ON THE IMF-DIRECTED DISINFLATION PROGRAM IN TURKEY:

A Program For Stabilization and Austerity
Or A Recipe For Impoverishment and Financial Chaos?

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Introduction

The 90's had been a lost decade for Turkey. The rate of growth fluctuated severely as the economy was trapped within mini cycles of growth-crisis-stabilization and renewed (artificial) growth. Inflation rates hovered around the plateau of 65-70 percent during the first part of the decade, and at around 80-90 percent during the second half. The nominal rates of interest sailed at values exceeding 100 percent almost throughout the whole decade, as the Central Bank was committed to a controlled peg regime to combat inflationary pass-through, and to a generally contractionary monetary policy. The borrowing requirement of the government surmounted as the stock of domestic debt escalated rapidly and the cost of debt servicing rose to unprecedented levels. Interest costs on domestic debt, which were on the order of only 2.4 of the GNP in 1990, claimed almost all of the public disposable income by the end of the decade.[1]

All of these were set against the background of a shallow and fragile financial structure with a poorly supervised, weak banking system, suffering from both low capital adequacy and uncovered short-term positions against exchange rate risk. The domestic industry, in turn, has been recognized with its oligopolistic pricing structure,[2] abated by arms-length connections with the company-owned/managed banking conglomerates. In sum, at the turn of the 3rd millennium, distinctly visible aspects of the current Turkish political economy context were the persistence of price inflation under conditions of a crisis-prone economic structure; persistent and rapidly

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[1] See Yeldan (2001a), Ertugrul and Selcuk (2001), Boratav and Yeldan (2001), Metin, Voyvoda and Yeldan (2001a), Kepenek and Yentürk (2000), Boratav, Yeldan and Kose (1999), Ucer (1999), Uygur (1996), and Ekinci (1998) for a thorough overview of the post-1990 Turkish macroeconomic history. The deterioration of the fiscal balances of the Turkish state is documented in Konukman, Aydýn and Oyan (2000), Özatay (1999), Türel (1999), Selcuk and Rantanen (1996), Atiyas (1995), and Zaim and Taskin (1997), while the structure of banking system is surveyed in Ertugrul and Zaim (1996), Ersel (2001), and Colak (2001). Cizre-Sakallýoðlu and Yeldan (2000), Gürkaynak (2000), Öniº and Aysan (2000), Celasun, Denizer and He (1999), Yentürk (1999), Boratav, Türel and Yeldan (1996), Khakimzhanov and Yeldan (2000), and Balkan and Yeldan (1998) provide similar analyses based on the effects of international speculative financial capital flows on the Turkish economy. Yeldan (1995) and (1998), in turn, discuss the characteristics of the post-1990 Turkish macro adjustments in terms of creation and absorption of the economic surplus, and provide a quantitative analysis on the strategic role played by the state apparatus.

[2] See, e.g., Metin-Özcan, Voyvoda and Yeldan (2001b); Yalçýn (2000), Onaran (2000), Güneº, Köse and Yeldan (1996), and Katýrcýoðlu (1990) for the evolution of price cost margins (mark-ups) in Turkish manufacturing. Yeldan (2000) and Metin-Özcan, Voyvoda and Yeldan (2001b), in turn, claim that the persistence of downward rigid mark-ups in Turkish manufacturing had been one of the dominant factors delaying the disinflation of the producer prices.

expanding fiscal deficits; marginalization of the industrial relations; and the severe erosion of moral values with increased public corruption.

Following a series of ill-founded and poorly focused set of stabilization attempts through the decade, the government initiated a comprehensive disinflation program in July 1998 under the guidance of the International Monetary Fund (IMF). Referred to as the *Staff Monitored Program* (SMF), the program aimed at improving the fiscal balance and reducing the long-lasting price inflation. However, the SMF was baffled with limited accomplishments due to the continued political uncertainty surrounding the general elections and two unfortunate earthquakes. As the public expenditures continued to expand, fiscal balances deteriorated even further and deficit-financing requirements exerted heavy pressures on the domestic financial markets giving rise to significantly high real interest rates.

Finally in December 1999 the government adopted another disinflation program, aiming at decreasing the inflation rate to a single digit by the end of 2002. Aided with the supervision and technical support of the IMF, the new program relied on *exchange rate based* disinflation and monetary control by setting upper limits to net domestic asset position of the Central Bank (CB). Accordingly the CB committed itself to a policy of *no sterilization*, whereby changes in the monetary base would directly reflect changes in the net foreign assets of its balance sheet. The program further entailed a series of austerity measures on fiscal expenditures and set specific targets for the balance on non-interest, primary budget.

Yet, just eleven months after launching the disinflation program Turkey experienced a severe financial crisis in November 2000. More than US$6 billions of short-term capital fled the country, creating a severe liquidity shortage in the domestic commodity and asset markets. The government requested to access the Supplementary Reserve Facility from the IMF. The request was granted with US$7.5 billions of additional support in December 22, and the technical limits of the monetary program have been revised. Only then continued implementation of the program could have been secured as the markets seemed to have calmed down. However, shortly after this rearrangement with the IMF, the public disclosure of a political dispute between the Prime Minister and the President of the Republic on February 19, 2001 badly hit the uneasy markets. The CB was forced to sell a large portion of its foreign reserves in an attempt to support the *Lira* as the short-term interest rates rocketed to above 5,000 percent. In what follows, the government could not endure the pressures of the markets any further, and declared the surrender of the pegged exchange rate system on February 22, thereby letting the exchange rates to free float.[3]

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[3] The underlying elements of the disinflation program and the succeeding crises are discussed in detail in Ertugrul and Selcuk, 2001; Gencay and Selcuk (2001), Yenturk, 2001; Alper, 2001; Uygur, 2001; Boratav, 2001; Ersel, 2000, Yenal, 2000; Celasun, 2000; and Yeldan, 2001b, 2001c, 2001d and 2001e. A series of "Round Table Discussions" are also provided in the Turkish literature by *Mülkiyeliler Birligi Dergisi*, January 2000; *Iktisat Isletme ve Finans*, March 2000; *Birikim*, April 2001; *Ileri*, June 2001; and *Iktisat Dergisi*, May 2001.
See also the web site (*www.bagimsizsosyalbilimciler.org/iktisat.htm*) of the Association of the Independent Social Scientists –Economists' Group (Bagimsiz Sosyal Bilimciler-Iktisat Grubu) for a set of critical assessments on the 2000-2001 economic policies. In particular, a detailed evaluation of the so-called *Transition to the Strong Economy Program* (announced in 15 May, 2001) is provided by the *Association* in July, 2001.

Following the demise of the exchange rate based disinflation program, the newly appointed minister, Mr. Kemal Dervis (former Vice President of the World Bank), submitted a new letter of intend to the IMF. Finally in May 15, Mr. Dervis announced the invigoration of a new stabilization effort under the guidance of the "Transition to the Strong Economic Program". As it was mentioned in its introduction, the new program would be the continuation of the previous disinflation program, and would be backed by a series of "structural reforms" aimed at strengthening the banking system and at transforming the "old ways of economic policy making".

