign that the Greek people have sacrificed enough without benefiting from any improvements by "troika policies". A return of welfare policies, increased public spending, the correction of reforms and a hair cut would be a more promising policy mix in favor for a recovery of the Greek economy.

Against the backdrop of these conflicting perceptions we try to find out how far Greece has already taken a turn for the better. We answer the questions what has been already achieved and what kind of deficits still persist. From our findings we derive what could be appropriate policy tools to overcome the Greek crisis.¹

¹ This paper updates an analysis on the Greek crisis by Schrader, Benček and Laaser (2013a). It is also linked to earlier comprehensive studies published by the authors during the crisis years since 2010 (Schrader, Benček and Laaser 2013b, Schrader and Laaser 2012, Schrader and Laaser 2010).

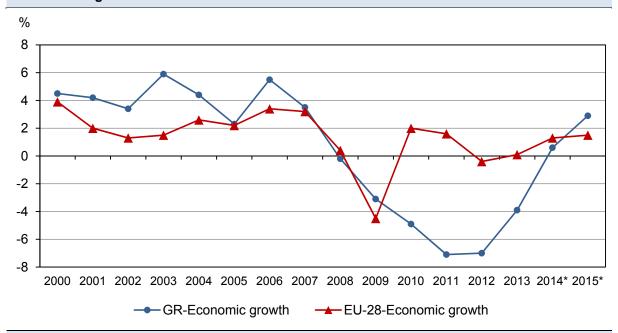
1.1 Recovery under uncertainty

The analysis of Greece's economic development does not yet corroborate the image of a country that rises like a phoenix from the ashes. The economic downswing continued until 2013, since 2008 Greece's real GDP shrank in six consecutive years by close to 24 % in total (Figure 1a). To everyone's great relief the turnaround was finally accomplished in 2014 but with a modest growth of 0.6 % only. A stronger signal of a Greek recovery is expected for 2015: the forecast of a growth by 2.9 % suggests that Greece will be back on the needed growth path to overcome the crisis and to handle the debt service. It is expected that exports (tourism, shipping) and private consumption (higher disposable incomes, use of savings) will contribute to the growth dynamics. But this forecast rests on the very optimistic assumption that Greek government policy will stick to the reform process which in particular includes the successful liberalization of markets, the stabilization of the commercial banking system, the improvement of unit labor costs, the reorganization of the public administration as well as the creation of a business environment convenient for attracting domestic and foreign direct investment (EU Commission 2014: 72-73). And it has to be mentioned that the EU Commission qualifies its forecast by the statement that the balance of risks points to the downside. Furthermore, due to the election results the uncertainties have increased to a scope that has not been expected.

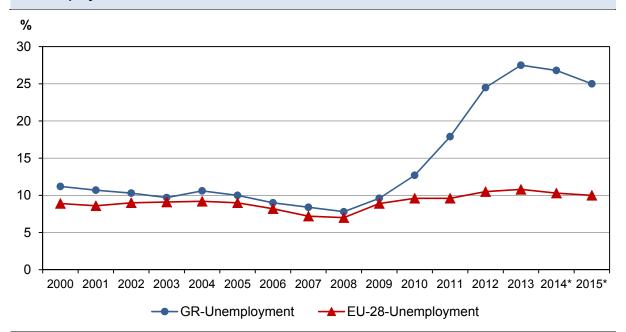
Looking at Greece's labor market the impression prevails that at best a faint light can be seen at the end of the tunnel: Mass unemployment will remain at a rate of 25 %, and youth unemployment close to the 50 % threshold further exacerbates the persisting labor market crisis (Figure 1b). High unemployment resulted largely from lay-offs in the private sector while the public service and state-owned enterprises have mostly been spared from employment reductions so far (see below). Stronger growth would certainly contribute to a relief on the Greek labor market but considering the high uncertainty a jobs miracle is not in sight.

Figure 1: Economic performance in Greece and the EU-8 (2000–2015)

a. Economic growth^a



b. Unemploymentb



*European Economic Forecast, Autumn 2014 of the EU Commission. — ^aHarmonized unemployment rate in %. — ^bGDP at market prices (chain-linked volumes, reference year 2005), annual percentage change.

Source: EU Commission (2014); Eurostat (2015a,b); own compilation.

