

## **A NARRATIVE ON THE TURKISH CURRENT ACCOUNT**

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### I. INTRODUCTION

Turkey has undertaken important reforms since the 2001 financial crisis that have enhanced the economy's resilience to shocks. Chief among these were an impressive improvement in the fiscal accounts, banking sector restructuring, and more recently, the emergence of sizeable FDI inflows.<sup>1</sup> These reforms have paid off. From 2003 through 2007, growth averaged 7%, while inflation dropped to around 10% from over 60%. Benign global conditions, combined with government's resolve to continue with fiscal adjustments and stick to the so-called twin IMF and EU anchors, were central to this outcome. But in the process, a number of side effects developed. A current account deficit (CAD) now hovering in the range of 6%–7% of GDP, compared with a CAD that averaged below one percent in the 1990s, is arguably the most important among these.<sup>2</sup>

While a large current account deficit — and the external financing this requires — is widely recognized as a major source of vulnerability, views differ as to how to interpret it. One view, which may be dubbed the alarmist camp, essentially argues that what we are seeing is a replay of Turkey's familiar "boom–bust cycle" and a devastating financial crisis, like in 2001, is probably inevitable after several years of high growth and current account deficits. For support, they point at academic studies that

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<sup>1</sup> Adopting a monetary policy framework (Inflation Targeting) that emphasized flexible exchange rates also helped to reduce economy's vulnerability to shocks.

<sup>2</sup> This observation — CAD as a side effect of Turkey's reform program — was recently voiced in the local media by Treasury Minister Simsek, although without himself necessarily subscribing to the view.

show large current account deficits as an important driver of currency and banking crises.<sup>3</sup> An alternative camp adopts a more benign view. It argues that, having come a long way in terms of strengthening its economy and now formally on its way to EU accession since late 2005, Turkey's current account deficit is temporary and financeable. Proponents of this view refer to the experience of several European economies that have recently acceded to the EU, who ran large CADs in the on the way to EU membership.

In an earlier paper, we sided with the latter camp, and concluded as follows:

“(…), it is quite conceivable that Turkey may be able to sustain the current account deficits at these historically high levels for a while longer, and then, eventually, undergo an adjustment in the style of industrialized countries — with slower growth and some currency weakening — instead of experiencing a capital outflow-driven reversal, with currency crises and growth collapses. This conjecture is based on two assumptions: international environment should not deteriorate too dramatically, and Turkey's EU momentum must be maintained”. (Akçay and Uçer, 2005).

Interestingly, since the paper was issued, Turkey has experienced what may be called a mild “endogenous adjustment” episode of the sort we had alluded to in the paper. In the aftermath of a serious emerging market sell-off in May–June 2006, Turkey came out as one of the most affected markets. Yet, it experienced no dramatic collapse in output or a sharp “reversal in the CAD” ala the 2001 crisis. Growth slowed by about 2 percentage points to 6% during the second half of 2006, from 8% during the first half, and the current account deficit narrowed slightly as a percent of GDP to about 5.5%, from a little over 6%. The extent of the “adjustment” that ensued was not harsh enough to qualify as a “current

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<sup>3</sup> See, for instance, Roubini and Setser (2005).

account reversal episode”, nor did it look anything like Turkey’s own boom–bust swings of the recent past.<sup>4</sup>

In this article, we take a fresh look at the issue, and update our thoughts. In Section II, we start with the facts as shown by a simple review of the data, i.e. how the CAD widening fared in recent years, what drove it, and how it has been financed. We then ask in Section III whether the Turkish CAD is “excessive”. In Section IV, we try to answer this question by applying the simple static sustainability equation to Turkey’s recent parameters, and calculating the “norm” CAD for Turkey, based on an empirical benchmark model of the current account, detailed in Rahman (2008). We find out that at present levels, the CAD is probably unsustainable and higher than implied by Turkish fundamentals, but not alarmingly so. We continue by providing a comparative perspective on the encouraging transformation of Turkey’s export structure in recent years. In Section V, we conclude by remaining constructive — while Turkey is faced with an “adjustment problem”, we would not characterize this as between a “bust” and “no–bust”, but rather as between stagnation and solid growth — the capacity and appetite for reform being the critical driver.

## II. FACTS: WHAT DROVE THE CAD?

To set the stage, we start by reviewing a few aspects of the recent CAD widening, purely from a factual, data–based perspective. We find three observations particularly noteworthy, each one of which we take up briefly below. First, the CAD widening since 2004, i.e. since the economy has completed its post–crisis normalization, seems driven by higher investment rather than by lower saving, although that is because a lower *private* saving rate is fully offset by higher *public* savings since the crisis. Moreover, while the short data span does not permit a healthy analysis,

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<sup>4</sup> See Edwards (2004).

the saving rate appears to have declined in the latest CAD widening episode, compared to the levels that prevailed in late 1990s/early 2000s.

Second, the contribution of the dramatic increase in oil prices in recent years, and Turkey's rising energy import bill as a consequence, to the CAD widening has been less significant than one would expect. In other words, the role of adverse terms of trade shock associated with higher oil prices in the CAD widening seems limited. Finally, a larger CAD notwithstanding, the quality of its financing appears to have improved noticeably in recent years, when compared to former episodes of CAD widening (e.g., 1993, 2000), although we have started seeing relative weakness more recently.

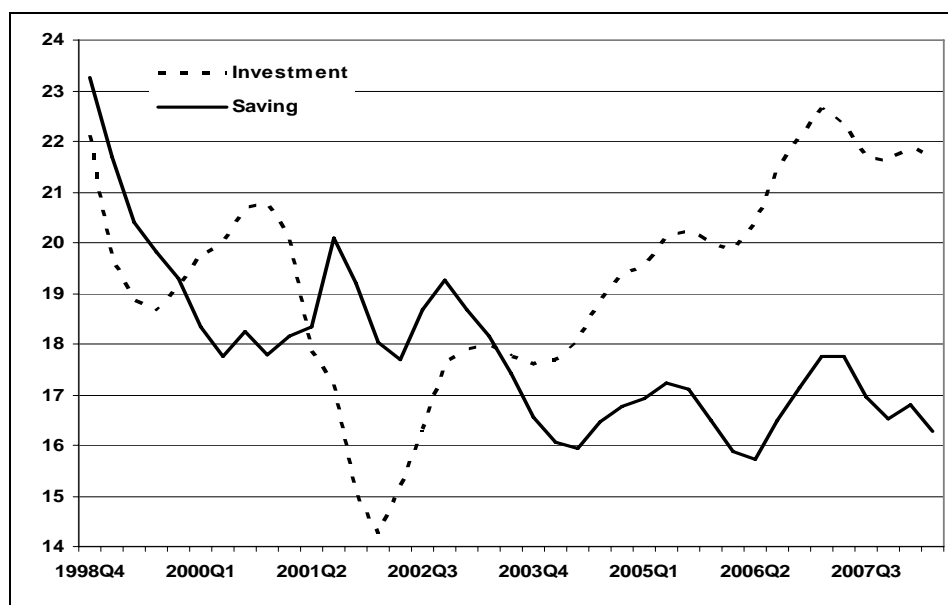
Let us now take these observations in turn and explore them a bit further. First, leaving aside the normalization period through early 2004, Figure 1 shows that the widening in the deficit appears driven primarily by higher investment rather than by lower savings.<sup>5</sup> This, however, is true for overall savings. Considering that government's overall deficit improved dramatically during this period, the decline in private savings appears to have fully offset the increase in public savings.<sup>6</sup> Moreover, compared to late 1990s/early 2000s, Turkey appears to have financed a similar investment level, more with foreign savings and less with domestic savings.

