Sovereign rating cannot be upgraded without structural reforms

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Sovereign rating cannot be upgraded without structural reforms[1]

I. Executive Summary

With the global crisis, tax revenues tended downwards and budget expenditures tended upwards in many countries. As a result, the public financial balance was disturbed substantially. The deterioration in the public finances elevated the borrowing requirements, which directly translated into a rise in indebtedness rates. This impact was felt by developed countries, the USA to begin with, and was even more devastating for developing countries. Greece, Ireland, Portugal and Spain were among the countries still faced with severe problems with respect to the sustainability of public debt.

As a developing country, Turkey felt the impact of public budget crisis on a limited scale. The fiscal discipline secured following the 2001 crisis played a major role in achieving this. The public finance indicators reveal that as of 2010 Turkey demonstrates a better outlook than almost all developed countries. It is observed that the budget and primary balance and indebtedness ratio figures for Turkey are better than those of the Eurozone countries recently encountering problems.

On the other hand, while the public finance indicators for Turkey demonstrate a better outlook compared to developed countries, its sovereign rating is yet not as high as the investment grade. Despite the improvement in the public finance indicators, Ireland, Portugal and Spain still have better positions than Turkey in terms of credit ranking. It is seen that in the last decade, changes in sovereign rating and in budget and primary balance indicators as well as public debt ratio have not moved in the same direction as would be expected.

It is contradictory that the sovereign rating agencies (CRA) that assess countries on the basis of their capacity to fulfill their financial liabilities properly and duly yet have not upgraded Turkey's sovereign rating to the investment grade. However, when the correlation between the budget deficit and public debt ratio, and sovereign rating is analyzed for several countries, the contradiction no longer prevails. Many countries with sovereign ratings of AAA have higher budget deficits and public debt ratios than Turkey. On the other hand, some other countries with lower sovereign ratings than Turkey also appear to have lower budget deficits and public debt ratios than Turkey. Therefore, it seems necessary to make a closer examination of the factors determining sovereign ratings.

[1] I conducted a large part of this study as a fellow researcher in the Brookings Institute Global Economy and Development Program. I would like to thank to Kemal Derviş, Vice President of Brookings Institute, for giving me this time and guiding me throughout the research process. I am responsible for any opinion asserted or any errors and mistakes.

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As Table A1 in the annex reveals, the budget deficit and public debt ratio are among the indicators to which CRAs refer in deciding sovereign ratings. However, as also mentioned above, the said indicators alone are not powerful enough to determine the sovereign ratings of particular countries. The analysis conducted throughout this study sets forth that a wide spectrum of indicators including the ratio of interest expense to tax revenues, current account deficit, and growth and real exchange rate volatility are of critical importance in the determination of sovereign ratings of countries. Turkey, when compared with the other countries in the analysis, appears to hold a disadvantageous position. The above parameters which will guide this analysis to a large extent explain why Turkey have has been unable to achieve a breakthrough in sovereign rating despite the amelioration of its public finance indicators.

The analysis reveals that Turkey strongly needs a new economic program to enjoy an improvement in sovereign rating beyond the level enabled by the success following the 2001 crisis. Although it is of importance to sustain the favorable outlook in public finance, this is no longer sufficient to improve sovereign rating. It is critical to design the new economic program taking into account the elements that are proved by this analysis to have a role in determining sovereign rating. Furthermore, when devising such program, micro reform areas regarded by the CRAs such as "competitiveness of the private sector" also must be considered.

II. The impact of the global crisis on the public finance

The problems emerged in 2007 in the housing mortgage sector of the USA and quickly took on a global dimension. The turbulence in the financial sectors of developed countries also was translated into the real economy, giving way to a considerable contraction in the global economy. Recession in the countries that are the engines of world trade transmitted the crisis towards developing countries through the foreign trade channel. In addition to this, the fall in global liquidity was a major factor that intensified the recession across countries that finance economic growth predominantly via foreign savings.

The USA, the European Union (EU) and eventually developing countries one after another initiated measures to mitigate the effects of the crisis. Rapid steps were taken including the purchase of government debt securities by central banks, bailout plans, tax cuts, increases in social spending and direct public transfers to private firms. Due to the stimulus measures introduced following the crisis and the fall in tax revenues during the crisis, the public budgets of national economies have been disturbed largely. Reinhart and Rogoff (2009) who examine the financial turbulences in the past from a historical perspective emphasize that following the financial crises many countries came close to debt crises due to the disruption of the public finance in general. The problems encountered in the Eurozone (EZ) as of the second half of 2008 are seen as evidence of this risk.

The degree of damage caused by the crisis to the country's public finance varies in developed and developing countries. The share of the general government budget balance in the national income decreased from -1.1 percent in 2007 to -8.1 percent in 2009. In parallel with the rise in the budget deficit, the share of general government public debt in the national income rose from 72.8 to 92.4 percent. The damage was seen to be lower in developing countries. The share of general government budget in the national income decreased from 0 in 2007 to -4.2 percent in 2009 whereas the public debt rate increased slightly from 36.2 percent to 37.4 percent (IMF, 2010)[2].

The impact of the crisis on the public finance indicators of Turkey was limited, similar to that in many other developing countries. The significant extent of fiscal discipline in the public sector established with the economic program implemented after the 2001 crisis played a huge role in this. However, sovereign ratings suggest that Turkey is still not among the investable countries. It is of critical importance to acknowledge the reasons for this in order to locate Turkey on the path of high and sustainable growth.

In the next section of the study, the evaluation of the crisis in the EZ will be detailed and assessments will be made on the fiscal indicators of the EZ countries and Turkey. After that, Turkey's sovereign rating will be assessed together with the movements in various public finance indicators. In the last section the determinants of sovereign ratings will be addressed and factors preventing Turkey from qualifying as an investable country despite having relatively favorable public finance indicators will be put forth.

III. Background of the Euro Zone crisis and comparisons with Turkey

Background of the fiscal trouble across the EZ countries

The expansionary fiscal policies and the fall in tax revenues coming to the fore along with the global crisis gave way to severe hikes in public debt ratios. It is estimated that the debt ratio in the USA would increased from 60 percent in 2007 to 95 percent in 2010. During the same period the debt ratio in the EZ is estimated to have increases from 65 percent to 85 percent (IMF, 2010). In the period after the crisis, the rate of increase in public debts was higher in the USA than in the EZ countries. However, the sustainability of the public debt has not been a source of distress in the USA whereas this has not been the case for the EZ. The underlying reason for this might be the fact that US's central bank the Federal Reserve has the authority to purchase bills and bonds when necessary while EZ countries do not enjoy such an independent monetary policy framework.

The increase in the ratio of public debt to the national income is more limited in the EZ compared to the USA; but for individual economies in the EZ, the circumstances facing some of the countries appear to be quite worrisome. It is observed that in the mentioned countries, public debts which were already high tended further upwards along with the

[2] IMF, Fiscal Monitor, November 2010

crisis. In this context, Greece is the country suffering from the severest the public finance challenges. Concern about the sustainability of Greece's public debt was the main element that triggered the turbulence across the EZ in April 2010.

