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**INFLATION TARGETING as a MONETARY
POLICY and its APPLICABILITY to
DEVELOPING COUNTRIES**

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INFLATION TARGETING as a MONETARY POLICY and its APPLICABILITY to DEVELOPING COUNTRIES

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Abstract

The objective of this paper is to evaluate the inflation targeting as a monetary policy for Turkey. The implementation issues and the structural contexts of five Latin American countries, which had adopted inflation targeting is reviewed and a comparison of Turkey has been conducted. The main impediment to the success of the inflation targeting framework in Latin America and Turkey is seemed to be fiscal dominance.

1. INTRODUCTION

Price stability has been recognized as the primary objective of monetary policy since high and variable inflation is claimed to be socially and economically costly. Besides, manipulating the monetary policy instruments to attain other goals, such as output growth and employment, has the peril of an inflationary bias.

For many years both industrial and developing countries implemented monetary policies which relied on intermediate targets as monetary aggregates or exchange rates. However, exchange rate crisis and money demand instability had proved that these strategies involve various shortcomings. As a result of the unsuccessful experiences, during the 1990s, a number of industrial and developing countries have begun to focus directly on inflation itself. In many cases adopting an explicit inflation target is viewed to be the best choice of regime for anchoring expectations and guiding monetary policy decisions. This new approach to the problem of controlling inflation through monetary policy is known as inflation targeting (IT).

There is a burgeoning literature on the experiences of industrial countries with inflation targeting¹; however there are substantial differences between industrial and emerging economies, which matters for the success of IT strategy. The aim of this paper is to present a survey of the developing country cases that adopted inflation targeting and its feasibility for Turkey is investigated.

Section II defines the inflation targeting and reviews the existing analytical framework including the discussions on open economy and imperfect credibility. Section III delineates the implementation issues and structural contexts of developing countries which put IT into practice to inspect whether they had qualified the prerequisites. Section IV discusses its applicability to Turkish economy. Section V concludes.

¹ See Bernanke, Mishkin, and Posen (1997), Schaetter, Stone, and Zelmer (2000).

2. INFLATION TARGETING in THEORY

The most widespread nominal anchors are monetary aggregates, exchange rate, and inflation targeting. The monetary anchor is effective if there is a stable demand for the monetary aggregate that is used as an anchor. Particularly, the demand for money becomes very unstable in an economy that has experienced a period of high and variable inflation as economic agents develop ways to restrain their usage of domestic money balances². In addition, developing countries are less likely to have a complete control over their monetary aggregates; therefore, monetary targeting seems to be a risky strategy (Mussa et. al., 2000).

An alternative monetary policy option for a country is adopting an exchange rate anchor. While the exchange rate anchor can help bring inflation down quickly and may help solve the time inconsistency problem, its use in emerging market countries is problematic. As argued by Mishkin (1998a), the use of an exchange rate anchor in an economy typified by an underdeveloped financial sector is risky since it would add to financial fragility and might launch financial crises³. Besides, the exchange rate anchor limits the policymakers' ability to react to external shocks and leave no scope for domestic monetary policy (Mishkin, 1998b). Finally, it is difficult to articulate a well designed exit strategy. There is abundant evidence that long-term adherence to the exchange rate anchor increases the likelihood of overvaluations and balance of payments crises.

Inflation targeting is a monetary policy framework based on the announcement of a numerical target for inflation and an institutional commitment to reach the announced target⁴. Under this strategy, the anchor for inflation is the publicly announced inflation target itself. This has several advantages over exchange rate and monetary targeting. Contrary to exchange rate targeting, inflation targeting allows the central banks to have

² For a broader discussion on the lack of efficiency of monetary targeting, see McCallum (1999).

³ Agenor and Montiel (1999) demonstrated that in a world of high capital mobility and unstable capital movements, conventional pegged exchange rates have proved fragile.