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<sup>5</sup> Recall that current account deficit is nothing but the difference between a country's total investment and total savings.

<sup>6</sup> For two recent papers that explore the issue in depth, see IMF (2007) and Van Rijckeghem and Ucer (2008). Improved economic prospects, thanks to higher public savings, combined with the easier availability of credit, appear to have played the main role in reducing private saving in this period.

Figure 1. Total Investment vs. Saving (as % of GDP)



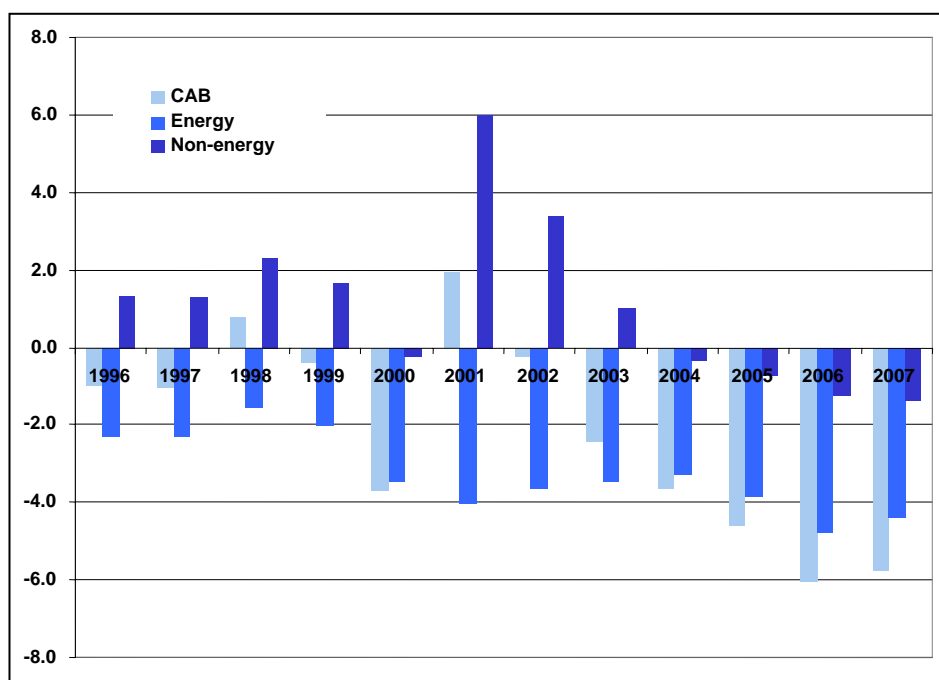
Source: TURKSTAT.

That being said, an investment-driven CAD is considered to be relatively benign, simply because of the presumption that “investment today means growth tomorrow”. In contrast, deficits driven by lower savings suggest that the CAD is possibly a result of “excessive consumption” — and hence, is arguably unsustainable. Also, the fact that the widening is driven by the private sector bodes well for the efficiency of such an investment, given that the private sector is likely to be better at using and allocating resources, and that fiscal deficits — which are nothing but equivalent to the government’s saving–investment imbalance — are bad for macroeconomic stability.<sup>7</sup>

<sup>7</sup> This argument, of course, has to be qualified. Productive investment in tradable industries is what is eventually needed because a significant portion of Turkey’s FDI inflows thus far has been to service industries, including real estate. Then again, this is in line with experience elsewhere (e.g., the so-called convergence economies of emerging Europe), where FDI comes through the financial sector and “big ticket” privatizations, and then slowly graduates to the so-called greenfield category.

A second aspect of CAD widening concerns the impact of energy prices. This suggests that adverse terms of trade shock — i.e. import prices rising markedly faster than export prices and thereby shrinking private savings — might have a lot to do with the recent CAD widening. After all, compared with (net) energy imports of some \$8–\$10 billion in early 2000s, these imports tripled almost to \$30 billion in 2007 and will likely rise to \$40 billion in 2008. Interestingly, though, this does not translate into a dramatic impact in terms of percent of GDP, because incomes in nominal dollar terms have also expanded quite sharply during this period.<sup>8</sup> Specifically, as a percent of GDP, the energy deficit moved from an average of around 3.5% of GDP in late 1990s to some 4.5% more recently — a relatively modest change. During the same period, however, the non-energy deficit swung from a surplus on the order of 1.5% of GDP to a deficit of a similar magnitude (Figure 2).

**Figure 2. Current Account Balance (as % of GDP)**

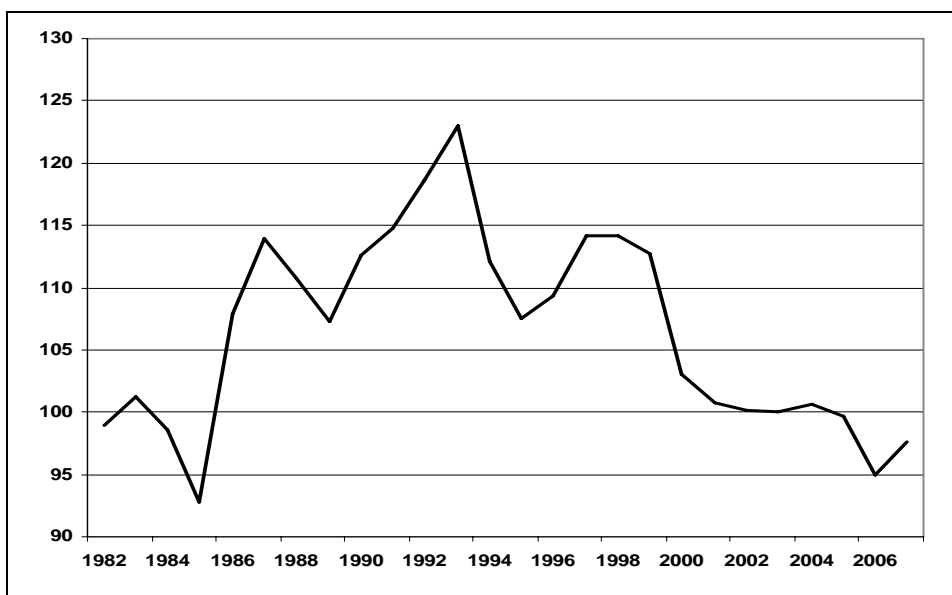


*Source:* Central Bank of Turkey; TURKSTAT; authors' calculations.

<sup>8</sup> Indeed the change was quiet dramatic, with the GDP growing from around \$250 billion in the late 1990s, to over \$700 billion in 2008.

The issue may be more directly addressed by looking at developments in the terms of trade for Turkey, i.e. export prices relative to import prices, in recent years. As Figure 3 shows, while there have been sharp movements in terms of trade in the past, the deterioration we have seen in recent years is quite modest, with increase in export prices generally keeping up with the increase in import prices.<sup>9</sup>

Figure 3. Terms of Trade (2003=100)



Source: TURKSTAT.