Although Greece constitutes only 2 percent of the EZ's overall national income, the debt sustainability problem it faces has started to threaten the zone as a whole. There are two ways to pursue the solution of public debt oriented problems: the purchase and sale of government debt securities by the central bank; and the restructuring of public debt. Since Greece does not have an independent monetary policy framework, the first option is not applicable. Also, it is evident that the second option would intensify the crisis. The reasons for this can be summarized as follows:

a. Almost all of Greece's government debt securities are held by foreign investors. Financial institutions in Germany and France own almost 50 percent of Greece's overall debt. Should Greece's debt be restructured, the above financial institutions inevitably would encounter a bottleneck causing economic problems also at the national level.
b. If let alone, Greece might think of leaving the European Monetary Union as a solution. In that case, confidence in the euro might be shaken and the general outlook might deteriorate even further.
c. Should the debt of Greece be restructured; investors would develop a perception that other countries with relatively higher public debt ratios might face similar circumstances in the future. This would push up the risk premiums of the countries concerned and give way to a "bad equilibrium" through a self-fulfilling prophecy.[3]

As it became clear that Greece could not be left on its own to solve the problems, the finance ministers of the EZ countries announced a €110 billion bailout package. It was agreed that €30 billion would be financed by the International Monetary Fund (IMF) and the rest by the EZ countries. In exchange for the bailout, Greece promised to initiate a substantial public finance reform tailored to reduce its budget deficit and the debt ratio, strengthen the financial system, and improve the competitiveness of the economy. Revenue-raising and cost-reducing measures in the program characterized by fiscal contraction are estimated to account for 2.5 and 4.3 percent of the national income in 2010 and 2011, respectively. Cuts in social spending and the salaries of public employees have started to intensify the impact of the crisis on households. The main reason for the street protests in Greece has been the transfer of the cost of the fiscal adjustment to the public.

Following Greece, similar concerns have arisen in Ireland, Spain and Portugal. Even though the debt ratios are quite higher in Ireland and Spain compared to those in Greece, the financial sectors of these countries have faced turmoil in the construction sector, which had been buoyed before the crisis, due to the fall in housing demand and

[3] Marco Pagano, Fiscal crisis, contagion and future of euro http://www.voxeu.org/index.php?q=node/5041

thus in housing prices. Investors have reflected the possibility of a public debt problem also in Ireland and Spain on the risk premiums causing borrowing costs for the said countries to elevate. In Portugal, the outlook is similar to that in Greece due to a high public debt ratio.

Upon the elevation of concerns about countries other than Greece, EZ leaders announced another bailout package of €750 billion with a €250 billion contribution by the IMF in order to prevent the spread of the crisis. The depth of the tension over the markets has eased with the announcement by the EZ leaders of a fund that can be applied for when borrowing from markets becomes difficult. In addition to this, the European Central Bank has been enabled to purchase the government bonds of the EZ economies. Nonetheless, it is frequently emphasized that there are certain administrative regulations that should accompany the above mentioned steps.[4] With the recently announced bailout package, the way was paved for the establishment of a structure such as the European Monetary Fund.

Comparative analysis for Turkey and EZ countries facing problems

The institutional infrastructure of Turkey's economy was restructured to a great extent with the economic program implemented after the 2001 crisis. The economic program built upon the strengthening of the public finance budget and the restructuring of the banking sector played an important role in limiting the negative impacts of the global financial crisis. When the public finance indicators of Turkey and EZ countries in trouble are compared, the progress Turkey made in this respect is understood more clearly.

In 2005 and 2006 Turkey achieved a public budget balance. This budget balance, however deteriorated gradually in 2007 when elections were held and in 2008 when the impacts of the global crisis became visible; reaching 5.6 percent of the national income by 2009. Tax cuts and increases in social spending introduced with an effort to stimulate the economy resulted in the deterioration of the budget. The slowdown of growth in 2008 and the economic recession in 2009 as a result of the crisis is another factor that raised the share of the budget deficit in the national income.

If the share of the budget balance in the national income is considered, it is observed that Turkey's performance was better in comparison to that of Portugal and Greece in the period before the crisis and to that of all EZ countries in the period after the emergence of the crisis. Decreasing housing prices, the reflection of this on the balance sheets of banks and the funds transferred by the public sector to the banks in trouble played major roles in the deterioration of the budget balances in Ireland and Spain in the aftermaths of the crisis. In the cases of Greece and Portugal, budget performance which had already been weak, deteriorated further along with the crisis. These countries had to pay the cost of postponing structural reforms similar to those Turkey had initiated

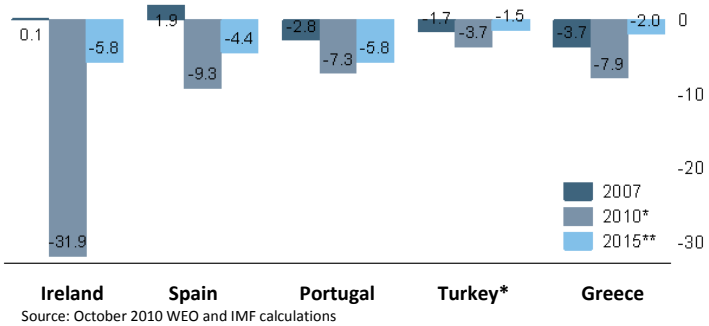
[4] Daniel Gros and Thomas Mayer: Financial Stability beyond Greece: Making the most out of the European Stabilisation Mechanism. http://www.voxeu.org/index.php?q=node/5028

following the 2001 crisis. The IMF estimates that the budget deficits will tend downwards until 2015 in all countries in question in this study, including Turkey. It is projected that Turkey's budget deficit will fall below the pre-crisis levels by 2015 whereas other countries except Greece are expected to be far above the pre-crisis levels.

Deterioration of the budget balance with the crisis

General Government budget balance
(%GDP)

Figure 1



Source: October 2010 WEO and IMF calculations
* Data on Turkey is based on the figures set in the Medium Term Program issued in October 2010
** 2015 IMF's estimation

Main findings

Turkey performed better than Portugal and Greece before the crisis

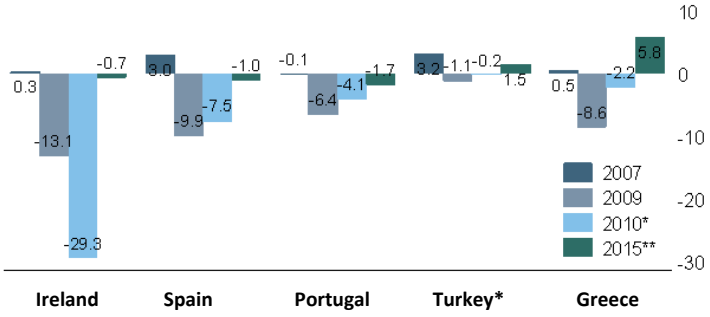
Turkey faced the most limited deterioration in budget performance during the crisis

It is estimated that Turkey and Greece will re-achieve the pre-crisis levels by 2015. This is not seen as a possibility for the other studied countries

The impact of the crisis on the budget of the studied countries can be monitored also on the basis of the movement of primary balance. As also stated before, along with the crisis all of the studied countries increased interest and primary expenditures, whereas tax revenues dropped steeply. Measures intended to limit the disruption of the public finance started to take effect even in a limited manner as of 2009 and the primary surplus ratio in Spain, Portugal and Greece decreased relatively in 2010. In Ireland however the impact of the crisis became even more visible and the ratio of the primary deficit to the national income reached as high as 30 percent. Turkey has outperformed other countries in terms of the primary budget performance before the crisis as well as in 2009 and 2010. It is projected that Ireland, Spain and Portugal will continue to have primary deficits though at a decreasing level. On the other hand, it is estimated that Greece, in line with the recently announced program, will pursue a tight fiscal policy until 2015 and therefore will ensure a primary surplus. Turkey is expected to have primary surplus at reasonable levels without requiring any significant fiscal adjustment process.