⁴ In addition to these specifications, Mishkin and Savastano (2000) list information-inclusiveness, transparency and accountability as the main elements of IT.

greater discretionary power to respond to shocks of both domestic and foreign origin. Besides, since the relationship between money and inflation is not key to its success, a stable demand for money is not crucial. Obviously, there are disadvantages associated with inflation targeting too. Main criticisms comprise of incomplete control over inflation, exposition of economy to financial instability, especially when there is partial dollarization, and lack of avoidance of fiscal dominance⁵. According to Svensson the greatest problem with inflation targeting is arguably the central banks' imperfect control of inflation. Due to lags in the transmission mechanism, uncertainty about the transmission mechanism, the current state of the economy, the future shocks to the economy, and the influence of other factors than monetary policy on inflation, inflation can be partially controlled by central banks. This creates obvious obstacles for the implementation and monitoring of inflation targeting considering the difficulties associated with extracting how much of observed inflation is as a result monetary policy rather than shocks and other factors. Subsequently, there would be reduction in accountability and transparency of inflation targeting, hence, many potential benefits of inflation targeting may not actualize.

2.1. Analytical Framework

This section is based on the works of Svensson, Ball, and Eichengreen and discusses briefly the analytical framework of inflation targeting starting from a closed economy and then moving to an open economy setting. Svensson (1997) proposes utilizing conditional inflation forecast as an intermediate target variable. This idea is first expressed by King (1994) as follows: "... the intermediate target is the expected level of inflation at some future date chosen to allow for the lag between changes in interest rates and the resulting changes in inflation". In order to implement inflation targeting effectively, an inflation-targeting central bank must have a forward-looking perspective, and must construct conditional inflation forecasts in order to decide upon the current instrument setting.

⁵ There are also criticisms concerning the rigidity of inflation targeting, full discretion, increased output instability. See, Mishkin and Savastano (2000).

The instrument setting depends on which type of inflation targeting is chosen. Basically there are two types, namely strict and flexible inflation targeting, where in the former only inflation enters the CB's objective function and in the latter there is also a positive weight on other variables. While strict inflation targeting entails a rapid push towards the target under all circumstances, under flexible inflation targeting actual inflation converges to the target rate gradually. It will balance the benefits of minimizing the variability of inflation against the costs of creating additional variability in other variables that enter its objective function.

If the short term nominal interest rate⁶ is the instrument employed by the central bank, the optimal rate could be derived as follows:

$$\pi_{t+1} = \pi_t + \alpha (y_t - y^*) + \eta_{t+1} \quad (1)$$

$$y_{t+1} - y^* = \beta (y_t - y^*) - \beta (r_t - r^*) + \nu_{t+1} \quad (2)$$

Equation (1) is an accelerationist Phillips curve, where the change in inflation (π) between this period and next is a function of this period's gap between actual output (y) and its natural level (y^*) and of a disturbance. Equation (2) is aggregate demand, where next period's output gap is a function of this period's output gap, the deviation of the interest rate (r) from normal (r^*), and a disturbance. The key assumption is that the control lag until inflation responds to the central bank's instrument (r) is longer than the control lag for AD.

Under strict IT, the optimal policy is to target inflation two periods ahead, setting $\pi_{t+2} = \pi^*$ denotes target inflation. Inflation one period ahead is given by output in the current period, which is predetermined; hence inflation one period ahead cannot be controlled. Solving for the optimal reaction function gives:

$$r_t = r^* + F (\pi_t - \pi^*) + \alpha (y_t - y^*) \quad (3)$$

⁶ Many different central banks employ different instruments to reach to the target inflation rate.

Strict inflation targeting framework requires setting α equal to zero, since the sole objective of the central bank is to manipulate the short term interest rate in order to draw back the inflation to its target level⁷. Flexible IT is the case in which both α and β are positive. Indeed, all emerging country central banks that implement inflation targeting have adopted flexible inflation targeting strategies. Most of Svensson's work finds support for flexible IT and gradual convergence to the target.

