

## Macroeconomic Performance, Stability, and Sectoral Composition of Output Before and After AKP over the Post-Liberalization Era

Serhan Çiftçioğlu<sup>1</sup> & Murad A. Bein<sup>2</sup>

### Abstract

The paper primarily focuses on the comparative analysis of the performance and stability of Turkish economy over the post-AKP (Justice and Development Party) period (2003-2012) relative to pre-AKP period which is specified for two alternative time periods; (1980-2002) and (1989-2002) where 1980 and 1989 signify the years during which major structural reforms (in term of internal and external liberalization) were undertaken. We compute and compare the respective period averages and volatility measures of selected macroeconomic parameters (such as GDP growth, inflation, unemployment, savings, investment and etc.) for the post-AKP and pre AKP periods. We apply a similar comparative analysis to the sectoral composition of GDP (in terms of relative output share of traded goods) and stock of external debt using a framework based on 'Dependent Economy' model.

**Keywords:** Macroeconomic Performance, Liberalization, Volatility, Growth, Inflation, Traded Goods.

**JEL Classification:** E2 F1 F4

### 1. Introduction

The political instability that was experienced particularly during and after the 'civilian unrest' in late May and June of 2013- known as 'Gezi Incident'- has been followed by deterioration of economic stability. In retrospective even though this instability experienced at that time appears to be more of a social project prepared and carried out by global powers, it had led to rapid outflow of particularly short-term foreign capital. As a result, stock prices had fallen sharply and Turkish Lira (TL) has lost approximately ten percent of its value in late August and September of 2013. Depreciation of TL at the time had taken place despite substantial and sustained intervention by Central Bank through sales from its foreign currency reserves. In addition, depreciation of Turkish lira has taken a new momentum since the beginning of 2015 over which TL has lost approximately another 15 percent of its value against major US dollar.

Even though some part of the outflow of foreign capital since the beginning of 2015 seems to be related to the increased likelihood of a switch to a less expansionary monetary policy in US, the rest could be due to the changes in the expectations of domestic and global investors regarding the present and future states of Turkish economy. There are at least two dimensions that one can use to analyze the roots of any kind of worsening of expectations about the current and future states of Turkish economy. One dimension is related to the process of liberalization that has its roots in the structural reforms that have started in 1980 and still shaping the globalization of Turkish economy today.

<sup>1</sup> Eastern Mediterranean University, Department of Business Administration, Faculty of Business and Economics, via Mersin 10, Turkey. E-mail: [serhan.ciftcoglu@emu.edu.tr](mailto:serhan.ciftcoglu@emu.edu.tr), Tel: +90 (392) 630-1409, Fax: + 90 (392) 365 1017

<sup>2</sup> Eastern Mediterranean University, Department of Business Administration, Faculty of Business and Economics, via Mersin 10, Turkey. E-mail: [murad.bein@emu.edu.tr](mailto:murad.bein@emu.edu.tr), Tel: +90 (392) 630-1468, Fax: + 90 (392) 365 1017

Second dimension is the overall macroeconomic policy environment of AKP governments that have been ruling Turkey since late 2002. In other words, the present macroeconomic conditions are likely to be the outcomes of both the past policy choices (that were made before AKP) and also those that were made by AKP governments. These policy choices naturally could result in different outcomes in terms of key macroeconomic parameters (such as output growth, inflation, investment and saving rates, external debt and etc.) and sectoral composition of GDP (gross domestic product). And this insight forms the main source of motivation for the present study which attempts to carry out a comparative analysis of the macroeconomic outcomes that have resulted before and after AKP (Justice and Development Party) in Turkey. To this end, the main focus of this study will be the comparative analysis of historical averages and volatilities of selected macroeconomic parameters in two distinct periods over the post-liberalization era that may be assumed to have started in 1980; namely pre-AKP (1980-2002) and post-AKP (2002-2012) periods.