In this paper I attempt to evaluate the theoretical foundations of the disinflation program and highlight its structural weakness in light of the international stabilization experiences. In so doing I also highlight the role of the IMF in the emancipation of the financial crisis. The paper is organized in five parts: next I summarize the main ingredients of the 2000 Turkish disinflation program, and introduce the main mechanics of liquidity generation under the program constraints. I then tabulate the macroeconomic performance of the economy and argue that the program had resulted in an increase of external fragility of the Turkish economy, thereby setting the stage for a full financial crisis. The last section summarizes and concludes.

The Main Elements of the 2000 Disinflation Program

The 2000-disinflation program, as documented in the December 1999 *Letter of Intend,* covered a time horizon of three years until the end of 2002. During the course of this period, specific targets were set on the monetary aggregates, daily depreciation of the exchange rate, and on fiscal balances. All of these targets were pre-announced on a given calendar, and were recognized as the *performance criteria* to be monitored by the IMF staff during their successive visits throughout the implementation of the program.

The program is observed to be based upon three main components: (i) austerity of public expenditures subject to specific targets for non-interest fiscal surpluses; (ii) a pre-announced calendar for the rate of currency depreciation in line with the targeted rate of inflation; and (iii) a monetary rule which set the liquidity generation mechanism to the net foreign asset position of the Central Bank, thereby forcing the CB to act as a *semi-currency board*.

The program aimed at reducing the inflation rate at discrete adjustments until the end of 2002. Accordingly, the wholesale price index (WPI), which hovered around 80 percent during the last decade, would be reduced to 20 percent by the end 2000. (consumer prices, CPI, would be reduced to 25 percent). The targeted rates of the increase in WPI and CPI were set, respectively, to 10 and 12 percent by 2001, and to 5-7 percent by 2002.

The program further aimed at increasing the public sector (non-interest) primary balance to +3.7 percent of the GNP by the end of 2000, from a deficit of 2.8 percent in 1999. This target was set net of the earthquake (of August 1999) related public expenditures, which were estimated to reach 1.5 percent of the GNP in 2000. In order to reach this target, expected revenue sources originated from revisions on income taxes (0.3 percent), and increased rates on indirect taxes (0.5 percent) and value added

taxes (0.4 percent). Yet the major revenue source for the Treasury was planned to come from privatization operations (Turkish Telecomm and Turkish Airlines being the two major items) which was expected to bring an added income of at least 3.5 percent of the GNP (around 7.5 billions US$).

The program adopted the *monetary approach to balance of payments* in its theoretical foundations on the determination of the liquidity generation mechanism and the resolution of the balance of payments equilibrium.[4] This approach, which provides the underlying frame of reference to almost all IMF-style austerity programs, expects the real exchange rate to be in long run equilibrium at its purchasing power parity level, and maintains that the domestic supply of money be endogenized in a regime of open capital account.

In what follows, the program announced that the rate of currency depreciation would be set according to a pre-announced calendar, thereby setting the course for the evolution of the exchange rate throughout the year. For this purpose, the CB declared an exchange rate basket consisting of 1US$ + 0.77 Euro, and announced a daily calendar of depreciation rate which adds up to a cumulative 20 percent by the end of 2000. The pre-announcement of the exchange rate depreciation according to such a *tablita* was regarded as the backbone of the program in its attempt to break the inflationary inertia of three decades.

Containment of inflationary expectations by using the exchange rate as a *nominal anchor* has been a common element in most of the recent stabilization attempts in Latin America and Israel. One of the well-known lessons from such exchange rate based-disinflation and stabilization attempts concerns their detrimental consequences on the external balances.[5] The unavoidable appreciation of the domestic currencies during the course of the program, together with the elimination of exchange rate risk, give clear signals for increased foreign borrowing. The rapid escalation of the stock of foreign debt mostly originate from increased short term borrowing which, under most circumstances, is observed to be exercised at a rate exceeding the social optimum (Rodrik and Velasco, 2000).

Given the historical observations that the prolonged use of the exchange rate-based stabilization programs are associated with increased external fragility and unsustainable foreign indebtedness, the Turkish disinflation program provided a "strategy of exit" to be embarked through the second half of its implementation. Accordingly, starting after the first 18 months in July 2001, the exchange rate basket (of 1 US$ + 0.77 Euro) would have been allowed to float within a crawling band. The tails of the band would be widened every six months by 15 percent apart from end-to-

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[4] For an analytical exposition of this framework, see, e.g., Obstfeld and Rogoff (1996, chp4). For a seminal discussion of the model in the context of exchange rate determination, see Johnson (1977) and Krueger (1983).

[5] An overview of such *exchange rate-based* disinflation and stabilization is summarized in Calvo (2001), Calvo and Vegh (1999), Calvo, Reinhart and Vegh (1995), Amadeo (1996), Agenor (2000), Akyuz and Cornforth (1999), Calvo, Leiderman and Reinhart (1996), Diaz-Alejandro (1985), Kaminsky and Reinhart (1999), Frenkel (1995), and Agenor and Montiel (1999, chp. 8). For individual country experiences see also Corbo (1985), and Edwards and Edwards (1991) on Chile; Dornbusch and Werner (1994) on Mexico; Patinkin (1993), and Bruno (1993) on Israel; and Dornbusch (1995), and Frenkel and Fanelli (1998) on Argentina.

end. Finally, by the end of 2002 the *tablita* and the limits on the band would be completely dismantled, and Turkey would switch to a regime of fully flexible foreign exchange markets. This exit strategy was expected to run its course after successfully breaking the inflationary inertia, while at the same time working its effects before the eruption of the culminating pressures of external fragility.

Liquidity Generation Mechanism under the Disinflation Program

In order to sustain the *tablita* on the exchange rate depreciation, the program limited the Central Bank's rule of monetary expansion only to changes in its net foreign asset position in its balance sheet. For this purpose specific upper ceilings were set on the *net domestic assets* of the CB. To be able to meet the liquidity needs of the banking sector, the reserve requirement ratios were significantly lowered. More specifically, the stock of net domestic assets of the CB was fixed at its December 1999 level. It was further announced that the CB would be allowed to change its net domestic asset position within a band of +/-5 percent of the monetary base, to be revised at three-month intervals.

To be able to evaluate the implications of this rule more clearly, observe that the CB balance sheet has the following operational identity:

$$\text{Monetary Base} = \text{Net Foreign Assets} + \text{Net Domestic Assets}$$

Consequently, as a result of the restrictions set on the upper ceilings of the net domestic assets, the program limited the monetary expansion only to increases in the stock of net foreign assets.[6] Thus, according to this rule, the liquidity generation mechanism available to the CB practically meant a regime of *semi*-currency board in monetary operations. Within this mechanism the monetary policy is restricted to the direction of the foreign exchange flows, and as such, the most important element to be able to sustain the liquidity needs of the economy would depend upon the continuation of foreign credit available to the system.