A third aspect that is worth highlighting concerns the *availability* as well as the *quality* of external financing, which appear to have improved quite substantially, not just in recent years, but also in comparison to former CAD widening episodes.<sup>10</sup> The first point has to do with a combination of ample global liquidity, financial globalization (i.e. an increased tendency of global

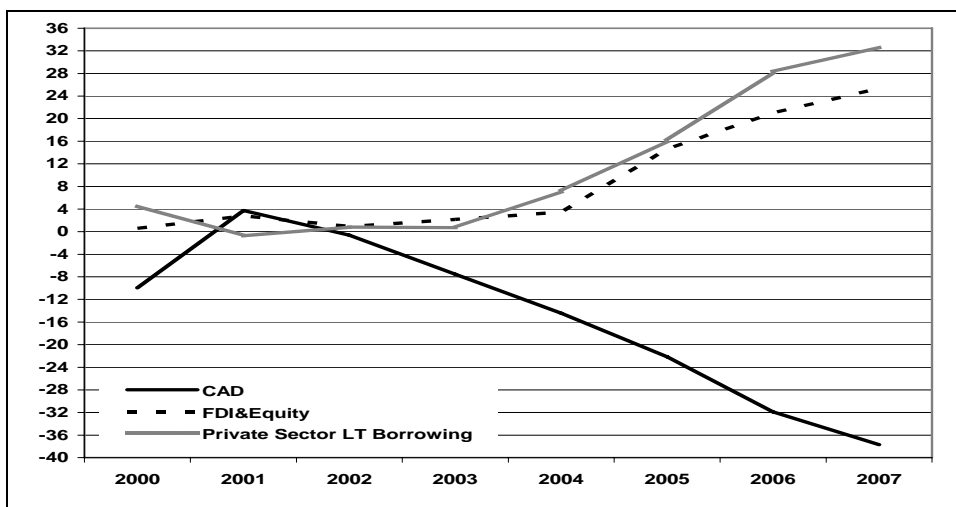
<sup>9</sup> As implied by Turkan and Yukseler (2006), this may be related to Turkey's imports being increasingly denominated in dollars and exports in euros, thereby benefitting from weakness of the dollar against the euro in recent years.

<sup>10</sup> Recent data (through July 2008) suggest some deterioration however, which largely reflects tighter credit conditions globally.

investors to invest in cross-border assets) and the renewal of interest in emerging markets as an attractive investment destination, thanks to the more sound fundamentals of recent years. In sum, Turkey has become a natural beneficiary, since the global pool of capital on which emerging markets can draw on has risen dramatically. As for quality, the best measures are two-fold: the share of both non-debt flows, mainly FDI, and long-term loans in total CAD financing must be rising. This is self-explanatory — non-debt flows are known as a healthier and more stable source of financing, while long-term debt financing, by definition, provides a safer cushion against “sudden stops” and debt rollover or payment risks.<sup>11</sup>

The evolution of the quality of Turkey’s financing is shown in Figures 4–6 below. In a nutshell, a rising CAD is associated with rising FDI and long-term borrowing, to the extent that the CAD becomes “overfinanced” when we combine non-debt with long-term debt flows. Moreover, the respective shares of both FDI and long-term borrowing to the CAD in this episode are much higher than in the two recent episodes, specifically 1993 and 2000.

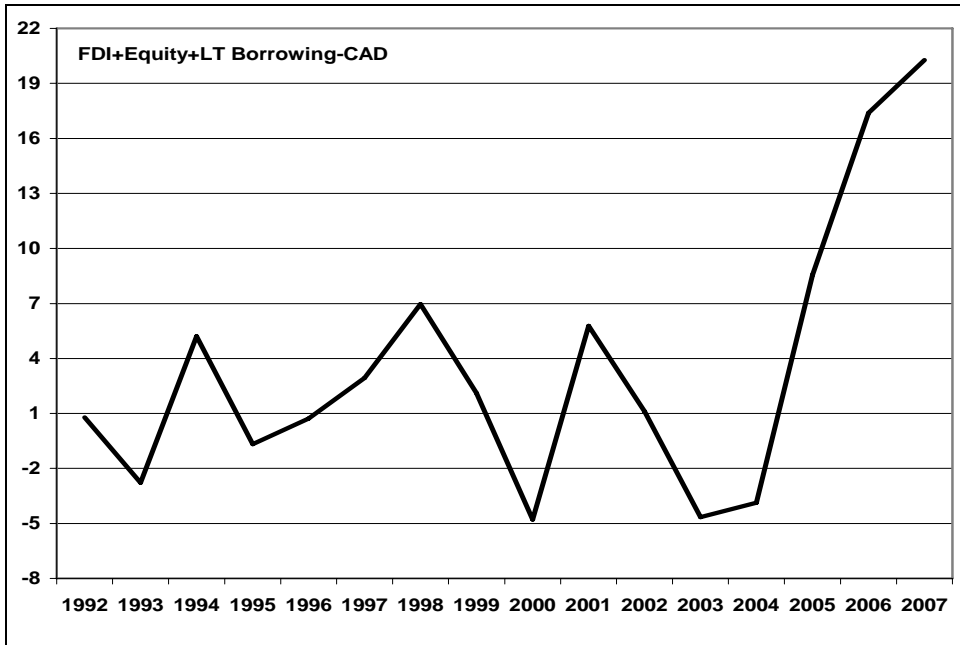
**Figure 4. Current Account and Financing (\$ billion)**



*Source:* Central Bank of Turkey; authors’ calculations.

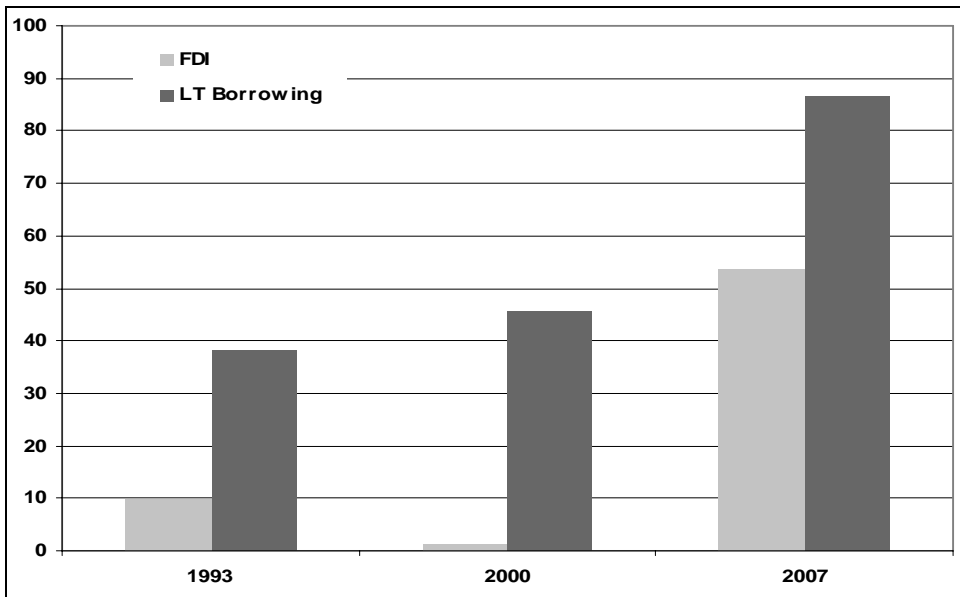
<sup>11</sup> On the well-documented relative stability of FDI, see Kose, et. al. (2006). This, however, does not mean that FDI would never exit the country. Parent company problems, or change in business plans could very well lead to wholesale divestment of stakes.