Rise in primary deficit with the crisis | **Main findings**

General Government The budget balance (%GDP) — **Figure 2**



Source: October 2010 WEO and IMF calculations
* Data on Turkey is based on the figures set in the Medium Term Program issued in October 2010
** 2015 IMF's estimation

In 2009 and 2010, Turkey performed better than the EZ countries in fiscal distress

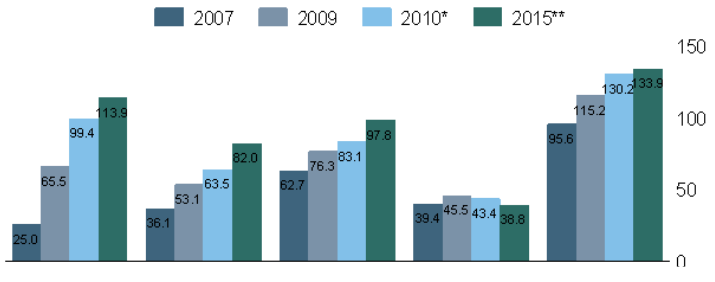
There exists a relative recovery in all countries but Ireland

Prospective expectations imply that the cost of fiscal adjustment would be high in EZ countries and limited in Turkey

Coupled with the hike in the budget deficit and primary deficit, the studied countries faced a rise in borrowing requirements which reinforced concerns about the sustainability of the public debt. The gross public debt ratio of Turkey in 2007 reveals that the situation was more favorable compared to Portugal and Greece while the said ratio for the pre-crisis level was lower than Turkey in Ireland and Spain. With the emergence of the crisis, the gross public debt ratio in all countries but Turkey reached unprecedented levels. In Turkey, however, a slight increase in the ratio occurred along with the crisis. Nonetheless, despite the limited increase in the debt ratio, Turkey's indebtedness ratio remains incomparably lower than that of other EZ countries. Estimates reveal that debt ratios in EZ countries in trouble will keep rising while in Turkey the debt ratio will decrease even below the 2007 level by the end of 2015.

Rise in public debt with the crisis | **Main findings**

General Government Gross Debt Stock (%GDP) — **Figure 3**



Source: October 2010 WEO and IMF calculations
* Data on Turkey is based on the figures set in the Medium Term Program issued in October 2010
** 2015 IMF's estimation

Before the turbulence in the EU, Turkey's debt ratio was lower than Greece and Portugal

The impact of the crisis on the debt ratio was limited in Turkey and devastating in other studied countries

Turkey's debt ratio will decrease until 2015 while the debt burden will continue increasing in other studied countries

The impact of the crisis also can be traced via the change in the risk premiums of the relevant countries. In the period before the crisis, risk premiums measured on the basis

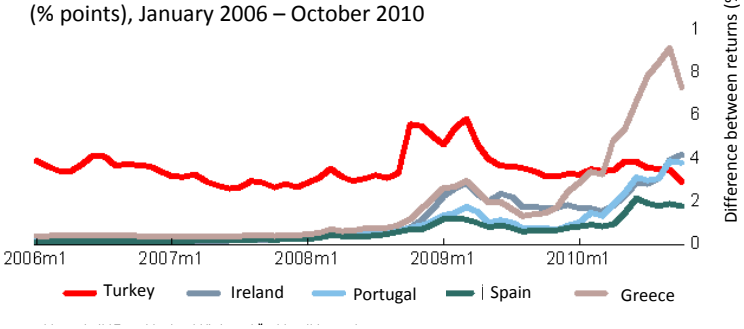
of the returns on treasury bills of EZ countries and of Germany were close to each other[5]. However, beginning with 2008, returns on the treasury bills of the studied countries started to differentiate. Concerns about the sustainability of the debt and the common view that the crisis could not be managed successfully directly translated onto the risk premiums. In October 2010 the difference between the returns on Greece's treasury bills and Germany's benchmark treasury bills increased to 7 points. The difference in Ireland and Portugal's treasury bills stood at 4 and 2 points, respectively. In mid 2008 when the impact of the EZ crisis on Turkey was not yet visible, the difference between the rate of return on EUROBOND and interest on Germany's benchmark Treasury bill widened to the detriment of the former. Nonetheless, as it became evident that the said impact would be limited, the difference decreased back to the pre-crisis levels as of the first months of 2009.

Rise in the risk premium with the crisis

Difference of Returns Compared to Germany Treasury Bill

(% points), January 2006 – October 2010

Figure 4



Source: IMF and Undersecretariat of Treasury, Author's calculations
Note: Fort the EZ countries interest on benchmark treasury bills and for Turkey returns on EUROBOND maturity at 2030 were taken into account

Main findings

The difference between the returns on Turkey's EUROBOND and Germany's Treasury bill reached the levels in late 2008

The difference fell back again as it became clear that the impact of the crisis on Turkey will be limited

As of the beginning of October 2010, risk premiums in the studied countries except Spain are higher than Turkey

The ratio of the average primary surplus to the national income to be attained for the 2011-2015 period in order to achieve the debt ratios of the pre-crisis level would be helpful in understanding the damage caused by the crisis on the public finance of the affected countries. Efforts to offset the deterioration in the public finance with the aim to secure macroeconomic stability would affect economic growth negatively given the fact that economic growth is already limited whereas real interest rates stand at relatively high levels[6]. The political and economic challenges to fiscal adjustment also would become evident in this regard. Calculations show that it is a must for Greece, Ireland, Portugal and Spain to implement tight fiscal policies in order to remedy the deterioration of their public finances as a result of the crisis[7]. On the other hand, Turkey can attain a debt ratio even below the 2007 level by 2015 by achieving a primary