2.2. Open Economy and Imperfect Credibility

The above models are applicable to closed economies and one needs to move further to look at the cases of an open economy, since most of the developing countries are highly integrated into the world markets. With openness the economy is exposed to foreign shocks to both commodity and financial markets and it introduces additional channels for policy. For instance, the policy instrument (r) will now affect output also indirectly through its impact on the exchange rate. The indirect channel will reduce net export demand by appreciating the exchange rate. In a financially open economy the interest parity condition is:

$$e_t - E(e_{t+1}) = r_t - r^* + v_t \quad (4)$$

where exchange rate is defined as the foreign price of domestic currency, r^* is the foreign interest rate, and v is a financial market disturbance. Then equation (2) can be rewritten as;

$$y_{t+1} - y^* = \alpha (y_t - y^*) - \beta (r_t - r^*) - \delta e_t + \eta_{t+1} \quad (2')$$

From equation (2') we can deduce that in open economies adjustments in the policy instruments will be smaller if the output response is larger. Otherwise the reaction function is unaffected. However, if exchange rate movements also affect inflation directly

⁷ However, since the coefficients depend on the values α , β , and δ , even under strict IT there is still a positive weight on output in the reaction function because of its information content for future inflation.

with the same one-period lag as it is affected by the output gap the implications are more complicated. We rewrite equation (1) as:

$$\pi_{t+1} = \pi_t + a(y_t - y^*) - \beta(e_t - e_{t-1}) + \epsilon_{t+1} \quad (1')$$

Under an open economy setting, strict inflation targeting generates more output instability. Besides, the CB will move more slowly to restore inflation to its target level. Given that the policy instrument, operating through the exchange rate, has a more powerful first-period effect on inflation, policy is used more moderately in response to deviations from the target. In emerging markets the changes in import prices due to movements in the exchange rate are passed through into domestic prices more rapidly than industrial countries (Calvo and Reinhart, 2000). With high passthrough, a change in the exchange rate has a large short-run impact on inflation and a small short-run impact on output. An open economy is vulnerable to shocks stemming from international commodity and financial markets. Even though exchange rate is affected by both kind of shocks, the appropriate policy response by an inflation targeting central bank will depend on the source of the shock.

According to Ball the optimal policy in the closed economy ought to be distinct from the one in a closed economy. In the former case, interest rate, which depends on output and inflation, could be used whereas in the latter, the monetary policy instrument that is a combination of the exchange rate and the interest rate, MCI, could be employed. Monetary condition index is a linear combination of the exchange rate and a nominal short-term interest rate. In Ball's model, the weight attached to the exchange rate is greatly contingent on the degree of passthrough from exchange rate to prices. Nevertheless, Svensson asserts that even though a MCI could be used as a control variable, the outcome is the same as using the short-term interest rate and hence there is no advantage in targeting the exchange rate.

Finally, some issues concerning credibility will be elaborated since it is substantial, especially, for the developing countries. The expected inflation can be written as:

$$E(\pi_{t+1}) = \lambda \pi_t^* + (1-\lambda)\pi_t \quad (5)$$

The above equation describes the expectation of the one-period ahead inflation rate as a weighted average of the current inflation rate and the inflation target announced by the authorities. The weight given to the inflation target variable depends on the credibility of the monetary authorities. In one extreme, with a fully credible monetary authority the public sets its inflation expectation equal to the inflation target ($\lambda = 1$) while, in the other extreme, the public pays no attention to the announced target and assumes that the current inflation rate persists into the next period.

To the extent that inflation targeting is less credible in emerging markets, its benefits will be less. In the case of lack of confidence that the central bank is committed to low inflation, interest rates will not fall to the levels of other low-inflation countries. Shocks will raise questions about whether authorities are prepared to stay the course. Sharp changes in interest rates, exchange rates and international capital flows may feed upon themselves. Firms will not decrease their prices to meet the inflation target if policy is not credible. Then the attempts of hitting the target will require an increase in interest rates sufficient to deliver a substantial reduction in import prices with destabilizing output effects⁸.

