FOR AGENDA

SM/13/290

November 6, 2013

To: Members of the Executive Board

From: The Secretary

Subject: **Turkey—Selected Issues**

This paper provides background information to the staff report on the 2013 Article IV consultation discussions with Turkey (SM/13/288, 11/5/13), which is tentatively scheduled for discussion on **Wednesday, November 20, 2013.** Unless an objection from the authorities of Turkey is received prior to the conclusion of the Board's consideration, the document will be published. Any requests for modifications for publication are expected to be received two days before the Board concludes its consideration.

Questions may be referred to Mr. Miniane, EUR (ext. 38791), Mr. Tchaidze (ext. 36603), and Ms. Tambunlertchai (ext. 34033) in SPR.

Unless the Documents Section (ext. 36760) is otherwise notified, the document will be transmitted, in accordance with the procedures approved by the Executive Board and with the appropriate deletions, to the WTO Secretariat on Thursday, November 14, 2013; and to the European Central Bank, the European Commission, the European Investment Bank, the Food and Agriculture Organization, the Islamic Development Bank, and the Organisation for Economic Cooperation and Development, and the United Nations Development Programme, following its consideration by the Executive Board.

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INTERNATIONAL MONETARY FUND

TURKEY

SELECTED ISSUES

November 4, 2013

Approved By
European Department

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CONTENTS

LOOKING AT CAPITAL FLOWS THROUGH THE EXCHANGE MARKET PRESSURE PRISM[1]

1. Ever since recovering from the financial crisis of 2001, Turkey has been subjected to volatile capital flows, prompting its central bank (CBRT) to resort to a series of experiments where a set of various—not very traditional—tools has been employed in attempts to fend off too strong of inflows while dumping intensity of outflows (see Table 1 for summary of changes to the CBRT's framework). In this paper an Exchange Market Pressure (EMP) index is used to evaluate the forces behind these inflows. The idea is to see if they are different from what one observes for other emerging markets and to see if the results change across time in response to changes in the CBRT's framework.

2. EMP is defined as a weighted average of percentage changes in the nominal exchange rate and changes in central bank's FX reserves divided by the base money.[2] The index, introduced in Girton and Roper (1977),[3] is derived from an equation, which equates supply of base money, created either against purchase of FX assets or by domestic credit expansion, with demand for money, linked to real income, prices, and interest rates. EMP provides an indirect measure of the flows by "summarizing" how these flows had been dealt with. It can be interpreted as a change in nominal exchange rate in absence of any FX interventions by the monetary authorities or, alternatively, a change in central bank's FX reserves that would be needed to maintain the exchange rate unchanged.[4]

A. The EMP Index

3. Movements in the six-month analog of the index—up for appreciation or an increase in reserves[5]—well track the developments. 2008–9 is the period of the Global Financial Crisis (GFC), when Turkey experienced outflows, which put pressure on the currency to depreciate; 2010–11 is a period of strong inflows, which prompted the CBRT to adopt its unorthodox monetary framework; late 2011 is the period of strong outflows, mitigated by an increase in the interest rates;

[1] Prepared by Robert Tchaidze.

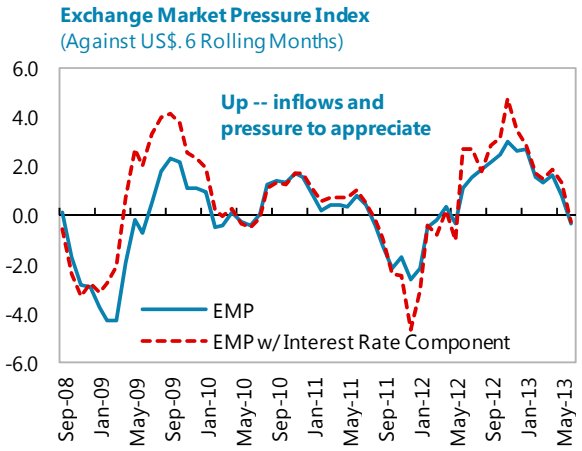
[2] Following WEO (2007, http://www.imf.org/external/pubs/ft/weo/2007/02/pdf/c3.pdf), the weights are defined as inverses of standard deviations of each component.

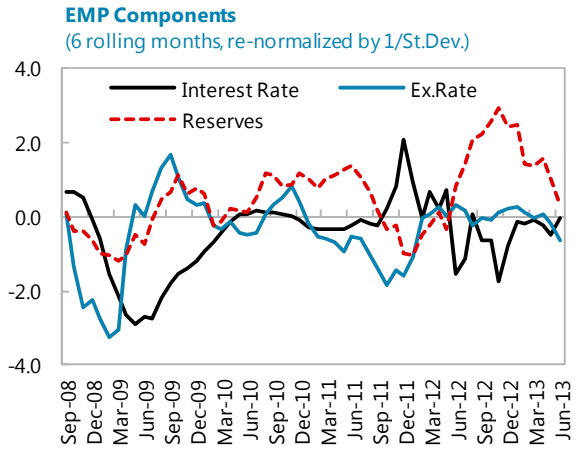
[3] Lance Girton and Don Roper (1977), "A Monetary Model of Exchange Market Pressure Applied to the Postwar Canadian Experience," American Economic Review, Vol. 67, pp. 537–48.

[4] Often a third component—a negative of the change in the policy interest rate—is incorporated. The interpretation of EMP-I is what EMP *would have been*, had there been *no changes in the policy interest rates*.

[5] For EMP-I a third option would be a *decrease* in the policy interest rates.

2012–13 is a period of renewed inflows, lasting until summer of 2013, when both the global environment and the local developments have yet again put pressure on the currency to depreciate.



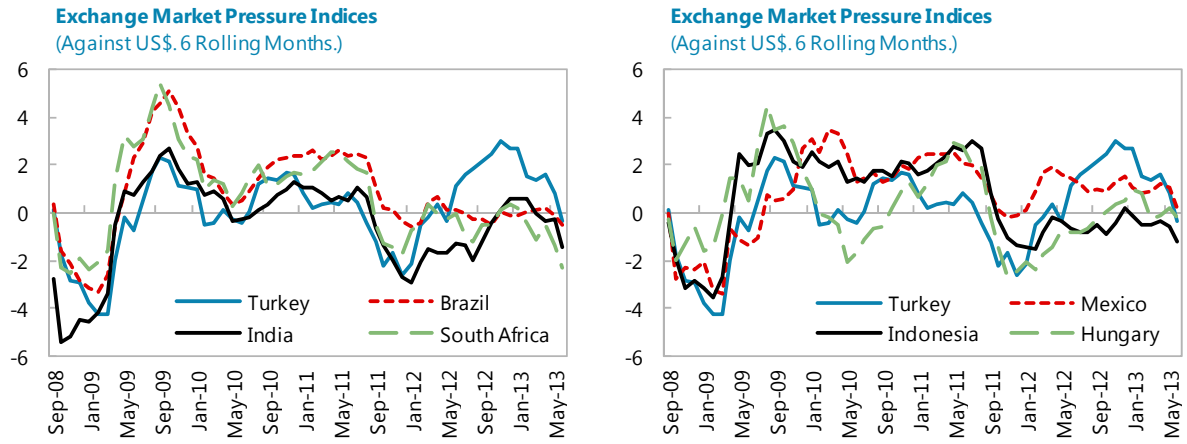


Source: Haver and IMF staff calculations.

4. It is interesting to note that the pressures to appreciate were stronger in 2012–13 than in 2010–11 and that they have been dealt with differently. In 2010–11, the CBRT was trying to engineer nominal depreciation, keeping the policy interest rates low, and accumulating FX reserves. In 2012–13, the interest rates were moving sharply up and down as the CBRT was switching between two modes requiring opposite actions—defending the lira and maintaining pro-growth low interest rate stance. Subsequently, the nominal exchange rate was not moving that much, but the gross FX reserves shot up, as—in absence of the CBRT's interventions—commercial banks resorted to using reserve option mechanism (ROM).[6]

5. Comparison with other emerging economies points to yet another interesting observation. While in 2010–11, other EMs experienced stronger exchange market pressures, the situation reversed in 2012–13. Of course, it could be that in 2012–13 Turkey was much more attractive for global investors compared to other EM economies than it was in 2010–11. Another possible explanation is that these extra inflows reflect existence of the ROM. While the ROM was supposed to sterilize already existing inflows (which were, so to speak, "exogenous" to it), commercial banks may have taken advantage of its existence and could have borrowed extra FX in order to free up liras held in the CBRT and take advantage of the high local lending rates. If that is true, then rather than sterilize exogenous inflows, the ROM may have created new, "endogenous," inflows, boosting the CBRT's FX reserves beyond what one would have observed otherwise.

[6] ROM allows commercial banks to use FX or gold to meet their obligations on lira-denominated liabilities (see the chapter "CBRT'S Reserve Option Mechanism" of this report).



Source: Haver and IMF staff calculations.

B. Empirical Analysis

6. The empirical analysis was performed using monthly data for the 2009:7–2013:3 sample in order to exclude periods of the GFC and the latest turbulence. Four groups of potential determinants were used:

- The first is indicators of conventional monetary policy. Namely, policy interest rates in Turkey,[7] and average interest rates in advanced economies (Euro zone, Japan, the U.K., and the U.S.) and emerging economies (Brazil, Hungary, Korea, Mexico, India, Indonesia, Poland, and South Africa).

- The second is indicators of unconventional monetary policy both in Turkey and abroad. For the former, it is the overnight lending and borrowing rates as well as the difference between them (i.e. the width of the interest rate corridor). For the latter, it is the growth rates of the balance sheet of the four global central banks— the Bank of Japan, the Bank of England, ECB, and the Fed. Dummies for CBRT's new framework, the ROM, as well as announcements of the various global measures (such as QE, LTRO, OMT, etc.) were used as well.

- The third group is the variables that characterize the global market conditions, VIX (in levels and in percentage changes) as well as the weighted average of the CDS spreads for Cyprus, Greece, Ireland, Italy, Portugal, and Spain.[8]

- Finally, the fourth group is the Turkey-specific factors: changes in the stock market index, the spread between the short and long interest rates, the lagged benchmark bond rate, and the CDS spread.

[7] The effective cost of liquidity provided by the CBRT to the markets is used instead of the policy rate (see http://www.imf.org/external/pubs/ft/scr/2012/cr12339.pdf).

[8] The weights correspond to the stock of the general government debt.

7. Surprisingly, no statistical evidence of an impact of global unconventional or local unorthodox monetary policies was found. Neither increases in balance sheet of the four big central banks, nor changes to the Turkey's interest rates and the interest rate corridor, nor the dummy variables show statistically significant coefficients.[9] Similarly, nor did the average CDS spreads of the countries, affected by the Euro zone crisis, matter.

	(1)	(2)	(3)	With All Variables
Constant	**3.37**	**1.76**	0.26	2.17
	(2.15)	(2.62)	(1.63)	(1.41)
Interest Rate in Advanced countries	**-7.25**			-3.48
	(-1.99)			(-0.80)
VIX		**-0.07**		-0.02
		(-2.31)		(-0.49)
Percentage change in VIX			**-0.03**	**-0.02**
			(-3.26)	(-2.49)
Lagged change in Turkey's CDS	**-0.02**	**-0.02**	**-0.02**	**-0.02**
	(-3.03)	(-3.33)	(-4.00)	(-3.27)
Adjusted R-squared	0.29	0.31	**0.38**	0.38
Durbin-Watson Statistics	2.19	1.99	2.02	2.10

8. The factors that seem to play a role are: the advanced economies' monetary policy stance, volatility in the global markets, and changes in the Turkey-specific risk perceptions, measured by lagged changes in Turkey's CDS spreads. The three variables—interest rates in advanced economies, VIX, and changes in VIX—do not "get along" well given causal links between them, with changes in VIX being a "dominant" variable, and thus, the table above suggests three alternative specifications.[10] Note that even though adjusted R-squared is not particularly high (which should not be surprising as modeling the exchange rates is notoriously difficult), the models can explain up to 40 percent of the movements.[11]

9. These results suggest that exchange market pressures in Turkey are reflective of the changes in the risk-off/risk-on mood, both globally and locally. As volatility in the global

[9] It should be noted that other studies (see http://www.imf.org/external/np/pp/eng/2013/090313.pdf and http://www.imf.org/external/np/pp/eng/2013/090313a.pdf) have found an impact of the global unconventional monetary policies on equity and bond flows to Turkey. Such an impact, however, may have been captured in the model indirectly, via VIX.

[10] t-statistics in parentheses under the coefficients, statistically significant variables in red.

[11] Results, obtained using EMP-I, are similar with one exception. In some specifications, an increase in the balance sheet of the ECB has a statistically significant, but *negative*, coefficient. This happens because there is a positive correlation between increases in the CBRT's effective rate, which enter EMP-I with a negative sign, and expansion of the ECB's balance sheet, as both are probably happening in response to adverse developments in the Euro zone.

markets declines, or, as risk-perception of Turkey subsides, capital flows into country. But once global investors are spooked, either by local or global developments, capital flees the country. While this seems rather obvious, it will be shown below that these links are not as strong in the case of other emerging markets as they are in the case of Turkey. It is also worthwhile to make a comparison with Switzerland, a country, for which a similar exercise has been recently done.[12] Empirical analysis suggests that movements in the CDS spreads of the troubled Eurozone countries and expansion of the balance sheets of the global central banks have statistically significant positive impact on the Swiss EMP (with the latter, in fact, increasing significantly post-GFC). That is, as troubles increase worldwide, pressures on the Swiss currency to appreciate mount, while in the case of Turkey, pressures to depreciate do.

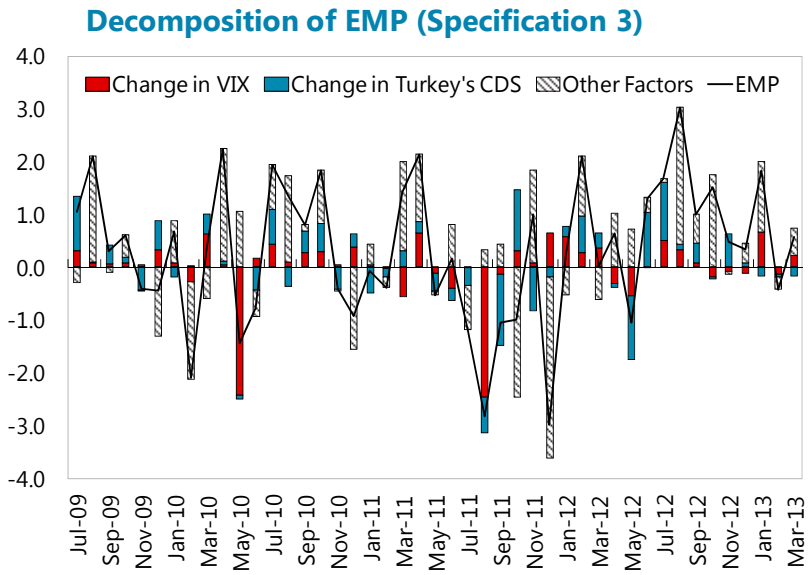
C. Quantifying the Results. An Example

10. Given the estimated coefficients, one could try to quantify possible impact on the lira-U.S. dollar exchange rate or the CBRT's FX reserves, of course, keeping in mind that such an estimate would be no more than indicative, given standard errors and volatility of the determinants.

- While a monthly change in Turkey's CDS spreads can be as high as 200 basis points as it was in October 2008, it would be more sensible to use a value of 65 basis points, similar to what one observed in June 2008 or September 2011.
- For advanced economy interest rates, while an increase of about 300 basis points is what is needed to restore them back to the levels prevalent before the GFC, a one-time change is unlikely to be more than 60 basis points, which is what was observed twice in a row in late 2008, and which would bring the advanced economy policy rates to a level of 90 basis points.
- Levels of the VIX index can reach 60 points as they did in 2008, but it would be more appropriate to use mid-30s, similar to late 2011 (against the current levels of low teens).
- A monthly change in VIX can be as high as 100 percent as it was in October 2008, but even in less dramatic times it can reach 80 percent as it was in May 2010 and August 2011.

11. As demonstrated on the chart below, local and global factors often do act in a tandem. Thus, an impact of a materialization of these values in a combination is estimated. As calculations suggest, these would correspond to a nominal depreciation of some 16 percent or a loss of about $17 billion in central bank's FX reserves.

[12] http://www.imf.org/external/pubs/ft/scr/2013/cr13129.pdf



Sources: Haver and IMF staff calculations.