1.2 In need of a sustainable business model

After the global financial and economic crisis 2008/09 – which other European countries managed to overcome in the successive years – it became clear that the Greek economy lacks a promising business model that could resume the growth dynamics that the Greek consumer demand driven economy underwent during the previous decade. The period of cheap credits to spur consumption once again is definitely over as without payment guaranties of the Eurogroup and the ECB Greece would be barred from capital markets. Accordingly, the EU Commission (2013a: 43–49) gave already two years ago the good advice to switch the Greek business model to an export led growth strategy.

Unfortunately, it is not so easy for Greece to flip the switch, given the fact that Greece's export potential has remained rather limited in the entire period since its EU accession in 1981 (see Laaser 1997: 114-124). Despite minor adjustments, Greece's basic structural problems seem to be more or less persistent. The sectoral employment patterns of the year 2014 still indicate a development backlog in which the Greek economy has been caught for decades (Table 1). In general, the size of the manufacturing sector - with less than 9 % of the persons employed - is well below average and during the crisis employment even declined to a greater extent than in most other sectors - only the construction industry suffered more job losses. This unfortunate development continued in the last two years, where manufacturing employment further decreased by more than 33,000 jobs. The rapidly shrinking manufacturing sector employs even less people than the agricultural sector - less than 70 % of the latter. Furthermore, labor intensive industries account for about two thirds of manufacturing jobs; important investment goods industries, such as the automotive industry, machine-building and electrical engineering, only play a minor role. The Greek industry lacks a considerable productive capacity of investment goods with a high value-added and a demand for highly qualified workers (Schrader, Laaser and Benček 2013b: 9-11).

Thus it is no surprise that Greece's economy lacks competitiveness on world markets for sophisticated goods and services, where Western industrialized countries still have competitive advantages. Accordingly, far too few Greek enterprises have developed trade with emerging market economies where high profits could be generated. In contrast, Greece appears to be a location of labor- and resource-intensive productions that competes with developing countries on price-elastic consumer goods markets (ibid: 19–21). Without huge investments by multinational enterprises a revival of the Greek manufacturing sector seems to be unimaginable.

With respect to service industries – the main area of Greek employment – the perspectives for a growth stimulus are not substantially better. To be sure, the upswing in tourism during 2014 is discernable in the data, as accommodation as well as administrative and support services (which comprise among others the activities of travel agencies) show absolute and relative employment increases in the 3rd quarter of 2014 vis-à-vis 2012. But this has aggravated an old weakness of the Greek service sector, namely that low income jobs with low qualification requirements located in tourism and retail trade account for about one

third of Greek employment (Table 1). Jobs which can be attributed to the public sector according to this functional breakdown of sectoral employment – public administration, education, social and health services, energy and water supply – with above average incomes still account for almost one quarter of total employment.

Table 1: Sectoral employment structure in Greece ^a 2014					
Code ^b	Sector	2014 1 000	2014 Share in % ^c	Change 2012/2008 ^d	Change 2014/2002 ^e
Total	Total	3 529.3	100.0	-22.4	-2.3
A,B,D,E	Primary	518.3	14.7	-6.5	0.0
A B D	Agriculture, forestry and fishing Mining and quarrying Electricity, gas, steam and air conditioning	456.8 11.4	12.9 0.3	-3.2 -34.1	-0.1 -7.3 1.9
E	supply Water supply; sewerage, waste management and remediation activities	27.2 22.9	0.8	-17.6 -29.3	4.6
C,F	Secondary	467.2	13.2	-50.3	-13.8
C F	Manufacturing Construction	311.5 155.7	8.8 4.4	-42.5 -60.9	-9.7 -21.0
G-U	Tertiary	2 542.1	72.0	-16.8	-0.3
G	Wholesale and retail trade; repair of motor				
	vehicles and motorcycles	624.5	17.7	-24.7	-2.8
H	Transportation and storage	166.1	4.7	-21.2	-6.2
I.	Accommodation and food service activities	332.2	9.4	-2.4	13.8
J	Information and communication	75.5	2.1	-4.9	13.4
K L	Financial and insurance activities Real estate activities	88.6 5.3	2.5 0.2	–25.9 –39.8	–14.6 –13.1
M		5.3	0.2	-39.0	-13.1 -8.7
IVI	Professional, scientific and technical activities	197.5	5.6	-16.3	-0.7
N	Administrative and support service activities	88.5	2.5	13.0	36.8
IN					
0	Public administration and defence;	309.1	22	_17 6	-2.7
0	Public administration and defence; compulsory social security	309.1 280.3	8.8 7.9	-17.6 -11.3	
O P	Public administration and defence; compulsory social security Education	280.3	7.9	-11.3	-0.5
O P Q	Public administration and defence; compulsory social security Education Human health and social work activities	280.3 206.0	7.9 5.8	-11.3 -10.9	-0.5 -3.4
О Р	Public administration and defence; compulsory social security Education	280.3	7.9	-11.3	-0.5