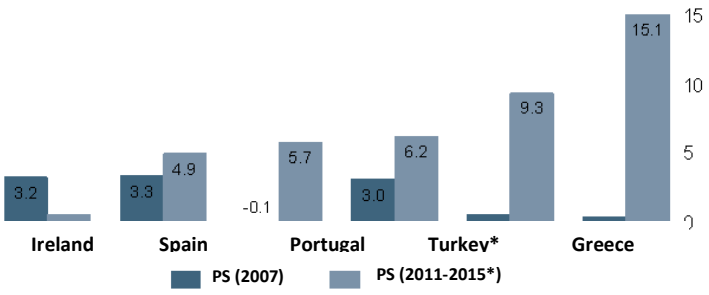
[5] One of the main objectives of the European Monetary Union was to secure that interest rates in member states converges to each other.
[6] For a detail analysis on this issue, please see Daniel Gros, 2010, "Adjustment Difficulties in the GIPSY Club", CEPR Working Paper No. 326.
[7] Average primary surplus that the studied countries have to achieve over the 2011-2015 period in order to re-attain the gross public the debt ratios in 2007 correspond to the cost of the crisis for the public finance. In order to calculate average primary surplus for the 2011-2015 period, the following equation is used: —— where = t is the primary surplus ratio at the time t, = t is the real interest rate at the time t, = t is the GDP growth at the time t, and = t is the gross the debt ratio at the time t. Growth rates are taken from the World Economic Outlook October 2010. Real interest rate is assumed to be 3 percent for all countries for the projected period.

surplus of less than 1 percent as a ratio of the national income until then. The findings therefore validate once again the severity of the challenges across the EZ countries and the comparative advantage Turkey enjoys in this respect.

High cost of the crisis on the public finance **Main findings**

Current account surplus (%GDP) **Figure 5**

2007 and 2011-2015*



Source: October 2010 WEO and IMF calculations

* Corresponds to the average PS required to be achieved over the 2011-2015 period to regain the debt ratio in 2007. Method of calculation and assumptions are explained in footnote.

Under the assumptions stated in Footnote 5, Turkey does not need a severe fiscal tightening to achieve the debt ratio of 2007 in 2015

In EZ countries with fiscal distress, and in Greece and Ireland in particular, however, there is a need for severe fiscal tightening.

In sum, the global financial crisis caused severe damage to the public finance across developed countries. In Turkey and other developing countries, the impact of the crisis on a range of indicators including the budget deficit, public debt and interest rates was limited. Turkey also could have gone through problems from which the EZ countries in fiscal turbulence had been suffering had it not improved the state of instability witnessed throughout the 1990s. The economic program initiated after the 2011 crisis prevented the realization of this worst-case scenario.

IV. A Puzzle: Low sovereign rating despite the successful fiscal performance

With the recent global crisis, the confidence in the sovereign rating agencies (CRA) has been shaken. The weak performance of the CRAs in assessing the risk level of the financial institutions in the USA is the underlying reason for this. Politicians, academics and even CRA executives admit that the CRAs had a role in the emergence of the crisis. The final declaration of the G20 Leaders Summit held in Toronto, Canada in June 27, 2010, resolved that the regulation framework for the CRAs would be strengthened[8].

Despite all the recent developments shaking the confidence in the CRAs, the sovereign ratings issued by the said agencies still are important for investors. Country ratings play a significant role in shaping the risk perceptions of investors, individual or institutional. The risk perceptions of investors have important repercussions for the fiscal and monetary policies of national economies. In this section of the study the correlation

[8] For the full text of the Final Declaration see the following link: http://www.g20.utoronto.ca/2010/g20_declaration_en.pdf

between fiscal performance and country sovereign ratings will be addressed. In this context, the comparative position of Turkey will be assessed.

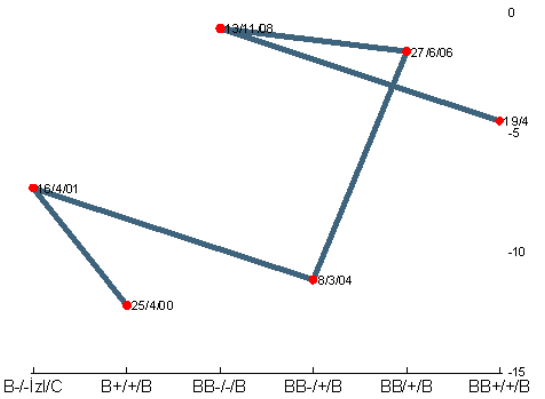
To what extent was the successful fiscal performance of Turkey translated into its sovereign rating?

Standard & Poor's (S&P), when setting sovereign ratings takes into consideration the capacity of countries to fulfill their financial liabilities completely and in a timely manner. In making this evaluation, a number of economic, financial and political risk factors are taken into account[9]. Turkey's sovereign rating has been changed 39 times since 1992.[10] It finally was upgraded in February 19, 2010 from the BB group – the stable outlook category to BB+ group, the positive outlook category[11]. However, Turkey still does not have the investment grade. In addition to this, although Turkey outperforms the EZ countries facing problems of the public finance, its sovereign rating is worse than those of the EZ countries except for Greece. Before addressing the reasons, the development of the public finance indicators and sovereign rating of Turkey will be examined.

The study found no significant correlation between Turkey's sovereign rating and budget and primary balances (figures 6 and 7)[12]. In April 2001, Turkey's sovereign rating was downgraded to the level of April 2000. The said change was introduced despite a relative fall in the budget deficit and rise in the primary surplus. This could be considered expectable given that 2001 was a year of crisis. Nonetheless, the correlation between the changes in the sovereign rating and budget indicators also are different than the expectations in the revisions of sovereign rating between April 2001 and March 2004 and June 2006 and November 2008. As a result, it is not possible to assert a direct relationship between budget and primary surplus and sovereign rating.

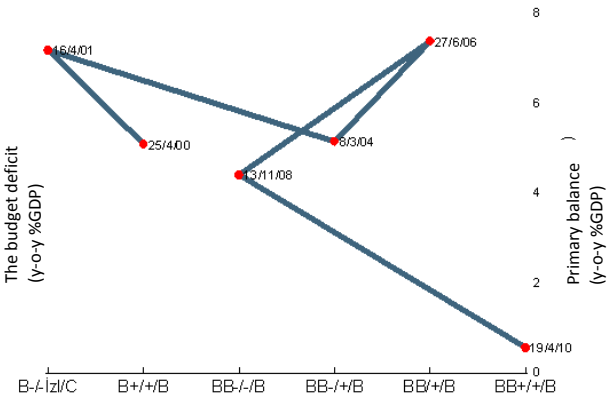
[9] Please see Annexed Table E.1 for the S&P sovereign ratings methodological framework.
[10] Please see Annexed Table E.1 for the changes in Turkey's sovereign rating.
[11] Sovereign rating definitions are detailed in the annex.
[12] This analysis focuses on the periods in which Turkey's sovereign rating was changed comprehensively. To put it differently, only changes in the grade were considered while the periods in which the outlook (positive, stable or negative) of Turkey changes were not taken into consideration in the analysis.