D. Time Changes and International Comparison

12. Given all the changes to the CBRT's framework, one wonders if they have had an impact on the way local and global developments affect the determinants of the capital flows. Thus, the three specifications were re-estimated using rolling samples of 24 observations, with the first sample starting in September of 2009, and the last one in March of 2011. The results are plotted on Figure 1 and suggest that there were no statistically significant changes to the estimated coefficients in the three specifications.[13] While one could make a conclusion that changes to the CBRT's framework were ineffective in a sense of having no impact on the EMP determinants, one could also argue that sticking to the traditional inflation targeting framework, in place until the late 2010, would not have helped either. While such an observation would be correct, it is important to notice that the modifications to the framework may have come with other costs, such as weakened transmission to inflation expectations and interest rates.[14]

13. Table 2 provides international comparison of the identified specifications. While it is hard to draw clear policy implications (given potentially a myriad of country-specific developments, which are not accounted for), it is interesting to note the following:

[13] Meanwhile, Aysan, Fendoğlu and Kılınç in their study "Macroprudential policies as buffer against volatile cross-border capital flows" argue that after introduction of the interest rate corridor and the ROM facility cross-border capital flows to Turkey have become less sensitive to global banking activities.

[14] See http://www.imf.org/external/pubs/ft/scr/2012/cr12339.pdf.

- Unlike Turkey, these factors—monetary policy in advanced countries, global volatility, and country specific CDS spreads—barely explain movements of the EMP for other countries (regressions for other countries do not show as good fit as for Turkey).
- The monetary policy in advanced countries is statistically significant only in the case of Turkey.
- Global volatility similarly affects Turkey, India, Mexico, and possibly Hungary, but not Brazil, Indonesia, or South Africa.
- Meanwhile, changes in country risk perceptions play a statistically significant role in Turkey, Brazil, and Indonesia, but not in other countries.

E. Conclusions

14. The empirical analysis in this paper uses Exchange Market Pressure index to identify the determinants of capital flows to Turkey and leads to the following conclusions:

- Exchange market pressures in Turkey seem to a degree, larger than in other emerging economies, be linked to risk factors, both global and country-specific.
- In particular, there seems to be a stronger link to the interest rates in advanced economies, which given forthcoming tightening of the U.S. monetary policy, is likely to intensify pressures on lira.
- There is no evidence that the changes to the CBRT's monetary framework had statistically significant impact on push and pull factors behind the capital flows to Turkey.

Table 1. CBRT's New Monetary Framework

October 2010- August 2011	The interest rate corridor is opened downwards. *The CBRT varies volumes of TL-liquidity provided via quantity-based repo auctions.* Volatility of the overnight interbank rates is increased but, on average, they are kept close to the policy rate. The CBRT purchases FX via regular auctions. Reserve Requirement Ratios are differentiated and gradually tightened.
August 2011- October 2011	The interest rate corridor is narrowed from below. *The CBRT initiates FX selling auctions.* ROM is introduced in September.
October 2011- January 2012	The interest rate corridor is opened upwards. *The CBRT starts additionally providing TL liquidity via price-based repo auctions.* Effective cost of TL liquidity provided by the CBRT and the interbank rate decouple from the policy rate and from each other. FX selling auctions continue and the CBRT conducts several direct interventions in December-January. RRRs are lowered, put on hold, and, effectively, dropped from the toolbox.
January 2012- June 2012	The interest rate corridor remains wide. *The CBRT provides TL liquidity via various repo-facilities with highly-variable effective cost, which depends on local and global circumstances.* The CBRT conducts no FX auctions or interventions. ROCs are introduced in March and are gradually increased. So is ROR.
June 2012- September 2012	*The CBRT sharply lowers the effective cost of liquidity it provides to the markets.*
September 2012- May 2013	*The CBRT in several steps narrows the interest rate corridor from above.* The CBRT shifts the whole corridor down. The cost of liquidity is now close to the policy rate and the interbank rates.
May 2013- onward	The CBRT increases cost of TL liquidity it provides. Effective cost of TL liquidity provided by the CBRT and the interbank rate again decouple from the policy rate. *The CBRT reintroduces FX selling auctions.* The CBRT *increases RRR* on ST FX but suggests ROCs and FX-RRRs could be decreased.

Table 2. International Comparison of the Three Identified Specifications

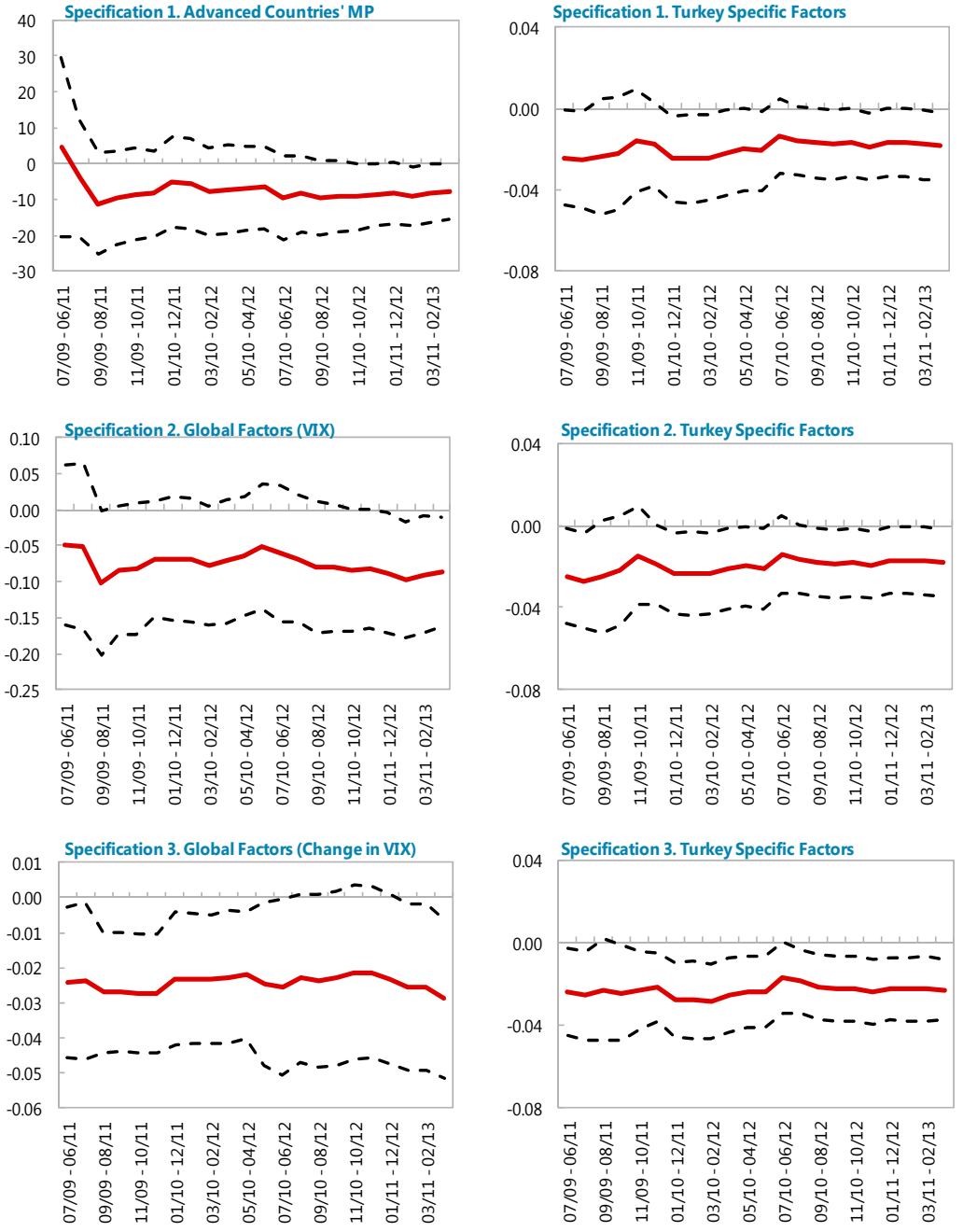
Specification 1							
	Turkey	Brazil	Hungary	India	Indonesia	Mexico	South Africa
Constant	**3.37**	-0.98	1.47	1.40	-0.25	2.16	1.06
	(2.15)	(-0.56)	(0.69)	(0.75)	(-0.14)	(1.44)	(0.57)
Interest Rate in Advanced countries	**-7.25**	4.02	-3.39	-3.34	1.41	-3.24	-1.93
	(-1.99)	(0.99)	(-0.69)	(-0.77)	(0.33)	(-0.94)	(-0.44)
Lagged change in country's CDS	**-0.02**	**-0.03**	0.00	0.00	**-0.02**	0.00	-0.01
	(-3.03)	(-2.2)	(-0.74)	(-0.51)	(-2.48)	(0.14)	(-1.06)
Adjusted R-squared	**0.29**	0.06	-0.01	-0.01	0.09	-0.03	-0.01
Durbin-Watson Statistics	2.19	1.57	1.75	1.72	1.78	2.06	1.62

Specification 2							
	Turkey	Brazil	Hungary	India	Indonesia	Mexico	South Africa
Constant	**1.76**	1.21	1.42	**1.86**	**1.69**	**2.38**	1.02
	(2.62)	(1.56)	(1.48)	(2.39)	(2.18)	(3.74)	(1.19)
VIX	**-0.07**	-0.02	-0.07	**-0.09**	-0.06	**-0.07**	-0.04
	(-2.31)	(-0.62)	(-1.49)	(-2.49)	(-1.77)	(-2.62)	(-0.94)
Lagged change in country's CDS	**-0.02**	-0.03	0.00	0.00	**-0.02**	0.01	-0.01
	(-3.33)	(-1.82)	(-0.3)	(0.20)	(-2.12)	(0.62)	(-0.91)
Adjusted R-squared	**0.31**	0.05	0.03	0.11	**0.16**	0.10	0.01
Durbin-Watson Statistics	1.99	1.44	1.69	1.47	1.66	1.92	1.58

Specification 3							
	Turkey	Brazil	Hungary	India	Indonesia	Mexico	South Africa
Constant	0.26	**0.74**	0.02	-0.04	0.36	**0.77**	0.24
	(1.63)	(3.83)	(0.09)	(-0.19)	(1.85)	(5.03)	(1.15)
Percentage change in VIX	**-0.03**	-0.01	**-0.02**	**-0.02**	-0.01	**-0.02**	-0.02
	(-3.26)	(-1.46)	(-1.96)	(-2.16)	(-1.35)	(-3.34)	(-2.11)
Lagged change in country's CDS	**-0.02**	**-0.03**	-0.01	-0.01	**-0.02**	0.00	-0.01
	(-4.00)	(-2.03)	(-1.28)	(-0.95)	(-2.43)	(-0.02)	(-1.21)
Adjusted R-squared	**0.38**	0.09	0.07	0.08	**0.13**	0.17	0.08
Durbin-Watson Statistics	2.02	1.44	1.91	1.68	1.69	2.07	1.72

Source: IMF staff calculations.

Figure 1. EMP. Estimated Coefficients in Rolling Regressions



Source: IMF staff calculations.

CBRT'S RESERVE OPTION MECHANISM[1]

1. In late 2011, the Central Bank of Turkey (CBRT) introduced a new tool into its continuously evolving monetary framework—the Reserve Option Mechanism (ROM). The ROM allows commercial banks to meet their reserve requirements on lira-denominated liabilities by using foreign exchange and gold. Conversion happens at the market exchange rate times a mark-up penalty parameter, the Reserve Option Coefficient (ROC), introduced in May of 2012. Currently, banks can convert up to 60 percent of their reserve requirements into FX and up to 30 percent into gold with the ROCs ranging from 1.4 to 2.8.

A. Motivation and Mechanics

2. The ROM was to help increase the resilience of the economy against external finance shocks and achieve financial stability by (i) limiting fluctuations in the exchange rate; (ii) limiting conversion of FX inflows into bank lending; and (iii) incentivizing banks to accumulate FX for "a rainy day." While an externality rather than a goal, the ROM also helped banks reduce costs of fulfilling regulatory obligations. Finally, being a market-driven facility, it was to help the CBRT do away with perceptions of it targeting the exchange rate.

3. The ROM was designed so that with strong inflows, banks would voluntarily increase use of the ROM facility, redirecting inflows into the facility, releasing lira and countering appreciation pressures, while the opposite would happen during outflows.

- Alper et al (2012) and Küçüksaraç and Özel (2012) describe an optimization problem that banks face, as they choose to what extent to utilize the ROM facility. They show that given current costs of TL and FX liquidity, current and expected exchange rate, as well as the reserve requirement ratios on FX-denominated liabilities, one can derive a break-even ROC, at which banks would be indifferent between meeting their reserve requirements on lira-denominated liabilities by depositing liras or FX. Thus, a bank would utilize—i.e. deposit FX in lieu of liras—all those tranches of the ROM, for which the corresponding ROCs are less than the break-even ROC and deposit lira to meet the remaining reserve requirements.

- This break-even ROC increases (inducing a bank to rely more on FX) when the cost of lira funding increases, lira appreciates or is expected to depreciate. Similarly, it increases when the cost of FX liquidity decreases or when reserve requirement ratio on FX-denominated liabilities decreases. As these variables change, banks choose to utilize the ROM more or less, releasing FX from the ROM or placing it into the facility, mitigating pressures on lira to depreciate or appreciate.

[1] Prepared by Robert Tchaidze.

- In particular, during periods of strong inflows, costs of FX liquidity decline and quantity constraints become less binding. Thus, the break-even ROC increases and banks voluntarily increase use of the ROM facility, being able to meet the required reserves at a lower cost. This redirects inflows into the ROM facility and releases lira, previously locked in the central bank, countering appreciation pressures and limiting conversion of the inflows into bank lending, as long as the marginal ROC is greater than 1.

- Likewise, when inflows weaken, costs of FX liquidity increase and quantity constraints become more binding. This leads to a decline in the break-even ROC, a fall in the ROM utilization rates, release of the FX liquidity back into the system, and a reduction of the lira liquidity in the system as it is being placed back into the central bank to meet the reserve requirements.[2] Altogether, this limits the depreciation pressures and lowers possibility of a credit squeeze.[3]

4. Thus, the ROM induces banks to voluntarily accumulate FX at the central bank, reducing their dependence on currency swap contracts, which have been commonly used to convert banks' FX funds into the TL liquidity, used to extend domestic loans. Instead, banks effectively "swap" FX into lira with the central bank as a counterpart.

5. According to the CBRT, the ROM is superior to other tools that a central bank could use when dealing with volatile capital flows. The ROM works in a fashion similar to FX interventions, redirecting inflows into the central bank's vaults, yet is more powerful as long as the effective ROC is greater than 1. It impacts banks as an increase in the reserve requirement ratios on FX liabilities would, but allows banks, short of FX, to avoid being unduly penalized, compared to banks with sufficient FX liquidity. Finally, while the ROM has no impact on net international reserves, it boosts gross reserves during inflows, which could be used to mitigate the BOP pressures during outflows.

6. The key difference is that FX interventions, changes to the reserve requirement ratios, etc reflect decisions undertaken by the monetary authorities. Hence, they may lead to various interpretations of the motives behind these actions (such as targeting a certain exchange rate level), while utilization of the ROM reflects voluntary decisions by individual commercial banks, and thus, is driven by market forces.[4] Thus, having the ROM in place could make it easier for a central bank to communicate its objectives and actions to market participants concentrate on its other objectives, such as inflation.

[2] This is assuming the amount and structure of banks' lira liabilities have not changed.

[3] Note that the automatic stabilization feature of the ROM works as long as banks are not using the facility to the full extent, known as the reserve option ratio, ROR.

[4] For the same reasons, the ROM would not run the risk of provoking speculative FX demand.

B. What Does the CBRT's Experience Suggest?

7. The ROM indeed worked as expected during inflows, but its existence did not help sufficiently when inflows weakened in summer of 2013. Release of FX held by commercial banks in the ROM was limited (about US$6 bln against US$7 bln sold by the CBRT from its own reserves) and did not prevent exchange rate depreciation (more than 10 percent), forcing the CBRT to re-introduce the FX sale auctions and to tighten TL liquidity.

8. This episode and two years of having the ROM in place allow drawing the following lessons:

- Calibration of the facility parameters turned out to be a rather long process.[5] While that is natural, given complexity of the issue the ROM was supposed to deal with, it is also natural that this has made *communicating to market participants the purpose of the facility rather difficult*. Interpretations were plentiful, but the idea of a stable market-driven mechanism, rather than an actively used monetary policy tool, was not something widely understood and accepted.