Figure 5. Current Account Excess Financing (\$ billion)



Source: Central Bank of Turkey; authors' calculations.

Figure 6. BoP Quality: Share of FDI and Long Term Borrowing (as % of CAD)



Source: Central Bank of Turkey; authors' calculations.

### III. IS THE DEFICIT “EXCESSIVE”?

There are two ways of answering the question whether the CAD is excessive: one could look at its sustainability or whether it can be explained as an equilibrium behavior. A number of recent papers looked at the sustainability of the Turkish CAD from a model-based, dynamic perspective, using the standard intertemporal financing constraint, and found that Turkey’s CAD is not sustainable, except under very favorable assumptions (Togan and Berument, 2007 and Togan and Ersel, 2007). The following static formula, derived from the above-mentioned financing constraint, provides a flavor of the issues:<sup>12</sup>

$$\text{NICA} + \text{NDCF} \geq (R_f - \Delta \text{rer}/\text{rer} - g) \times D$$

where NICA stands for the non-interest current account balance; NDCF, the non-debt creating flows, both as a percent of GNP;  $R_f$  is the average interest rate on external borrowing in real terms;  $\Delta \text{rer}/\text{rer}$  is the real exchange rate appreciation;  $g$  is the real growth rate; and  $D$  is the initial external (net) debt-to-GDP ratio.<sup>13</sup>

Basically the formula states that, assuming the initial debt-to-GNP ratio is broadly “appropriate”, the external debt situation of a country is considered sustainable as long as the sum of its non-interest current account and inflows from non-debt financing sources (or its non-interest/non-debt CAB), both expressed as percent of GDP, is greater than or equal to the initial debt stock, multiplied by a “growth factor” —

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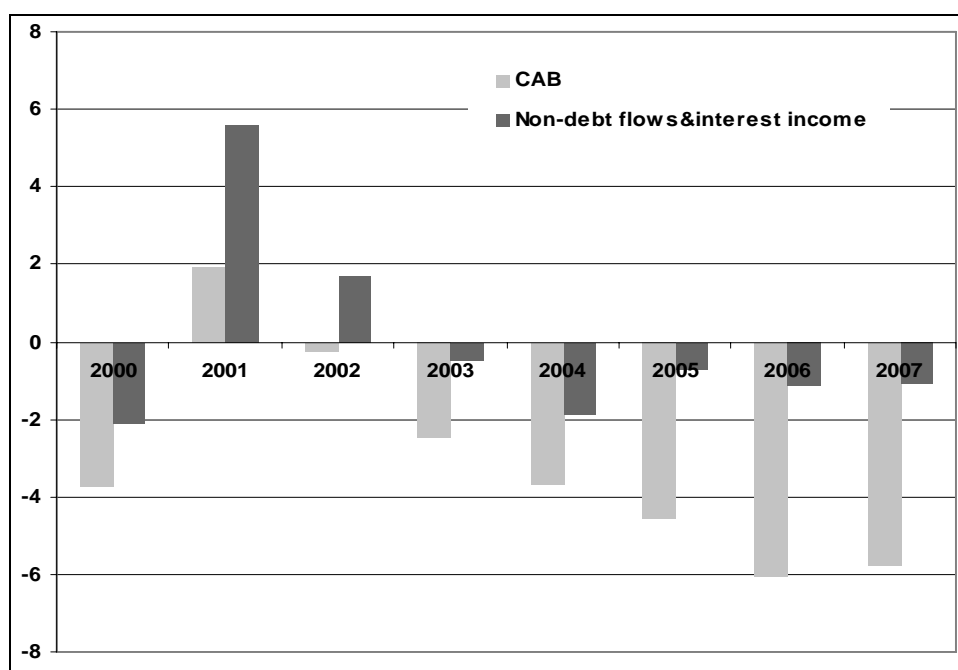
<sup>12</sup> As is well-known, the sustainability concept is difficult to operationalize, when defined in reference to a broader “solvency” concept. What we have in mind here as sustainability is a situation in which the debt-to-GNP ratio is either stable or declining. While this is only a crude application of the concept, it is nevertheless informative and commonly used in practical work. See, for instance, Caranza (2002).

<sup>13</sup> In the Turkish case, a net external debt figure is readily available, but a more accurate concept (which includes the net external debt of the non-bank sector as well) can be derived from the “net international investment position (NIIP)” data after adjusting it for the stock of non-debt flows, i.e. subtracting the (net) FDI and equity portfolio flows. The NIIP data is regularly produced by the Central Bank of Turkey; for a conceptual background on the importance and the use of NIIP, see Lane and Milesi-Ferretti (2006).

the latter composed of the real interest rate on external debt, less the sum of the real exchange rate appreciation and the real growth.

In Figure 7 below, we show both Turkey's headline CAD, and the CAD after adjusting for interest payments and non-debt flows. The latter, which is nothing but the left-hand side of the above equation, has been hovering around 1% in recent years, more than 5 percentage points below the headline CAD. Considering the large real exchange rate appreciation Turkey has experienced in recent years, it is not surprising that the (net) external debt to GDP ratio has declined to around 15% of GDP, from over 20% in late 1990s/early 2000s, despite a negative non-interest/non-debt CAD (Figure 8)<sup>14</sup>.

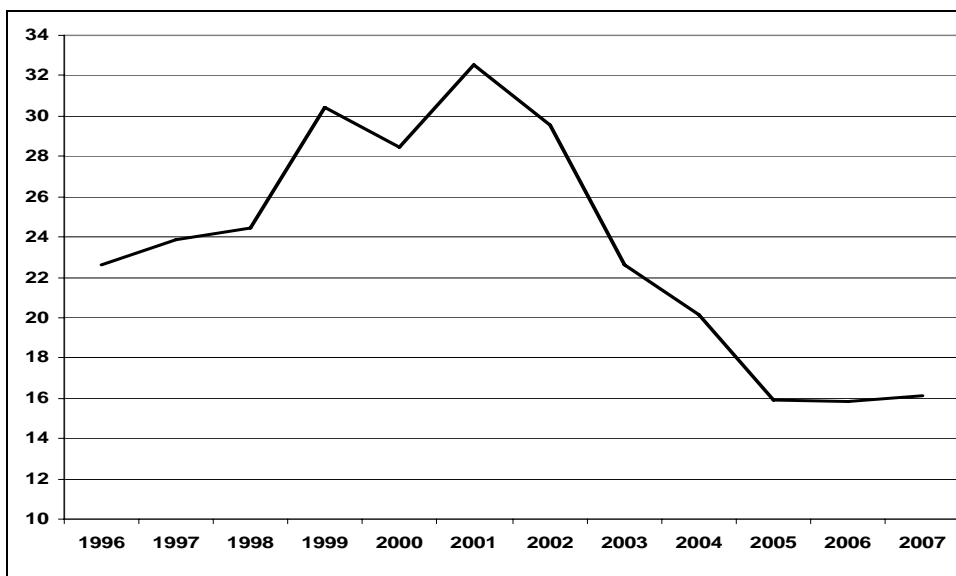
**Figure 7. Current Account Balance (AS % OF gdp)  
(unadjusted vs. adjusted for non-debt flows and interest income)**



*Source:* Central Bank of Turkey; authors' calculations.