^aEmployed persons from 15 to 64 years. — ^bNACE Rev. 2 without group U (activities of extraterritorial organisations and bodies). — ^cEmployed persons in % of total employment 3rd quarter 2014. — ^dPercentage change 3rd quarter 2012 vs. 3rd quarter 2008. – ^ePercentage change 3rd quarter 2014 vs. 3rd quarter 2012.

Source: Eurostat (2015c); own compilation and calculations.

It has to be noted in this context that available statistics on public sector employment in Greece are either not up to date (such as ILO 2015a)² or do not comprise jobs in publicly owned enterprises (such as Sotiropoulos 2014)³. According to the ILO (2015a) data, the entire public sector has shrunk from more than 1 million jobs in 2009 to 858 000 at the end of 2012. Thereby the share of public jobs increased from 22.2 % to 22.6 %, indicating that private employment contracted more than public. For the following year the study of Sotiropoulos (2014) exhibits a mild contraction of public administration jobs proper from 685 thousand in December 2012 to 658 000 in December 2013. This is corroborated by another ILO (2015b) statistic which follows a broader functional breakdown and is reporting a decrease of public jobs from 2012: 1 000 000 to 977 000 in 2013. For the further development during 2014 so far only occasional and contradictory evidence from newspaper articles is available.⁴ According to these articles public employment – probably in a narrower sense – is said to have shrunk to either 650 000 or 675 000. That would mean a negligible or even no contraction of public employment in 2014. Taking these figures it seems that public employment is still substantial.

But in view of empty public coffers the public sector is no longer suited for the role of a job machine – despite the slow downsizing in the public sector so far. By contrast jobs in business and production-related services only account for less than 15 % of Greek employment. In one of Greek's major service sectors – transportation and storage – employment even decreased from 2012 to 2014 despite the slight upswing in sea transport.

It can be concluded that Greece's sectoral employment structures mirror a low level of industrial development and a service industry with a below average growth performance in comparison to other EU countries. Unfortunately these structures do not comply with the prosperity level the Greeks have got used to since the demand boom during the previous decade.

1.3 Challenges of global competition

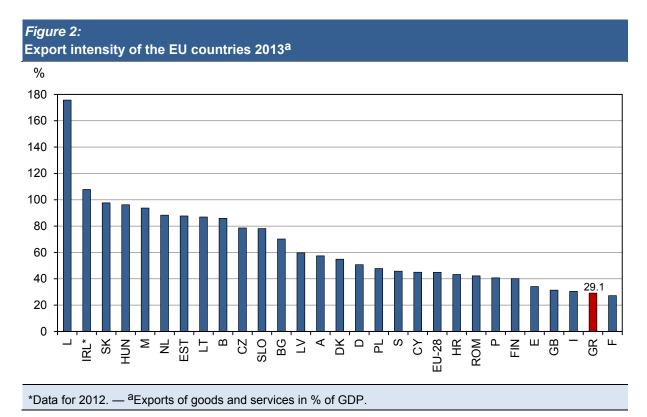
Against the backdrop of Greece's present economic structures it can hardly be expected that in the short term Greece will overcome the present crisis by virtue of an export-led growth. In the past Greece lost the chance to develop export-oriented industries beyond sea transport and tourism. Accordingly, the Greek economy comes in next to last with respect to export intensity compared to the other EU economies (Figure 2), although Greece as a country with

² ILO is reporting not only administration jobs proper but also those in publicly owned enterprises. However, it does not provide data beyond 2012.

³ He is reporting statutory staff and other jobs on public payroll in a narrower sense ranging to December 2013, based on data by MAREG (Hellenic Ministry of Administrative Reform & E-government).