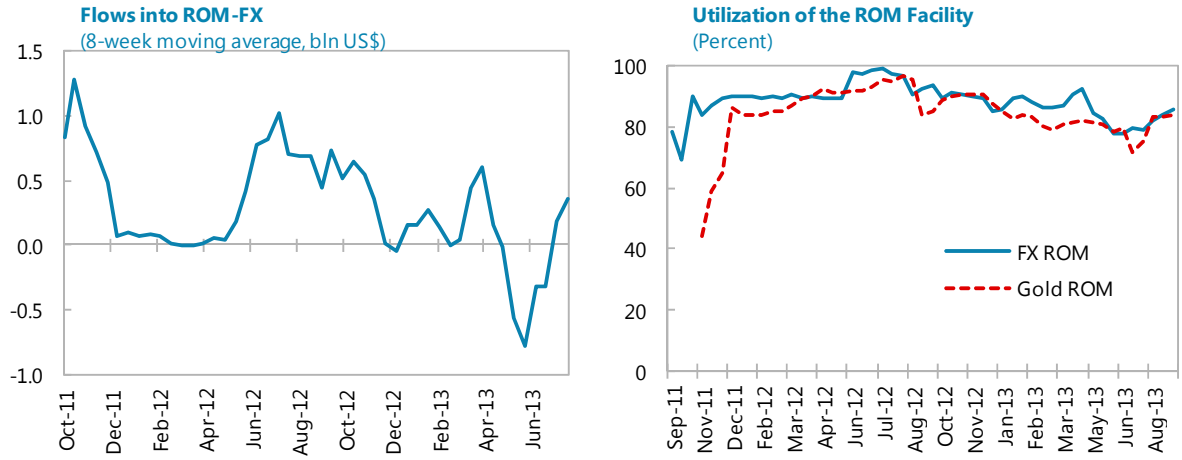
- Even though existence of the ROM boosts the gross international reserves, *the ROM-related part is out of direct control of the monetary authorities*, and thus, may be of little help at times of distress. Even if a central bank were to want FX to be released into the economy to counter depreciation pressures, banks may be unwilling to do so, either because of expected depreciation or anticipated increases in costs of lira liquidity, both reasonable assumptions under the circumstances. Alternatively, if a central bank were to use such an opportunity to see an overvalued currency depreciate, banks may prevent that by releasing FX instead.

- Indeed, as discussed above, the release of FX from the ROM in face of weakened inflows in summer of 2013 was limited. There are two reasons banks must have been reluctant to withdraw FX and sell it to other residents of the economy. First, sales of FX stored in the ROM, would have opened a short FX position for banks, something restricted by regulations. Second, expectations for increases in the costs of TL liquidity and/or nominal depreciation must have been in place, indeed vindicated by the subsequent developments. Under these circumstances, it would not have been rational for banks to sell FX stored in the ROM. This shows that *the ROM can only mitigate the impact of certain types of outflows*, namely outflows associated with banks' repayment of their external liabilities. However, it is less helpful when outflows are from money and asset, i.e., government debt and equity, markets.

9. While the ROM indeed helped sterilize existing inflows, a question arises if it may have exacerbated them. Theoretically, with high domestic lending rates and low external funding costs, banks stand to gain a lot by borrowing abroad and converting FX into lira via the ROM, that way

[5] See http://www.tcmb.gov.tr/yeni/ppyeni_eng/disponibilite_yeni_eng.html for evolution of the ROM parameters. The latest change (an increase) in the ROCs was announced on May 16, 2013.

contributing both to expansion of credit and strengthening of inflows. Empirically, it is not easy to prove this claim and, in fact, the CBRT's Inflation Report (2013b) argues the opposite. But two observations suggest that excessive borrowing may have taken place. One is that banks have been using the facility almost to the fullest and—abstracting from minor fluctuations—the outflows from the ROM took place only in summer of 2013. The second is that the EMP index[6] suggests much stronger inflows into Turkey in 2012–13 than, for example in 2010–11 when the ROM facility was not yet in place.



Source: CBRT and IMF staff calculations.

C. Conclusions

10. The ROM has certain limitations. Most importantly, it is not a perfect substitute for net international reserves when it comes to the economy's BOP needs. In times of heightened pressures, an increase in the costs of domestic liquidity—a likely response by a central bank—is likely to limit the offsetting release of FX from the facility. Finally, communicating the purpose and mechanics of the ROM to market participants has proved challenging.

[6] See the chapter "Looking at Capital Flows through the Exchange Market Pressure Prism" of this report.

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OUTPUT VOLATILITY AND EXTERNALLY SUSTAINABLE GROWTH[1]

Turkey's economy is one of the most volatile among emerging markets. We show this is because the country's low level of domestic savings make it more dependent than others on capital inflows for investment, and because inflows to Turkey are of a less stable nature than flows into other countries. Beyond this dependence on foreign financing, economic volatility is exacerbated by higher-than-average policy pro-cyclicality. Despite large volatility, trend growth in Turkey has been remarkably stable at around 4 percent, explaining why estimates of potential growth are in that neighborhood. However, average growth of 4 percent has been associated with a deteriorating external position. Barring reforms, we find that the maximum rate of growth consistent with no deterioration in the current account deficit is within the 2¾–3½ percent range. Alternatively, reaching 4–5 percent growth without widening external imbalances will require higher domestic savings, attracting more stable sources of foreign inflows, and paying greater heed to the impact of fiscal policy on the economic cycle.

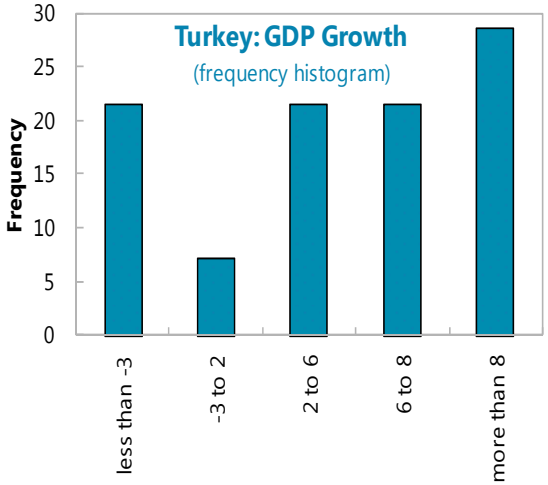
A. Output Volatility in Turkey

1. Turkey's gross domestic product is extremely volatile. Concentrating on the period since 1998, the longest sample for which "complete" national accounts exist[2], GDP growth fell in the 2–6 percent range in only three out of fourteen years. In fact, in seven out of fourteen years the economy either grew faster than 8 percent, or contracted by more than 3 percent. High volatility also characterized the pre-1998 period, with the standard deviation of annual growth a very high 4.5 percent then.

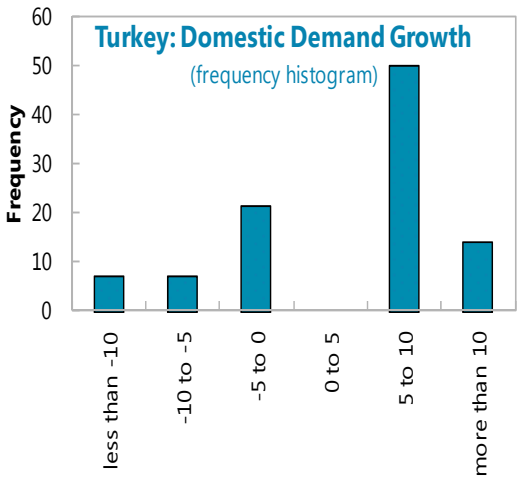
2. If anything, looking at GDP understates the volatility of the domestic economy. This is because, when the economy contracts, imports typically collapse and "mechanically" boost GDP. Perhaps a better gauge of underlying volatility is to look at total domestic demand instead of GDP. Incredibly, since 1998 domestic demand has either contracted or grown by more than five percent in every single year. And, with almost 30 percent probability, domestic demand has either grown by more than 10 percent or fallen by more than 5 percent. Over this period, the standard deviation of annual domestic demand growth has been a whopping 7.7 percent.

[1] Prepared by Jacques Miniane.

[2] For instance, there are no demand components of GDP before 1998.



Source: Haver; WEO; IMF staff calculations.



Source: Haver; WEO; IMF staff calculations.

3. Given these numbers, it should come as no surprise that Turkey has one of the most volatile growth patterns of any large country.[3] The standard deviation of output or domestic demand growth in Turkey has been about twice the average in the G-20+Poland space, and this is true whether one looks at all the countries in that group or solely at Turkey's emerging market peers.[4] In fact, only Argentina has shown itself to be more volatile than Turkey over this period.

Standard Deviation of Output

Turkey	5.27
Peers - Average	2.78
Peers - Highest	6.55
Peers - Lowest	1.49

Source: Haver; WEO; IMF staff calculations.

4. An important reason behind Turkey's high volatility is its dependence on capital inflows for growth. In a study on Turkey's low savings problem, IMF (2012a) argued at length that Turkey's low national savings meant that, at the margin, investment is financed via foreign savings. When capital inflows are ample, investment expands rapidly, and when capital inflows dry up investment goes into reverse, dragging the economy down with it. Several things seem to confirm this view: (i) on average over the period under study, Turkey has had the second lowest savings rate of any large emerging country, some 10 percentage points of GDP lower than the peer average; (ii) Turkey has suffered the largest decline in its savings rate of any country in the G-20+Poland

[3] We focus on the G-20+Poland group as it is well known that small countries are by nature more volatile, and hence do not provide a valid reference point for the purposes of this discussion.

[4] The peer group is comprised of Argentina, Brazil, China, India, Indonesia, Korea, Mexico, Poland, Russia, and South Africa.

space over this period; (iii) the correlation between economic growth and capital flows is higher in Turkey than in any other country in this group, by far. This correlation is 80 percent.

Correlation - Capital Flows and Growth[1]

Turkey	0.79
Peers - Average	0.18
Peers - Highest	0.61
Peers - Lowest	-0.29

Source: Haver; WEO; IMF staff calculations.
[1] Correlation between the change in net capital plus financial account flows (including changes in foreign reserves) measured a a share of GDP, and GDP growth.

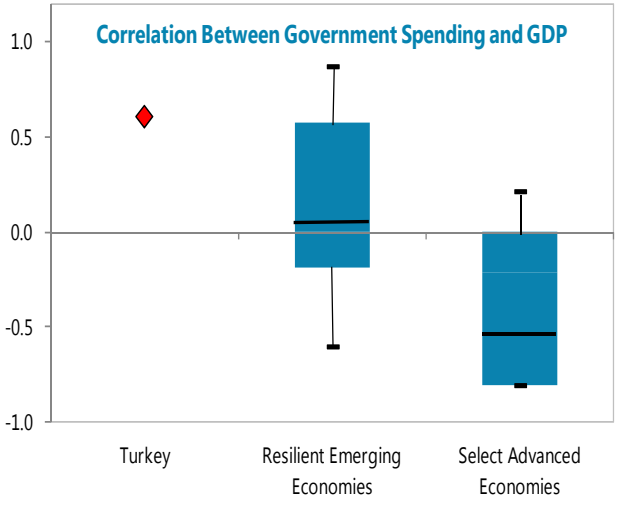
5. Not only is Turkey dependent on foreign savings, but in addition capital flows to Turkey have been more volatile than to other countries. The year-to-year absolute change in net capital inflows has averaged close to 3 percent of GDP over the last fifteen years. This compares with a G-20+Poland average of 1.7 percent, and a peer average of 2 percent. Only Russia and Argentina have experienced more volatile net inflows. This begs the question why. One possible explanation is that Turkey has traditionally relied on less stable sources of foreign funding. For example, inward FDI has been below that in peer countries (IMF, 2012b), and in recent years the bulk of the current account deficit has been financed via short-term external debt and portfolio inflows, what is traditionally called "hot money." Another explanation can be found in IMF (2013), which shows that countries which are "more resilient" to capital flows tend to show high co-movement between gross inflows and gross outflows; in periods of large inflows (outflows) by non-residents, outflows (inflows) by residents are large enough to offset their impact, resulting in small net inflows (outflows). This is not the case in Turkey: in fact, Turkey has one of the lowest co-variances between the current account and gross inflows of any country in the forty four country sample in the study, and the lowest among all large emerging countries.

6. However, the low savings-volatile inflows nexus, although key, is not the only factor behind high output volatility in Turkey. To start, some countries with saving rates similar to Turkey's such as Brazil, Poland, and South Africa, have suffered significantly less output volatility−though here one should note that capital inflows to these countries have been significantly less volatile than flows into Turkey.[5] Moreover, there have been years that do not fit the lower inflows-lower growth pattern: to give but one example, GDP growth slowed sharply between 2011 and 2012, from 8.8 percent to 2.2 percent (domestic demand growth went from 9.5 percent to -1.7 percent) yet net inflows increased in 2012 relative to 2011, albeit slightly. Finally, there is the non-trivial issue of causality: in 2001 capital outflows coincided with a growth collapse in Turkey, but only a fraction of the decline in net capital inflows was truly exogenous (driven by the burst in the United States of the IT bubble); in good part, capital flew out of the country as a reaction to

[5] This is partly due to the composition of the flows, for example a much higher share of FDI in total inflows in Poland.

unsustainable imbalances that had built in the Turkish economy and financial system, and these outflows in turn precipitated the crisis.

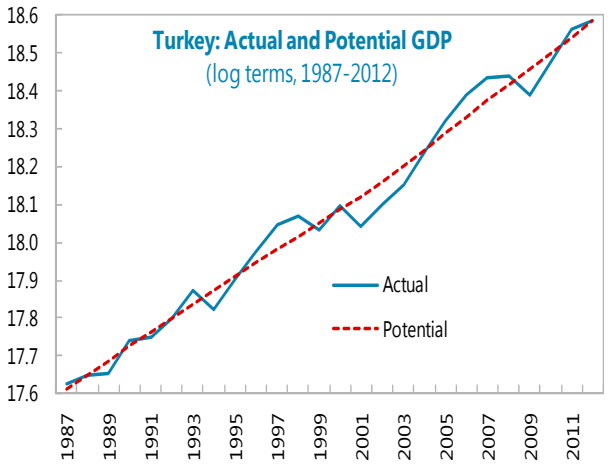
7. Policies could be the other factor behind output volatility. Another important difference between "less resilient" and "more resilient" countries identified in IMF (2013) is the pro-cyclicality of policies. In the former, policies tend to be more pro-cyclical, exacerbating the effects of capital flows. Turkey very much fits this pattern according to the data: the correlation between government spending and GDP [1] is estimated at a high 0.61, significantly higher than the median correlation among the group of resilient emerging economies (0.06) and even more so the median among advanced economies (-0.53, indicating clear counter-cyclicality).[2]



Source: Haver; WEO; IMF staff calculations.
Note: The horizontal line inside each box is the median of the distribution; the upper and lower edges of each box represent the top and bottom quartiles; and the black lines above and below the box represent the min and max of the distribution.

B. What can Output Volatility Tell US About Externally Sustainable Growth?

8. Despite high output volatility, trend growth has been remarkably stable across time. For example, the HP filter of Turkish GDP over the full 1987–2012 period yields an impressively flat line, with trend growth of close to 4 percent throughout the period. In contrast, trend growth in Argentina, to take another volatile economy, has about doubled from the earlier to the latter part of the same 1987–2012 sample, at least when measured using official national accounts. In other words, Turkey's economy over the last three decades has combined two seemingly incompatible characteristics: a remarkably stable average or trend growth of about 4 percent, but with very large volatility round this trend.[3]



Source: Haver; WEO; IMF staff calculations.

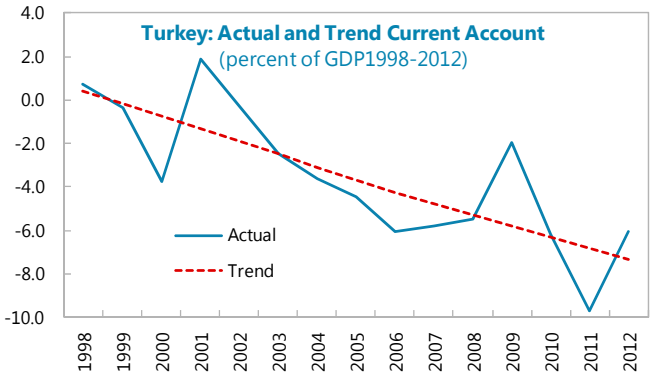
[1] More specifically, this is the correlation between the cyclical deviations of real primary expenditure and real GDP. The estimates are from IMF (2013), for consistency's sake.