Sovereign Rating and The budget balance **Figure 6**
(2000-2010)



Source: Standard & Poors and Undersecretariat of Treasury
Note: For the budget balance annualized data for the quarter preceding the change in sovereign rating was used

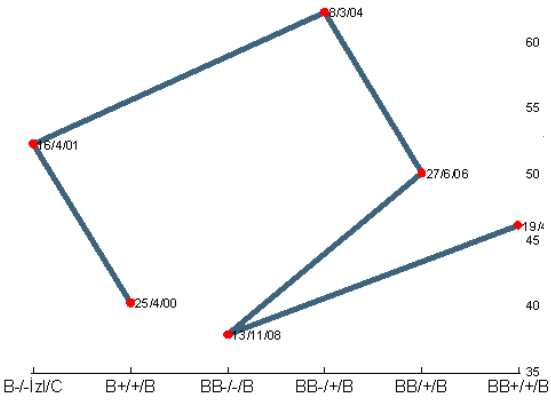
Sovereign Rating and Primary Balance **Figure 7**
(2000-2010)



Source: Standard & Poors and Undersecretariat of Treasury
Note: For primary balance annualized data for the quarter preceding the change in sovereign rating was used

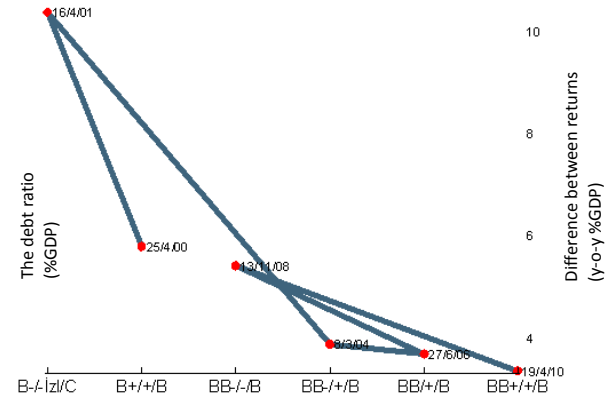
The correlation between the ratio of public debt to the national income, risk premium and Turkey's sovereign rating is shown in figures 8 and 9. There is a statistically significant correlation between the debt ratio and sovereign rating. From April 2001 to March 2004, the debt ratio as well as the sovereign rating increased whereas from June 2006 to November 2008, the debt ratio as well as the sovereign rating decreased. The correlation between Turkey's risk premium and sovereign rating was negative. The rise in the risk premium along with the 2001 crisis was accompanied by a fall in the sovereign rating. Between April 2001 and March 2004, the risk premium decreased and the sovereign rating increased. In late 2008 when the impacts of the global crisis on Turkey were not yet visible, the sovereign rating decreased following the rise in its risk premium; while in April 2010 the risk premium tended downwards followed by an improvement in the sovereign rating.

Sovereign Rating and The debt ratio **Figure 8**
(2000-2010)



Source: Standard & Poors and Undersecretariat of Treasury
Note: For central government the debt ratio annualized data for the quarter preceding the change in sovereign rating was used

Sovereign Rating and
Difference in Returns (risk premium) **Figure 9**
(2000-2010)



Source: Standard & Poors and Undersecretariat of Treasury
Note: For difference in returns, the difference between interest on Germany's treasury bill and on EUROBOND was calculated

In short, there is a positive correlation between the changes in Turkey's sovereign rating and the budget balance, primary balance and the debt ratio. Nevertheless, in parallel with expectations, the risk premium and sovereign rating move in opposite directions. In the light of these findings, it is seen that factors other than those mentioned above have an effect on the determination of Turkey's sovereign rating.

Determinants of sovereign rating and the outlook for Turkey

The CRAs take into consideration a number of elements that potentially can affect the political and economic stability in a country when determining the sovereign ratings[13]. Among these, indicators on the public finance accounts are evidently determinants of the capacity of country in question to fulfill its financial liabilities duly and in a timely manner. But the conclusions derived in the previous section reveal that the budget, primary balance and the debt ratios in Turkey are not correlated directly with the sovereign ratings. Is it a case unique for Turkey, i.e. is this contradictory? Or do the CRAs put more emphasis on other factors when accessing the financial structure of a country? In order to give a proper answer these questions, the next section will address factors other than those handled in the previous section from a comparative perspective.

The budget deficit and public debt

The share of the budget deficit and public debt in the national income are among the indicators referred to when assessing the financial capabilities of a country. However these indicators alone do not have the capacity to affect sovereign ratings independent of other factors. In fact, the public sector does not have a rule on the elimination of the budget deficit or the repayment of the public debt. It was previously set forth in figures 8 and 9 that the correlation between the movement in the above indicators and in the sovereign ratings is not predictable. This determination for Turkey is applicable also for other countries. As figures 9 and 10 suggest, if the national income per capita is controlled[14] there appears to be no linear relationship between the relevant indicators. Though not statistically significant[15] the sign of the coefficient reflecting the relation between sovereign rating and the budget balance is a positive, despite what could be expected. The coefficient of the debt ratio is close to zero, on the other hand.

[13] The factors S&P takes into account when determining sovereign ratings are given in the annex.

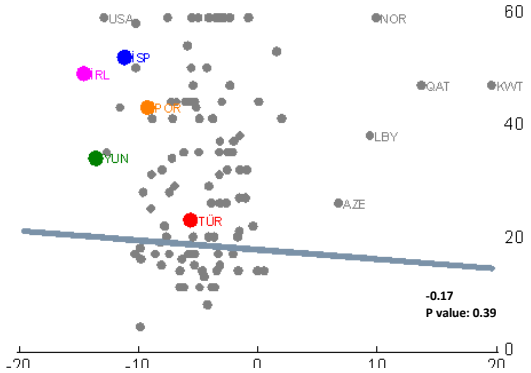
[14] Coefficients obtained as a result of two regressions where the dependent variable is the sovereign rating and independent variables are per capita the national income and public the debt ratio or the budget deficit give the slope of the lines in the respective figures. By controlling the per capita the national income, all factors giving way to income differences are taken into account statistically. All figures from this point onwards regressions where the sovereign rating is the dependent variable and per capita income and the relevant indicator are the independent variables; and it was examined whether the slopes of the respective lines are statistically significant.

[15] That the variable X does not have a statistically significant effect on the variable Y indicate that the said indicator is statistically not different than zero.

Figure 10

Sovereign Rating and The budget balance

International comparison



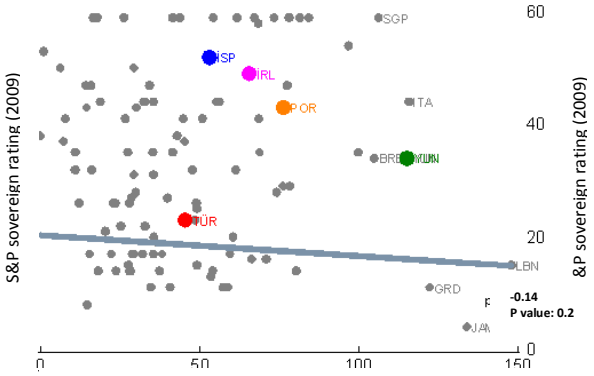
The budget balance (2009, %GDP)

Source: IMF, Standard & Poors (1 is the lowest and 60 is the highest sovereign rating)
Note: The slope of the line is obtained via a regression analysis and shows the correlation between sovereign rating and the budget balance when per capita income is controlled