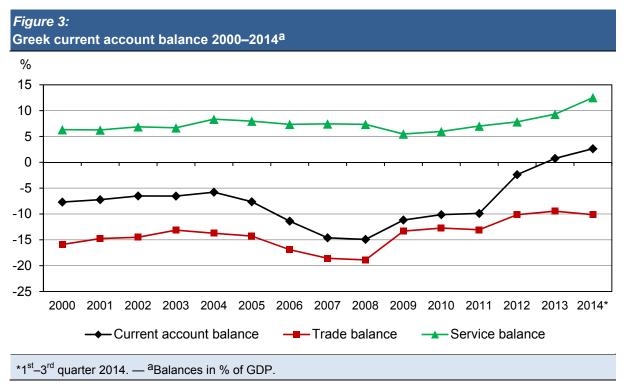
⁴ See e.g. Frankfurter Allgemeine Zeitung of 12.01.2015, Handelsblatt of 26.01.2015, and Neue Zürcher Zeitung of 21. and 27.01.2015.

only small markets should be expected to trade more intensively than big economies. Proper benchmark countries would be e.g. Ireland, Slovakia or Hungary which exhibit export intensities at the 100 % level, far from the Greek level of close to 30 %.

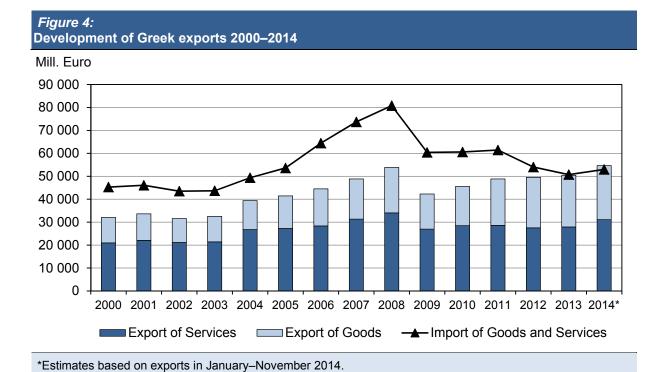


Source: Eurostat (2015d); own compilation.

And it appears to be an illusion that the improving current account balance which for the first time in a long while turned into a surplus in 2013 signals a substantially improved export performance (Figure 3). The correction of imbalances was primarily a reflex of the crisis – a passive rehabilitation of the trade balance by shrinking imports due to a loss of purchasing power (Figure 4) and remitted interest rate payments as well as increasing EU transfers. With respect to trade in goods and services it has to be emphasized that from the beginning of the crisis in 2008 until the current edge of 2014 exports slightly recovered by an increase of 1.5 % while imports declined significantly by about 35 %.

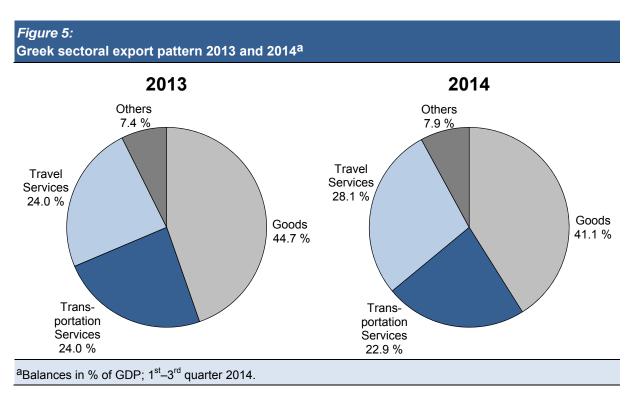


Source: Bank of Greece (2015a); Eurostat (2015a,e); Hellenic Statistical Authority (2015); own compilation and calculations.



Source: Bank of Greece (2015b); Eurostat (2015e); own compilation and calculations.

Looking at the Greek export performance it becomes clear that the export of services is traditionally a Greek strength, having an export share of 55 % in 2013 and of probably 59 % in 2014 (Figure 5). Although service exports significantly increased in 2014 (by more than 10 %), they still have not returned to the level of 2008 (9 % below the value at that time). It was not before 2014 that service exports recovered. In contrast, the export of goods recovered since 2011 step by step, in 2014 amounting to an export level 11 % higher than in 2008.