[2] Other variables in which Turkey scores poorly relative to resilient countries in IMF (2013) include: the size of its current account deficit and of its (negative) net international investment position, both related to its dependence on foreign savings discussed above; its relatively low level of reserves; and its relatively high inflation level.

[3] In fact, the output gap (with potential measured by the HP filter) has been a large 3 percent or more in absolute terms in twelve out of the twenty six years in the sample.

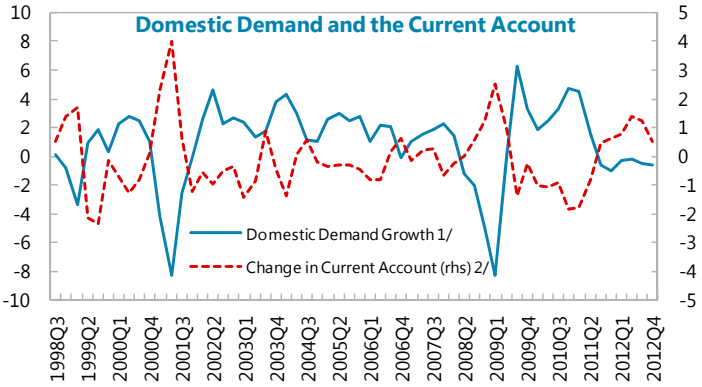
9. Not surprisingly, current estimates of potential growth are very close to historical trend growth. In principle, the two need not coincide at a given time, as potential growth is supposed to be a more forward-looking concept. Still, with Turkey's trend growth so stable across time, it is not surprising that potential is pegged close to it. As documented in IMF (2012c), Fund staff' estimates of potential growth are in the neighborhood of 4 percent, whereas estimates by various government agencies are closer to 4½ percent.[4]

10. But then, estimates of potential growth in Turkey have clear limitations. To start, these estimates are unrepresentative of historical experience: the economy has seldom grown at or even in the neighborhood of such rates. Moreover, are 4–4½ percent growth rates consistent with a stable external position? This is not certain prima facie given that, alongside trend growth of 4 percent, the economy has experienced trend deterioration in the current account over the last fifteen years of about 7 percent of GDP. Sharp increases in the external deficit (associated with strong inflows and high growth) have been followed by sharp corrections, but the latter never brought the current account fully back to where it had started from.



Source: Haver; WEO; IMF staff calculations.

11. This begs the question: what is the highest rate at which Turkey can grow in the short to medium run, without widening an already high current account deficit?[5] With the deficit at some 7 percent of GDP, it would not be advisable to be on a growth path where the deficit widens further at the risk of a crisis down the road. Looking back, it could well be that 4–5 percent growth is consistent with a stable current account, and that the



Source: Haver; WEO; IMF staff calculations.
1/ Two quarter moving average of q/q sa growth.
2/ Two quarter moving average of the change in CA/GDP.

[4] This is in part by construction given that the HP filter, which truly measures trend growth, is also used to estimate potential. Still, non-HP methods such as supply-side surveys and sectoral gaps also put potential growth at around 4–4½ percent.

[5] In spirit, this is not too dissimilar to papers like Alberola et al. (2013) or Borio et al. (2013) who define potential growth as the maximum rate of growth that does not exacerbate imbalances defined widely, including the current account deficit, asset prices, etc.

deterioration in the external position over the last decade owed not to "excessive" growth but to, say, adverse developments in the terms of trade.[6] This being said, there has been historically a very strong relationship between economic growth (GDP or domestic demand) and the change in the current account balance in Turkey; so much so, that one series looks like the mirror image of the other. More formal regressions that look at current account dynamics controlling for growth, the terms of trade, the real exchange rate, and external demand show that (see Appendix I for details):

- Growth is the key explanatory variable for current account dynamics in Turkey: while, on their own, energy prices or the real exchange rate explain a non-trivial share of developments in the current account, growth explains a much higher share (on its own, between 40 and 80 percent depending on the econometric specification). In addition, in multi-variate regressions the only variable that retains a significant coefficient is growth.

- The level of growth consistent with no change (i.e. no deterioration) in the current account is found to be within the 2¾–3½ percent range. The lower and higher points of the range are found in annual regressions; quarterly regressions consistently yield a level very close to 3 percent. This rate of growth should be interpreted in ceteris paribus terms i.e. assuming no major depreciation in the real exchange rate, or major improvement in the terms of trade.[7]

- Every additional point of economic growth above this "speed limit" of ± 3 percent is associated with a 0.3–0.4 percent of GDP deterioration in the current account.[8] Crucially, this is a cumulative deterioration, by which we mean that every year that growth exceeds the "speed limit" by 1 percentage point, the current account deteriorates by another 0.3–0.4 percent of GDP.[9]

[6] Indeed, Kara and Sarıkaya (2013) find that the cyclically and terms of trade-adjusted current account deficit has been pretty stable over the last decade, at around 5 percent of GDP (not far from the level found in the IMF's External Balance Assessement). However, there is a circularity here: both Kara and Sarikaya (2013) and the Fund's EBA start from the premise that potential growth is around 4 percent, hence any import growth associated with that is deemed "sustainable". In this paper, we take it one step back and ask what the highest level of growth is that does not worsen the current account deficit.

[7] Similarly, because these regressions do not look at medium-term relationships, the level of slow-moving variables like the savings rate should also be thought of as constant. With higher savings, Turkey could grow faster than 2¾ –3½ percent without a worsening current account deficit.

[8] The statistical relationship works the other way around: for every point that growth is below the speed limit, the current account improves by 0.3–0.4 percentage point of GDP. Note that in 2012 the current account deficit fell by about 3½ percentage points of GDP despite growth being only slightly below the speed limit, at 2.2 percent. This is because a large part of the decline in the deficit last year was due to exceptionally high net gold exports driven by one-off factors. In turn, with these one-off factors disappearing this year, the worsening in the current account will likely be higher than what the above elasticity would imply.

[9] Moreover, if one believes Turkey's external deficit is currently too high, GDP growth 3 percent per year would not widen the deficit but it would not help reduce it, either. The latter would require below 3 percent growth for some years.

C. Some Concluding Thoughts

12. Should Turkey aim for lower growth, to lessen the probability that a widening current account will result in a crisis later on? From the discussion above, it would seem that, barring reform (see below) or an exogenous improvement in the terms of trade, Turkey can sustain average growth rates of about 4 percent or more only at the cost of widening external imbalances. Alternatively, it could aim for lower average growth and achieve a more sustainable external position. Ceteris paribus, economic agents prefer higher to lower income growth, but also lower to higher income volatility because of risk aversion. But whether a path that entails lower but less volatile income growth is better than one with higher and more volatile growth is impossible to say. At the individual level, this depends on a multitude of factors including inter alia the level of income, the relative rates of income growth and volatility in the two paths, and the degree of risk aversion. At the societal level, the question becomes exponentially more complex. This being said, some general considerations can be formulated. In particular, economic busts are significantly harder on the poorer segments of the population, because they are more likely to work in precarious jobs that are the first to "disappear" in a recession (an important consideration in a country with a very high rate of informality), because they have lower rainy day savings, and because they have fewer means to hedge against income and price volatility.

13. More proactively, what can Turkey do to achieve 4+ growth without compromising stability? The paper points to some clear priorities:

- *reduce dependence on foreign savings*, which will entail raising the low level of domestic savings. Recent reforms of the private pension system are a good step, but they are not nearly enough. With Ricardian equivalence only partial in Turkey (see IMF 2012a), the government could play a useful role by targeting more ambitious public savings in the medium-term, akin to those that it was achieving before the global financial crisis.

- *attract more stable sources of external funding*. The low level of inward FDI is an important shortcoming in Turkey, all the more considering the potential offered by the country's strategic geographical location and its large and growing internal market. Again, recent changes to the business code and to the capital markets law go in the right direction, but more is needed in the areas of taxation, labor contracts, and business environment as identified by the Investment Advisory Council.

- *reduce the pro-cyclicality of fiscal policy*. Turkey's fiscal achievements over the last decade are impressive, resulting in much lower public debt and one with a more favorable maturity profile and lower FX risk. With debt sustainability now entrenched, the authorities should pay more heed to the impact of fiscal policy on aggregate demand and the general economic cycle.

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Annex I. Econometric Specifications

The goal of the regressions is not to estimate the medium-term "structural" level of the current account as in the Fund's External Balance Assessment. Rather, it is to understand short-run current account dynamics, specifically the short-run relation between economic growth and changes in the current account. As such, we regress the change in the current account/GDP ratio on various relevant explanatory variables, namely:

- growth, be it GDP growth or domestic demand growth (the latter being more directly linked to import dynamics)
- the dollar change in oil prices (specifically, the WEO oil price index), given that the energy import bill represents a large share of the current account deficit in Turkey
- the percent change in the real effective exchange rate (with a positive change denoting appreciation)
- trading partner growth (measured, alternatively, by domestic demand growth in the European Union−traditionally Turkey's main trading partner,—the output gap in the European Union, and global growth)

One can think of other variables that affect the current account in the short term such as credit growth or fiscal policy, but they are not included in the main specification because they operate via variables already in the regression, such as economic growth or the real exchange rate. Slow-moving variables such as demographics are not part of these "short-run" regressions. Estimations are done on the 1998–2012 period (the full period for which complete national accounts data exist in Turkey), using both annual and quarterly data. In the latter case, regressions are estimated on the basis of two or three-quarter moving averages to smooth volatility in the data and account for serial correlation at the quarterly frequency.

Results using quarterly data are shown below. In simple, univariate regressions, growth (either GDP or domestic demand), oil prices, and the REER all have the right sign, are highly statistically significant, and explain by themselves a non-trivial share of the dependent variable's variance (in univariate regressions, trading partner growth is either insignificant or has the wrong sign). Without a doubt, the most important variable is growth, notably domestic demand growth which by itself explains 66 percent of current account dynamics. When the regression is estimated with all explanatory variables, oil prices, the real exchange rate, and trading partner growth "cease to matter" (i.e. their coefficients are no longer significant), but growth remains highly significant.

From these regressions, one can set the left hand side to zero and obtain the level of growth associated with no change in the current account using the ratio -c(0)/c(1), where c(0) is the estimated constant and c(1) is the estimated coefficient on growth. This assumes no changes in the other variables, but an alternative way to rationalize this is to note that the coefficients on the other variables are not statistically significant. As can be seen, this measure of growth, called here the "speed limit", is consistently around 3 percent when expressed in annualized terms.

Dependent Variable: Change in the Current Account/GDP Ratio (quarterly data)						
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	0.28 (0.03)	0.25 (0.01)	0.01 (0.93)	-0.02 (0.87)	0.15 (0.38)	0.28 (0.01)
GDP growth	-0.4 (0)					
Domestic demand growth		-0.34 (0)				-0.38 (0)
Change in oil prices			-0.06 (0)			0.01 (0.34)
Change in REER				-0.08 (0.01)		0.02 (0.3)
EU domestic demand growth					-0.68 (0)	-0.09 (0.6)
R-square	0.42	0.66	0.19	0.11	0.13	0.67
Growth consistent with no change in CA/GDP	2.9	2.9				2.9

Note: values in brackets are the coefficient's p-value. If the p-value is below 0.01, it is expressed as zero.

Results using annual data are, on the whole, very consistent with those discussed above: growth, oil prices, and the real exchange rate all matter, but growth clearly dominates notably domestic demand. Measures of the "speed limit" are now a bit more dispersed but not dramatically so, with one estimate at 2¾ percent, and the two others closer to 3½ percent.

Dependent Variable: Change in the Current Account/GDP Ratio (annual data)						
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	1.44 (0)	0.91 (0.06)	0.28 (0.7)	-0.03 (0.97)	0.48 (0.58)	1.06 (0.07)
GDP growth (percent)	-0.41 (0)					
Domestic demand growth (percent)		-0.34 (0)				-0.3 (0)
Change in oil prices (US$)			-0.11 (0.02)			-0.02 (0.66)
Change in REER (percent)				-0.18 (0.04)		0 (0.98)
EU domestic demand growth (percent)					-0.69 (0.06)	-0.13 (0.61)
R-square	0.61	0.78	0.36	0.31	0.27	0.8
Growth consistent with no change in CA/GDP	3.5	2.7				3.6

Note: values in brackets are the coefficient's p-value. If the p-value is below 0.01, it is expressed as zero.

Finally, at the behest of the central bank, we looked at the link between credit and the current account. In a univariate regression, credit growth is significant, of the right sign, and explains about 20 percent of current account dynamics in annual data. However, its significance disappears once growth is part of the regression. Also at the central bank's behest, we looked at the relative price of investment (measured here as the ratio of the investment deflator to the GDP deflator, using Turkish data but also U.S. data for an international proxy). This variable is not a statistically significant correlate of the current account in either quarterly or annual data.

BUDGET RIGIDITIES IN TURKEY[1]

A. Introduction

1. Budget flexibility is critical to sustain fiscal gains achieved in the past ten years. With revenues strongly dependent on growth (i.e. domestic demand and imports) and the composition of primary spending titled towards increasing mandatory spending, the room for fiscal maneuver has been reduced. The government's capacity to carry out priorities stated in the medium-term budgetary framework and allocate resources accordingly in an efficient manner can be affected by growing expenditure rigidities. This loss of flexibility in the composition of expenditures could jeopardize the capacity of fiscal policy to react nimbly to macroeconomic shocks, which could result in a persistent increase in expenditures and pressures on public debt. Finally, rigid expenditures affect the quality of fiscal adjustments by generating a bias towards under-investing in infrastructure, which hampers competitiveness, capital accumulation and a higher potential output.

2. Greater budget flexibility appears warranted in Turkey to secure the role of fiscal policy in aggregate demand management and its contribution to higher national savings. Although the optimal level of budget flexibility is a matter of debate, from a normative perspective some degree of budget rigidity may be desirable so that some budget categories remain immune to short-term contingencies. Budget rigidity can then be understood as a mechanism permitting to isolate these budget categories from annual budget discussions, and promote a solid commitment by the government to fulfill these obligations. Yet, when budget rigidities are major— or growing at a rapid pace as in the case of Turkey—this argument losses power and encounters several objections. First, it is possible that some of the rigid expenditure categories are not an actual priority, and that their rigidity reflects just the power of interest groups. Second, even if dealing with priority expenditures, there is still the need to react to unexpected events that may justify turning away from previous commitments in favor of more pressing objectives. Third, large expenditure rigidities add considerable complexity to the budgeting process with the resulting loss in credibility due to increasing challenges to secure fiscal discipline. For all these reasons, the budget should remain flexible to be able to accommodate to potential shocks, while achieving the fiscal targets set in the medium-term budgetary framework.

3. This paper assesses the change in composition of public expenditures in Turkey during the last decade (section B), reviews the major sources of expenditure rigidities at the central government (section C), and discusses the impact of expenditure rigidities on the effectiveness of the medium-term budgetary framework to secure fiscal discipline (section D). Finally, it suggests potential ways to reduce expenditure rigidities while fostering fiscal discipline (section E).

[1] Prepared by Isabel Rial.

B. The Changing Composition of Public Expenditure

4. Turkey's fiscal effort over the last ten years brought about an impressive reduction in debt and interest costs. In little more than a decade general government gross debt was cut by half—from almost 80 to 40 percent of GDP by end 2012—reducing the fiscal burden in interest payments from 15 percent of GDP on average during 2000–2005 to less than 3 percent in 2012 (Figure 1). Fiscal risks arising from the currency composition of public debt were also reduced, with the share general government debt denominated in foreign currency plunging from 43 percent of GDP to less than 11 percent by 2012.