The fact that the foreign exchange inflows lead directly to the expansion of the monetary base indicated that the CB was committed to a rule of no-sterilization throughout the implementation of the program. In this manner, it was expected that the liquidity available in the domestic economy would be managed directly by the interest rate signals in *smoothly* operating financial markets: rising domestic interest rates would invite foreign inflows allowing for monetary expansion. Excess liquidity, in turn, would be signaled through lower rates of interest, letting foreign capital outflows to balance once again the equilibrium level of liquidity in the domestic money market.

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[6] Yet, it is clear that from the point of view of the CB's analytical balance sheet, expansion of the monetary base would only be possible through increased foreign earnings which would not call for an increase in the foreign liabilities of the CB. This means that the CB would not be able to increase the stock of money supply by, for example, borrowing foreign exchange from the banking system or by using IMF's credit facility. The CB would be able to issue Turkish Lira and expand its monetary base only by purchasing foreign exchange from the banking sector in a manner where its foreign liabilities would not be increased.

Yet, how far away from the realities of a shallow and fragile financial system this theoretical operandi was painstakingly clear with the eruption of the first warning crisis in November 2000, and then again in February 2001. Figure 1 portrays the evolution of the liquidity mechanism under the first 10 months of the program implementation. The figure discloses the paths of the monetary base, open market operations (OMOs), the net foreign assets (NFA), and the net domestic assets (NDA) of the Central Bank, as measured by the end-of-week observations, January 7 to December 1, 2000. As can be seen, the CB had played quite successfully the role of a *currency board* until November, the first sign of the culminating crisis. Until then the monetary base expanded by only 7.6 percent, while the total assets of the CB increased by a total of 15 percent, mostly due to the rise in foreign inflows during the summer months. All along, the CB conducted its open market operations to steer the NDA within the limits of the program.

<insert Figure 1 here>

Thus, the basic message that emerges from the data disclosed in Figure 1 is clear: Turkish monetary authorities have *successfully* implemented the monetary program within the given targets, conditioning the CB operations to net foreign inflows. In this sense the outbreak of the November crisis –and the ultimate collapse of the program in February 2001– can not be accounted to any divergence from the monetary targets. Quite the contrary, the culminating financial chaos can only be understood within the realm of the successful implementation of both the exchange rate (basket) depreciation targets and the liquidity generation mechanism as followed by the CB – mimicking a currency board.

In fact, the unavoidable appreciation of the domestic currency, accompanied by the explosion of foreign capital inflows, was already in the process, deepening the financial fragility of the domestic economy. A very strong upturn in domestic absorption accompanied by the appreciation of the TL and together with the impact of Customs Union with EU were the two major reasons leading to the rapid expansion of the current account deficit reaching 9.5 billion dollars by the end of 2000. (See Table 1 below). This outcome was solely due to the deterioration of the trade balance[7]. By November IMF officials started to express their concerns on the sustainability of the current deficit[8] and external investors appeared to share the same concern by

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[7] During the first eleven months of 2000, exports had remained practically unchanged, but imports had risen by 37% more than doubling the trade deficit to 25 billion dollars. (See the following section). The adverse effects of the 1994 Treaty on the Customs Union with EU on the trade balance was delayed because of the substantial 1994 devaluation whose protective impacts had continued to prevail during the following five years of mild appreciation. These favorable conditions were reversed in 2000 not only due to the faster rate of appreciation of TL vis-a-vis the currency basket, but also because of the depreciation of the Euro vis-a-vis the dollar.

[8] Yet, the realized external disequilibria should have come as no surprise to the IMF. Past experience on all exchange-rate-based stabilization programs show that they initially generate a demand-based expansion accompanied by rising and usually unsustainable trade and current deficits followed by a contractionary phase –the magnitude of which depends on the size of the earlier external deficits. See the overviews cited in footnote 5 above over these experiences in the Southern Cone during the late 1970s, and in Argentina, Mexico and Brazil in the 1990s. The IMF itself has had access to a series of interim reports and staff papers documenting such possible discourse on the financial markets. See, e.g., Kaminsky, Lizondo and Reinhart (1998) "Leading Indicators of Currency Crises" *IMF Staff Papers*; and more recently, *Debt and Reserve Related Indicators of External Vulnerability*, A Report of

liquidating their assets in TL and as international bankers started to call in their short-term loans to Turkish banks. [9]

With the abrupt fall in its net external assets in November of 2000, the CB initially violated the IMF ban on open market operations, and managed to provide additional TL liquidity to banks. This maneuver, however, did not prevent the monetary base to contract by 17% during the rest of the month. Ultimately the CB reverted back to the non-sterilization rule, and the ongoing liquidity squeeze was aggravated as overnight interest rates climbed to exorbitant levels. Although a currency crisis was averted, the outcome was the *de facto* bankruptcy of eight banks taken over formally by the so-called *Savings Deposits Insurance Fund* (SDIF), but due to its meager resources, in effect, by the treasury[10].

Under these conditions the economy suffered from yet another financial crisis in February of 2001. These events led to an acute liquidity crisis and the consequent demise of the disinflation program. The TL was forced to be off-the fixed anchor and started to free float on 22 February. The exchange rate as measured by TL/US$ depreciated by 47.7% in six weeks. At the time of writing the economy was suffering from a severe recession as the crisis conditions spread to the real economy with massive lay-offs and increased social unrest. Once again, the bust phase of the financial cycle struck the Turkish economy after an interval of two years.

Main Macroeconomic Developments under the 2000 Disinflation Program

Dis-inflation, being the most important objective of the program, is observed to be materialized especially in the second half of its implementation. Despite the fact that he annual rate of change in the price level has exceeded the program's end-of-year targets by a significant margin, it nevertheless displayed a break in its 30-year trend towards a lower plateau. The monthly rate of change of both the consumer (CPI) and wholesale (WPI) price indexes decelerated especially after May, and hit its lowest rate in June, 2000. The core inflation rate, as measured by the change in private manufacturing industry prices, has fluctuated around the aggregate WPI and CPI; yet, has clearly shown a deceleration throughout the whole program period.

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the Policy Development and Review Department, which, in its own words, "has been prepared in consultation with the other Departments" (March, 2000).

[9] There were, without doubt, additional complications. The number of banks transferred to the *Savings Deposit Insurance Fund* kept on increasing throughout 2000. Most of their owners faced criminal charges and were arrested. The shock and apprehension of the financial community was aggravated when the newly established Board of Banking Supervision and Regulation called the banks to reduce their open positions between their foreign exchange liabilities and assets within the pre-set limits by the end of the year. Additional foreign exchange demand resulted in the erosion of the CB reserves by nearly 7 billion dollars whose net external assets declined by 52% in two weeks after mid-November.

[10] Savings deposits are insured 100% since the 1994 crisis. Additionally, a scandalous provision imposed by the IMF during the negotiations for the additional stand-by agreement in December 2000 extended the guarantee to bankrupt banks' external debts. Hence, international banks' bad loans to Turkish banks are henceforth guaranteed by the Turkish Treasury with serious implications of *moral hazard*.