Given this, the organization of rest of the paper is as follows: Section two is devoted to the comparison of macroeconomic performance (in terms of historical averages of key parameters) over pre-AKP and post-AKP periods whereby two alternative sample periods are used as representative of pre-AKP period; one starting with 1980 and the other one starting with 1989 (the year of capital account liberalization). In section three, macroeconomic stability of Turkish economy (in terms of volatility of selected parameters) over post-AKP is compared to those experienced over pre-AKP periods. Section Four carries out a similar comparative analysis for sectoral composition of output (GDP) particularly in terms of relative output share of major traded goods sectors (such as manufacturing and agriculture) and the stock of external debt; our analysis in this section is particularly based on a model known as 'Dependent Economy' model (Sachs and Larraine, 1993). In addition, in the conclusions section we present a detailed summary of the major findings of the paper and also discuss some of their implications for both policy making and future research.

## 2. Macroeconomic Performance before and after AKP

In this section, we attempt to compare the macroeconomic performance of AKP governments since 2003 relative to earlier pre-AKP era by carrying out a comparative analysis of the data representing historical averages of key macroeconomic parameters for pre and post-AKP periods. These parameters are respectively the growth rate of GDP, inflation rate, saving rate, investment rate, unemployment rate, government balance (as % of GDP), government debt (as % of GDP), the ratio of exports to imports, the share of exports in GDP, trade openness (as measured by the ratio of the sum of exports plus imports in GDP), current account balance (as % of GDP) and net inflows of FDI (as % of GDP). Historical averages of all these parameters for pre-AKP and post-AKP periods have been reported below in Table 1:

**Table 1:** Macroeconomic Performance Before and After AKP over the Post- Liberalization

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Variables	Pre-AKP period		Post-AKP period
	1980-2002	1989-2002	2003-2012
Growth Rate	3.82%	3.37%	5.05%
Inflation	62.58%	70.71%	10.77%
Saving Rate	19.04%	20.71%	15.01%
Investment rate	21.02%	22.27%	20.33%
Unemployment 2	8.01%	7.98%	11.01%
General Government Balance (% of GDP) 3	-8.89%	-10.74%	-2.80%
Exports / Imports	85.60%	90.5%	84.50%
Exports (% of GDP)	16.90%	19.45%	22.99%
Trade Openness	36.37%	40.96%	58.39%
Current Account Balance(% of GDP)	-1.12%	-0.61%	-5.27%
Net Inflows of FDI(% of GDP)	0.38%	0.54%	1.95%
Total Central Government Debt (% GDP)4	47.53%	44.53%	48.01%

1. Sources of data used in this paper as follows:

<http://mc.manuscriptcentral.com/ftu> and World Bank <http://databank.worldbank.org/data/home.aspx>

2. Data is for the period 1988-2011.

3. The first year of data is 1983

4. Data for pre-AKP period is available only for 1997-2002 periods

Historical averages of most the key parameters presented in Table 1 clearly show that the macroeconomic performance has significantly improved over the post-AKP period (of 2003-2012) relative to pre-AKP period regardless of the sample period chosen as representing the pre-AKP period. Especially the performance of Turkish economy in terms (average) growth rate of gdp over the post-AKP period (5.05%) exceeds the comparable averages (3.82% and 3.37% respectively) of pre-AKP periods. Same holds for inflation rate which can be an important measure and determinant of macro stability in general, and financial stability in particular. Average annual inflation rate has fallen to 10.77% from its high levels of 62.58% and 70.71% of earlier pre-AKP periods of (1980-2002) and (1989-2002) respectively. Despite of this substantial improvement in output growth and inflation, (average) unemployment rate has risen to (approximately) 11% over the post-AKP period.

And this seems to be highly paradoxical given the increase in the rate of GDP growth, and definitely represents a major challenge both for policy makers and those who may want to analyze the sources of this higher rate of economic growth. Some of the likely factors that could contribute to this increase in the rate of unemployment might be related to the possible increase in the rate of urbanization and the social policies of AKP government in the last decade which could have increased the structural and voluntary unemployment; increased rate of urbanization might have led to increased rate of labor force participation and given the changing structure of Turkish economy (which we discuss to a certain extent in section five) this could be increasing the structural unemployment; relatively unskilled labor force moving to cities from rural areas might be having harder time to find regular jobs in the cities where expanding service sector has become the main source of employment relative to industry.