Figure 1. General Government Gross Debt and Net Interest

(In percent of GDP)

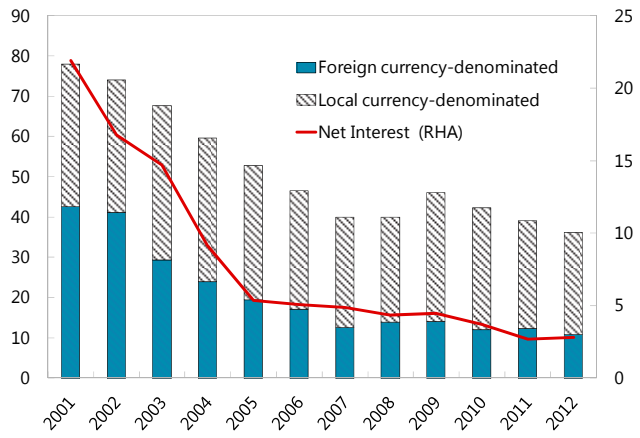
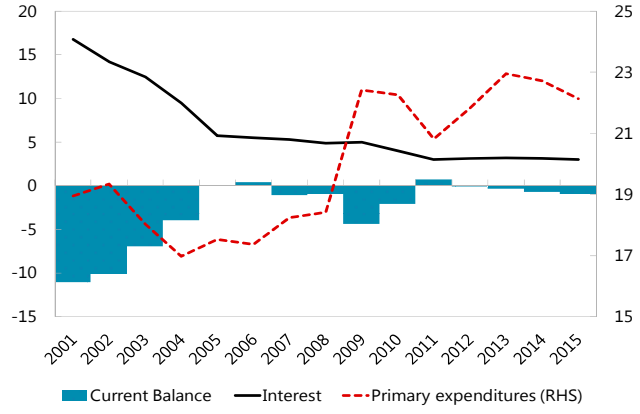


Figure 2. Central Gov. Expenditure and Current Balance

(In percent of GDP)



5. The fiscal space generated by lower interest costs was rapidly filled-in by higher primary expenditures, keeping public savings at low levels. After an impressive consolidation effort in 2002–2004, primary expenditure returned gradually to previous levels by 2008, and public saving-to-GDP ratio remained close to zero (Figure 2).[2] By 2009, the fiscal stimulus implemented during the global financial crisis pushed primary spending to historically high levels. Thereafter, reducing primary spending has proved challenging, despite several attempts as stated in subsequent medium-term fiscal plans. As a result, public savings has remained at very low levels throughout the whole period.

6. The increasing trend of primary spending points to new budget rigidities. Past gains in terms of budget flexibility from lower interest costs were rapidly lost due to increasing pressures in categories of spending also rigid in the short-term, mainly compensation to employees and transfers to social security institutions (Figure 3). After a big fiscal effort at the beginning of the decade total expenditures remained subdued growing only by 0.7 pp of GDP between 2005 and 2012. While interest payments dropped by 3.6 pp

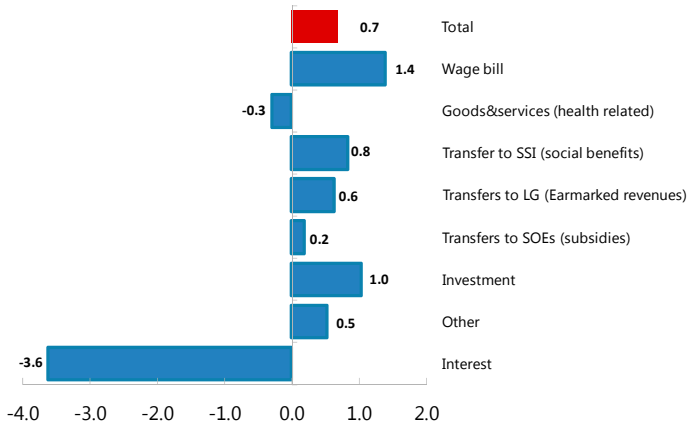
[2] Public savings is approximated by the central government current balance, which is the difference between total revenue and total expenditures, excluding capital.

of GDP, the wage bill increased from ¼ to almost ⅓ of the total spending, while transfers to the social security institutions and subnational governments showed a similar path.

7. A more rigid composition of primary spending is a source of budgetary and macroeconomic concerns. It reduces the government's capacity to adjust fiscal aggregates to changing macroeconomic environments, and ultimately to achieve a higher level of public savings. Moreover, it reduces the quality of fiscal consolidation efforts by generating a bias towards under-investing in infrastructure and lower growth. Indeed, despite Turkey's low public investment level relative to other developing economies, capital spending grew only by 1.0 pp of GDP in the last six years, and keeps on being the more volatile category of spending.

Figure 3. Central Government. Change in Expenditure

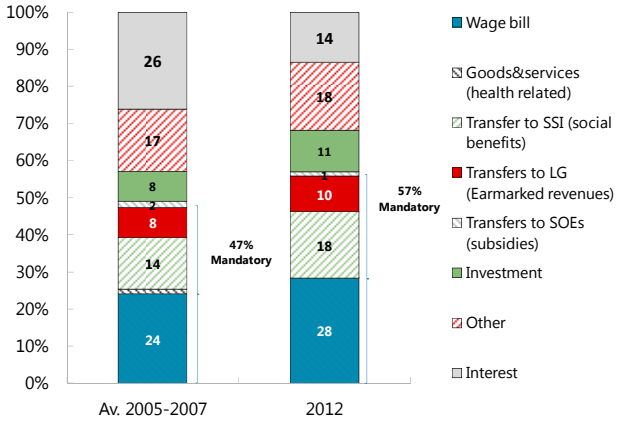
(2005-2012 change in percentage points of GDP)



Sources: Staff calculations.

Figure 4. Central Government Composition of Expenditure

(In percent of total expenditures)



C. Sources of Expenditure Rigidity

8. A category of expenditure is regarded as rigid when its inclusion in the budget is not dependent upon the discretion of policy authorities in the short-term.[3] Thus, expenditure rigidity is defined as the unfeasibility of phasing, reducing, or abrogating public spending in immediate connection with the decision-making process concerning the annual budget. Rigid categories of spending are considered "mandatory"; while the remaining categories are referred as "discretional".

[3] Not all sources of expenditure rigidity are of the same order. Specifically, it is essential to distinguish between causes of a technical nature on the one hand and causes of a political nature on the other. While it is possible to estimate potential measures to overcome technical rigidities, no such estimate is reasonable in the case of political rigidities. In this paper we refer to budget rigidity only in the technical sense.

9. Expenditure rigidities typically fall into three main categories. First, expenditures can be legally obligatory so that, they cannot be limited without first changing the law. This category of mandatory spending is regarded as completely inflexible in the short-term (e.g. social security benefits). Second, rigidities can arise due to procedures that have been established for such cases. For example, personnel related expenditures cannot be cut back without changes in personnel procedures and policies and/or renegotiations with unions; interest on public debt cannot be cut back without addressing the fiscal and macroeconomic implications of sovereign default. Finally, expenditure rigidities may be of a technically complementary nature so that expenditure cannot be limited without annihilation of previously invested capital (e.g., maintenance of fixed capital such as roads and public buildings in the sphere of consumption, or capital expenditures related to the continuation of an ongoing project).

10. In the case of Turkey, we focus our analysis on mandatory "primary" expenditure. Since interest costs—a mandatory spending category—are expected to remain on a declining path, efforts to control increasing rigidities should be focused on primary expenditure. Moreover, we classify spending categories taking into account only legal and procedural rigidities, ignoring technical rigidities all along.[4] Accordingly, we defined mandatory primary expenditure as the sum of the following categories: compensation to employees, goods and services related to health spending, transfers to social security institutions, transfers to local governments, and subsidies to state-owned enterprises.[5]

11. The rapid increase of primary expenditure rigidities should not be disregarded. As shown in Figure 4, the share of mandatory primary expenditures grew from 47 percent of total spending to almost 60 percent in the last six years. With revenues strongly dependant on domestic demand and imports, concerns about primary expenditure rigidities are rapidly gaining momentum. Unaddressed, rigidities can jeopardize macroeconomic stability for they hamper the adjustment of fiscal magnitudes to changing environments, which often results in a persistent increase in expenditure and pressures on public debt. In the medium-term, the budget should remain flexible to allow fiscal policy to play a significant role in aggregate demand management and contribute to higher and stable national savings.

12. We identified two main sources of expenditure rigidities. First, rigidities arise from the dynamic of particular categories of mandatory spending. In Turkey, compensation to employees and transfers to social security institutions explain a big part of the increasing trend in budget rigidities,

[4] Technically complementary expenditure both in the sphere of consumption (i.e., maintenance) and investment (i.e. capital expenditure) can be considered partially flexible even in the very short-term. Experience shows that countries under stress have often cut back maintenance spending, albeit acknowledging that in the medium-term it could reduce the of value of their stock of fixed capital. Similarly, investment can be phased out over a longer period of time at the expense of some lost benefits resulting from the later completion of the projects.

[5] There are other categories of spending that can prove to be legally and procedurally rigid, such as goods and services related to education spending following the 2011 education reform. In this regard, our estimation of mandatory spending should be regarded as a lower bound.

even though health related spending, education, and subsidies have gained relevance in recent years. Second, expenditure rigidities also arise from weaknesses in the overall budgetary framework by reducing the government's capacity to control main fiscal aggregates in line with its medium-term fiscal targets (i.e., fiscal discipline). In this section, we briefly review sources of rigidities arising from key category of spending; while in the next section we discuss the link between expenditure rigidities and fiscal discipline from a public financial management perspective.

Rigidities in key spending categories

Compensation to employees

13. Compensation to employees—or the "wage bill"—is the largest single category of total expenditure, and one of the most rigid. Between 2005 and 2012 the wage bill rose by 1.4 pp of GDP, growing from 23 to 28 percent of percent of total expenditure in this period. Various policy measures explain this evolution.

14. The collective bargaining mechanism imposes an important rigidity to the budget, constraining expenditure consolidation efforts in the short-term. In late 2011 a legislative change introduced a collective bargaining mechanism for civil servants salaries, which represent the majority of the total public workforce. The salary agreement resulting from the bargaining mechanism is binding for the next two years, but salary increases for the second year may differ from headline increases as a result of ex-post inflation adjustment. Public employees not belonging to the civil servants category remain under different salary adjustment mechanisms.[6]

15. Salary negotiation are based on four pillars mutually reinforcing: (i) salary increases are negotiated in line with expected inflation, but typically they typically end-up exceeding the latter; (ii) ex-post inflation adjustment clauses for the second year of the agreement, which had been significant;[7] (iii) ad-hoc lump-sum increases; and (iv) side benefits (i.e., allowances, etc). Each salary negotiation is different, and may not include all four pillars.

16. All four pillars of the salary negotiation amplify expenditure rigidities. First, the salary negotiation is indexed to inflation which is not under control of the budgetary authority. Both the first and second pillar of salary adjustment ensures that there will be no real losses for salary earners, but allows for real increases if semi-annual inflation outturn comes out lower than the headline semi-annual salary increase. Experience shows that wage indexation typically leads to high wages

[6] They are approximately 10 percent of total public workforce.

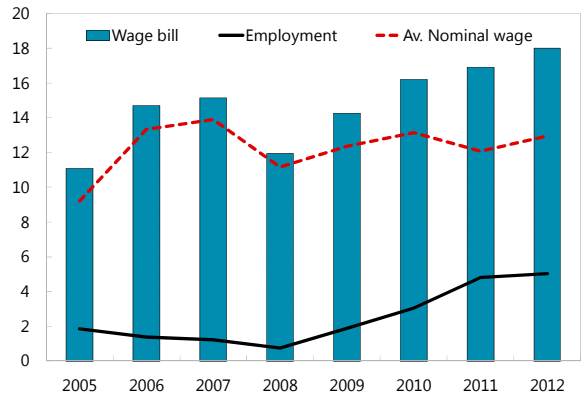
[7] For a given semi-annual period, the ex-post inflation adjustment compares the half-year inflation outturn with the pre-announced half-year salary increase. If the former is higher than the latter, the increment is added on top of the next half-year (pre-determined) salary increase. However, this is not a symmetric adjustment. If semi-annual inflation outturn turns out to be lower than pre-announced semi-annual salary increase rate, no downward ex-post inflation adjustment is made, granting real gains to salary earners.

relative to the private sector comparator.[8] Second, lump-sum increases have been common in the last year especially for low-paid employees, which have raised the average salary levels well above headline increases. This lump-sum increases for low-paid compresses the wage margin between high and low-paid. Although, efforts to compress the wage margin between unskilled and skill workers have been based on equity concerns, they cannot be supported on grounds of efficiency and flexibility of public spending.[9] Finally, the increase in side benefits is difficult to evaluate but certainly introduces further rigidities to the wage bill.

17. Increase in public employment makes the wage bill more rigid. Particularly in the last two years employment at the central government level has increased by close to 5 percent. Main reasons behind such increase are: (i) natural catch up after the program era; (ii) the impact of educational reform introduce in 2012;[10] and (iii) discretional increases in number of judges and security personnel due to low levels inherited from the past. Although an increase in public employment is consistent with the need to improve the quality and quantity of public services, and even recognizing that some upward pressures are structural and thus will fade out in the medium-term, the employment growth rate is still considerable (Figure 5).

Figure 5. Central Government Wage Bill

(Nominal growth rates)



18. Some recent measures added further rigidities to the wage bill. In 2011, the government approved the equalization scheme of civil servants salaries. "Equal salary for equal job" scheme tried to eliminate discrepancies among equivalent jobs due to the existence of side benefits and additional lump sum payments on top on salaries. Similarly, in 2013 the Parliament passed a bag law that included provisions, among others, to convert more than 100,000 contracted public employees to the permanent civil servant category, with the corresponding extra fiscal cost.

19. Despite short-term rigidities, the wage bill is not inherently rigid in the medium-term. Thus, scope remains to reduce the wage bill significantly over the medium term, as discussed in section E.

[8] Stronger job security in the civil service typically allows for a discount of 10-20 percent relative to private sector wages.

[9] Unskilled workers tend to remain in the civil service pay longer than skilled workers.

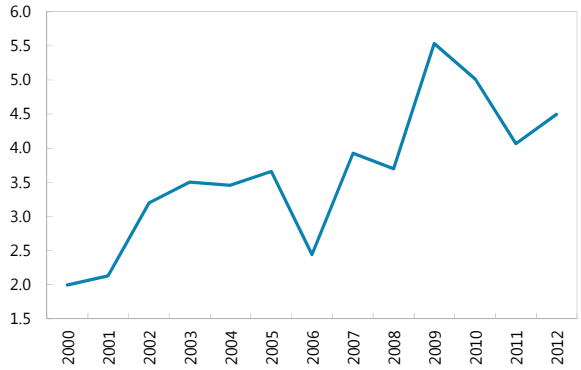
[10] The education reform was introduced in 2012. While its total fiscal impact is still uncertain, the increase in the years of education requires a larger number of teachers, which has put pressures on public employment particularly in the last two years.

Transfer to Social Security Institutions

20. In Turkey, as in most developed and emerging economies, increasing expenditure rigidities are largely related to growing pressures from social security systems. Central government transfers to social security institutions to finance their deficits grew from 2.0 percent of GDP in the early 2000s to a peak of 5.5 percent of GDP in 2009, after stabilizing around 5.0 percent in recent years (Figure 6).[11] Despite favorable demographic conditions, high informality and key features of the pension system explain this trend.

Figure 6. Central Government Transfers to Social Security

(In percent of GDP)

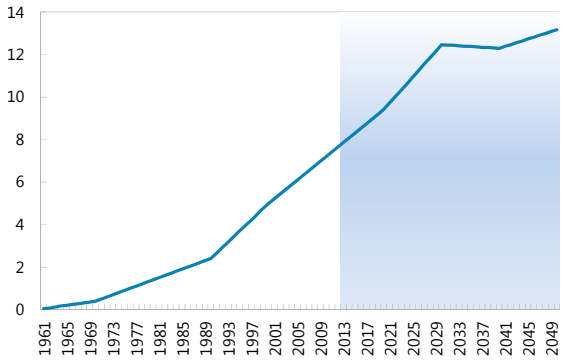


Sources: Official data.

21. To stem the rise of pension expenditures, Turkey has implemented two pension reforms over the last decade.[12] These reforms brought retirement ages, contribution periods, accrual rates, and indexation rules closer to international norms and are estimated to achieve significant savings over the long-run relative to old system. They also simplified the overall administration of the pension system by unifying three previously independent pension regimens, reducing previous inequalities.[13]

Figure 7. Estimates for Turkey's Pension Expenditure

(In percent of GDP)



Sources: IMF Fiscal Monitor (2013).

22. Despite significant reform efforts, challenges remain to rein in pension expenditures in the short and medium-term. Past reforms moved the pension system towards a more sustainable position and slowed the growth rate of pension expenditures. Yet, the pace of the reform implementation is extremely slow. As shown in Figure 7, pension expenditures stabilize only after 30 years. Therefore, although the

[11] Approximately half of social security total expenditure is financed by transfers from the central government.

[12] The first reform was introduced in 1999 and the latest in 2006/2008. Additional measures were also implemented during this period beyond those included in the reform packages.