Notwithstanding the brief interlude of summer months, monthly rates of increase of all relevant price indexes prevailed above the rate of depreciation of the currency basket (1 US$+ 0.77 Euro) during the program implementation, indicating appreciation of the Turkish Lira vis-à-vis its major trading partners. The annualized rate of inflation reached to 33% in WPI, and 39% in CPI. Given the successful follow-up of the exchange rate *tablita*, these rates meant an appreciation of 10.8% and 15.8% against the WPI and CPI, respectively.

<Insert Figure 2 here>

The persistent inertia should clearly be regarded as the major culprit in delaying the disinflation process in 2000. Nevertheless, various demand factors have also played an important role in sustaining the pressures on the aggregate price level. In particular, the significant drop in the real interest rate (see Figure 3 below) seems to have induced a strong substitution of future aggregate consumption and investment demand to-day, and resulted in strong demand pulls over the prices.[11]

The macroeconomic performance of the economy under the disinflation program is tabulated in Table 1. Given the 1999 deflation, the invigoration of the gross domestic product is clearly visible. Rate of growth of GDP accelerated from +5.6% in he first quarter, to a score of +8.3% in the last quarter of 2000. The annual rate of growth averaged 7.2% in 2000, with commerce and trade services registering 11.6%, and industry and construction both growing by 5.6%. The boom in consumption demand was evident especially with its peak in the third quarter. Investment demand, both public and private, likewise registered a strong upturn over their contraction in 1999. The February crisis is visible over the columns depicting the first two quarters of 2001. As data accumulate one gets a clearer picture of the prolonged deepening of the crisis and the associated impoverishment.

Balance of payments statistics reveal the main source of the growth spurt of 2000 quite succinctly. Over the whole year commodity imports have increased at a rate of 35.9%, while export growth remained at only 7.9%. The deficit on the current account which was a mere 1.4 billions $ in 1999, widened abruptly to 9.7 billions $ by the end of 2000. The current account deficit was initially targeted at 2.8 billions $, and was revised upward to 5 billions $. Thus, the realized current account deficit has exceeded its *revised* target by 1000% over the program implementation. The deficit on the current account was primarily covered by the capital account surplus totaling 9.4 billions $. Both short and long term capital were instrumental in bringing foreign capital into the domestic asset markets, while the aggregate foreign debt outstanding jumped by 12.3%, from 103.3 billions $ to 116.1 billions $ within 2000.

The increased inflows of foreign capital have been instrumental not only in financing the current account deficit, but also in the expansion of domestic liquidity. Given the no-sterilization rule and the constraints on the net domestic asset position of the Central Bank, inflows of foreign capital called for an expansion of the monetary base in line with the increase in net foreign assets. Coupled with the elimination of the

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[11] The undesirable effects of the *excessive* fall of the real rates of interest are highlighted in Alper (2001) and Ersel (2000).

currency risk, these developments led to a steep decline in the real rates of interest, especially in the early phases of the program.

<insert Figure 3 here>

The paths of the rates of interest are portrayed in Figure 3. The drop in the rate of interest offered on the government debt instruments (GDIs) is especially phenomenal. The rate of return on GDIs which was hovering around 100-120% range all throughout the post-1994 crisis period, has dropped in one stroke to the 30-40% range just within the beginning of the program. This sudden drop of the GDI rates of return is indicative of the presence of a significant risk premium on the then existing levels, which has been reduced to more modest levels given the elimination of the currency risk and probably due to the initial vote of confidence of the markets to the program itself. Both the deposit and the overnight inter-bank rates of interest followed similar course, and the asset markets operated with marginally positive real interest rates in the first three quarters of 2000.

The unexpected drop in interest costs enabled significant savings of fiscal expenditures, as well. Thus, even though the interest expenditures on consolidated budget increased by 25% in real terms over their 1990 level, they nevertheless remained below their program targets –by about 3.5% (see Table 2). Data in table 2 disclose that, together with the above-average performance in generation of tax revenues, Turkish fiscal balances had been well in order with their targets during the program period.

<Insert Table 2 here>

Over the fiscal year 2000 the rate of increase of the budgetary tax revenues reached to 18.3% in real terms; whereas the real rate of increase of fiscal expenditures was 9.9%. Accordingly, the realization of tax revenues exceeded their program target by 10.5%, while fiscal expenditures were kept within their targeted limits. Overall, however, the budget deficit continued to remain at around 10% to the GDP. This was mainly due to the continued rise of interest expenditures which reached, as a ratio of GDP, to 16.4% in 2000. This magnitude was 13.8% in 1999. Thus, the interest burden of the domestic debt remained intact despite the favorable developments in interest rates and the successful performance of the overall non-interest balance which reached to a surplus of 6.1% of the GDP.

The Disinflation Program Increased the External Fragility of the Turkish Economy

As documented above, the Turkish disinflation program maintained the current stance of the 1990s in promoting growth through inflows of hot money and speculative financial capital –a process distinguished as "speculative-led development" in Grabel (1995), and narrated in detail in Yenturk (1999), Boratav, Yeldan and Kose (1999) and Yeldan (2001a). In fact, under the 2000 disinflation program foreign financial capital inflows were not only primarily responsible for financing the investment and growth patterns, but also for maintaining the liquidity needs of the asset markets. Yet,

this episode clearly rested on unsustainable and fragile balances, and suddenly gave way to a deep crisis as conditions became unfavorable for foreign capital.

It has to be underlined at this juncture that Turkish authorities were clearly successful in maintaining the program targets both in exchange rate administration and monetary control, as well as attaining the fiscal targets. Throughout the year, exchange rate devaluation followed the programmed schedule and the Central Bank successfully controlled expansion of the monetary base by constraining its net domestic asset position within the program limits. Similarly, the fiscal operations were in line with both the revenue and expenditure targets, and the non-interest primary balance on the consolidated budget succeeded in attaining the end-of-year target by as early as September.[12]

Thus, the crucial question is whether the conditions leading to the demise of the Turkish program were due to technical errors in implementation, or were the result of internal inconsistencies and errors in design…

There is confusion in the Turkish literature regarding the diagnostics of the crisis: many researchers make confusing remarks regarding the *causes* versus the *triggering* mechanisms. The underlying *cause* of the Turkish currency crisis originated not because the fiscal and/or monetary authorities failed in following the main targets of the program; on the contrary, the crisis conditions emerged in due course, and mainly as a result, of the increased fragility in the financial system. This fragility, in turn, was generated by the uncontrolled and excessively volatile capital flows with an exceedingly speculative ("hot") component. Factors such as weak prudential regulation over the banking sector; increased corruption within various layers of the bureaucracy; or large persistent fiscal deficits were definitely instrumental in aggravating the situation. But none of them could have been the *cause* per se. Given the underlying causal fragility, there would always be such an individual factor *triggering* the bust, and in the Turkish context, the underlying cause of the meltdown was ultimately the external fragility generated by the unregulated in- and out-flows of financial capital which were excessively mobile, excessively volatile, and subject to herd psychology.