There is a tradeoff between flexibility and credibility. As we will see in the next section, many decisions about the implementation of inflation targeting are contingent upon this tradeoff. Particularly, imperfect credibility may require the central bank to target inflation rigidly, while, the structural context of the country might be viable for a more flexible adoption.

⁸ The same negative implications also follow, of course, for any other monetary regime if the financial system is fragile, the commitment to fiscal discipline is questionable, the monetary authorities lack autonomy and independence, and the economy is subject to foreign disturbances.

3. INFLATION TARGETING in PRACTICE

The next sections will describe the main decisions and steps that need to be taken by a country aiming to adopt an IT framework, the necessary economic and political conditions for the implementation of an IT framework, and the possibility of implementing inflation targeting in emerging markets with examples from five Latin American countries.

3.1. Implementation Issues

In Bernanke et al. (1999) the following operational issues in the implementation of an inflation targeting framework are distinguished. First, it should be decided whether a strict or flexible IT should be adopted by the CB. Second, who will decide the target and who will be accountable for this decision. Third, the measure of inflation should be decided. Fourth, the numerical value of the target should be determined. Fifth, a point target or a range for the target should be chosen. And finally the horizon of the target should be defined.

For a CB, which would like to initiate an IT framework, the first decision that needs to be taken is strict vs. flexible IT. The former aims to achieve the inflation target rapidly regardless of output stabilization, while, the latter tries to accomplish the target gradually with some considerations for output stabilization. Strict inflation targeting is claimed to be advantageous for providing credibility but in fact, all of the central banks that have adopted IT framework preferred flexible IT. None of the countries merely emphasize price stability, leaving the output stability aside.

Next, who will decide the target and who is accountable for it should be decided. The tension arises because of the necessity of having an independent central bank and the accountability attached to the democratic policymaking process. This could be overcome by attributing instrument independence to the central bank. With an arrangement of this type, the ultimate goal of monetary policy is set by a politically accountable decision

maker but the central bank is completely independent in the choice of instruments of monetary policy necessary to reach this goal. From Table 1, we could see that except Mexico, the inflation target is set jointly by government and central bank. Corbo and Schmidt-Hebbel (2000) assert that all central banks in these countries have been granted a substantial degree of independence in the 1990s and central bank loans to the government are prohibited. In Chile and Colombia the Minister of Finance is a member of the Central Bank Board, which is an arrangement aiming to increase the coordination between fiscal and monetary policy.

The third question relates to which measure of inflation should be targeted. Core inflation is used as a measure of the policy target by the central banks since total CPI involves the problem of noisy and erratic short-run movements in prices⁹. Such measures are generally calculated by removing some components of the price indexes, particularly those that appear to be substantially more volatile than prices of other goods and services. It is argued that short-term movements in these prices result from rapid adjustment to frequent real shocks that are often reversed, and so they contain substantially less information about the long-term trend in inflation. The main disadvantage of core inflation is that it is less transparent and could not be clearly understood by the public as total CPI. Hence, as in many other issues, the choice of what kind of inflation index the central bank should target implies a trade-off between flexibility and transparency (Bernanke et. al. 1999). In all countries under consideration Total CPI has been utilized as the target index since it is easy to monitor and form inflation expectations.

Fourthly, the numerical value of the target should be defined. Even though the price stability is the main goal of the central banks, it is argued widely that the inflation target should be low and above zero. There are several reasons to choose a positive inflation target. First of all, the undershooting of the target in the case of zero inflation would engender deflation and it would harm the functioning of the financial system. Second, because of substitution effects and quality improvements, inflation estimates are likely to

⁹ See Roger (1998) and Wynee (1999) for recent reviews of the literature on core inflation.

overstate the true increase in prices (Boskin et. al. 1996). Third, downward rigidity in nominal wages will necessitate some positive inflation for real wage adjustments. Fourth, as the nominal interest rate cannot be negative, with zero inflation it is impossible to have a negative real rate. It is also argued that developing countries should aim a somewhat higher inflation rate than the industrial countries. The target rate has been cut down continuously in all countries and still stay above zero.