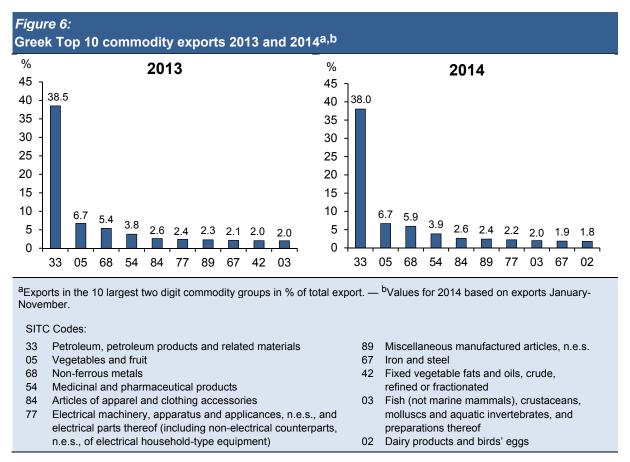


Source: See Figure 3; own compilation and calculations.

At first sight, these figures suggest that a Greek business model is taking shape which is opening up the perspective of export led growth in the near future. But with respect to commodity trade the slight recovery of Greek exports is neither an indication for a stronger role of Greek exporters on growing global markets nor for technology- or human capital-intensive contributions of Greek enterprises to international value-added chains of production. Exports are rather focused on raw materials and products thereof as well as on labor-intensive goods and agricultural products – they reveal Greece's technological gap towards highly-industrialized countries as well as towards a growing number of emerging market economies in Asia and Eastern Europe. Greece's composition of commodity exports exhibits a limited growth and value-added potential and is remindful of the export patterns of low income countries.

⁵ For an analysis of Greek sectoral trade pattern following the factor intensity approach see Schrader, Laaser and Benček (2013b: 19–21).

These deficiencies of Greece's commodity exports can be illustrated by the top 10 export groups in 2013 and 2014 (Figure 6). This ranking is dominated by the export of petroleum and products thereof with a share of close to 40 % – although Greece is not an oil-producing but an oil-importing country. Thus it is no surprise that oil imports dominate the Greek commodity import ranking. Far behind the exports of agricultural products, various metals, textiles and fish follow. Even the medicinal and pharmaceutical products are less human capital-intensive than it might be imagined because the bulk of these exports comprises generics.



Source: Eurostat (2015f); own compilation and calculations.

Service exports cannot counterbalance the shortcomings of the commodity export because travel and transportation services account for about 85 % of Greek service exports which brings along some disadvantages for the Greek catching-up process. Sea transport, which dominates the export of transportation services, strongly depends on the global business cycle and cannot contribute to a reduction of mass unemployment crucially (IMF 2013: 22–24). The again rising export of touristic services – benefiting from lower prices in the course of internal depreciation and tax cuts – has high potentials but due to a lack of investments Greece's tourism industry is less competitive with respect to quality than those of other Mediterranean countries and it mainly offers low wage jobs (McKinsey 2011: 39–43). However, business related services, which demand skilled labor and provide high earning potentials in return, are exported to a minor degree only.

1.4 Structural weaknesses as an obstacle to recovery

The structural shortcomings of the Greek economy imply that it is not enough to improve international price competitiveness within the current pattern of production and trade. To be sure, a decline of unit labor costs supports the Greek export but Greece can never win a wage race against low income countries from Eastern Europe or Asia if it seeks to retain its prosperity level. To remain in the group of high income countries Greece has to increase its total factor productivity by modernizing its economic structures. A modern location of production is characterized by sophisticated industrial products and services with a high content of human capital and technology. Greece has obviously missed the industrial trends of the past decades and now faces the problem to catch up in a very short period. But structural change necessarily takes plenty of time that has to be paid for by temporary income loss unless the Eurogroup bears all transition costs. Without a technology transfer by foreign direct investments this process will be even more time consuming. The problem: In the past Greece failed to create sound investment conditions (Laaser 1997: 132–134, 146–147) and still faces the task to make doing business in Greece easier (World Bank 2015).