To be able to take better account of the disruptive mechanisms of this structural fragility, we have to note the famous *tri-lemma* underlying an open economy that the international economists are fond of. In an open economy, the monetary authority can independently choose only one of the three following instruments: the nominal exchange rate, the interest rate, and the stock of money, leaving the determination of the other two to the interplay of the market forces. As discussed above, liberalization of the capital account intrinsically necessitate a higher rate of return on domestic assets in comparison to the rate of depreciation of the domestic currency against the foreign currencies. This commitment stimulates further foreign inflows, and the domestic currency appreciates inviting an even higher level of hot money inflows into the often shallow domestic financial markets. The initial bonanza of debt-financed public (*e.g.* Turkey) or private (*e.g.* Mexico, Korea) spending escalate rapidly, and severe the fragility of the shallow financial markets in the home country. Eventually

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[12] The non-interest –primary– budget surplus was targeted at 3.1% of the GDP within the program. The end-of-year realization reached to 6.1%. Clearly, the fiscal austerity objectives were reached by far under the program.

the bubble bursts and a series of severe and onerous macro adjustments are enacted through very high real interest rates, sizable devaluations, and a severe entrenchment of aggregate demand, while the short term "hot money" flows have already rushed out of the country leaving it broke and deprived of the traditional tools of adjustment and austerity. Elements of this vicious cycle are further studied in Polanyi-Levitt (2001), Adelman and Yeldan (2000), Kaminsky and Reinhart (1999), Calvo and Vegh (1999), Dornbusch, Goldfajn and Valdés (1995), Velasco (1987), Diaz-Alejandro (1985), and more recently referred to as the *Neftci-Frenkel cycle* in Taylor (1998) (following Neftci (1998) and Frenkel (1998)).

In the context of the Turkish disinflation episode, Figure 4 portrays one of the important elements of the culminating process of external fragility: the path of the ratio of short term foreign debt to Central Bank's international reserves. This ratio is regarded as one of the crucial leading indicators of external fragility and has recently been called as the "most robust predictor of a currency crisis" in Rodrik and Velasco (1999). In Figure 4, I further contrast the evolution of this ratio against the background of selected East Asian economies just before the eruption of their respective financial crises in mid-1997. Data at hand disclose that before the crisis (June, 1997) the ratio of short term foreign debt to Central Bank international reserves was on the order of 170% in Indonesia, 150% in Thailand, 90% in Philippines, and 60% in Malaysia. Thus, it could be argued that the value of 60% for this ratio is regarded as a critical threshold from the point of view of international speculation. It is alarming to note that in Turkey this particular ratio has never fallen below the 100% mark since the opening of capital account in 1989. Thus, the Turkish financial system had been operating constantly under the "danger zone" for the past twelve years as far as this indicator is concerned.

What is crucial in Figure 4 is that the disinflation program had actually severed the fragility as signaled in this indicator. Let alone turning this path to a favorable trend, the 2000 program which aimed at disinflation (and stabilization!) caused an increase of external fragility with a rise of this indicator to 112% in June, and to 145% by December of 2000. This level was the highest score since 1993, just before the 1994 financial crisis. Yet, the authors of the *Letter of Intend* had envisaged that possible increases in CB reserves would be able to match the increase in outstanding short term foreign debt, and that turkey would be able to remain sound externally. However, during the course of the year the banking sector had succeeded in increasing the net inflows of foreign credit by 4.7 billions $ to reach a total of 11.1 billions $. During this process, total short term debt stock of the banking sector had increased to 16.9 billions $ from its level of 13.2 billions $. The lure of the uncontrolled flows of speculative gains clearly unleashed all its might throughout 2000, during when the currency risk was eliminated and the whole liquidity generation mechanism was based on the short term, hot money inflows.[13]

As a further attribute of this phenomenon, one can also study the behavior of the so-called monetary liabilities of the Central Bank against its foreign reserves. The *ratio of M2Y to foreign reserves* of the CB is indicative of the relative strength of the

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[13] According to Boratav's (2001) calculations, before the November 2000 crisis non-residents have brought a total of 15.2 billions $ of "hot money" into the Turkish asset markets, while the residents enabled an *outflow* of 5.3 billions $. Thus, during the course of the program, much of this accumulated short term debt had financed residents' capital flight.

monetary authority in managing its liquidity liabilities in the asset markets. A rise in this ratio signals a worsening of the financial fragility of the CB, and vice versa. I plot the behavior of the M2Y/CB Reserves ratio in Figure 5 and contrast it again with the levels scored by the crisis-ridden Asian economies of 1997. Figure 5 complements our observations underlying the increased fragility position of the Turkish economy under the 2000 program. This indicator, which stood at 3.1 before 2000, increased secularly to reach to 4.0 and caught up with the crisis-hit Asian economies by the end of 2000.

Summarizing, the program itself has achieved modest gains in disinflation, and as such it should be seen as a program for maintaining price stability at the expense of de-stabilization of the Turkish economy along with worsening of its financial and external balances. The Central bank was deprived of all its traditional tools of austerity and crisis management and was left defenseless against both the "speculative attacks" and the "sudden stops". Under these conditions it has to be no surprise that the viability of the program would finally suffer at one point when the "uneasy speculators" shift focus, and decide to reverse their flows, leaving the incipient country illiquid and dried out.

Concluding Comments

The Turkish crisis which came in the aftermath of an exchange rate-based disinflation attempt comes to no surprise to anyone who is somewhat-informed on the international literature on country experiences of macroeconomic stabilization. In fact, the observed growth-crisis path of the Turkish economy is well in line with the "main empirical regularities associated with exchange rate-based disinflation:

    (i)   slow convergence of the inflation rate (as measured by the CPI) to the rate of devaluation;

    (ii)   initial increase in real activity –particularly real GDP and private consumption– followed by a later contraction;

    (iii)   real appreciation of the domestic currency;

    (iv)   deterioration of the trade balance and current account balance

    (v)   ambiguous impact response of domestic real interest rates (where) ex-post domestic real interest rates have generally decreased in the initial stages of orthodox plans" (Calvo and Vegh, 1999).

Given the above *empirical regularities* of exchange rate-based disinflation, Calvo and Vegh resort to an extensive literature on individual country responses. In the Turkish case, with slow convergence of inflation to the programmed lower rate of devaluation, real rates of interest fell sharply, as well. This initial fall in the real rates of interest together with an appreciating currency led to an increase in aggregate demand, widening the external gap.

The financing of the external deficit was possible by way of increased net inflows of short term (hot money) capital. Thus, given the no-sterilization rule of the Central Bank, increased foreign capital inflows led to an expansion of the monetary base. Consequently the decline in the real rates of interest was instrumental in both invigorating the economic activity and also in releasing the constraints on servicing

costs of fiscal debt. In the meantime, both external and financial fragility of the domestic asset markets were severed and the macro fundamentals deteriorated. It is worth at this juncture to note that reversals of capital flows are often associated with deterioration of the macroeconomic fundamentals in the recipient country. However, as the Turkish episode documents, such deterioration often results from the effects of capital inflows themselves as well as from external developments, rather than from shifts in domestic macroeconomic policies.