Figure 11

Sovereign Rating and The debt ratio

International comparison



The debt ratio (2009, %GDP)

Source: IMF, Standard & Poors (1 is the lowest and 60 is the highest sovereign rating)
Note: The slope of the line is obtained via a regression analysis and shows the correlation between sovereign rating and the debt ratio when per capita income is controlled

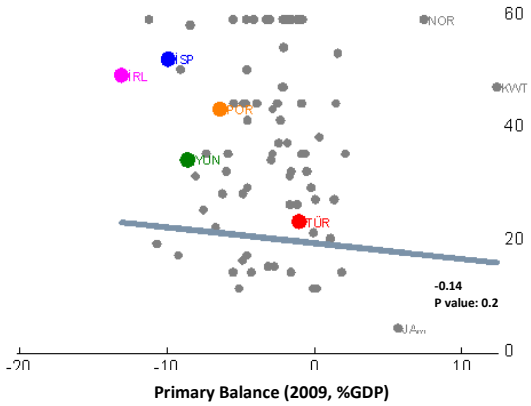
Primary balance and budget revenues

The ratio of primary balance to the national income is a significant indicator of fiscal discipline. Primary expenditures being higher than primary revenues is a sign of weaknesses in the public finance. In such an economy, the proportional increase in the public debt will be much higher compared to an economic having primary surplus. Therefore, the level of primary balance gives hints about whether or not the country will fulfill its financial responsibilities duly and in a timely manner. Nevertheless, one should not assume that there necessarily is a linear relation between sovereign ratings and the level of primary balance. As also maintained in the previous section, there was no one-to-one relation between Turkey's sovereign rating and primary balance. An international comparison reveals that this case is not unique for Turkey. As figure 12 also suggests, when per capita income is controlled, there exists no statistically significant relation between the ratio of primary balance to the national income and the sovereign rating.

CRAs also monitor public revenues when making assessments for sovereign ratings. But the size of revenues or the share of revenues in the national income are not sufficient to measure fiscal capability. Figure 13 shows that the relation between the share of public revenues in the national income and sovereign rating, when per capita income is controlled, is positive as expected but statistically insignificant. Even if the share of public revenues in the national income is high, the said revenues can be structurally used to finance current expenditures for instance, which weakens the correlation between the said indicator and the sovereign rating.

Sovereign Rating and Primary Balance **Figure 12**

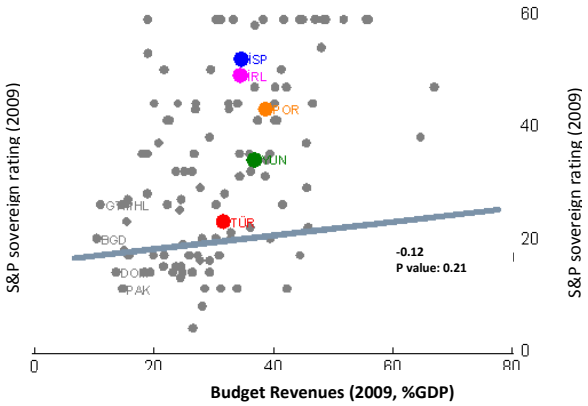
International comparison



Source: IMF, Standard & Poors (1 is the lowest and 60 is the highest sovereign rating)
Note: The slope of the line is obtained via a regression analysis and shows the correlation between sovereign rating and primary balance when per capita income is controlled

Sovereign Rating and Budget Revenues **Figure 13**

International comparison



Source: IMF, Standard & Poors (1 is the lowest and 60 is the highest sovereign rating)
Note: The slope of the line is obtained via a regression analysis and shows the correlation between sovereign rating and budget revenues when per capita income is controlled

Relying on the analysis above, it can be concluded that the CRAs do not take into account factors such as the budget balance, primary balance and the public debt ratio alone and independent of other factors. In this context, it can be said that the accounts that argue that Turkey's sovereign ratings are not in tandem with the outlook represented by the above indicators focus only on one part of the big picture.

Interest expenditures and current account deficit

The allocation of public revenues is of more importance than the size of pubic revenues in the measurement of fiscal capability. Countries where the share of interest expenses in the tax revenues is low have high capacity to fulfill their financial liabilities duly and in a timely manner. In addition to this, low share of interest expenses in the tax revenues enables higher quality public services and thus a higher potential growth rate. If the per capita income level is controlled, there appears a statistically significant negative correlation between the share of interest expenses in tax revenue and sovereign ratings (figure 14). In other words, among two countries with similar levels of welfare, the one that allocates a lower share of revenues to interest expenses would be expected to have a higher sovereign rating. This indicator which has an important role in the determination of sovereign ratings of countries has disadvantageous outlook for the case of Turkey despite the case in the public debt and the budget deficit indicators. The share of budget revenues allocated for interest expenses in Turkey is even greater than that in Greece where the cost of the fiscal crisis is the severest.

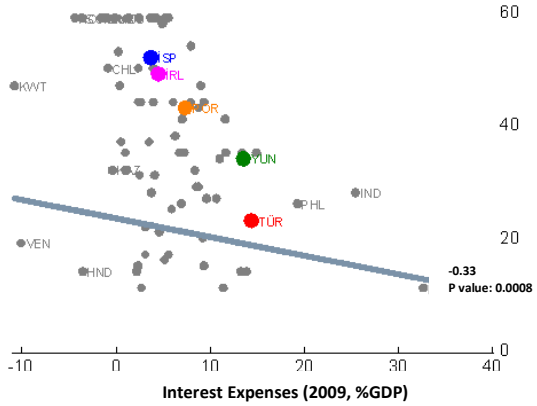
Another indicator regarded by the CRAs is the share of current account in the national income. A high current account deficit is a significant risk factor particularly for developing countries. In Turkey the 1994 and 2001 crises stemmed from problems related to the finance of current account deficit as a result of which the Turkish lira depreciated and production levels dropped substantially. The depreciation of the lira as

well as the drops in the national income caused severe public finance problems. Due to this and similar reasons, the CRAs monitor the size of the current account deficit closely when deciding on the sovereign ratings. As demonstrated by figure 15, there exists a statistically significant positive correlation between sovereign rating and the ratio of current account balance to the national income, when the per capita income level is controlled. To put it differently, among two countries with similar levels of welfare, the one with a relatively stronger current account balance would have a higher sovereign rating. In 2009, the share of current account deficit to the national income in Turkey was lower compared to the EZ countries in fiscal distress. However, it also should be noted that the current account deficit recovered to pre-crisis levels along with the economic recovery in 2010.