[13] Despite three pension regimens (i.e., ES, SSK, and BK) where unified under one system (i.e. SSI), ES still enjoys a separate grandfathered treatment due to constitutional court rulings.

reforms were a remarkable progress towards long-term fiscal sustainability, they did not stabilize the pension expenditure in the short-term. Based on current parameters, staff estimates growing pension expenditure in the next 30 years, stabilizing only in the long-run.[14]

23. Main drivers of pension expenditure rigidities are: (i) high eligibility and replacement rates; (ii) pension indexation mechanism for civil servants; and (ii) slow pace of reform implementation. Even after the 2006/2008 reform is fully implemented, Turkey's pension system will continue struggling with high eligibility rates due to very generous conditions for retirement (e.g., the length of service required to be eligible for a pension will remain significantly below current OECD averages). The ratio of average gross pension to average gross wage (i.e. the replacement rate) is also quite high in Turkey compared to OECD countries. Even more important, is the differential in the pension indexation mechanism. Previous to the 1999 reform all categories of pensioners have monthly increases linked to the growth rate of civil servant wages. After both reforms efforts private sector employees, self-employed, and civil servants joining the system after 2008 have their pensions linked to semiannual inflation. Although this a change in the right direction, this indexation mechanism does not apply to civil servants that joined the system before 2008, which continue to have their pensions linked to the salary increase rate of active civil servants. Moreover, due to recent court rulings, it is not even clear if indexation to semiannual inflation will apply for civil servants that joined the system after 2008. This amplifies existing rigidities, by linking a significant portion of pension expenditures to the results of the collective bargaining mechanism for civil servants not under direct control of the government. Finally, the slow pace of the implementation of the reforms does not contribute to curtail current rigidities, since many measures will not be effective for 3 to 4 decades.[15]

24. Given that Turkey's pension parameters are still far from international norms, there is room to press on with renewed reform efforts. The pension system remains broadly generous, compared to other advanced economies, thus short-term expenditure rigidities could be handled by adjusting main parameters and/or accelerating the implementation of past reforms. Section E discusses some options in this regard.

Other spending categories

25. Others spending categories also contribute to the growing rigidity in the composition of primary expenditure. For example, the pattern of health expenditures reflects a mixture of discretional policy targets and expenditure rigidities. Although health expenditures are not explicitly covered in our analysis, central government transfers to social security also include transfers to cover for health-related services financed by social security institutions. Pressures on health spending arise from both demographics and supply costs, both of which have implications in terms of rigidities.

[14] Staff estimates published in the IMF Fiscal Monitor are based on current parameters and latest OECD figures for pension expenditures.

[15] For example, the transition period for the retirement age reform will only be completed by 2075.

The authorities have taken measure to reduce supply cost pressures on health expenditures by negotiating better protocols and extending the length of contracts with medicine supplier. Yet, the demand for treatment—related to demographics and changes in demand pattern for health services—has been growing steadily, despite recent increase in copayments. Similarly, despite potential flexibility in transfers to subnational governments and to state-owned enterprises (SOEs), there are also significant rigidities that limit the discretionary room to trim spending in the short-term (e.g., transfers to subnational governments are related to earmarked revenues established by law, transfers to SOEs to meant to cover their "duty losses" due to the implementation of subsidy policy).

D. Expenditure Rigidities and Fiscal Discipline

26. In Turkey, as in most advanced economies, the main motivation for adopting a medium-term budgetary framework (MTBF)[16] has been the desire to strengthen multiyear fiscal discipline (see box 1).[17] Fiscal discipline is defined as the capacity of the government to comply with the fiscal targets set in the MTBF. A MTBF can help improve fiscal discipline, among other things, by establishing binding multiyear expenditures limits that contain expenditures in subsequent budgets combating tendencies for their level to raise incrementally over time.

Box 1. Medium-term Budget Framework in Turkey

Turkey has made significant progress in reforming its budget institutions over the past decade. One of the biggest improvements was the introduction in 2006 of a multiyear macro and fiscal forecast jointly prepared by the Ministry of Finance, Ministry of Development, and the Undersecretariat of Treasury. The macro forecast, along with public sector and general government balances, are published in the Medium-Term Program (MTP) by the Ministry of Development; while expenditure ceilings for central budget institutions on a multiyear basis are published in the Medium-Term Fiscal Plan (MTFP) by the Ministry of Finance. The High Planning Council, chaired by the Prime Minister and composed of main ministers, approves the MTFP and fixes ex-ante ceilings covering both current and capital expenditure by September each year, as guidelines for the preparation of the draft Budget Law. Finally, parliamentary approval is given by the Turkish Grand National Assembly in December.

27. The capacity of the MTBF to foster fiscal discipline is largely affected by expenditure rigidities. If specific sectors or spending categories demand a significant percentage of total

[16] A medium-term budgetary framework (MTBF) is a set of institutional arrangements for prioritizing, presenting, and managing revenue and expenditure in a multiyear perspective. In Turkey, the MTBF includes two main documents: the medium-term plan (MTP) and the medium-term fiscal plan as explained in Box 1. For now on, we refer to the MTP as Turkey's MTBF.

[17] Countries introduce MTBF for a number of reasons, to some extent, mutually reinforcing: (i) ensuring better control over the evolution of the aggregate fiscal position ensuring fiscal discipline; (ii) promoting a more effective allocation of expenditure between sectors and priorities, and (iii) encouraging more efficient use of resources by budget managers.

expenditure the government can find it difficult to comply with targets set in the MTBF, particularly to enforce multiyear expenditure control. Spending rigidities limited the capacity to reallocate budget resources in response of changing needs, perpetuating budget allocations on the basis of historical levels and increasing pressures to expand the total expenditure envelop.

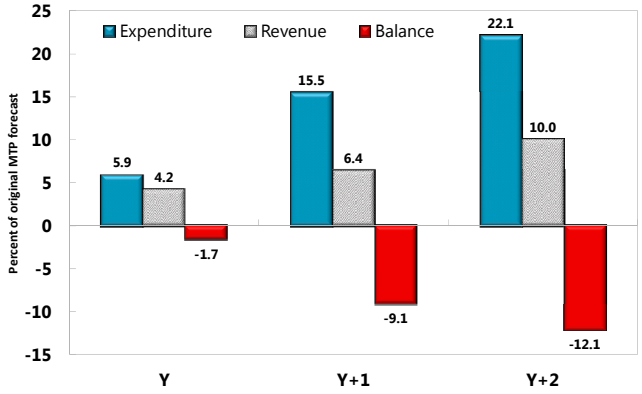
28. In turn, key features of the MTBF can perpetuate or even promote expenditure rigidities, thus hampering fiscal discipline. An effective medium-term budgetary process should be able to constrain budget appropriations and execution in current and future years to levels consistent with the government's fiscal targets set in the MTBF. Missing fiscal targets frequently (e.g., by overshooting expenditure ceilings set in the MTBF) can quickly reduce the credibility of the MTBF and fail to foster fiscal discipline.

How effective has been Turkey's MTP in fostering fiscal discipline?

29. There have been substantial slippages translating MTP' targets into reality. The effectiveness of the MTP in fostering fiscal discipline is assessed by looking at the compliance of its multiyear targets. Compliance is measured by the difference between the 3 years ahead forecast and budget realizations.[18] For the period 2006–2012, Figure 8 shows the average difference between forecasted revenue, expenditure, and deficit at the beginning of the MTP's projection period and the final budget realizations—expressed as percentage of realizations by category.[19] On average, for the three years projection period revenue forecasts seem relatively conservative, while the expenditure drift is significantly larger, resulting in higher than targeted deficits. In particular, after one year spending execution is 5.9 percent higher on average than the original spending ceiling set in the MTP, growing to 15.5 and 22.1 percent higher in the second and third year of projection. While for most countries changes in

Figure 8. Central Government Medium-term Fiscal Forecasting Errors

(Average 2006-2012)



*/ Difference between MTP targets and final budget execution, in percent of MTP targets.
Sources: Staff estimates based on official data.

[18] Expenditure realizations refer to budget execution outturns for expenditures.

[19] Ratios of GDP are used to control for inflation. We present average results for the period 2006-2012, but estimations are done on an annual basis.

expenditure occur during the course of their MTBFs, Turkey's expenditure forecasting errors are relatively significant.[20]

30. While in the past deficit forecasts showed an optimist bias, deficit targets have been over-performed in recent years. If we compare overall deficit targets and final realizations, we can see that at the beginning of the period there was a clear optimist bias (Figure 9). Yet, this bias could be the result of the combination of many factors. First, it could be the result of policy decisions taken in the outer years not aligned to the original targets set in the MTP. Second, given that Turkey introduced a MTBF only in 2006, it could also be related to the typical learning process of implementing a complex fiscal policy tool. Finally, high forecasting errors could also be related to the uncertainty generated by the global financial crisis started in 2008. Therefore, it is important to assess what happened in the period after the crisis. For the last two MTPs deficit targets have been over-performed (i.e., deficits have been lower than forecasted), due to partial savings of revenue windfalls. For example, the 2010 MTP forecasted for 2011 an overall deficit much higher than the actual realization (difference between point A and point B in Figure 9); and the same happened for the 2012 projection included in the 2011 MTP (difference between points C and D in Figure 9).

Figure 9. Performance of MTP Overall Deficit Targets

(In percent of GDP)

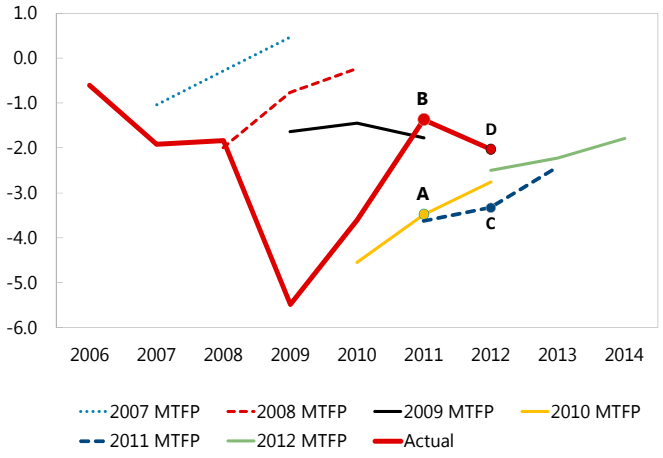
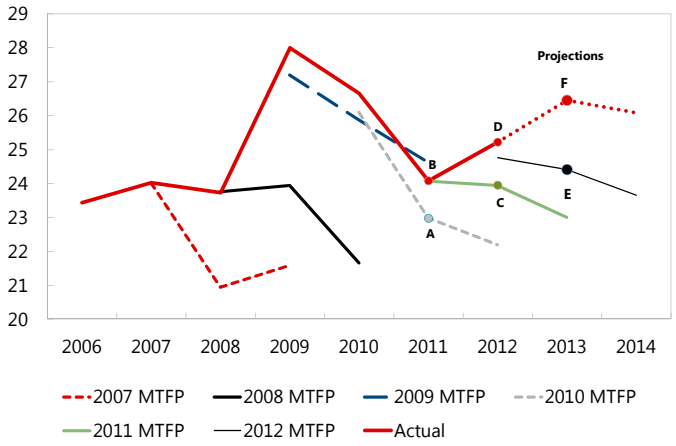


Figure 10. Performance of MTP Expenditure Ceilings

(Percent of GDP)



Sources: Staff estimates based on official data.

[20] See, chapter 4 of IMF (2013) for relative magnitudes of expenditure forecasting errors for other advanced economies.

31. Yet, expenditure ceilings have been systematically exceeded during the entire period. As shown in Figure 10, since the introduction of the MTP in 2006, expenditure realizations have been systematically above MTP ceilings, while projections for the outer years have tended to be optimistic. For example, in 2011 expenditure realizations were 1.1 pp of GDP higher than the ceiling set in the 2010 MTBF (i.e. distance between point A and B in Figure 10);[21] similarly, in 2012 expenditure ceiling set in the 2011 MTBF were breached by 0.8pp of GDP (i.e. distance between point C and D in Figure 10). Moreover, based on data up to September 2013, staff expects that the spending ceiling for 2013 set in the 2012 MTP will also be breached by a similar amount.

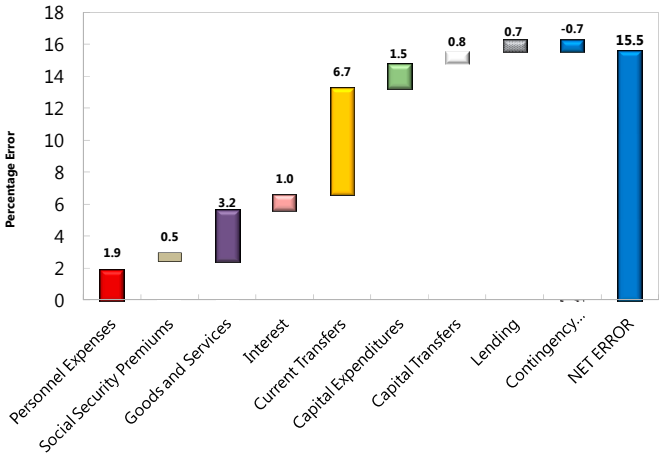
32. Despite recent over-performance in terms of target deficit, the large expenditure drift poses risks in terms of fiscal discipline. Although a case can be made to the need for allowing for some upward revision to the original multiyear estimates, accommodating to these pressures on a systematic basis calls into question the credibility and value of the medium-term planning process. Moreover, the strategy of using one-off revenues to finance mandatory primary spending can leave the government excessively exposed to future fiscal risks.

Why is compliance with MTP's expenditure ceilings low in Turkey?

33. Major source of deviations from expenditure ceilings are linked to mandatory primary spending. Not surprising, we find that bigger contributions to the average expenditure forecasting errors are related to mandatory primary (Figure 11). Personnel related expenses, current transfers (which include transfer to social security, subnational government and state-owned enterprises) and to a lesser extent goods a services (which includes health related expenses) are the categories of expenditures showing the higher forecasting errors.

Figure 11. Sources of Expenditure Forecast Errors

(Average 2006-12)



34. Thus, expenditure rigidities matter in terms of fiscal discipline. With insufficient control of expenditure over the medium-term due to increasing rigidities, the government has found increasing challenges in meeting expenditure targets set in the MTP. Unaddressed, this trend can

[21] While the 2010 MTBF set an expenditure limit of 23.0 percent of GDP for 2011, the actual expenditure realization for that year ended up being 24.1 percent of GDP.

undermine the perception of the hard-won fiscal discipline, with further implications for macroeconomic stability.

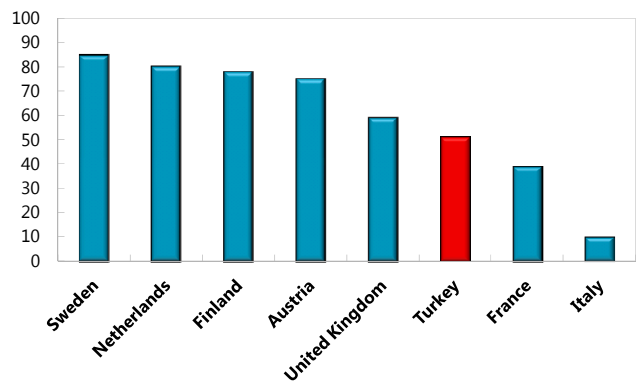
35. Low compliance with the expenditure ceilings is also linked to key features of Turkey's MTP. The nature and implementation of the medium-term budgetary process can promote and/or perpetuate expenditure rigidities, and hence undermine fiscal discipline. Main features of Turkey's MTP that do not foster fiscal discipline are discussed below.

36. The MTP remains focused on the annual budget, with little emphasis given to the medium-term. First, despite the use of multiyear forecasts for key macro and fiscal aggregates (as detailed in Box 1), fiscal policy in Turkey remains focused on the year ahead. The annual budgetary process remains the center of fiscal concerns showing a relative strong performance; yet, fiscal targets for the outer years are not binding (i.e., are just indicative). Although the Parliament's Plan and Budget Commission carries out a preliminary assessment of the draft Budget Law prior to its presentation to the Parliament plenary session for its final approval, parliamentarians mainly focus on the annual budget rather than the medium-term fiscal strategy set in the MTP.

37. Annual revisions of indicative ceilings foster expenditure drift, as there is no correction for past over-spending. Fiscal discipline also relates to how often multiyear limits are revised and allowed for discretionary changes. In Turkey, expenditure limits are just indicative and are revised every year (i.e., a three rolling base) allowing ceilings to accommodate for past deviations. This represents a significant weakness of the Turkish MTP that hampers its capacity to develop a credible fiscal consolidation strategy. Moreover, this budgetary practice creates a built-in bias towards higher spending, exacerbating expenditure rigidities, while potentially eroding hard-won fiscal discipline.