Furthermore, the wives of these (male) workers might be participating (at a higher rate) to the labor, force in the cities due to the fact that raising children in the cities is much more costly than it is in rural areas. In other words, higher rate of urbanization coupled with structural transformation of Turkish economy (particularly in terms of human capital needs) might be partly responsible for this increase in the rate of unemployment. Secondly, improvement in the social welfare, education and healthcare policies by AKP Governments might be (unintentionally) leading to an increase in voluntary unemployment and therefore leading to an increase in natural rate of unemployment. Some of the examples of such policies include the improvement in unemployment benefits, child support for families, increase in quantity and quality of supply of (free) health care, substantial increase in availability of subsidized higher education and scholarships.

Trade openness of an economy can be measured in alternative way; two of these alternatives are the share of exports in GDP and more broadly, the share of exports plus imports in GDP. In Table 1 we provided statistics for both of these measures which show that 'trade openness' of Turkish economy has increased in post-AKP period; in particular the increase in 'trade openness' (in terms of ratio of exports plus imports to GDP) to 58.39% over the post-AKP period from 36.37% and 40.96% of respective pre-AKP periods is also likely to be positively correlated with relatively higher GDP growth over the same period. One of the main factors responsible for this correlation seems to be the likely increase in total factor productivity growth in relatively more open economies due to increased degree of global competition faced by domestic firms. (Ciftcioglu and Nekhili, 2005).

However it is worth to note that these likely competitive pressures exerted by higher degree of trade openness might be forcing the domestic firms to adopt labor saving technical changes in the production processes which can be one of the factors leading to higher rate of unemployment over the post-AKP Period. Another important factor that could have contributed to the increase in the rate of output growth over the post-AKP period is the remarkable monetary and fiscal policy discipline which made possible for the averages of budget deficits (as % of GDP) and inflation rate to fall to respectively 2.80% and 10.77% from much higher levels in pre-AKP period; while the (average) budget deficits (as % of GDP) was 8.89% between 1980 and 2002, it was even higher (10.74%) between 1989 and 2002. And comparable averages for inflation over the same pre-AKP periods were 62.58% and 70.71% respectively.

This success in lowering budget deficits and inflation could be an important factor in the growth of investment efficiency which in turn, is likely to increase total factor productivity and output growth (Harberger, 1998). In addition, there is a body of empirical literature supporting such a positive relationship between lower inflation and higher rate of economic growth (Fisher, 1993; Barro, 1996; Kormend: and Meguire, 1985). However the fact that (average ) investment rate has (slightly) fallen over the post period (relative to those prevailing over the pre-AKP period) is paradoxical given the falling rate of inflation and significant reductions in budget deficits which have led to falling real interest rates over the post-AKP period. Intuitively one would expect these improvements in fiscal and monetary discipline to improve general macroeconomic stability by lowering the degree of uncertainty faced by investors which, (coupled with increased availability of cheap credit in global and domestic markets) is expected to increase the rate of investment. One important factor that might be constraining the growth of investment during AKP era is possibly the dramatic fall in domestic saving rate to 15.01% from 19.04% and 20.71% of earlier pre-AKP Periods of (1980-2002) and (1989-2002) respectively.

This is in sharp contrast to what one would expect to see as a result of a significant increase in public savings (resulting from corresponding reduction in fiscal deficits) achieved by AKP government since 2003. The falling domestic saving rate (despite of a significant increase in the rate of public savings) can only result from even bigger decrease in private saving rate which, in turn, is likely to result from a corresponding increase in consumption ( as a share of GDP). This alarming increase in private consumption (and the corresponding fall in private savings) seems to be the main source of dramatic increase in current account deficits which has risen to 5.27% from 1.12 and 0.61% of earlier pre-AKP periods respectively. Given the stagnating investment rate and the improvement in public savings, the main factor behind this significant increase in current account deficits seems to be the falling private saving rate. Once again this decline in private saving rate is not entirely consistent with the observation that (in general) higher growth rate of GDP is likely to be positively correlated with private saving rate (World Bank, 1993).