<sup>14</sup> That is, smoothing out the depreciation-induced — and therefore artificial — jump during and in the immediate aftermath of the 2001 crisis.

Figure 8. Net External Debt (as % of GDP)



Source: Central Bank of Turkey; authors' calculations.

A back-of-the-envelope forward application of the above formula suggests that two parameters are central to the sustainability of the CAD: the magnitude of non-debt flows (FDI and equity) and the path of the real exchange rate.<sup>15</sup> As discussed in the previous section, non-debt flows as a percentage of GDP have risen quite substantially in recent years to about 3–3.5% of GDP. Likewise, appreciation of the Turkish lira has been instrumental in containing growth in external debt, relative to GDP. The question is, will they continue?

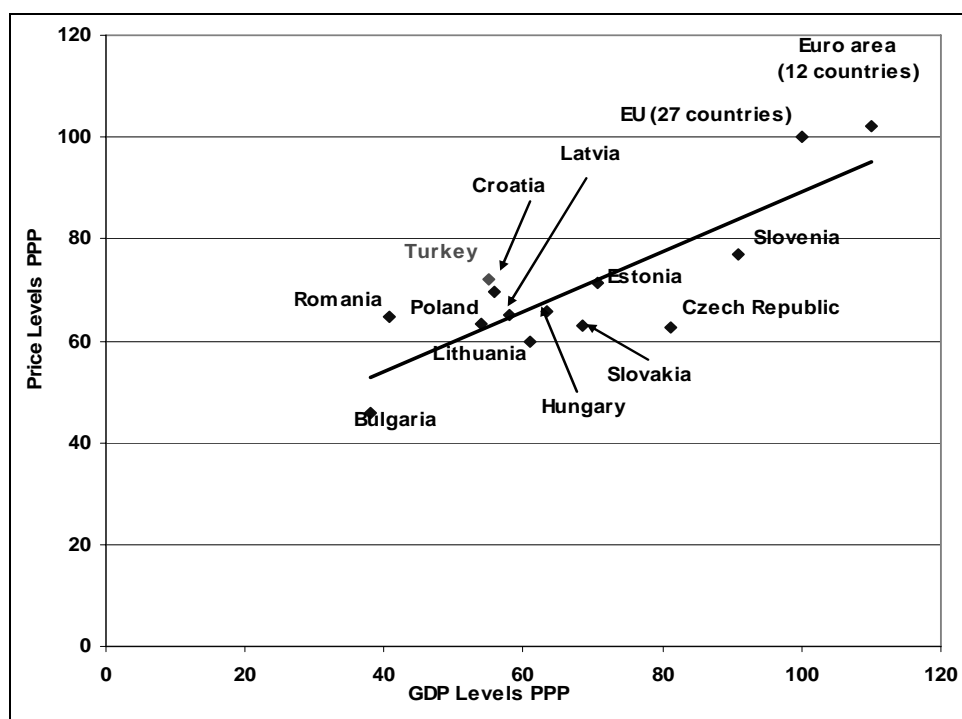
From this point onward, the continuation of non-debt flows, i.e. basically sustaining the recent FDI performance, will depend on reforms, political as well as economic. The details of FDI flows from recent years are interesting in this connection. From 2005–2007, Turkey received some \$50 billion in FDI. According to our calculations, over \$20 billion of this went into the finance and insurance sector, some \$10 billion into privatizations, and around \$7 billion into the real estate market. That

<sup>15</sup> If we plausibly assume that the growth rate moves roughly in line with the foreign interest rate.

leaves some \$4 billion per annum in FDI flowing in through M&A activity, other than banking and real estate. That is not a trivial sum, but is too little to add up to a secular FDI story. This is another way of saying, after the “first generation” FDI flows, i.e. those driven by M&A activity focused on the finance sector and big-ticket privatizations, Turkey’s challenge is to now attract greenfield FDI.

The exchange rate question is a more difficult one, but continuation of the recent lira appreciation looks unlikely, since the Turkish lira looks overvalued by a number of accounts. The latest Big Mac estimate (The Economist, July 26th), which uses the purchasing power parity benchmark, shows that the lira is overvalued by some 20%, more than the currency in many other emerging economies, especially in Asia. Along the same lines, in a comparison with several recently acceded EU countries, the Turkish lira comes across as relatively “expensive” (Figure 9).

**Figure 9. Comparison: GDP & Price Level (PPP-based, 2007 data)**



*Source:* Eurostat; authors’ calculations

Another estimate is provided in the recent OECD report on Turkey, which shows, based on a behavioral equilibrium exchange rate (BEER) model, that the lira was overvalued by some 15% at the end of 2007, and identifies 2007 “as a period of exceptional competitiveness squeeze”, on the back of a “large inflation differential with the trade partners, and strong nominal appreciation”.<sup>16</sup> Finally, in their study estimating fundamental equilibrium exchange rates for several economies, economists from the (Washington D.C.) Peterson Institute came up with a similar figure, estimating that the nominal value of the lira against the dollar was some 10%–15% overvalued.<sup>17</sup> The authors conclude that the lira is “distinctly overvalued, although by less than the extent to which it is stronger than its past average”. This, the authors argue, “suggests a strong Balassa–Samuelson effect”.<sup>18</sup>

Lira overvaluations on the order of at least 10%–15% are very much in line with our own assessment, anecdotally and otherwise, although, we are less sure about the compensating Balassa–Samuelson effect (see Box: The Balassa–Samuelson effect meets the Turkish data).<sup>19</sup> The state of the lira, combined with a challenging FDI outlook, suggests that looking ahead it will not be as easy for Turkey to make the above equation stick. We thus conclude that Turkish CAD at these levels is probably on an unsustainable path; i.e. under conservative assumptions regarding the FDI and real exchange rate paths, current levels imply a rising external debt-to-GDP ratio. This is important because a high external financing requirement already stands in the way of a possible rating upgrade for Turkey — which is

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<sup>16</sup> See OECD (2008), Box 1.3 and Box 3.4.

<sup>17</sup> FEER and BEER are two methods of estimating equilibrium exchange rates. FEER is the rate that supports sustainable internal and external macroeconomic balances, which boils down to estimating the exchange rate determined by a current account balance target, i.e. one consistent with a sustainable external indebtedness position. BEER focuses on capturing the dynamic behavior of the exchange rate, including short-run movements and deviations from equilibrium.

<sup>18</sup> Cline and Williamson (2008).

<sup>19</sup> A similar skepticism on the strength of the Balassa–Samuelson effect in a convergence context is voiced by Egert (2005). We are grateful to the editors of this journal for bringing this paper to our attention.

still 3 notches below investment grade — from the credit agencies; a rising external debt-to-GDP ratio is likely to add to concerns.