The fifth implementation issue is whether the target should be expressed as a point or a range. Many inflation targeting countries have chosen to specify their inflation target in the form of a band rather than a single point since economic behavior and outcomes are not completely predictable it is difficult to hit continuously a single point target for inflation. The width of the band should rely on the variability of the rate of inflation, the policy horizon, plus the degree of discretion that the central bank maintains in the conduct of monetary policy. This degree of discretion also brings along a tradeoff between credibility and flexibility in the choice of the optimal target band. A wider target has a greater possibility of success but it would be also less credible¹⁰. Another issue is whether the band should be asymmetric or not. If, for instance, the central bank believes that the credibility loss associated with overshooting the target is higher than the loss incurred by undershooting it, an asymmetric band may provide a somewhat higher degree of flexibility¹¹.

The last issue is the choice of the policy horizon or the time frame in which the target should be achieved. Bernanke et. al. (1999) claim that very short and very long policy horizons are meaningless because, with very short horizons, it may be impossible to reach the inflation target at a reasonable cost and very long targets would play little role in setting inflation expectations¹². The optimal length of the target horizon depends also on policy preferences, in addition to the magnitude of the shocks affecting inflation. The

¹⁰ In some sense, the choice of an optimal inflation target band is reminiscent of the problem of choosing the optimal width of an exchange rate target zone.

¹¹ However, in 1997 and 1998, Peru and Chile paid a high cost for undershooting their inflation targets.

¹² A very short horizon could also produce 'instrument instability' (Masson et. al., 1997).

greater the relative importance attached to output stabilization relative to inflation stabilization, the longer the optimal length¹³. Svensson (1997) has emphasized, if central banks are concerned about output fluctuations, then the inflation forecast should approach the long-run inflation target gradually over time. This implies that a horizon even longer than the policy lags that might be appropriate for the inflation target (Mishkin and Schmidt-Hebbel, 2001). Brazil and Mexico (Bank of Brazil, 1999, and Bank of Mexico, 2000) have adopted multi-year annual targets so that the path of the inflation target can converge to the long-run inflation goal more gradually. Another alternative is announcing only one long-term target and publishing inflation rates for future years to describe the expected path of inflation toward the long-run target, which is adopted by Chile (Central Bank of Chile, 2000).

3.2. Necessary Conditions

Masson et al. (1997) describe the necessary economic and political conditions for the implementation of a successful IT framework as the presence of an independent CB, and lack of binding commitments to other variables. However, the paper will mainly focus on the first prerequisite given that the Latin American countries that implement inflation targeting framework shifted to a floating regime already. As so far, the second necessary condition seems to be accepted by all countries with minor exceptions. Mexico carries on intervention since the 1994 crisis and Peru continues to use intervention to smooth sharp fluctuations. We believe that the first necessary condition is more challenging for emerging market economies to be fulfilled.

Central bank independence is essential for the success of an inflation targeting framework since the bank should be able to use its instrument freely. Instrument independence¹⁴ could be achieved if there is lack of fiscal dominance. In particular, inflation targeting must be supported by the reform and reinforcement of fiscal institutions as a way of delivering better fiscal outcomes. Moreover, shallow capital markets are also a subtle

¹³ See Isard and Laxton (2000) for recent quantitative research on policy tradeoffs of this type.

¹⁴ Goal independence is not central to the inflation targeting strategy, besides, for a better coordination of monetary and fiscal policy, the goal should be set jointly by government and central bank.

manifestation of fiscal dominance. To assess the fiscal and financial sectors in developing countries, several indicators are evaluated in the next section for five Latin American countries and Turkey.