One of the possible factors leading to this falling rate of private savings might be related to the development of financial sector (particularly through privatization and FDI) which might have contributed to increased availability of credit particularly for liquidity-constrained households. In addition, the growing optimism of households about future economic growth could be fuelling their consumption hysteria observed over the post-AKP era. The falling rate of savings is still one of the biggest paradoxes of post-AKP period and definitely deserves a more detailed analysis (both theoretically and empirically) which is beyond the scope of this study. The main sources of financing of higher current account deficits over the post-AKP period have apparently been the external borrowing and increased rate of short-term and long-term capital inflows. And as one can see from Table 1 the substantial increase in FDI (foreign direct investment) achieved between 2003 and 2012 has probably been one of the important sources of financing of current account deficits and to a certain extent contributed to relatively faster rate of accumulation of foreign exchange reserves of central bank and sustainability of socio-economic policies of AKP. But this in turn suggests that the stability of Turkey (both politically and socio-economically) might critically depend on the sustainability of these alternative sources of external financing for current account deficits which (in addition to FDI and external borrowing) also includes short-term capital flows in the form of portfolio investment. And this component of foreign capital flows represents probably the riskiest source of external financing in terms of unpredictability particularly in light of the ongoing uncertainty in respective monetary and fiscal policies of U.S and European Union.

### **3. Stability of Turkish Economy before and after AKP**

In this section, we carry out comparative analysis of macroeconomic stability of Turkish economy over pre-AKP and post-AKP periods. The basis of our analysis is the comparison of the respective volatilities of selected macroeconomic parameters. The volatility of a parameter is measured using its standard deviation over the given period. The variables that we have chosen to include in this comparative stability analysis are a number of real and financial parameters which include the following; the respective level of real GDP, real private consumption, real investment and total reserves of central bank (all in the natural logarithm form), and growth rate of GDP, consumption as a share of GDP, investment as a share of GDP (investment rate), current account balance as a share of GDP, inflation rate, monetary growth , unemployment rate, the share of short-term debt in total external debt(S.E.D./T.E/D.), net inflows of FDI ( as a % of GDP), general government budget balance (as % of GDP) and the share of exports in GDP.

The computed standard deviations of all these parameters are reported below in Table 2 for both pre-AKP and post-AKP Periods;

**Table 2: Volatility of Selected Macroeconomic Parameters Before and After AKP**

Variables	Pre –AKP Period		Post-AKP Period
	1980-2002	1989-2002	2003-2012
GDP (Level)	0.28	0.14	0.13
Growth rates of GDP	0.04	0.06	0.05
Consumption (level)	0.16	0.15	0.13
Consumption (% of GDP)	0.041	0.015	0.012
Investment ( Level) <sup>2</sup>	0.225	0.198	0.227
Investment ( % of GDP)	0.037	0.032	0.026
Unemployment rate <sup>1</sup>	0.0104	0.0107	0.0126
Inflation rate	0.223	0.323	0.054
Monetary growth	0.29	0.30	0.07
Total reserves <sup>4</sup>	0.88	0.56	0.36
S.E.D./T.E.D. <sup>4</sup>	0.047	0.042	0.040
C.A.B (% of GDP)	0.018	0.017	0.022
Government Balance( % of GDP )	0.050	0.046	0.03
Export ( % of GDP)	0.054	0.045	0.010
FDI (% of GDP) <sup>3</sup>	0.003	0.003	0.011

1 the first and the last years of data used and respectively 1988 and 2011

2 The first year of data is 1987.

3 The first year of date is 1983

4 the last period of data is 2011

The key insights resulting from the comparative analysis of volatility measures presented in Table 2 can be summarized as follows: the stability of most of the fundamental variables has improved over the post-AKP Period relative to pre-AKP period. The macroeconomic parameters whose volatilities have fallen over the post-AKP period include (the respective level and growth rate of) GDP, (the respective level and the GDP share of) consumption, the respective GDP share of investment and exports, inflation rate, monetary growth, total reserves of central bank, the ratio of short-term external debt to total external debt, net inflows of FDI (as % of GDP) and government balance (as % of GDP). As one can see from Table 2, whether or not the stability of GDP growth has improved the post–AKP period relative to pre–AKP period depends on the period chosen as representing the pre-AKP period; if (1989-2002) is taken as the pre–AKP period, stability of output growth is relatively superior for the post-AKP. However the relative volatility measure of GDP growth over the post-AKP period still falls short of its comparable value for (1980-2002) period.