In sum, muddled with short sighted myopia and speculative herd behavior of domestic and foreign financial arbiters, the IMF-directed Turkish disinflation episode all too clearly spells the dangers of restricting the monetary policy of an economy to speculative in-and-out-flows of short term foreign capital, which by itself, is excessively liquid, excessively volatile, and is subject to herd psychology. The program, by dismantling all the tools of stabilization and monetary control of the Central Bank, has left the economy defenseless against a speculative run and a "sudden stop". Trapped within the confines of a pre-announced program of exchange rate devaluation, and of a monetary rule administered effectively by short term arbitrage speculation, the Turkish Central Bank's monetary effectiveness was reduced to the miniscule role of an "accounting officer". Under this role, the CB lost all its power to steer the economy in the advent of a disruptive shock or a change in the investors' perceptions leading to a "sudden stop".

This, unfortunately had been the case in Turkey just after 10 months of the inception of the exchange rate-based disinflation program under the guidance and monitoring of the IMF.

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Figure 1. Monetary Base, Net Domestic Assets, Net Foreign Assets and Net Open Market Operations
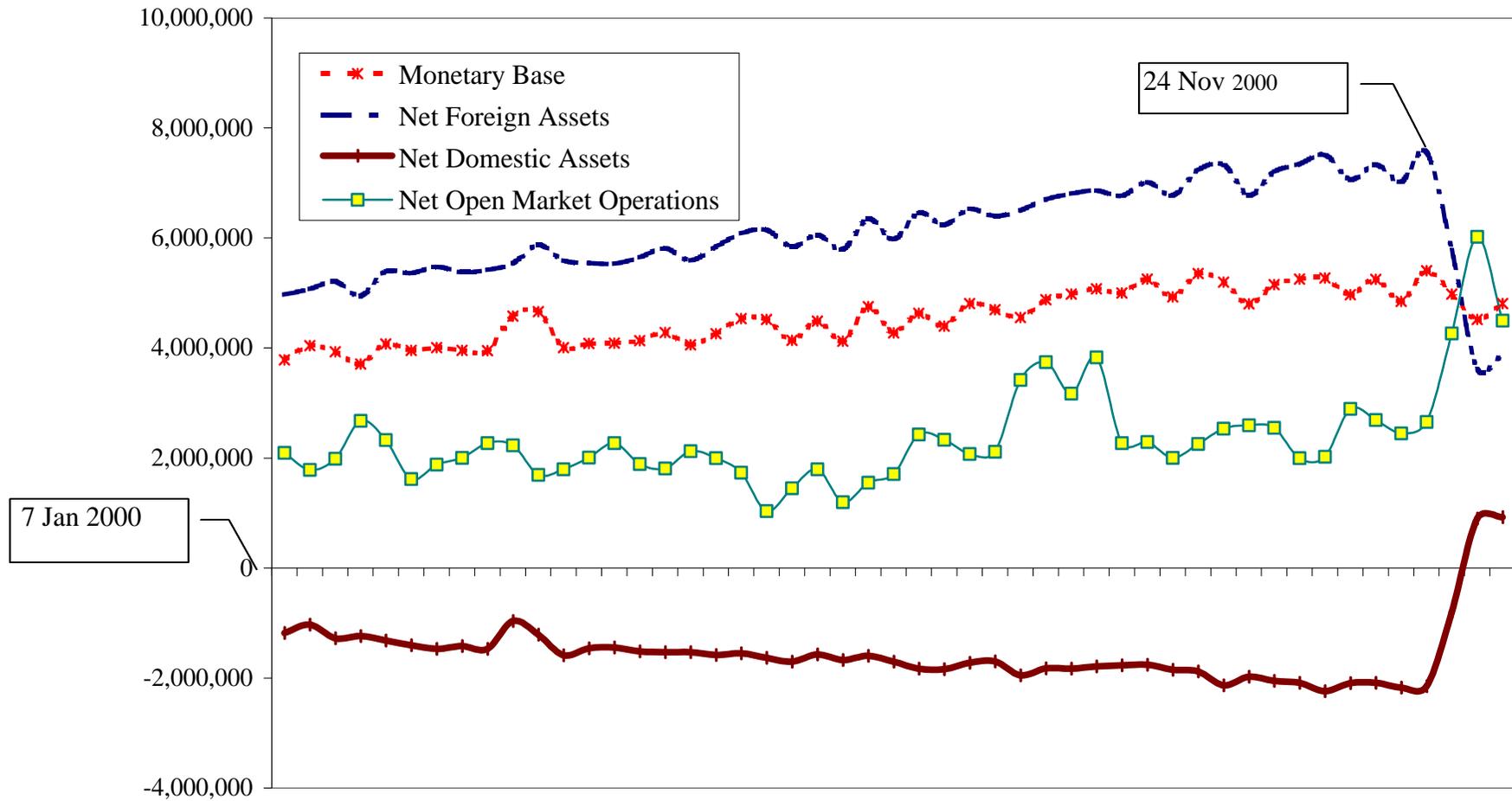## (7 Jan 2000 - 1 Dec 2000, End-of-week Observations, Millions TL)

Table 1. Macroeconomic Developments in Turkey under the 2000 Disinflation Program and Beyond

A. Rate of Growth (%):	1998	1999	2000.I	2000.II	2000.III	2000.IV	2000	2001.I	2001.II
GDP	3.1	-4.7	5.6	6.4	7.8	8.3	7.2	-2.2	-9.3
Agriculture	8.4	-5.0	1.8	2.3	1.9	12.2	4.1	8.9	-4.9
Industry	2.0	-5.0	2.8	4.0	9.8	5.5	5.6	-1.3	-8.5
Construction	0.7	-12.7	-1.3	4.3	11.1	6.7	5.6	-7.4	-10.1
Domestic Trade	1.4	-6.3	10.1	11.0	13	11.6	11.6	-3.8	-11.5
Financial Institutions	6.9	6.5	2.1	1.4	0.7	-0.4	0.9	-5.3	-10.1
Consumption Expenditures									
Private	0.6	-2.6	4.3	4.7	9.9	5.8	6.4	-3.4	-11.5
Government	7.8	6.5	-0.7	12.6	9.7	5.7	7.1	-0.2	-5.7
Gross Fixed Capital Investment									
Private	-8.3	-17.8	8.9	15.9	19.7	15.9	15.4	-12.6	-32.2
Government	13.9	-8.7	10.8	21.8	21.6	19.9	19.7	-5.8	-32.1
B. Balance of Payments (Billions US$)									
Exports	31.220	29.325	7.580	7.976	7.775	8.333	31.664	8.168	8.805
Imports	45.440	39.773	11.363	13.957	14.186	14.535	54.041	10.251	9.416
Current Account Bal.	1.984	-1.360	-2.272	-3.264	-1.359	-2.925	-9.820	-0.540	1.152
Capital Account Bal.	-0.755	4.670	3.435	4.535	2.966	-1.491	9.445	-3.138	-6.373
Portfolio Investments	-6.711	3.429	2.091	1.608	2.333	-5.010	1.022	-2.867	-0.347
Short Term Capital	1.398	0.759	1.117	0.782	0.348	1.788	4.035	-1.337	-5.015
Long Term Capital	3.985	0.344	0.247	1.955	0.712	1.362	4.276	-0.508	-1.121
Outstanding For. Debt	96.890	103.344					117.844	114.569	111.921
Short Term Debt	21.217	23.472					28.912	26.636	22.767
Long Term Debt	75.673	79.872					88.932	87.932	89.154