3.2.1. Key Financial Ratios

Masson et. al. (1997) applies the freedom from fiscal dominance and firm commitments to other nominal targets criteria to a sample of developed and developing countries. They find that, in most developing countries, fiscal dominance and an underdeveloped and fragile financial system are serious obstacles to the conduct of an independent monetary policy. Different from their indicators we employed some of the financial depth and efficiency indicators used by World Bank and IMF to check out if they have exhibited any improvement in financial terms before adopting inflation targeting framework. Besides, the same ratios will be assessed for Turkey for an extended time period to make a comparison.

As seen From Figure 1.a. through Figure 4.a. all countries display similar developments with the exception of Brazil for the first three indicators. The 'Real' plan, which has started to be implemented in 1994, could explain the drastic decline in monetary aggregates and domestic credit provided by the banking sector in Brazil. Chile appears to be financially more advanced compared to the other Latin American countries at issue. This is largely due to the banking regulations and supervision practiced in the aftermath of the severe banking crisis of 1980s. The resulting solidity of the Chilean financial system has allowed the central bank to proceed defending the currency and the banks. In addition, the controls on short-term capital flows have been another important factor behind the low vulnerability and relative stability of the Chilean economy. The Latin American countries improved slightly in financial terms before the start of the inflation targeting framework. Nonetheless, tenuous banking sector remains to be a problem for Mexico and to a lesser extent for Peru.

The financial indicator figures for Turkey (Figure 1.b- 4.b) resemble to the Latin American countries regarding the movements, however, especially domestic credit and market capitalization ratios are lower. In recent years several measures have been attempted to be employed to strengthen the banking sector and supervision¹⁵. One distinctive feature of the Turkish financial system is the extensive pressure put on it by the borrowing requirements of government. Fiscal sector will be investigated in the next section.

3.2.2. Key Fiscal Ratios

Chile's fiscal position is the strongest among all countries and had been a major support for the success of the inflation targeting framework. During the period of 1990-98, the overall budget (as a % of GDP) gave surplus every year. In 1998 the economy entered into a recession as a result of the tight monetary policy and undershooting of the inflation target and surplus declined. Central government debt also showed a continuous decrease over the same period. Colombia's fiscal surplus began to deteriorate after 1991 and turned into deficits afterwards. In 1998, it reached the highest level, 5.11% of GDP, and with the high external deficits and political instability, it led to a cord of speculative attacks. Peru seemed to improve her fiscal balances after 1995, although, it went back to negative figures in 1998 following the adverse shocks. While the overall budget deficit in Mexico has not been high over the years of 1990-98, it appears that Mexico has not been able to recover from the 1994 crisis. Finally, fiscal discipline is lacking in Brazil and fiscal dominance is pervasive for Brazilian economy. Overall budget deficit stayed at high levels averaging approximately 6% of GDP from 1990-98.

From Figure 5.b. to Figure 6.b. it can be observed that the public sector in Turkey has been experiencing serious troubles regarding the increasing debt and large fiscal deficits. The major problem with respect to inflation targeting is the existence of fiscal inflation in Turkey. The enormous fiscal burden and hence fiscal dominance feeds the inflationary

¹⁵ Regulations on capital adequacy requirements and the ceiling on banks' net open foreign exchange positions are especially important.

expectations as well as cause the inflation to be a fiscal phenomenon. A contractionary monetary policy measure aimed at lowering inflation pressure caused by government debt will initially lower seigniorage revenue and require that additional debt be issued, which ultimately will lead to higher inflation.