Another critical parameter whose stability has improved over the post–AKP period is private consumption (in terms of both its level and its respective GDP share). Theoretically one would expect a reduction in the volatility of consumption following liberalization of capital flows, since this allows households to borrow and lend freely in international markets so as to smooth out their consumption over time and therefore maximize their inter temporal utility. And consistent with this expectation, the respective volatilities of consumption parameters are both lower for (1989-2002) period relative to (1980-2002) period which includes the years prior to capital account liberalization (between 1980 and 1988). However, it is worth to note that the volatility of consumption has continued to fall over the post-AKP period relative to (1989-2002) period by almost 15% for ‘the level consumption’ and 25% for ‘the share of consumption in GDP.’ Even though the volatility of investment (in level terms) has risen during AKP term relative to earlier pre-AKP period of (1989-2002), paradoxically its stability in terms of ‘its share in GDP’ has improved. Similar to private consumption, intuitively once would expect external financial liberalization to lower investment instability as firms (just like households) are able to borrow against future earnings in international markets more easily than before.

One can notice from Table 2 that the stability of investment (as % of GDP) has already improved following liberalization of capital flows (even before AKP terms started) as the volatility of this variable is smaller for (1989-2002) period relative to (1980-2002) which includes years prior to capital account liberalization. However, the fact that the volatility of investment in level terms has increased over the post-AKP period suggests that, whether or not the stability of investment has improved after AKP depends on the measure of investment one chooses for comparative analysis. FDI (as % of GDP) is another parameter whose volatility has increased over the post-AKP period.

This could be (at least partly) due to the significant increase in the overall size of FDI (as % of GDP) during AKP term relative to pre-AKP periods. Another factor contributing to this relatively higher FDI volatility could be the possible increase in the volatility of capital flows in the last decade due to the increase in the frequency and severity of crisis globally. And this could be one of the main factors for the increase in the volatility of current account balance (as % of GDP) over the post-AKP period. Despite of this increase in the volatility of current account balance, the volatility of exports (as % of GDP) has fallen substantially during AKP term the reduction in volatility of this parameter (which is also one of the alternative measures of trade openness) is more than 350%. One possible interpretation of this finding is that exporting sectors might have started behaving relatively more cyclically (in relation to the overall economy) than before. The analysis of specific aspects of AKP policies (if any) that could have contributed to this change is beyond the scope of this study.

The computed value for respective standard deviations of inflation rate and monetary growth (measured by the annual growth rate of money supply) suggest that there has been significant improvement during AKP term in overall financial stability. Parallel to falling level of inflation rate to an average of 10.77% over the post-AKP period from the highs of 70.71% and 62.58% (of earlier pre-AKP periods) respectively, the volatility of inflation rate has fallen to 0.054 from 0.323 (for 1989-2002) and 0.223 (for 1980-2002) respectively. The volatility of monetary growth dropped to 0.07 from the high of 0.30 of pre-AKP period (1989-2002). And this reduction in inflation volatility is likely to be positively correlated with GDP growth in the long run (Al-Marhubi, 1998). In addition to improvement in price stability, another likely factor in generating relatively superior macro stability and therefore higher output growth performance over the post-AKP period is the significant reduction in the size of fiscal deficits (as % of GDP) and in its respective volatility.