2. An unsustainable debt

For almost five years Greece has been at the centre of the European debt crisis. During this time various rescue packages have been tied and special measures have been adopted that were meant to enable Greece to cope with its public debt and regain access to capital market funding. So far the most effective measures have been the haircut on privately held government bonds in February 2012 and the debt buyback programme agreed upon and executed in November/December 2012. During the past year these actions seemed to have had the desired effect: secondary market interest rates were steadily decreasing, spreading a spirit of relief and hope among politicians. Nevertheless a deeper analysis of Greece's debt dynamics and their stability might be worthwhile in order to assess the current state of debt sustainability. After all, questions about a possible second haircut or the need for further loans are again on the political agenda after the January 2015 parliamentary election.

⁶ For an in-depth analysis of Greece's economic structure see Schrader, Laaser and Benček (2013b: 12–24).

2.1 Who are the creditors?

First of all it is helpful to bring to mind that Greece's creditors by and large are now the Euro countries and the ECB. They hold around 215 bn. Euro – which is almost 70 % of Greece's debt – and this has shifted the burden of risk from private investors to the European tax payers (see also Schrader, Laaser and Benček (2013b: 25–26). In the event of further debt restructuring the required write-offs would have to be borne in the various national budgets, which would leave the respective governments to choose between taking up additional debt, increasing taxes in the hope of higher revenues or cutting spending on national programs.

2.2 Sustainable debt within reach?

In February 2012 the haircut reduced Greece's debt-to-GDP ratio by almost 10 percentage points. But in the medium and in the long run it is much more important that Greece be able to finance this debt on its own. If we are to believe the latest set of Troika projections for the evolution of debt, 2015 will mark a turning point leading to a decreasing debt ratio from the current level of 174 % to about 128 % by the end of this decade (IMF 2014). But these types of optimistic projections seem highly familiar by now: For the past five years the Troika has been publishing them, constantly revising and postponing as shortfalls emerged and reality was catching up with rather favorable projections. Figure 7 illustrates this point by showing all previously projected paths of Greek public debt.

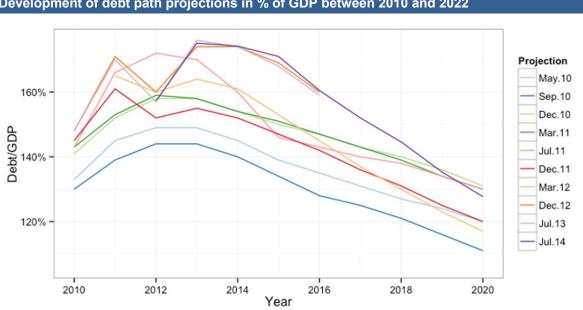
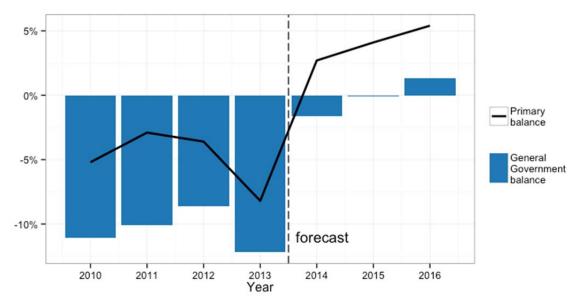


Figure 7:
Development of debt path projections in % of GDP between 2010 and 2022

Source: EU Commission (2012a, 2012b); IMF (2010a, 2010b, 2010c, 2011a, 2011b, 2011c, 2013, 2014); own compilation.

The sequence of these revisions shows that Greece has so far not made any advances towards a sustainable debt position and that the desired turning point has so far constantly been postponed. This is not to say, that there have not been tremendous efforts for fiscal consolidation: The sharp increase of the primary balance and a decline of the government deficit during 2014 are evidence of that (Figure 8). After six years of recession and the historic level of debt, however, this alone will not put Greece back on a sustainable path and additional measures are required to ease the burden of debt (Darvas and Hüttl 2015).





Source: EU Commission (2014); own compilation.

In order to assess the actual debt sustainability regardless of uncertain projections it is helpful to look at the debt-stabilizing primary surplus, defined as

$$p^* = \frac{i - g}{1 + g} d.$$

If we take the current secondary interest rates of ten year government bonds as the average interest rate i, the current debt-to-GDP ratio as d and consider two long-term nominal growth scenarios with g=2 and g=4, the primary surplus Greece would have had to achieve since May 2010 in order to hold its debt ratio constant, ranges between 6 % and 45 %. Currently the debt-stabilizing primary surplus is 10.9 % and 7.4 % for both growth scenarios, respectively.