4. OPTIONS for TURKEY

In the light of discussions of the previous sections, the possibility of adopting inflation targeting monetary strategy in Turkey and some implementation issues will be evaluated. The initial stage pertaining to inflation targeting framework in Turkey is to establish a successful disinflationary period and cut down inflation to moderate levels before launching inflation targeting as a nominal anchoring policy. Although, the inflation rates were relatively high in Chile, Peru and Israel when they adopted the inflation targeting framework, Turkish inflation rates are well above. Moreover, before moving to the hard targeting it would be useful to use intermediate targets or officially pre-announced projections. In Chile, also, inflation targets were announced and interpreted as official inflation projects, rather than as hard targets¹⁶.

Yet, the main impediment to inflation targeting in Turkey, in our view, is fiscal dominance. There is vast empirical evidence that, because of procyclicality of capital flows, high levels of external debt, high burden of interest payments, and limited creditworthiness, emerging market economies have limited scope for fiscal adjustment and often have procyclical fiscal policies. These procyclical policies are partly due to the fact that, during periods of economic expansion, emerging market countries did not build surpluses and accumulate resources to be used during recessions.

Furthermore, as stated by Gavin et al. (1996), seigniorage has been an important component of fiscal adjustments during recessions. Thus, the monetary authorities are put under further pressure during recessions, since monetary policy is the only

¹⁶ However, over time as inflation fell, this procedure was altered and inflation targets came to be viewed by the central bank and the markets as hard targets.

countercyclical instrument and therefore the monetary authority should fight the recession by implementing an expansionary monetary policy, however the deterioration of the fiscal position will generate inflationary expectations linked to the possible monetization of the deficit and the central bank will have to either accommodate these expectations or to adopt a restrictive monetary policy that is likely to worsen the recession. This generates a difficult dilemma for the developing countries with weak fiscal positions. During recessions, when they mostly need an expansionary monetary policy, the central bank will have to keep a firm stance on monetary policy in order to maintain its credibility and prevent the formation of inflationary expectations.

5. CONCLUSION

In the paper inflation targeting as a monetary strategy and its feasibility for developing countries is surveyed. The implementation issues and the structural contexts of five Latin American countries, which had adopted inflation targeting is reviewed and a comparison of Turkey has been conducted. There are several complexities linked to the execution of inflation targeting in developing countries such as the openness of the economy and the imperfect credibility. Besides, the necessary conditions are not fulfilled by the developing countries. From the overview, it can be seen that the main impediment to the success of the inflation targeting framework in Latin America and Turkey, is fiscal dominance.

The country experiences suggest that there are various ways of implementing inflation targeting monetary strategy. Particularly, who will decide the target, what will be the target, the index used, and the horizon of the target, varies across countries. Well regulated financial institutions, sound fiscal system, and absence of other nominal anchors are the prerequisites for adoption. However, many Latin American countries appear to be deficient in terms of financial and fiscal ratios, maybe with the exception of Chile. The same indicators for Turkey demonstrate that the problem is mainly fiscal. Under fiscal dominance inflation becomes a non-monetary phenomenon; hence, the monetary authorities lose their control over inflation.

For further research the implementation issues for Turkey should be explored in detail and the coordination between fiscal and monetary authorities should be increased. Since the public sector deficits and borrowing requirements affect the financial sector the instrument of the monetary authority should be determined jointly. Besides, the sensitivity of the market to the instrument should be analyzed.

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Table 1. Implementation Issues of Inflation Targeting in Latin American Countries

Country	Date Introduced	Target Set By	Target Inflation Rate	Target Index	Target Horizon	Monetary Policy Operating Target	Current Exchange Rate Regime
<i>Brazil</i>	June 1999	Government in consultation with the CB	1999: 8% (+, - 2) 2000: 6% (+, - 2) 2001: 4% (+, - 2) 2002: 3.5%	Total CPI	1 year	Overnight interest rate	Floating
<i>Chile</i>	September 1999	CB in consultation with Minister of Finance	1991: 15-20% 1992: 13-16% 1993: 10-12% 1994: 9-11% 1995: 8% 1996: 6.5% 1997: 5.5% 1998: 4.5% 1999: 4.3% 2000: 3.5% 2001 onwards: 2-4%	Total CPI	1991-2000: 1 year 2001 onwards: indefinite	Overnight interest rate (real terms)	Floating
<i>Colombia</i>	September 1999	Government in consultation with the CB	1999:15% 2000:10% 2001:8% 2002: 6%	Total CPI	1 year	Monetary Base (daily)	Floating
<i>Mexico</i>	1999	CB	1999:13% 2000: <10% 2001:6.5% 2002: 4.5%	Total CPI	1998-2002: 1 year 2002 onwards: indefinite	Monetary Base (daily)	Floating with intervention