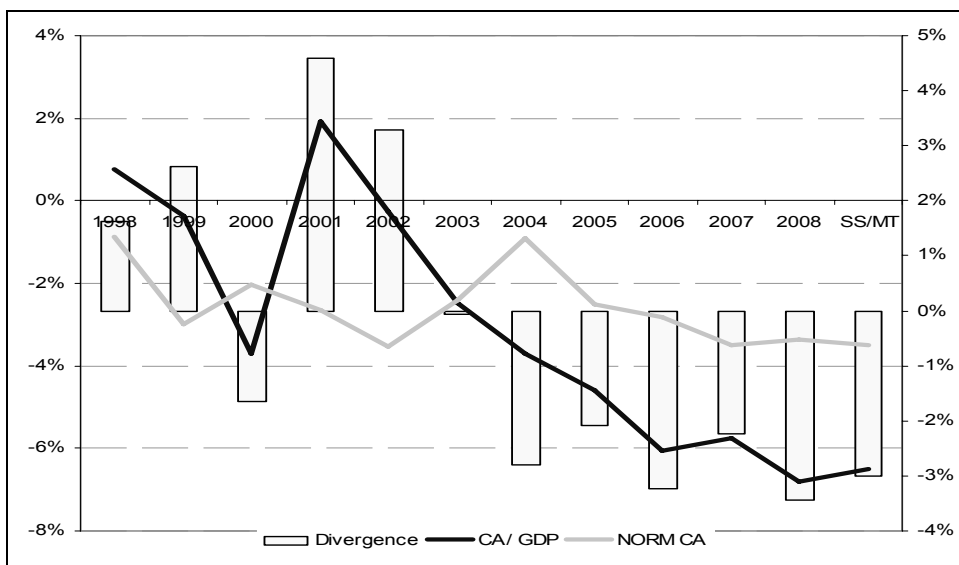
An alternative angle in judging whether current account deficit is “excessive” is offered in Rahman (2008), where she first calculates the “norm” current account balances for several Eastern and Central European economies (that have recently acceded to the EU), and then compares their *actual* deficits to the calculated *norms*. The norms are estimated from a benchmark (panel) regression equation that explains the equilibrium movement in the current account as a function of several macroeconomic variables such as the fiscal balance, demographic parameters, net foreign asset positions, and the oil trade balance (see Table 3 on p.10; and p.5–6 for a description of the expected signs for these variables in Rahman, 2008).<sup>20</sup>

We’ve performed this normative exercise for Turkey, using the paper’s benchmark equation. Of course, this requires some assumptions on plausible “steady state” values for the right-hand-side variables, which we’ve picked in light of recent history. For instance, for fiscal balance, we’ve taken a deficit of 2%; for population growth (which captures young age dependency ratio in the regression) we’ve taken 1.2%; and so on. In so doing, we’ve found the norm CAD for Turkey at around 3.5% of GDP, compared with an actual CAD of around 6%–6.5%. As shown in Figure 10, this was not always the case. Until 2004 or so, the norm deficit appears to have hovered *above* the actual deficit. Since 2005, however, the norm looks to be systematically below the actual. Using this approach, too, the level of Turkish CAD looks somewhat excessive, and an adjustment is therefore called for. The question is how the adjustment will play out — and this is what we now turn to.

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<sup>20</sup> Note that the norm and sustainable levels of CADs can be different. As explained above, while sustainability boils down to the stability of the external debt-to-GDP ratio, the “norm” explains CAD as a function of several macroeconomic fundamentals, and therefore evolves over time.

**Figure 10. Current Account: Norm vs. Actual (as % of GDP)**



*Source:* Authors' calculations, based on the benchmark model in Rahman, 2008.

#### IV. THE ADJUSTMENT CHALLENGE

There are two adjustment paths one could envisage about the Turkey's CAD — one benign, another not so benign. The benign path involves a sectoral shift toward the tradable sector over time — since that is by definition the only way of narrowing CAD — but envisages this as a smoother and secular phenomenon buttressed by structural, supply-side reforms. The alternative is a harsher path that involves perhaps no dramatic crisis either, but certainly more volatility in asset prices and sub-par growth for a protracted period.

The benign path essentially means placing Turkey in the European camp. Recent research suggests that Europe is an outlier in two important respects, i.e. when it comes to Europe, “capital flows uphill” and there is “unconditional convergence” of growth rates.<sup>21</sup> Alternatively stated, the

<sup>21</sup> Recent work has shown that countries with strong growth performance are actually those that run current account *surpluses* not deficits contrary to the prediction of the textbook model (Prasad, et. al. 2007). Then again, it appears that “Europe is different”, as argued by Abiad, et. al. (2007).

skepticism regarding the impact of financial globalization on growth is not borne out by the recent European (real) convergence experience. This means that Turkey's efforts to join the European Union have very solid justification.

In fact, there are some good reasons to think Turkey may be on its way. In addition to relative macrostability and FDI momentum of recent years, Turkey has been undergoing some encouraging transformation in terms of the composition of her exports. Akcay and Aslak (forthcoming) look into the evolution of export composition for Turkey during 2001–2005<sup>22</sup> along with six Eastern European countries who were then on the convergence path, as well as with four other large Emerging Markets (EM) outside Europe.<sup>23</sup> A snapshot of Turkey in 2005 reveals that, with respect to the performance of 14 main export categories, Turkey has been performing quite well, vis-à-vis the EM benchmarks pertaining to export growth and market shares.

Figure 11 below depicts the story in a crisp way:<sup>24</sup> traditional sectors with large world market shares (fresh food, clothing, and textiles) have been displaying very low growth rates, while basic manufactures emerge as the rising stars with high rate of growth coupled by a large market share. Minerals, transport equipment, electronic components, IT consumer electronics, miscellaneous manufacturing, and non-electronic machinery stand out as emerging categories or categories on the rise with low market shares but impressive export performances. Chemicals and processed food are borderline benchmark, but one should bear in mind the recent very commendable performance of chemicals category and the prospects for processed food category in the southeast given

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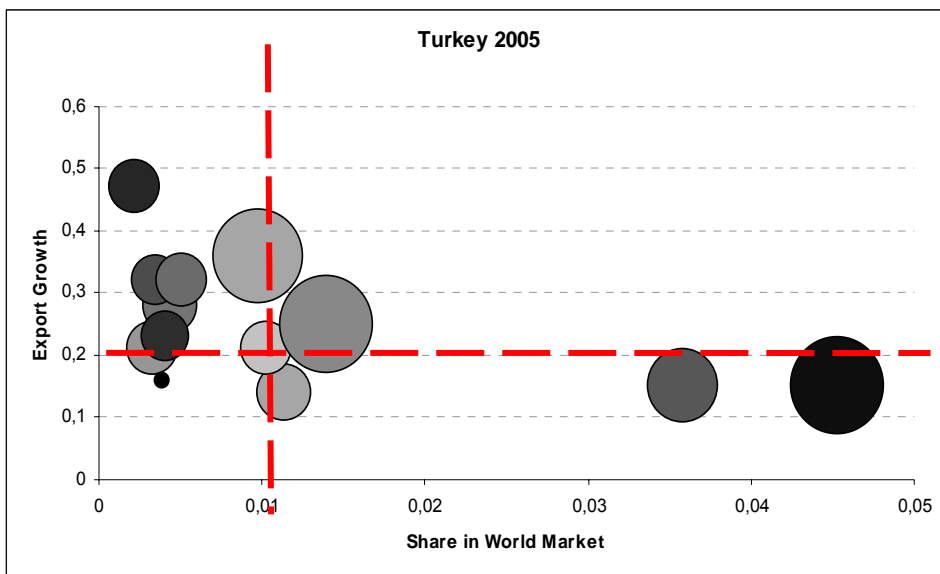
<sup>22</sup> UN data (UnComtrade) pertaining to the 10 countries in the study is to be updated to include 2007 soon, and the authors believe that the conclusions obtained from the current study will be strengthened by the updated calculations.