Greece's debt-stabilizing primary surplus has decreased significantly since its peak in February 2012 – this should not, however, hide the fact that the current level is still far from being achievable: A p^* of 5 % can be considered as an upper bound of a sustainable public debt in the long term (Benček and Klodt 2011). Values above this threshold cannot be

expected for longer time periods. Significant drops in Greece's p* have only ever occurred with the help of extraordinary measures: debt restructuring, ECB announcement of unlimited bond purchases and the bond buyback programme. There have been no improvements in fiscal sustainability that go back to advances in the real economy or at least to expectations thereof. Moreover, any sign of political uncertainty has left market interest rates on Greek bonds soar.

2.3 How much of a haircut would be required?

Even though a second haircut has been ruled out multiple times in the past, it is again back on the political agenda. Disregarding all detrimental effects this could have on the incentives of government officials in crisis countries, we can determine how much of a cut would be required to restore Greece on a sustainable path of debt: If we assume the interest rate to decline by 3 to 7 basis points with each percentage point of debt in terms of GDP (Baldacci and Kumar 2010), it would take a haircut between 22 % and 36 % for Greece to reach a debt-stabilizing primary surplus of 5 % given the resulting market interest rate and a nominal growth rate of 2 %.

3. How to overcome the crisis

The analysis clearly points out that in Greece structural reforms are essential to attain a development path that meets the ambitious growth targets. High growth rates are indispensable to reduce public debt as stipulated by Greece's international financiers, to avoid an erosion of the country's social security system and to return to an appropriate development path. In view of the bad experience with reform promises by Greek politicians in the past the reform calendar with precise deadlines, closely tied with the disbursements under the economic adjustment program, was badly needed. Without political pressure for reform and troika evaluations in short intervals it is still unlikely that Greek politicians would bear the political costs of a painful restructuring process.

Despite the need for a short-term recovery of the Greek economy it has to be understood that the Greek crisis is not just a recession which could be controlled by macroeconomic tools. It is a structural crisis which demands structural reforms to initiate a process of structural change that will take years, not months. Unfortunately, in Greece structural change has been delayed for decades⁷ – hence, a fast transition cannot be expected. It is inevitable that in the short term the reforms will result in a loss of income and wealth as well as of social security. The consolidation of the state's budget and the repayment of public debt require a scaled-down public sector with a visibly smaller number of public servants and considerably

⁷ For details see Laaser (1997).

less public consumption in the long run. In view of the economic and political reform burden it might be reasonable to support Greek efforts to overcome the structural crisis to avoid a total denial of reform on the part of Greek politicians and citizens. But what kind of support could ease the reform process rather than inhibit the necessary transition in Greece?

3.1 Outsourcing of reform projects

To speed up and to improve the reform process it makes sense to entrust external experts with the task of organizing and implementing reform measures. Evaluations by the OECD of hitherto reform efforts (OECD 2011) suggest that the Greek administration is unable to cope with the complex reform process in a professional manner. To support the modernization process external experts could be recruited from European institutions or from the public service of other EU countries. In addition, domestic and international consulting firms should be charged with the implementation of reform projects. Particularly the privatization of state property and state-owned enterprises offers opportunities for professionalization. The outsourcing process could be coordinated by an EU institution together with an independent Greek deregulation agency with far-reaching competencies. The transfer of official competencies to external experts would mean a limitation of Greek sovereignty but it should be acceptable within the scope of well-defined reform projects. It would not spur the reform process if a resurgence of the old bureaucracy took place in the course of the intended reversal of reform politics.

3.2 Attracting investors

A dynamic investment process is indispensable to accelerate the modernization of the Greek economy. But it is not the kind of old fashioned public investment characteristic for the last decades – generously financed by the European regional policy – that is needed for a renewal of the Greek economy. Greece needs private capital to develop competitive structures and to integrate the economy into international chains of production, preferably with high value added at Greek locations. A large scale privatization of state owned property and state-owned enterprises as well as investment opportunities in the fields of public infrastructure would support Greece's struggle for private direct investments. An improved business climate could curb the capital flight and foster the repatriation of Greek foreign assets. Hence, it is up to Greek politics to improve the conditions for doing business in Greece, mirrored e.g. by the respective index of the World Bank (2015) where Greece climbed up to rank 61 during the last years of reform. But Greece is still behind countries like Jamaica or Belarus and comes in next to last compared with the other OECD and EU countries. Especially the enforcement of contracts and the registering of properties remain major obstacles for doing business in Greece.