The reduction in volatility of government balance from (approximately) 0.05 (of pre-AKP era) to 0.03 over the post-AKP period represents almost 66% decline in the degree of fiscal uncertainty. And this kind of fiscal discipline coupled with the monetary discipline achieved by AKP governments seems to be the two of the main policy achievements contributing to their success in improving both output and price stability. This monetary and fiscal discipline should also have contributed to the decrease in respective volatilities of 'international reserves' of Central Bank of Turkey and the 'share of short-term external debt in total external debt'. The reduction in the volatility measure of reserves over the post-AKP period to 0.36 from the highs of 0.88 and 0.56 of earlier pre-AKP periods represents approximately 144% (or 55%) improvement in 'reserve stability' relative to pre-AKP period of (1980-2002) (or (1989-2002)). The improvement in reserve stability is also likely to be reflecting the adoption of 'less interventionist' exchange rate policy allowing greater exchange rate flexibility. The decrease in output and price instability coupled with improved 'reserve stability' could be one of the main factors (in addition to higher rate of economic growth) responsible for the increase in the level of FDI (as % of GDP) as these changes are likely to be associated with lower country-risk by foreign investors.

However as one can see from Table 2, the corresponding volatility measure of FDI variable is relatively higher over post-AKP period which could be simply be the result of substantial increase in the 'size of net inflows of FDI (as % of GDP)' and the increase in the frequency and the severity of global economic crisis in the last ten years. In addition to FDI and investment rate, there are two other parameters listed in Table 2 whose volatilities have increased over the post-AKP period: the rate of unemployment and current account balance (as a % of GDP). Similar to the case of FDI, two of the factors responsible for increased volatility of current account balance might be related to both the increased level of 'the ratio of current account deficits to GDP' and higher frequency of global economic crisis during the post-AKP era. The increased frequency of global crisis might have been leading to a higher volatility of 'capital flows' in general which is partly captured by the increased volatility of (net inflows of) FDI.

The fact that the volatility of unemployment rate has increased (similar to its average level) over the post-AKP Period can be considered as another paradox of AKP era; it is a paradox in the sense that the volatilities of both gdp growth and inflation have improved over the same period. A detailed analysis of this anomaly is beyond the scope of this study but it definitely deserves careful empirical testing.

### 3. Relative Output Share of Major Traded Goods Sectors and External Debt Before and After AKP.

One of the main predictions of a model known as 'Dependent Economy model' is that as an economy accumulates additional external debt the sectoral composition of its output will change in favor of 'non-traded goods'; in other words, the relative output share of sectors producing traded goods will diminish (Sachs and Larraine,1993). The model is based on several assumptions including 'constant technology,' full-employment of resources' and 'constant consumption ratio between traded vs. non-traded goods' at all relative prices resulting from specific kind of consumer preferences). Given these assumptions, additional external borrowing allows domestic households to increase their demand for both traded and non-traded goods. Given the assumption of full-employment, an increase in the consumption of both traded and non-traded goods is only possible by increasing the relative output share of non-traded goods (through reallocation of resources in favor of sectors producing non-traded goods) and increasing the amount of imports. This process results with a corresponding increase in current account deficits and falling share of traded goods in output. Two of the major sectors producing traded goods are manufacturing industry and agriculture. In many developing countries most of the service sector (including construction) is likely to be producing non-exportable and non-importable goods (non-traded goods). One of the main exceptions to this in certain countries (like Turkey) is the tourism sector which largely consists of hotel and restaurants. However, both due to difficulty in obtaining reliable long-term data about the relative size of tourism sector and the purpose of the present study, we choose to take the sum of relative GDP shares of agriculture and manufacturing sectors as a rough estimate for relative output share of major traded goods sectors in Turkey.

The main focus of the rest of this section is to present comparative averages of relative output shares of agriculture and manufacturing sectors and their sum total, and the ratio of stocks of external debt to GDP for pre-AKP and post-AKP periods. In addition, we also present similar comparative statistics in Table 3 below for the respective ratios of merchandise exports to merchandise imports and manufactures exports to merchandise exports and discuss the results particularly in terms of the predictions of 'Dependent Economy' model:

**Table 3:** Traded Goods, External Debt, and Manufactures Exports Before and After AKP

Variables	Average of Pre-AKP Period		Average of Post -AKP Period
	1980-2002	1989-2002	2003-2012
Manufacturing (of GDP)	20.8%	22.7%	16.7%
Agriculture ( % of GDP)	17.3%	14.7%	9.7%
Major Traded goods ( % of GDP)	38.1%	37.4%	26.4%
External debt (% of GDP) <sup>1</sup>	40.2%	42.5%	40.9%
Short-Term External debt ( % of GDP) <sup>1</sup>	7.2%	8.3%	8.3%
Manufactures Exports (% of GDP)	65.2%	74.5%	81.2%
Merchandise export/merchandise imports	63.2%	62.8%	63.9%

1. The last period of data is 2011

The most striking message of the summary historical averages presented in Table 3 is the significant drop in the relative GDP share of traded goods sectors in general (and individually) over the post-AKP period relative to earlier pre-AKP periods. Especially the fact that the GDP share of manufacturing has fallen from 22.7% (of 1989-2002 period) to 16.7% seems to be the main dynamics responsible for the large part of total decline in relative GDP share of overall 'traded goods sector' from 37.4% to 26.4%.

Naturally this change in the sectoral composition of GDP implies a corresponding increase in the relative output share of services sectors which (with the exception of tourism sector) predominantly make up the 'non-traded goods sectors' in most developing countries. As can be noticed from Table 3, the relative gdp shares of manufacturing and agriculture have fallen from 22.7% and 14.7% (over the pre-AKP period of 1989-2002) to 16.7% and 9.7% respectively over the post-AKP period.

This, in turn, implies that the relative output share of non-traded goods sectors (which are services in general) has increased by almost 11% which represents the total decrease in the relative gdp share of major sectors producing traded goods (from 37.4% over 1989-2002 period to 26.4 over 2003-2012 period). Particularly the drop in gdp share of manufacturing is alarming because historically sectors producing exportable and importable goods in general and manufacturing in particular have experienced higher rates of technological progress (and therefore productivity growth) relative to sectors producing non-traded goods (Gehrels, 1991). The implication of this trend is that the nature of the changes in sectoral composition of output that have been taking place since 2003 might have adverse effects total factor productivity and GDP growth rates in the long run. In other words, the increase in the relative output share of service sectors since 2003 might generate unexpected constraint for the future output growth through total factor productivity channel.

Even though, the changes in the sectoral composition of GDP in favor of non-traded goods sectors (over the post-AKP period) is consistent with the parallel increase in the 'absolute level' of the stock of external debt that increased from \$129 bl. in 2002 to 307 bl. in 2011, its ratio to GDP has dropped from 56.8 % (in 2002) to 40.1% in 2011. Under certain restrictive assumptions (such as constant technology) these figures could be taken as supportive of the prediction of 'Dependent Economy' model ; as the stock of external debt accumulates, current account deficits are likely to rise while the relative GDP share of sectors producing traded goods falls. In addition, this is what one can observe for post-AKP period from Table 3 while keeping in mind the limitations of 'constant technology' assumption. Despite of falling share of major traded goods' sectors over the post-AKP period, it is interesting to notice from

Table 3 that the average share of 'manufactures exports' in total merchandise exports seems to have increased to 81.2% (over the same period) from 74.5% and 65.2% of earlier pre-AKP periods of (1989-2002) and (1980-2012) respectively. The importance of this positive trend cannot overstate; higher level of technology is likely to associate with 'manufactures exports' instead of 'non-manufactures export'. However, given the falling share of manufacturing in GDP, it seems highly uncertain whether Turkish economy will be able to sustain this increase in the relative share of 'manufactures exports' in merchandise exports in the medium-run. Finally, we note that the ratio of short-term external debt to GDP over the post-AKP period (8.3%) has been exactly same as its comparable figure for pre-AKP period of (1989-2002) but slightly higher than that of (1980-2002) period. This could suggest that the vulnerability of Turkish economy to the adverse effects of potential 'capital-flow reversals' and liquidity shortages internationally has continued to be as important over the post-AKP as period before AKP.