<sup>23</sup> Czech Republic, Poland, Hungary, Bulgaria, and Romania comprise the Eastern Europe group while Korea, Brazil, Mexico, and South Africa make up the eclectic bunch.

<sup>24</sup> Sizes of colored balls reflect categories' relative weights in Turkey's exports. Category-color match is provided in the appendix at the end of the document.

planned investments by local and foreign companies there. Leather products category seems to be in a decline mode in every way.

**Figure 11. Export Performance: Turkey vs. Peers**



*Source:* UN COMTRADE database; authors' calculations.

Equally important are the findings related to Turkey's stance vis-à-vis market and product differentiation in comparison to the Eastern Europe EM group and the second eclectic bunch of EM countries.<sup>25</sup> Product diversification is basically an indicator of production structures and sector's development level. A high level indicates limited dependence on a small number of products and thus low vulnerability to industry-specific global shocks. Similarly, market diversification is a measure of exports' resilience to shocks occurring in export destination markets. Turkey outperforms both the Eastern European group and other selected EMs by a wide margin in terms of market diversification; among 14 categories in question, Turkey does better in 13 of these in comparison to both groups. Eastern Europe group does better with respect to product differentiation, and with a similar

<sup>25</sup> For detailed discussions of both differentiation measures and change in market share drivers to be explained below, refer to ITC (2007).

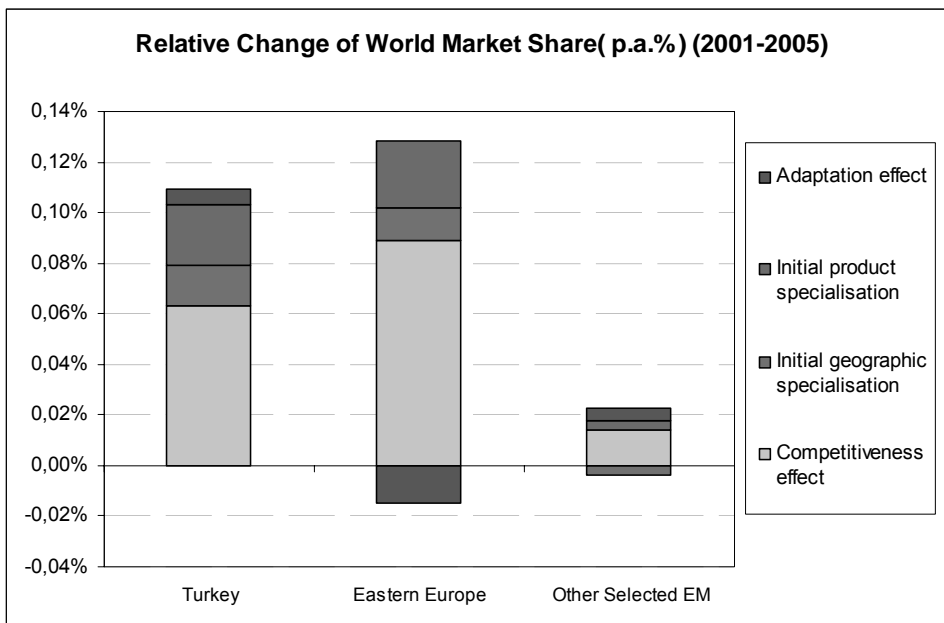
large margin of 12 to 2, and the same is true in comparison to the eclectic group yet with a smaller margin of 9 to 5.

Most important is the finding pertaining to the striking resemblance of Turkey to the Eastern Europe group and her equally striking difference from the eclectic bunch in terms of factors driving the change (variation over time) in her world market share. The ITC (2007) technical note suggests that the change in a country's market share can be decomposed and expressed as the sum of the competitiveness effect, the structural effect (which itself can be decomposed into geographic and product effects), and the adaptation effects. Skipping the technical details for the sake of simplicity, we can define the competitiveness effect as the (hypothetical) gains or losses a country's aggregate market share would be subjected to if change was only due to variations in the market share of the country in import markets (summing over every commodity and every importing country) regardless of the structure of the country's exports. The structural effect (total, not decomposed) corresponds to the same losses or gains that would occur if the change in market share stemmed from dynamism of import markets regardless of any change exporting country's market shares in these markets. The adaptation effect corresponds to the measure of the country's ability to adjust its exports to any change in world demand. Technically speaking, it would be positive if the country's market share increases in a growing import market or decreases in a declining one. Figure 12 below clearly depicts the above mentioned resemblance of Turkey to the EU and her striking difference from the eclectic bunch in this regard.

The total effect is of equal magnitudes in Turkey and in the Eastern Europe group, indicating similar increases in world market share in the period in question while the eclectic group seems to have stalled in this regard. Moreover, competitiveness effect is by far the dominating factor in explaining the change in world market share both in Turkey and in the Eastern Europe group, in addition to being much more sizeable in comparison to the eclectic bunch. Note that the adaptation effect is

positive for Turkey while negative for the Eastern European group, indicating a higher level of flexibility for Turkish exports.

**Figure 12. Drivers of World Market Share**



*Source:* UN COMTRADE database; authors' calculations.

A modest implication of Akçay and Aslak (forthcoming) is that Turkey has been on a convergence path with respect to the composition of exports and that a structural transformation here has already been taking place. Measures that would serve to induce increases in product differentiation and enhance adjustment capability should be contemplated on the exports front since these should lead to an endogenous increase in the level of exports. Greenfield FDI inflows and increasing investment appetite are the major exogenous factors that would lead to an increase in exports, which, in turn, would alleviate the so-called “current account problem”.