3.3 Ending of bail out

At the end of 2014 it became obvious that in the view of the Eurogroup the Greek economy had not recovered to the extent a third economic adjustment program or at least some kind of credit would be dispensable. Proponents of the extension of the bail out policy argued that some additional time had to be bought to complete the reform process and to further stabilize the state finances in Greece. But with no doubt in the current situation the follow up-program would be closely tied to progress in the fields of economic reforms. The supervising of the reform process by the creditors would continue, in the form of a troika or a similar control mechanism. A Greek government which would deny the cooperation with the EU, the ECB and the IMF could not rely on further financial assistance. If the new Greek government actually terminates the reform process the Eurogroup has no choice than to stop the rescue operation. Otherwise, the other crisis-ridden countries would receive an incentive to demand the same treatment with the consequence that at the end the donor countries had to bear the political and financial costs of a transfer union. A final cut could be the way out of this deadlock.

The required primary budget surplus is well above the 5 % mark which is impractical to realize over a longer period of time. In order to make use of the psychological effects of a reduced level of debt and thus pave the way for Greece's independent capital market access, a substantial second haircut could be arranged. According to our analysis including underlying assumptions about growth and interest rates, a primary surplus of just below 5 % would require a cut in the range of 22 % to 36 % to render the remaining debt sustainable. Of course, reducing the already low interest rates on existing debt even further and extending the credit period would have the same calculatory effect and serve as an indirect haircut for the creditors. Given the current market interest rates, however, Greece is not yet estimated to be on a sustainable debt trajectory.

The second cut would mainly affect public creditors and the ECB because they now hold the majority of Greek government bonds. Due to the prohibition of monetary financing, the ECB would have to transfer its Greek bonds to the Eurogroup countries in order for them to shoulder the total costs. A similar solution is needed for the IMF loans which have to be repaid by all means according to the IMF's terms of reference. As a result, the hide and seek of Greece's rescue would come to an end, and the taxpayers in the creditor countries would experience that the breach of the Maastricht treaty by the bailout of Greece is more costly than initially suggested by European politics.

In case that the Eurogroup members prefer to avoid a transparent haircut and thereby a direct loss of the credits given to Greece, the alternative is a phasing out by reducing or removing the debt burden by means of restructuring the Greek debt. E. g. Darvas and Hüttl (2015) gave an overview what kinds of instruments are suitable and are already applied: (1) Further reducing the lending rate to the effective borrowing costs of each donor country (the current lending rate of bilateral loans is by now reduced to 3-month Euribor plus 50 basis points). (2) A further suspension of the debt service (already suspended until 2020/2022). (3) Extending the maturity of the bilateral loans by further years (already extended from 2026).

to 2041) as well as extending the maturity of EFSF loans which is currently over 30 years on average.

4. Concluding remarks

The Eurogroup together with ECB and IMF ignored for too long the delay of reforms and the unwillingness of Greek client politics to bear the costs of home-made economic problems. For at least a decade Greece lived beyond its means, financed by cheap loans of European banks. The Greek society enjoyed a living standard which was in sharp contrast to the limited economic performance of the country. However, against the backdrop of the Greek crisis as analyzed in this paper, Greek politics – regardless of the government's composition – should be given the scope to complete the reform process which is a necessary condition for structural change and economic recovery.

The completion of the reform process and the promotion of private investment would accelerate the reconstruction of the Greek economy. Complementary, a final haircut or a phasing out of the Greek debt burden is needed to make Greece's public debt sustainable – whichever way it is organized technically, called and dimensioned. Anyway, the "cut" should be strongly conditioned to end the bailing-out process and to restore fiscal stability in Greece. It means that afterwards no more extra European money should be channeled to Athens. It means that no new rescue packages would be initiated but instead Greece would be treated again as an ordinary member of the EU and the Eurogroup. The country would have access to the EU programs and stabilization mechanisms. In return the country would have to observe the rules of the stability and growth pact and to accept the EU economic policy coordination. The Greek government would have to bear the political and financial consequences of its politics. This would be the other side of the coin.

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