#### **4. Conclusion.**

Liberalization process of Turkey can be assumed to have started in the real sense of the word in 1980 following a severe macroeconomic crisis that forced the government of the time to seek financial assistance from IMF which, (as part of its 'conditionality package') imposed the structural reforms that have shaped the evolution of liberalization experience of Turkey since then. The 'conditionality package' of IMF included (in addition to substantial devaluation of TL and temporary freeze of wages) internal and external liberalization of Turkish economy in terms of both real and financial sectors. Some of these policy changes reforms including internal liberalization of financial system were undertaken between 1980 and 1989. In 1989, the most radical element of IMF packages namely 'capital account liberalization' was put into effect. This in turn, can be considered as a turning point in the dynamic path of Turkish economy as it meant much greater degree of integration with global economy through capital flows.

In this study, we carried out a comparative analysis of the performance and stability of Turkish economy over the last decade (2003-2012) during which it has been ruled by AKP governments relative to pre-AKP periods. We argued that pre-AKP period should either start in 1980 or (better) in 1989 since they represent the years during which significant regime changes have taken place in terms of liberalization process of Turkish economy. The main findings of our study can be summarized as follows:

(a) The (average) growth rate of GDP over the post-AKP period (2003-2012) is relatively higher. The comparative difference in growth performance is more impressive if the pre-AKP period is taken as 1989-2002. Comparative results for inflation are exactly similar to those of gdp growth; average annual inflation has fallen substantially over the post-AKP period and the relative magnitude of this decline is bigger in comparison to (1989-2002) period as opposed to (1980-2002).

(b) Both investment and saving rates have relatively fallen over the post-AKP period and relative size of the decrease in saving rate is much bigger than that of investment. The decrease in the saving rate seems to be the main (mechanical) source of the equivalent substantial increase in current account deficits (as % of GDP) over the post-AKP period relative to the pre-AKP periods. And this is likely to be one of the most critical constraints for the future sustainability of the (average) output growth performance experienced between 2003 and 2012.

(c) There has been significant increase in the 'degree of trade openness' and the size of 'net inflows of FDI' (as % of GDP) over the post-AKP period. However, the fact that this did not lead to an increase in the 'rate of domestic investment' should be major concern for policy makers. One likely scenario is that the additional capital inflows (that may be associated with sales of domestic real and financial assets to foreign investors) may be financing additional domestic consumption of both domestic and foreign (imported) goods and services.

(d) Despite of the increase in the rate of GDP growth over the post-AKP period 'the (average) rate of unemployment' has increased by almost three percentage points over the post-AKP period from approximately 8% (of the pre-AKP period) to 11%. This is even more puzzling when one considers the dramatic reduction in fiscal deficits and the sizable increase in FDI experienced over the post-AKP period. One of the possible factors behind this observed increase in unemployment rate could be the 'labor-saving technological change' during AKP era. The substantial decrease in real interests rates (both domestically and internationally) and the possible increase in the cost of labor in Turkey (relative to capital) over the post-AKP period might have been leading the firms to invest in capital goods embodying 'labor-saving technology' this could be one of the main factor behind the simultaneous increase in output growth and unemployment rate over the post-AKP period. This issue should be a focus of analysis for both policy makers and future research.

(e) Macroeconomic stability, in general, has improved over the post-AKP period relative to pre-AKP periods. In particular, the respective volatilities of the level of GDP, growth rate of GDP, the level of consumption, consumption as a share of GDP, the rate of investment, inflation rate, monetary growth, the level of reserves, the share of exports in GDP, the share of short-term external debt in total external debt and the ratio of budget balance to GDP have all fallen. The major exceptions to the improvement in stability over the post-AKP period are the increase in the respective volatilities of 'unemployment rate' and the 'level of investment'.

(f) Sectoral composition of GDP during AKP term has changed in favor of services sectors which predominantly produce non-traded goods. The decline in the relative output share of major sectors producing exportable and importable (traded goods) such as manufacturing and agriculture has taken place parallel to accumulation of significant amount of additional external debt. However, as a ratio to GDP, stock of external debt over the post-AKP period is not significantly different from the averages of pre-AKP periods. The falling GDP share of major sectors producing traded goods must be a concern for policy makers since the past literature produced evidence of a positive relationship between this ratio and the long term growth performance of Turkish economy (Ciftcioglu and Nekhili, 2005)

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