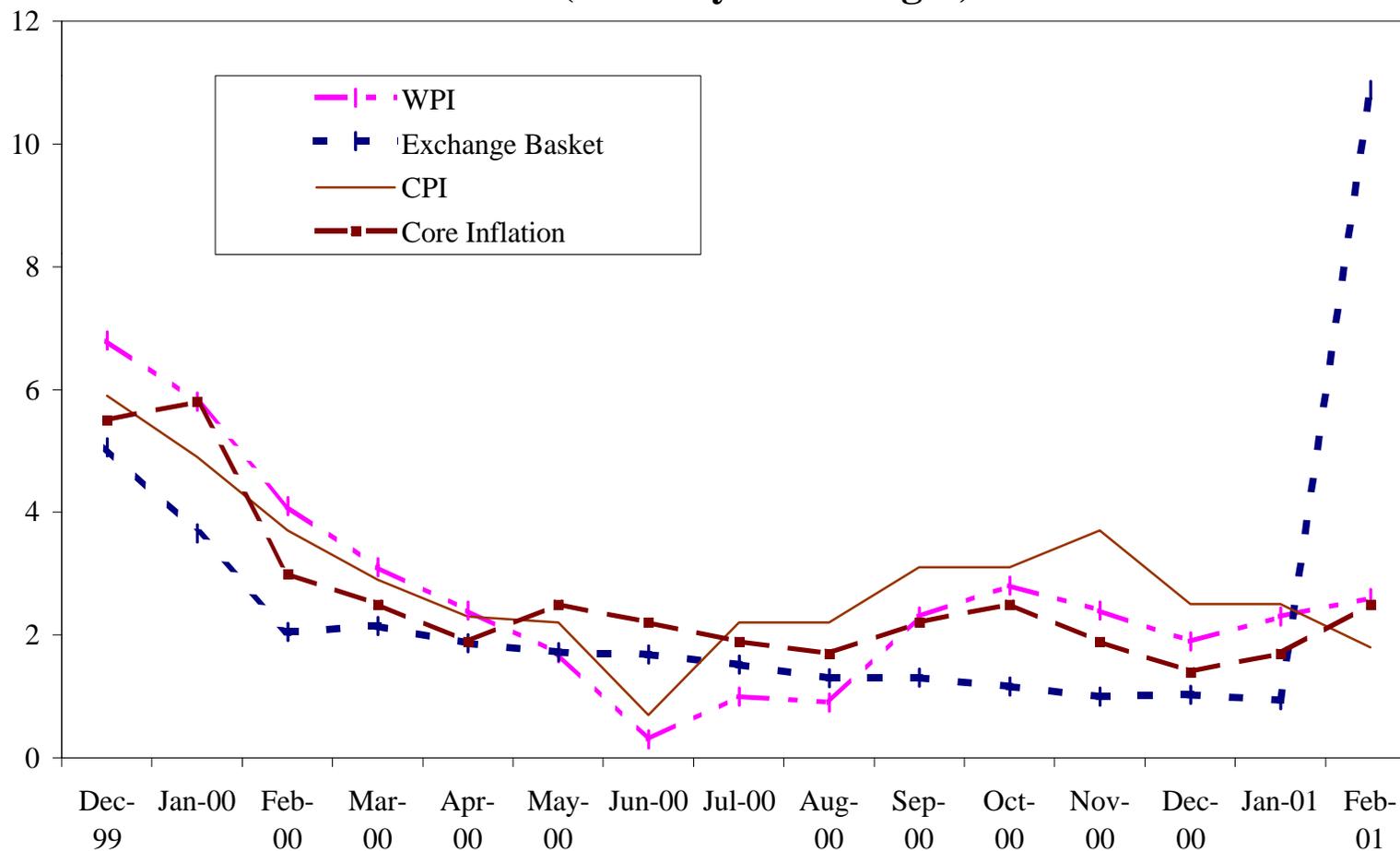Source: State Institute of Statistics (www.die.gov.tr)

Table 2. Developments in the Consolidated Budget under the Disinflation Program (Fixed Prices, Trillions TL)[a]

	1998	1999	2000 Realization A	Target B	A/B
Revenues	26,912.7	28,286.5	33,756.4	32,585.5	103.6
Tax Revenues	21,391.9	22,418.3	26,526.8	24,000.0	110.5
Direct Taxes	9,305.5	10,163.2	10,861.9	9,585.0	113.3
Indirect Taxes	12,086.4	12,254.9	15,664.9	14,415.0	108.7
Expenditures	35,729.0	42,418.9	46,602.6	46,713.3	99.8
Personnel Expenditures	8,973.0	10,459.2	9,982.1	9,899.8	100.8
Investment Expenditures	2,053.3	2,331.9	2,472.3	2,351.7	105.1
Interest Expenditures	13,049.5	16,231.3	20,439.9	21,132.3	96.7
Transfers to SEEs	370.6	631.0	885.9	594.6	149.0
Other Transfers	8,318.5	9,374.7	9,211.1	8,894.5	103.6
Ratios to GNP (%)					
Budget Balance	-7.2	-10.9	-10.3		
Interest Expenditures	11.7	13.8	16.4		
Non-interest Balance	4.4	2.2	6.1		
Net Domestic Borrowing	8.6	12.6	7.5		
Domestic Debt Stock	21.9	29.3	29.0		

a. In real 2000 prices, deflated by the wholesale price index (2000 = 100).

Source: SPO Main Economic Indicators (www.dpt.gov.tr)

Figure 2. Prices and the Exchange Rate Basket
under the 2000 Disinflation Program
(Monthly % Changes)