## V. CONCLUDING THOUGHTS

Since our last take on the issue (Akçay and Uçer, 2005), we remain positive on Turkey's current account prospects in the sense that the most likely consequence awaiting Turkey because of its large CAD is probably not a major bust or a crisis as it typically was in the past. This, however, does not change the fact that a CAD at the present levels is unsustainable and/or higher than justified by fundamentals, and Turkey is still faced with a future "adjustment problem". We would not, however, pose this adjustment problem as between a "bust and no-bust", but rather as between "a sharply reduced low-growth environment or a sustainable solid-growth environment". We also feel that the financeability of the Turkish CAD should be seen in the context of a more financially globalized world economy whereby investors are more willing to engage in cross-border trade of financial assets. This means lower "home equity bias", a larger pool of flows available to emerging market economies, and by implication, a lesser probability of a dramatic bust of the old style.<sup>26</sup>

There is a popular view in Turkey that likes to think of the CAD as primarily an off-shoot of Turkey's monetary and exchange rate policy regime, where deliberate and distinct policy choices on that front leads to a high interest rate/strong lira equilibrium. We find this implausible for the simple reason that during the CAD widening from 2003 through 2006, real interest rates in Turkey were declining rapidly, not rising. If anything, real interest rates were too low compared to the dramatic rebound in growth the economy was experiencing, fueling the credit boom and resulting in overheating of the economy. In our view, lower interest rates would have made this situation simply worse. These arguments also ignore the fact that with an open capital account and inflation still higher than most its peers, Turkey had little control over its

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<sup>26</sup> The jury is out, however, as to how the latest dramatic developments in international financial markets, which were continuing unabated at the time of this writing, will influence the future of financial globalization.

exchange rate policy — i.e. it had no easy way around the so-called “impossible trinity” dictum of international macroeconomics.

We hold a more constructive view in that, we see what has happened thus far largely as an equilibrium response to Turkey’s improved outlook and prospects, and advise the longer term policies to be put in place to make the adjustment and transition as smooth as possible. From a policy perspective, we think we should worry more about the lack of a well-prioritized program to sustain Turkey’s recent reform efforts, than the monetary/exchange rate policy mix. Alternatively stated, slowing growth and high real interest rates, rather than being a direct outcome of wrong monetary and exchange rate policy choices, are a price Turkey has to pay to move to a more sustainable CAD position in the absence of reform.

**Box — The Balassa–Samuelson effect meets the Turkish data**

When the real exchange rate appreciates, economists typically call on the “Balassa–Samuelson (BS) effect”.<sup>27</sup> The idea is simple: faster productivity growth in the *traded* goods sector is translated into higher wages, which, under assumptions of full employment and perfect labor mobility between sectors, leads to higher wages in the *non-traded* goods (or the service) sector. In the absence of a matching productivity increase in the non-traded sector, profitability concerns push up prices there, resulting in a higher overall consumer price index. Since one standard definition of the real exchange rate is the ratio of non-traded to traded goods prices, the natural extension of the above argument is that real appreciation follows in cases where the home country experiences a higher increase in the *productivity differential* between tradable and non-tradable sectors.

The significance of the Balassa–Samuelson effect lies in its implication regarding prolonged periods of real appreciation, which is commonly

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<sup>27</sup> The concept is particularly popular in an EU-convergence context, and often employed to investigate whether trend real appreciations experienced by these countries in the run-up to EU membership can be explained as an equilibrium phenomenon. See Egert (2005) and Garcia–Solanes et. al. (2007) for recent applications.

observed in emerging market economies and economies undergoing transformations, such as EU convergence. Whether such periods correspond to periods of persistent productivity differentials — and hence may be considered as an equilibrium response — or alternatively, to periods of real exchange rate “misalignment”, is a crucial question for policy purposes. If it is the former, there is clearly no scope for policy measures to counter this without distorting relative prices, which are in the first place moving to a new equilibrium. The Balassa–Samuelson effect is hence intrinsically an equilibrium concept that need not, and should not, be interfered.

When we take the Balassa–Samuelson concept and apply it to Turkish data, we encounter a number of puzzles. Turkey has experienced significant real exchange rate appreciation in recent years and along with it, manufacturing sector labor productivity, a typical short-cut and a proxy for the Balassa–Samuelson effect, surged as well. For instance, taking 2000=100 as a base, the CPI-based real exchange rate index (regularly published by the Central Bank) appreciated massively to around 140 in the summer of 2008, i.e. pointing at 40% real appreciation from the 2000 base. But because manufacturing sector labor productivity also improved by even a larger magnitude during this period, one could argue that most of this appreciation was an equilibrium response, or justifiable by “fundamentals”.

While plausible on the face of it, these calculations do not survive a closer look at the data. First, when we calculate an alternative real exchange rate index more relevant to the Balassa–Samuelson effect as the ratio of service (non-tradable) to tradable prices, we do not see much of an appreciation. In fact, taking 2000=100 as a base, as late as the summer of 2008, real exchange rate looks only about 10% stronger.

A parallel puzzle relates to the productivity differential. As noted above, analysts typically track labor productivity in the manufacturing sector, in explaining — and justifying — real exchange rate appreciation. But the Balassa–Samuelson effect focuses on the productivity *differential* between the tradable and non-tradable sectors. This we can calculate only by using the GDP and employment series, because service productivity data

is not readily available from firm-wide surveys. Doing that yields a fairly surprising picture. First, manufacturing productivity series derived from the GDP series differs considerably from the productivity series published by TURKSTAT. More interestingly, though, when we take the *ratio* of tradable-to-service productivity, we detect almost no change in relative productivity since 2000, since both sectors experienced comparable productivity increases during this period, on the order of some 20%. Finally, we do not see the key mechanism underlying the Balassa-Samuelson effect at play either in Turkey. According to this mechanism, real wage increases in the manufacturing sector should spill into services raising wages there. Let alone an increase, we calculate that manufacturing sector real wages were some 10%–15% lower than the levels prevailing in 2000.

These statistical anomalies suggest to us that the Balassa-Samuelson effect is probably not as major a driver of Turkish real appreciation as commonly believed. That is, neither in quantities nor prices, do we see a notable and convincing Balassa-Samuelson effect in the Turkish data. That is to say, while there is little doubt that the issue requires further investigation, all in all, rather than the Balassa-Samuelson effect, last few cycles of real exchange rate appreciations (and sudden corrections that ensue these period of appreciations) might have been driven by a combination of strong domestic demand, ample capital inflows and, more recently, an inappropriate policy mix (tight monetary policy combined with relatively loose fiscal policy).

## APPENDIX

Sectors covered in the analysis:

Fresh food
PROCESSED FOOD
WOOD PRODUCTS*
TEXTILES
CHEMICALS
LEATHER PRODUCTS
BASIC MANUFACTURES
NON-ELECTRONIC MACHINERY
IT CONSUMER ELECTRONICS
ELECTRONIC COMPONENTS
TRANSPORT EQUIPMENT
CLOTHING
MISCELLANEOUS MANUFACTURING
MINERALS

A Synopsis of Turkey's Export Performance in the 2001–2005 period:

	Exports	Export growth in value, p.a. (%)*	Share in world market (%)
Fresh food	4,227,167	14%	1.14%
PROCESSED FOOD	3,761,147	21%	1.03%
WOOD PRODUCTS*	807,853	23%	0.31%
TEXTILES	7,065,865	15%	3.58%
CHEMICALS	3,842,074	21%	0.33%
LEATHER PRODUCTS	398,091	16%	0.39%
BASIC MANUFACTURES	11,427,514	25%	1.40%
NON-ELECTRONIC MACHINERY	4,156,141	28%	0.44%
IT CONSUMER ELECTRONICS	3,186,218	32%	0.35%
ELECTRONIC COMPONENTS	3,286,250	23%	0.41%
TRANSPORT EQUIPMENT	10,856,936	36%	0.98%
CLOTHING	11,823,310	15%	4.53%
MISCELLANEOUS MANUFACTURING	3,878,484	32%	0.51%
MINERALS	3,538,721	47%	0.22%

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