Figure 14

Sovereign Rating and Interest Expenses

International comparison

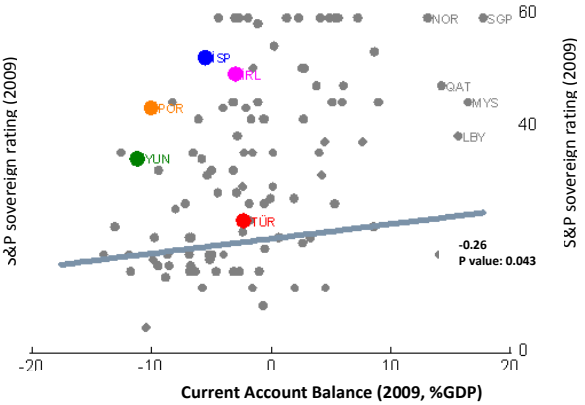


Source: IMF, Standard & Poors (1 is the lowest and 60 is the highest sovereign rating)
Note: The slope of the line is obtained via a regression analysis and shows the correlation between sovereign rating and interest expenses when per capita income is controlled

Figure 15

Sovereign Rating and Current Account Balance

International comparison



Source: IMF, Standard & Poors (1 is the lowest and 60 is the highest sovereign rating)
Note: The slope of the line is obtained via a regression analysis and shows the correlation between sovereign rating and current account balance when per capita income is controlled

Volatility in real exchange rate and growth

Economic stability is another important indicator of the capacity to fulfill financial liabilities duly and in a timely manner. Volatility in the national income and real exchange rate in particular affect to a large extent the tax revenues and debt burden. Weaker predictability for the said indicators has an adverse effect on the risk premiums and therefore the sovereign ratings. Catao and Sutton (2002) conclude that real exchange rate volatility has a high power in anticipating debt crises[16]. In addition, the national income and exchange rate volatility have severe outcomes especially for countries with foreign exchange denominated international borrowing. In developing countries, in periods in which the movement of the national income and real exchange rate in opposite directions is observed, that is the real depreciation of domestic currency and presence of negative economic shocks in periods of recession lead to the elevation of debt burden and will make countries more prone to a debt crisis (Hausmann, 2003)[17].

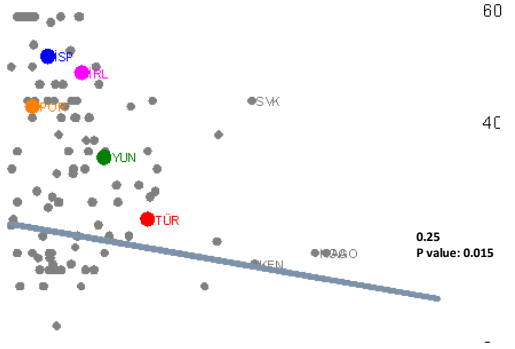
[16] Catao, Luis and Bennett Sutton (2002). Sovereign Defaults: The Role of Volatility. IMF Working Paper 02/149.
[17] Ricardo Hausmann (2003). Good Credit Ratios, Bad Sovereign ratings: The Role of Debt Structure. Center for International Development Working Paper.

As of June 2010, the ratio of foreign currency denominated or indexed debt of Turkey to the national income was 12.6 percent and to the overall public debt was 28 percent. Although following the 2001 crisis, the above ratios tended downwards; still a substantial part of the overall public debt was made up of foreign exchange denominated debts. Thus, it is possible to say that a shock that negatively affects the real exchange rate or the national income will push public debt burden upwards. The impact of such a shock would be more limited in Greece, Ireland, Portugal and Spain since these are members of the European Monetary Union and thus carry out domestic and foreign borrowing in Euro terms almost completely. The foreign exchange composition of the public debt is another factor that is of use in explaining the differences of sovereign ratings across Turkey and EZ countries in fiscal distress.

The correlation between the volatility of the national income growth and of the real exchange rate[18] and sovereign rating is demonstrated in figures 16 and 17. There is a statistically significant negative correlation between the said indicators and sovereign rating. Therefore it can be concluded that among two countries with similar levels of welfare, the one with lower growth and real exchange rate volatility would be expected to have a higher sovereign rating. Data reveals that Turkey demonstrates a weaker performance than the EZ countries in fiscal distress in terms of both indicators.

Figure 16

Sovereign Rating and Real Exc. Rate Vol.
International comparison

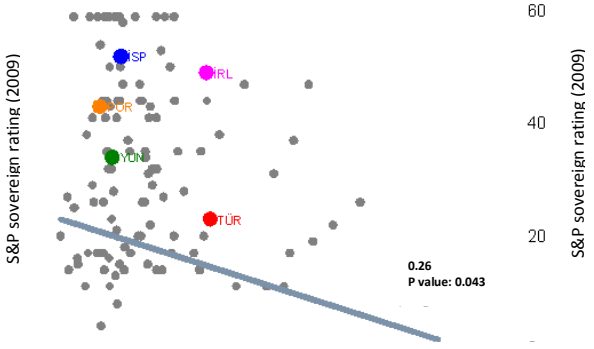


Real Exchange Rate Volatility (00-09, stnd. deviation)

Source: Author's calculations, EIU, Standard & Poors
Note: The slope of the line is obtained via a regression analysis and shows the correlation between sovereign rating and real exchange rate volatility when per capita income is controlled

Figure 17

Sovereign Rating and Growth Volatility
International comparison



Growth Volatility (00-09, stnd. deviation)

Source: Author's calculations, EIU, Standard & Poors
Note: The slope of the line is obtained via a regression analysis and shows the correlation between sovereign rating and growth volatility when per capita income is controlled

[18] Volatility is calculated on the basis of standard deviation.

Prospective trends

The analysis reflected above reveals that budget and primary balance and the debt ratios alone are not sufficient in explaining the changes in sovereign ratings. This does not mean that the said indicators have no effect at all on Turkey's sovereign rating. Therefore, it is of significance to maintain the improvements in the public finance in increasing investors' confidence in Turkey's economy. The IMF foresees a positive outlook for Turkey's future budget balance, primary balance and the debt ratio and a horizontal outlook for the ratio of budget revenues to the national income. These estimates are in harmony with the medium term economic program announced by the government. However, for the realization of these estimates it is of critical importance to secure that the general and local elections to be held in July 2011 and March 2014 do not have negative impacts on the budget. In this context, it can be said that giving over the fiscal rule has reduced the confidence in the estimates for the public finance indicators.

The share of interest expenses in the budget revenues, which is an important determinant of sovereign ratings, will decrease continuously until 2015 as the IMF estimates reveal[19]. It is expected that if the estimates are realized, Turkey's capacity to fulfill its financial liabilities duly and timely and thus its sovereign rating would be improved. Nevertheless, it is of critical importance to adopt a consistent public finance policy framework. In addition to this, any improvement in Turkey's sovereign rating will be related with the changes in current account, real interest rate, and growth.

The share of current account balance to the national income is another important indicator considered by the CRAs. The IMF estimates that Turkey's current account deficit will rise gradually until 2015. Given that in periods of economic growth, Turkey's current account deficit rises, the IMF's estimate is in harmony with the 5 percent average growth estimated for the 2011-2015 period. It can therefore be concluded that the high current account deficit and the risks coming to the fore in this way would hinder improvement in Turkey's sovereign rating up to the investment grade.