* Exchange basket is according to the (1 US$ + 0.77 Euro) formula

** Core Ýnflation is the monthly rate of change in private manufacturing prices (1994=100).

Source: State Institute of Statistics

Figure 3. Behavior of Interest Rates under the 2000 Disinflation Program
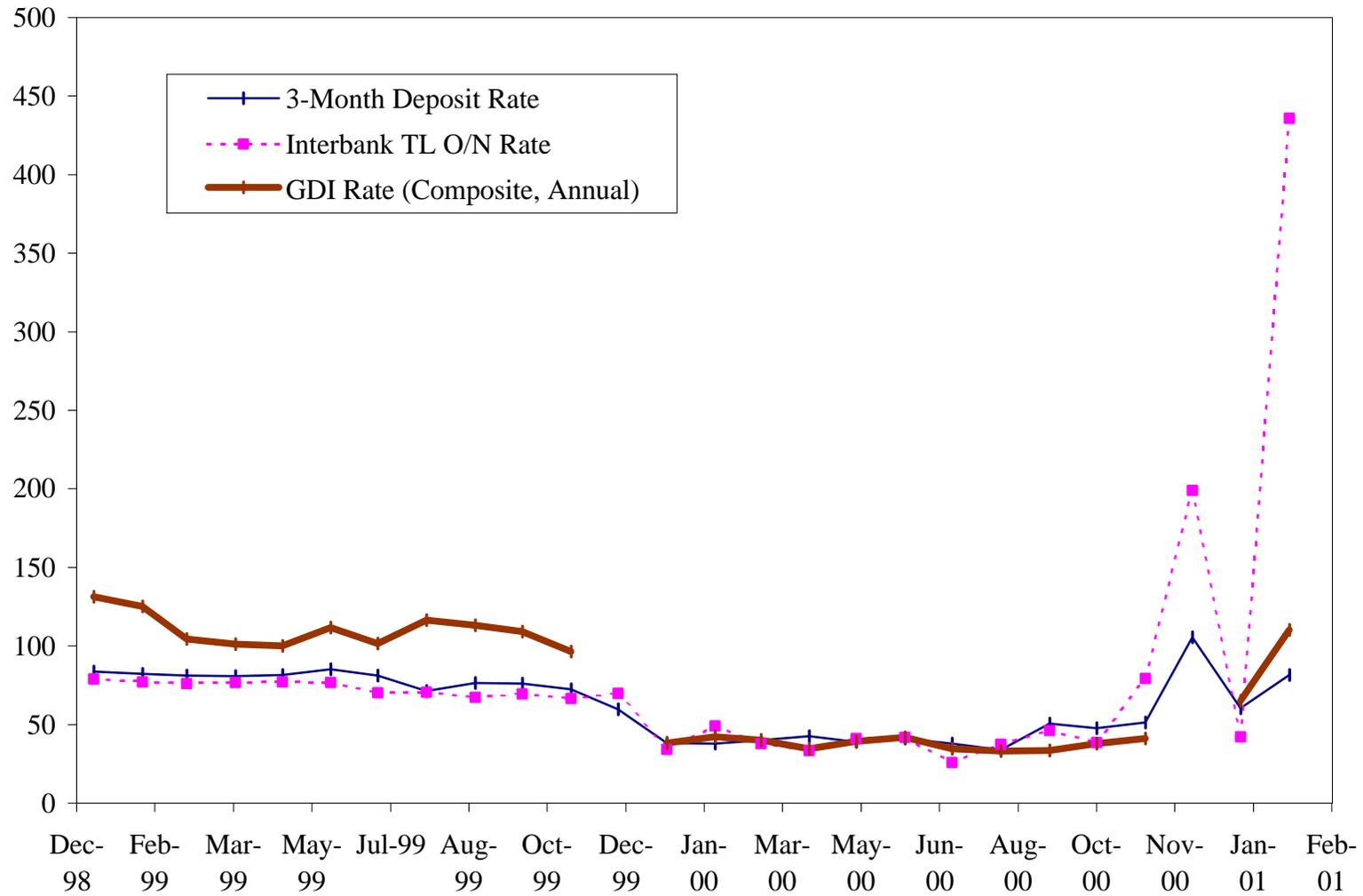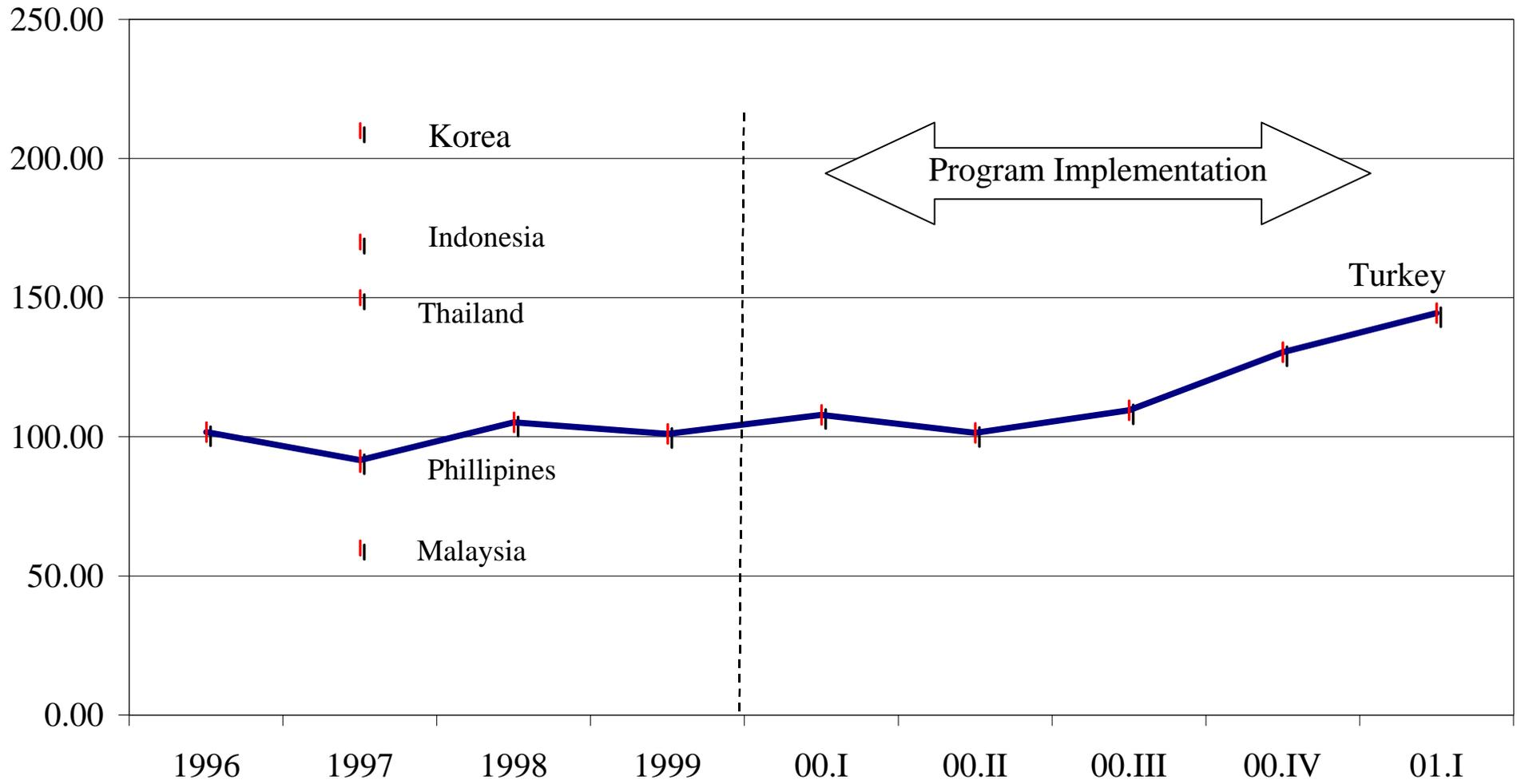
Figure 4. Short Term Foreign Debt / CB Reserves (%)

Figure 5. M2Y / CB International Reserves

Legend:
- ■ Indonesia, Korea
- ■ Phillipines, Thailand
- ■ Malaysia

Program implementation

Turkey