38. The institutional coverage of the MTP is relatively low, while the level of detail in the expenditure ceiling seems excessive. International best practices show that effective expenditure ceilings are embedded in budgetary processes with a wide institutional coverage. As shown in Figure 12, coverage of the MTP is relatively low relative to key benchmark countries (less than 50 percent of nonfinancial public sector total expenditures). On the contrary, the number of budget appropriations is extremely high hampering expenditure controls and compliance with MTP expenditure ceilings (Figure 13). Moreover, the coverage and the level of detail of expenditure ceilings should be evaluated jointly. In principle, to facilitate compliance the widest the coverage of the MTP, the less detailed the spending ceilings

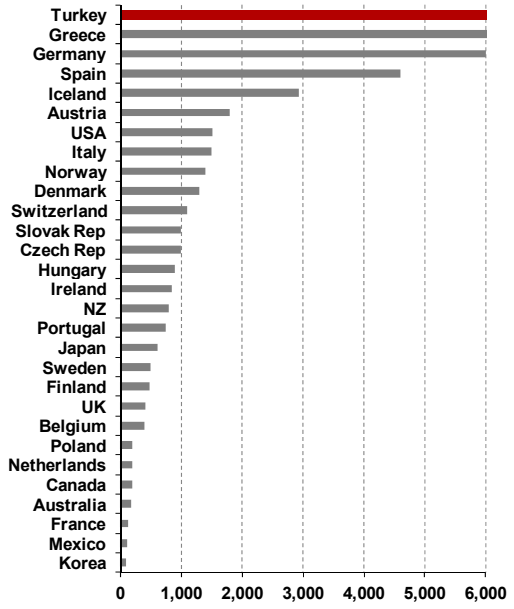
Figure 12. Coverage of Multiyear Expenditure Ceilings



should be (i.e., limits should apply to aggregate spending categories). Turkey has a combination of low MTP institutional coverage and very detailed budget appropriations that hampers compliance of expenditure ceilings and does not foster fiscal discipline.

39. The level of reserves kept in the budget to deal with uncertainties is relatively low, particularly for the outer years (Figure 14). To deal with uncertainty and foster compliance, countries tend to set aside an unallocated margin or reserve. Typically, the reserve level growths over time to deal with increasing levels of uncertainty, while strict criteria are set to access them and strong oversight rules are put in place by audit offices. Turkey has a reserve in the budget that can be used to cover for unexpected current or capital expenditures. However, given low level of compliance of expenditure ceilings and international best practices, the level of reserve seems to be on low side. In particular, there is a need to increase the level of reserves for the outer years, where compliance is lower.

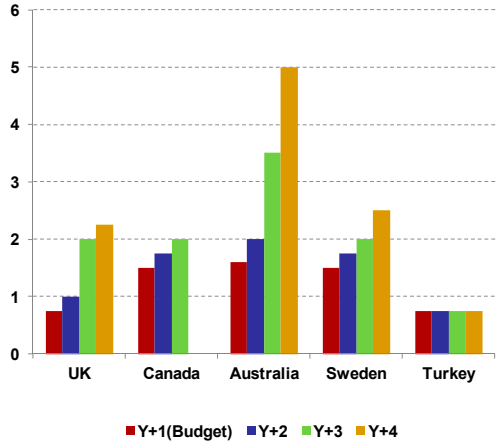
Figure 13. Number of Budget Appropriations



40. Accountability mechanisms to secure MTP's credibility are lacking. Finally, fiscal discipline also related to the credibility of the MTP. The latter depends on the government's ability to demonstrate how today assessment of the current and future budgetary position is consistent with previously formulated medium-term plans. Thus, fiscal discipline can be supported by providing a systematic account of the reasons for those differences.[22] These accountability mechanisms are typically required by law, and included in the statement of fiscal risks where the budgetary authority is entitled with the legal obligation: (i) to certify that budget projections presented to Parliament reflect all

Figure 14. Contingency and Planning Reserves

(In percentage of total expenditure)



[22] Primarily between those changes that have occurred owing to discretionary policy measures and those occurred due to factors outside government's control.

policy decisions announced by the government; and (ii) to explain any other circumstances that may have an impact on the economic or fiscal outlook. In Turkey, these mechanisms are used for internal evaluation purposes but are not disseminated. As a result, there is no clear explanation of the reasons behind the systematic breach of expenditure ceilings, which hampers the credibility of the MTP and could potentially raise concerns about future fiscal discipline.

E. Options for Improvement

41. Given current budget rigidities, achieving spending priorities and public savings levels set in the MTBF may prove challenging. While overall Turkey has managed to meet deficit targets in the past, the consequences of spending rigidities are far reaching. With almost 60 percent of primary spending already committed, the authorities will need to find ways for freeing up space for other priority spending, such as education and investment, if they want to increase public savings without additional tax measures.

42. A pressing question is how to minimize primary expenditure rigidities while securing hard-won fiscal discipline. A comprehensive solution would require a combination of rationalization of mandatory spending and improvement in public financial management practices.

Options for rationalizing mandatory primary expenditure

43. In the area of compensation to employees options include:

- Eliminate indexation to inflation. As a first step, the ex-post inflation adjustment should be eliminated. As a second step, the salary negotiation and adjustment should be linked to private sector comparators. By doing this, wage increases will be better align with productivity growth.
- Streamline side benefits and gradually incorporate them in the wage base.
- Stabilize public employment growth rate. Once the short term impact of structural reforms is exhausted (e.g., the education reform), public employment should not growth beyond the natural replacement rate.
- Perform an expenditure review targeted to key areas of inefficiency. Use this review to assess the optimal level of employment by sectors.

44. In the area of social security options include:

- To reduce eligibility rates authorities could consider increasing the statutory retirement age (a one year increase reduces pension expenditure by about 5 percent) and tightening eligibility for disability pensions and early retirement. Past reforms already prescribed the increase in the statutory retirement age, but the path could be faster.
- To reduce replacement rates, international experience shows that other countries have used a combination of the following measures: allow pensions to decrease over time, tax pensions like

other forms of income, and change the benefit formulas. Based on past reforms, the minimum pension level is projected to gradually decrease from 60 percent to 38 percent of average wage in the next three decades. The authorities could consider unfolding this process at a faster pace, while avoiding ad-hoc pension increases, as happened in the past.

Options for strengthening public financial management practices

45. Although there is no single MTBF model, international best practice suggests that effective MTBFs have the following key elements in common: (i) multiyear expenditure limits that define the nature, level, and terms of the restrictions being placed on future budget decisions; (ii) expenditure prioritization mechanism that ensure that expenditure is allocated in a manner that reflects government policy priorities; (iii) forward-looking expenditure controls through which the consistency of updated medium-term expenditure projections with approved medium-term expenditure plans is monitored and enforced; and (iv) dynamic accountability arrangements through which adherence to stated medium-term objectives can be assessed by parliament and the general public over time.

46. Current financial management practices embedded in the MTP might have contributed to exacerbate expenditure rigidities resulting in low compliance with expenditure ceilings. There are areas where further efforts are warranted to ensure that expending ceilings are met and fiscal discipline secure. Based on best international practices options in this regard are:

- International best practices show that countries with binding MTBFs are better at meeting their medium-term objectives, including their expenditure ceilings and thus at securing fiscal discipline. So consideration should be given to gradually more to a more binding MTP.

- In a more binding MTP, multiyear ceilings should not be revised on a rolling basis, and some mechanism for adjusting for past deviations should be introduced. The multiyear projections should lock the ceilings for a period of two to three years. During that period ceilings should not be reopened to allow for changes in discretionary policy.

- Revenue windfalls and one-offs should be saved, instead of partially used to financed expenditure overruns. Eliminating this source of expenditure uncertainty will facilitate better anchoring the expectation of future appropriations by line ministries.

- Experience shows that among countries implementing binding MTBF models, fixed aggregate ceilings based on a broad institutional coverage are most effective at controlling future expenditure. In this regard, consideration should be given to reduce the level of detail at which the ceilings are currently imposed (i.e., number of budget appropriations), while extending the institutional coverage of the MTP (e.g., to cover at least social security institutions).

- To deal with uncertainty and foster compliance with MTP targets, best practices suggest that the level of reserves should be commensurate with the volatility faced over time. Given the volatility faced by public finances in Turkey, the reserve level could be increased with a rising profile for the outer years.

- To reinforce credibility of the MTP and foster fiscal discipline accountability mechanisms should be introduced that provide a systematic account of the reasons for differences between forecasts included in the MTP and budget realizations. This reconciliation should be an integral part of the statement of fiscal risks, which should be reported as part of the budget documents.

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TURKEY'S INTERNATIONAL COMPETITIVENESS[1]

Turkey's persistent current account deficit is closely linked to its competitiveness. The structure of the imbalance warrants concern, especially because it reflects low savings rather than high investments. This paper follows Hunya (2000) and Trabold (1995) in evaluating Turkey's ability to compete by examining the fundamentals of a nation's competitiveness—the ability to sell, the ability to attract FDI, and the ability to adjust—to identify where gains can be made. For Turkey, short-term policies can help with price competitiveness and increase national savings while longer-term structural policies must focus on improving export value-added, drawing in FDI, and increasing flexibility in the labor market.

A. Turkey's Competitiveness Gap

1. Turkey's current account deficit has been a feature of the last decade. Strong growth led by domestic demand coupled with rising real effective exchange rate (REER) led to a gradual buildup of external imbalances. Between 2002 and 2007, the REER increased by nearly 30 percent. During that time, the current account deficit grew from 0.3 to 5.5 percent of GDP. After an adjustment in 2009 due to a sharp contraction in growth, the current account deficit grew again and has since stayed above 6 percent of GDP.

2. As such, scrutiny on the Turkish economy has increasingly focused on issues of external sustainability and competitiveness. Assessments of Turkey's external position point to a structural current account weakness and an overvalued exchange rate. The latest IMF's external sector report (ESR) assesses Turkey's 2012 current account balance to be 1 ½–3 percentage points of GDP weaker than levels that can be explained by fundamentals and desirable policy settings. On this basis, the REER is overvalued by about 10–20 percent. However, Turkey's external imbalance cannot only be explained by the usual policy variables. The ESR relies on the external balance assessment (EBA) methodology, which uses policy gaps in four areas to explain deviations of the current account from its norm—fiscal balance, social protection spending, capital control, and foreign exchange intervention. For Turkey, these policy variables account for only a small fraction of the estimated current account gap, suggesting the large role of structural factors related to competitiveness.

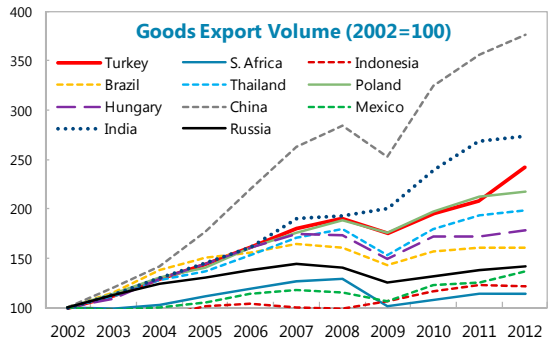
3. This paper will explore gaps in Turkey's competitiveness that may explain its persistent external imbalance. To this end, the paper will follow Hunya (2000) and Trabold (1995) in evaluating countries' abilities to compete through three fundamental qualities: the ability to sell, the ability to attract FDI, and the ability to adjust. These three qualities, which are closely linked with

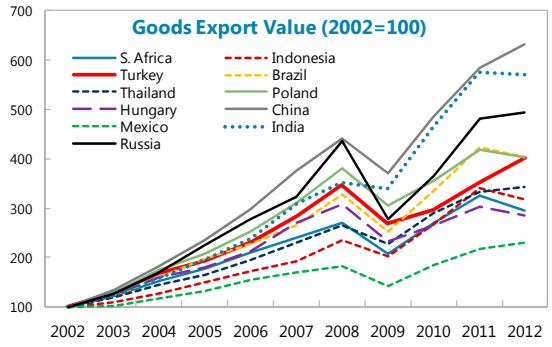
[1] Prepared by Suchanan Tambunlertchai.

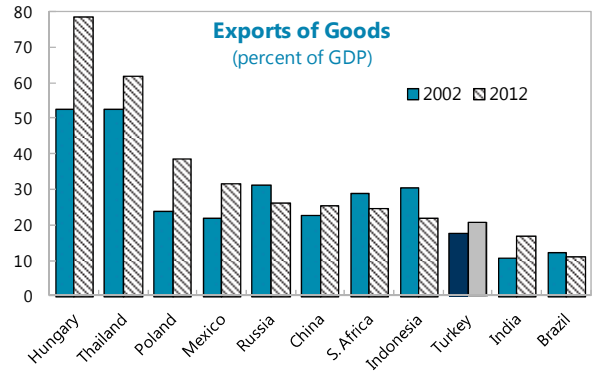
one another, offer different vantage points on a country's competitive advantage. In all three areas, Turkey's achievement is assessed against the performances of other large emerging markets (EM). This bottom-up approach complements the ESR's macro exercises by allowing a more detailed view as to where the problems may lie.

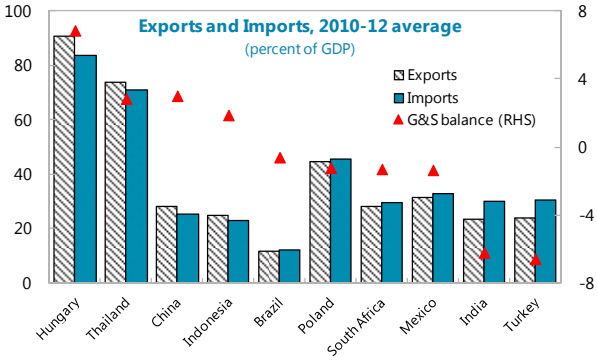
B. Ability to Sell

4. Indicators of Turkey's ability to sell in the international market present a mixed picture. During the past decade, export volume out of Turkey saw relatively high growth. While the expansion was not as dramatic as in China or India, it outpaced most other EMs particularly starting in the mid-2000s. This growth however stemmed from a low base, and Turkey's export share in GDP remains small compared to most peers. To an extent, the small share of export reflects a relatively less open economy. While this in itself may not warrant concern, the fact that Turkey's current account deficit is the largest and most persistent among comparators certainly points to a problem—Turkey's ability to sell is inadequate for its buying needs. More importantly, Turkey may be losing ground on the world production value chain. Despite stronger growth in export volume, the value of Turkish exports has not kept pace with those from Russia, Poland, and Brazil. This development is linked to Turkey's ability to adjust, which will be discussed below.





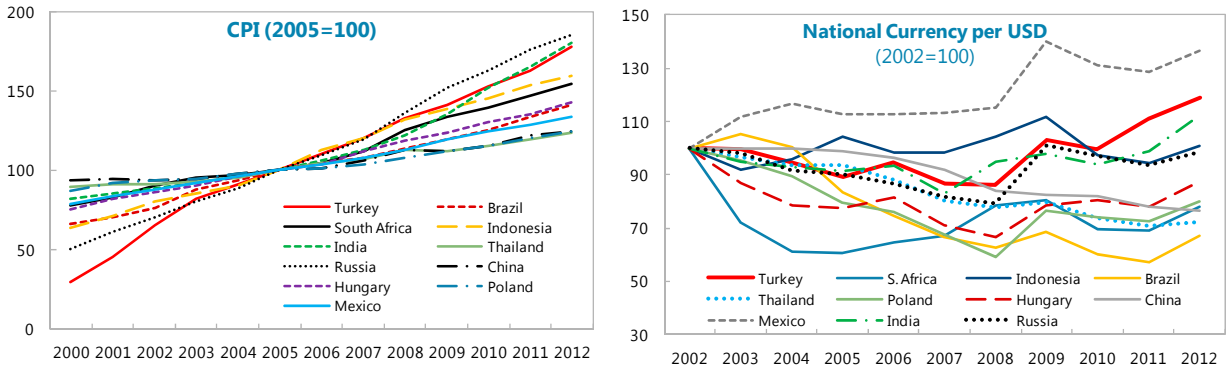




Sources: WEO, IMF staff calculations.

5. Price measures show that Turkey's cost competitiveness is being eroded by high average inflation. Like other EMs, Turkey started with a natural cost advantage as overall price levels were below those in more advanced economies. As these economies grew the catching-up process induced higher prices which gradually eroded this advantage (Benkovskis and Woerz, 2012). The worrisome development in Turkey is that its domestic prices are rising much more rapidly than those in trade competitors and trade partners. This means Turkey's exports are getting more expensive than those from other EMs. These developments are particularly relevant for the Turkish exporters whose products are less differentiated due to low technology content and therefore face a more price elastic demand. Currently about one-third of the country's export income derives from such primary-sector-based and low technology products, suggesting that price competition remains important for many exporters, yet high inflation continues to appreciate the REER.