The stability of the real exchange rate and growth will play crucial roles in the changes of Turkey's sovereign rating. In the current milieu where there are a number of ambiguities about the impact of the global crisis on Europe and its repercussions on the US economy it is difficult to estimate the real exchange rate and economic growth. Developments in Turkey's export markets and the degree of sustainability of growth based on domestic demand will be the main determinants of the growth. Developments regarding the global liquidity are critically important but difficult to foresee. It must be noted, however, that as a positive development the Central Bank of Turkey declared that the exchange rate would be given higher importance in the design of the country's monetary policy.

[19] The calculation (Primary balance (% GDP) – The budget balance (% GDP)) / (Budget revenues (% GDP)) gives the share of interest expenses in budget revenues. IMF does not announce any estimate on this indicator whereas estimates for the other indicators used in the calculation are available.

V. Conclusion

The financial crisis that emerged in the USA in 2007 rapidly spread to other economies in the global economy. Along with the crisis, economic activity decreased, reducing budget revenues and therefore disturbing the public finance. Funds transferred by the public sector to financial and non-financial private institutions in distress reinforced the damage in the public finance sector. Developing countries with relatively less sophisticated financial systems felt the impacts of the crisis on the public finance less deeply. Turkey as a developing country faced limited increases in its ratio of the budget deficit and debt to the national income compared to developed countries.

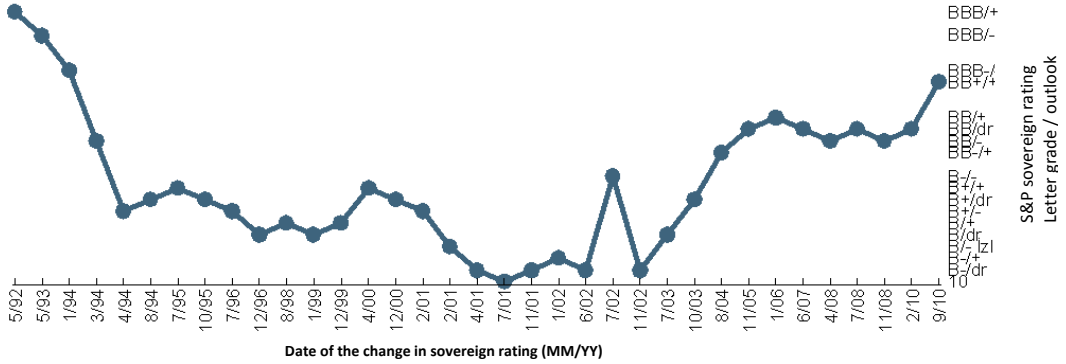
The impact of the crisis on the public finance has been devastating in Greece, Ireland, Portugal and Spain. Some accounts argue that the said countries must implement independent monetary policy and therefore leave the European Monetary Union to overcome the crisis. Turkey‘s recent public finance performance has outpaced those of the mentioned countries. Nonetheless, Turkey’s sovereign rating has not improved to the investment grade despite the named positive developments.

Turkey holds an advantageous position compared to the EZ countries in terms of the ratio of public debt and the budget deficit, whereas the country is still disadvantageous considering the factors shown in the study to be more influential on sovereign ratings. In Turkey the share of interest expenses in the budget revenues is far above those in the developed countries, including the EZ countries. It is seen that Turkey has a highly unfavorable outlook considering the current account deficit that tends upwards along with the economic recovery and the economic growth and real exchange rate volatility which is of critical importance for public debt dynamics. It can be maintained that the fact that a significant proportion of the public debt is denominated in or indexed to foreign exchange is a great impediment to a rise in the sovereign rating.

A new economic program is necessary to ensure that Turkey’s sovereign rating is improved beyond the levels attained through the economic program put into effect after the 2001 crisis. This new economic program must be designed taking into consideration the elements shown to have an effect on the sovereign rating. There is need for a framework that would prevent increases in the current account deficit and limit the volatility in growth and real exchange rate. Given that interest expenses correspond to a high share in overall budget revenues, a comprehensive tax and tax administration reform that would increase the share of tax revenues in the national income is required. In this context, it would be wise to put into effect a structural reform program that would focus on micro reform areas, particularly on the ‘private sector competitiveness’ involved in the criteria set of the CRAs.

ANNEX: TABLES AND FIGURES

Figure E.1: Evolution of Turkey's sovereign rating (1992-2010)



Source: Standard & Poors

Table E.1: S&P Sovereign ratings methodology profile

Political risk	Income and economic structure	Economic growth prospects
• Stability and legitimacy of political institutions • Popular participation in political processes • Transparency in economic policy decisions and objectives • Public security • Geopolitical risk	• Prosperity, diversity and the degree to which economy is market oriented • Income disparities • Effectiveness of financial sector • Competitiveness of the nonfinancial private sector • Efficiency of public sector • Protectionism and other nonmarket influences • Labor flexibility	• Size and composition of savings and investment • Rate and pattern of economic growth
Fiscal flexibility	**General government debt burden**	**Offshore and contingent liabilities**
• General government revenue, expenditure and surplus/deficit trends • Revenue raising flexibility and efficiency • Expenditure effectiveness and pressures • Timeliness, coverage and transparency in reporting • Pension obligations	• General government gross and net (of assets) debt as a percent of GDP • Share of revenue devoted to interest • Currency decomposition and maturity profile	• Size and health of the nonfinancial public enterprises • Robustness of financial sector
Monetary flexibility	**External liquidity**	**External debt burden**
• Price behavior in economic cycles • Money and credit expansion • Compatibility of exchange rate regime and monetary goals • Institutional factors such as central bank independence • Range and efficiency of monetary policy tools	• Impact of fiscal and monetary policies on external accounts • Structure of the current account • Composition of capital flows • Reserve adequacy	• Gross and net external debt including deposits and structured debt • Maturity profile, current composition and sensitivity to interest rate changes • Debt service burden

Source: http://www.standardandpoors.com/prot/ratings/articles/en/us/?assetID=1245199875939

Table E. 2: S&P sovereign ratings and definitions

AAA	AA	A
Extremely strong capacity to meet financial commitments (highest rating)	Very strong capacity to meet financial commitments	Strong capacity to meet financial commitments, but somewhat susceptible to adverse economic conditions and changes in circumstances
BBB	**BBB-**	**BB+**
Adequate capacity to meet financial commitments, but more subject to adverse economic conditions	Considered lowest investment grade by market participants	Considered highest speculative grade by market participants
BB	**B**	**CCC**
Less vulnerable in the near-term but faces major ongoing uncertainties to adverse business, financial and economic conditions	More vulnerable to adverse business, financial and economic conditions but currently has the capacity to meet financial commitments	Currently vulnerable and dependent on favorable business, financial and economic conditions to meet financial commitments
CC	**C**	**CCC**
Currently highly vulnerable	Currently highly vulnerable obligations and other defined circumstances	Payment default on financial commitments

Source: http://www.standardandpoors.com/ratings/definitions-and-faqs/en/us#def_1

Note: This is a summarized table. S&P credit ratings have three sub-positions for each rating grade: positive, stable and negative. Positive category involve countries which are potentially to achieve an upper rating, negative category involves countries which are potentially to fall back at the lower rating and stable category involves countries which are possibly to maintain the rating.