6. Nominal exchange rate depreciation has helped mitigate the problem, but not enough to offset the high inflation. Turkey's high average inflation has contributed to the exchange rate overvaluation, which not only renders Turkish exports less attractive but also encourages more imports. Turkey's trade deficit therefore does not come as a surprise. Since 2002, goods exports have grown by only 3 percentage points of GDP while goods imports have grown by as much as 9 percentage points of GDP.



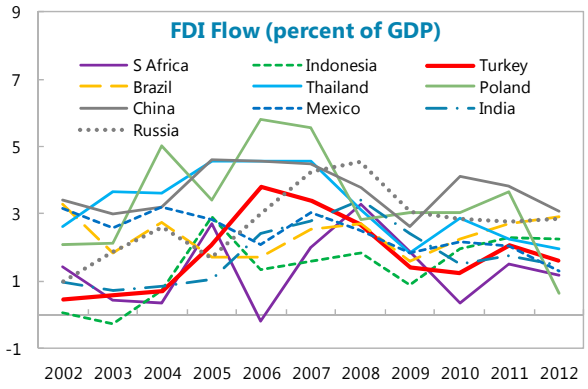
Sources: WEO, IMF staff calculations.

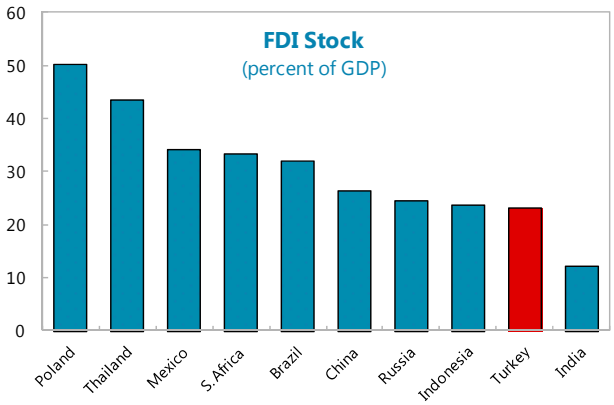
C. Ability to Attract FDI

7. In spite of its many advantages, Turkey has had limited success in attracting FDI. As an investment destination, Turkey offers a large and growing domestic market as well as an ideal gateway into Europe (having been a member of the EU customs union since 1995), Asia, and the Middle East. Prior to the global financial crisis, the country also enjoyed an uninterrupted period of high average growth and political stability. While these are reasons for foreign companies to use Turkey as a production base, FDI flows into Turkey have been low, averaging only around 1.8 percent of GDP. Capital flow into portfolio investments on the other hand has grown over time to become the main source of financing for Turkey's current account deficit. While portfolio flows have a role in the country's financial market development, their volatility is incompatible with Turkey's structural external imbalance. Given the large savings gap, volatile capital flows create

vulnerabilities for the country. FDI flows on the other hand are more stable in nature and such inflows are often associated with positive spillovers. Greater FDI means job creation, technology transfer, and greater access to the international market, all of which would increase Turkey's export competitiveness and its ability to sell.

8. Part of the reason for the low FDI into Turkey may be a matter of timing. Thanks in part to reforms in the early 2000s, Turkey's improving economic fundamentals began to draw in FDI. However, reforms were only beginning to bear fruit when the global financial crisis occurred. The FDI inflows that picked up notably during the second half of the 2000s started to dry up after 2008 as the crisis impaired the balance sheets of many international banks and corporations. The ensuing recession in the EU, Turkey's main source of FDI, has since prolonged that slowdown. These developments partly explain the low stock of FDI in Turkey which remains substantially below levels in most peer countries.



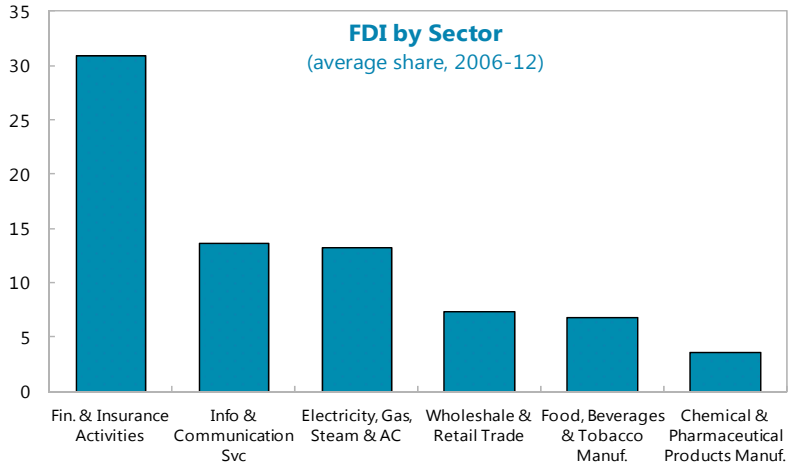


Sources: WEO, IIP Database, IMF staff calculations.

9. But there are also structural impediments in the economy that likely dampen FDI flows. First, Turkey does not offer substantial cost advantage. Labor costs in the country are relatively high and rising. Moreover the high average inflation does not support Turkey as an exporting base. Second, the country ranks unfavorably in several global competitiveness indices, particularly in labor market efficiency, the quality of education, import dependence, and judicial independence (Global Competitiveness Report, 2013). While such indicators rarely show a complete picture, they are part of what investors look to when deciding whether to set up in a country. Turkey's unfavorable rankings in these areas likely affect investors' decisions, particularly for large greenfield FDI projects which require substantial and long-term commitment. Lastly, investors' risk appetite may also be affected by Turkey's economic volatility with its history of booms and busts. To that extent, committing long-term capital in the form of FDI may be less attractive than investing in shorter exposures.

10. FDI has largely been concentrated in the nontradable sector. The largest FDI flows into Turkey went into the financial service sector. To a lesser extent, inflows also went into the information technology and communication service sector. While FDI into the non-tradable sector fostered financial deepening and improved the service sector productivity, they created few

opportunities for technology transfers, import replacement, or export expansion. Studies have shown that FDI into the tradable sector has positive effects on the country's export performance (Ichihashi and Rahmaddi, 2012; Zhang, 2005). Similarly, an IMF study on sectoral composition of FDI shows that for countries in Central and Eastern Europe, FDI into the tradable sector leads to an improvement in the external balance (Kinoshita, 2011). The same study also shows that countries where FDI in the non-tradable sector dominated had the largest current account deficits. This is particularly true for FDI into the financial sector, which is associated with credit booms and larger imports. Based on these findings, the composition of FDI into Turkey may in part help to explain why the gap between exports and imports persists.



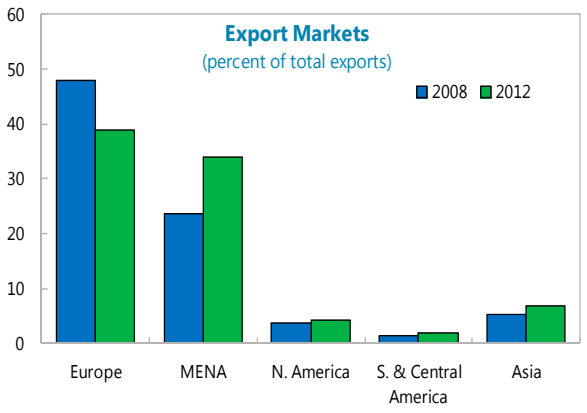
Sources: CBRT Statistics Department

D. Ability to Adjust

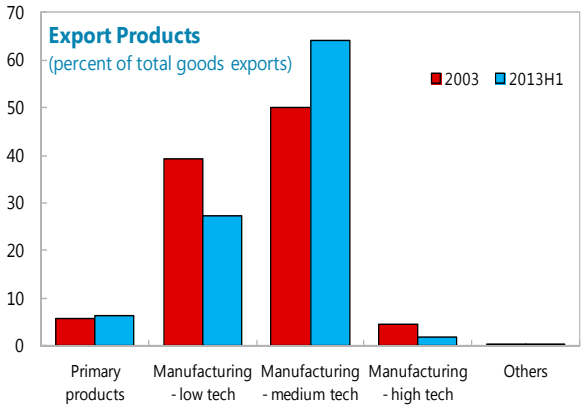
11. A country's ability to increase its competitiveness is dependent on its ability to adjust. In many ways the Turkish economy in its resilience to economic volatility has demonstrated the ability of the private sector to adjust to external shocks. This was apparent in the country's quick rebound from the recent global financial crisis. But more pertinent than the ability to respond to shocks is the ability to adjust such that exposures to shocks are mitigated in the first place. To this end, having policy buffers, efficient regulations, and a strong macroeconomic framework is essential. For Turkey, this means there is room for improvement.

12. Turkish producers' adaptability is evident in the country's export diversification and a reasonable degree of export sophistication. In response to the recent economic slowdown in Europe, Turkish exporters diversified away from traditional European destinations toward the MENA region. Part of this was driven by temporary factors such as gold export to Iran in 2012 and post-conflict rebuilding in the Middle East. Nevertheless, this development was a step in the right direction toward a more diversified export market. In addition, over the past decade Turkey has been successful in moving away from low-technology toward medium-technology export products. Between 2003 and 2013, the share of primary sector and low-technology exports went from 45 percent to 34 percent. During that time, the share of medium-technology exports rose from 50 to

64 percent. The move toward high-technology exports however has been much more limited, which may explain why the value of Turkish export has started to lag behind that from peer countries. This inability to move into the high-technology segment may reflect a bottleneck in skills of the workforce, as well as in innovation and R&D.

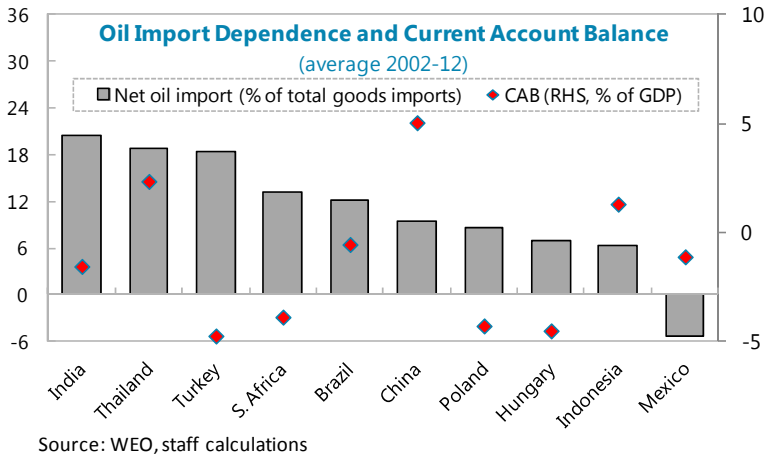


Source: Turkstat.



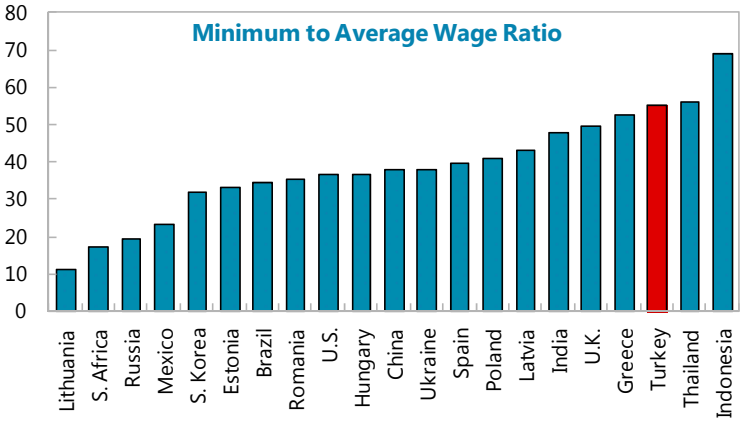
Sources: Turkstat, OECD technology classification.

13. There are rigidities in the current account composition that hamper the ability to adjust. One of Turkey's biggest challenges is its dependence on energy import. In fact, the average net oil balance is almost the same size as the average current account deficit. But while this factor endowment problem is a disadvantage, Turkey is hardly alone in its structural energy imbalance. Many other EMs also heavily depend on oil import. India and Thailand, for example, are just as reliant on energy import as Turkey, but both have significantly better current account balances, implying that energy dependence does not necessarily hold back competitiveness. Indeed, the IMF's EBA estimates confirm that while net oil exporters have better current account balances on average, there is no robust relationship between energy deficits and current account positions. Turkey's persistent non-energy trade deficit indicates that beyond the energy dependence, the country is also unable to produce enough for domestic demand.



Source: WEO, staff calculations

14. Turkey's ability to adjust is also limited by its oft-cited labor market rigidities. These refer to the rapid wage growth and high regulatory burden which include high severance payment requirements and one of the highest minimum wages and in the world (Doing Business, 2013 and Global Competitiveness Report, 2013). Rigid labor market conditions impair a country's ability to adjust in several ways. Stringent regulations create inefficiencies which depress overall productivity growth as firms are less able to adjust to technology and market changes that require labor reallocation (Bassanini et al., 2009; Albrecht et al., 2009). Rigid labor market conditions also reduce the country's attractiveness as an FDI destination (Javorcik et al., 2005; Dewit et al., 2009). High regulatory labor costs create disincentives for formal employment and may account for the existence of Turkey's large informal sector. Informal firms' circumvention of labor regulations gives them a cost advantage which infringes on the profit of formal-sector firms in the same sector. At the margin, this discourages business formalization which hurt firms' prospects for export over the medium term. Finally, workers in the informal sector earn less and thus invest less in their human capital which feeds back to lower overall labor productivity.



Source: International Labour Organization, Global Wage Database 2010-2011

E. The Way Forward

15. Turkey's current account gap is symptomatic of a competitiveness challenge. By looking at the ability to sell, the ability to attract FDI, and the ability to adjust, this paper has offered some insights on areas of strengths and weaknesses. Competitiveness indicators show that although Turkey has performed relatively well in terms of export expansion and product sophistication, it falls short in other areas such as attracting FDI, import dependence, and labor market flexibility. And whatever the gain in competitiveness the country may have achieved, the persistent current account gap signals that it has not been enough. To further improve competitiveness and close the current account gap, both short-term and long-term policies have roles to play. Given the country's large external imbalances, short-term policies are needed to quickly kick-start adjustments as longer-term policies are implemented.

16. Over the short run, policies must focus on increasing domestic savings while boosting the short-term competitiveness of exports with price measures. In this regard, public savings

must contribute as much as possible to lowering the external imbalances. Along with this, a more consistent reduction in inflation can go a long way to contain price and wage increases which will help maintain cost competitiveness. These policies will help reduce external imbalances in the short-run and allow Turkish exporters to maintain the ability to sell and to adjust while medium-term measures take effect.

17. Longer-term policies must address structural issues that hold back the abilities to sell, attract FDI, or adjust. While a real exchange rate realignment through price containment would play an important role on price competitiveness in the short run, as the Turkish economy continues to grow its ability to sell to the rest of the world must increasingly stem from the ability to also compete on non-price factors such as quality and branding. It is therefore imperative that Turkey move up the export value chain. Education reform to upgrade the technical capacity of the workforce and R&D investment to increase innovation will thus be important for long-term competitiveness gains. Over time, Turkey must also reduce its dependence on imports. Some progress is already being made in this area, especially with respect to investments in renewable energy sources. But more can be done to encourage further domestic investment in other sectors with import-reducing potential such as chemical and pharmaceutical products, and machinery and equipment. Lastly, more flexible labor market policies will reduce the informal economy, both of which will increase productivity over the medium term as both workers and firms become more competitive.

18. In the end, a moderate current account deficit will be a medium-term feature of Turkey, but policies can help ensure that the imbalance is sustainable and firmly diminishes over time. For an emerging market economy with a young population and still many investment opportunities such as Turkey, a current account deficit is an integral part of growth. But the high level of Turkey's current account deficit as well as its structure warrant concern, especially because it reflects low savings rather than high investments. The excess of imports over exports is indicative of a competitiveness problem. The fact that this excess is driven by consumption rather than investment implies that the deficit is not being incurred for productive ends, which ultimately exacerbates the competitiveness problem. But a concerted effort and a more coherent policy framework, along the lines suggested above, can help Turkey benefit from its enormous potential, improve the ability to compete, and ultimately achieve higher quality growth.

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