Table 1. Implementation Issues of Inflation Targeting in Latin American Countries

Country	Date Introduced	Target Set By	Target Inflation Rate	Target Index	Target Horizon	Monetary Policy Operating Target	Current Exchange Rate Regime
<i>Peru</i>	1994	CB in consultation with Minister of Finance	1994: 15-20% 1995: 9-11% 1996: 9.5-11.5% 1997: 8-10% 1998: 7.5-9% 1999: 5-6% 2000: 3.5-4% 2001: 2.5-3.5% 2002: 1.5-2.5%	Total CPI	1 year	Monetary Base (daily)	Floating. Intervention can be used to smooth fluctuations

Based on Mishkin and Schmidt-Hebbel (2001) and central banks of several countries.

Figure 1a: Liquid Liabilities to GDP in Latin American Countries: 1990-98

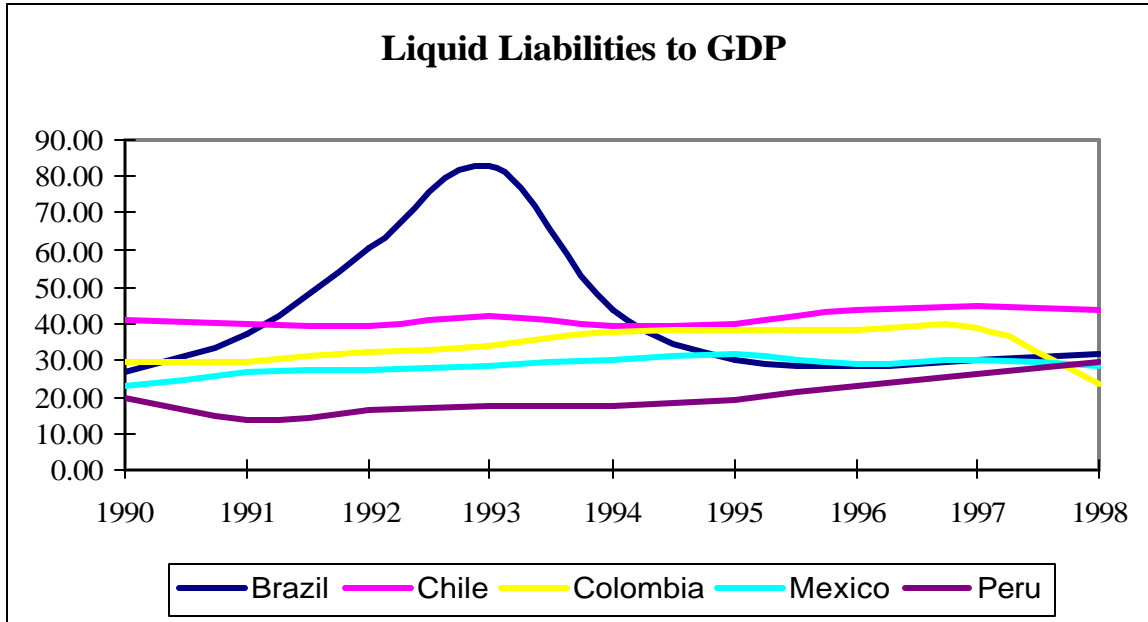


Figure 1b: Liquid Liabilities to GDP in Turkey: 1990-2001

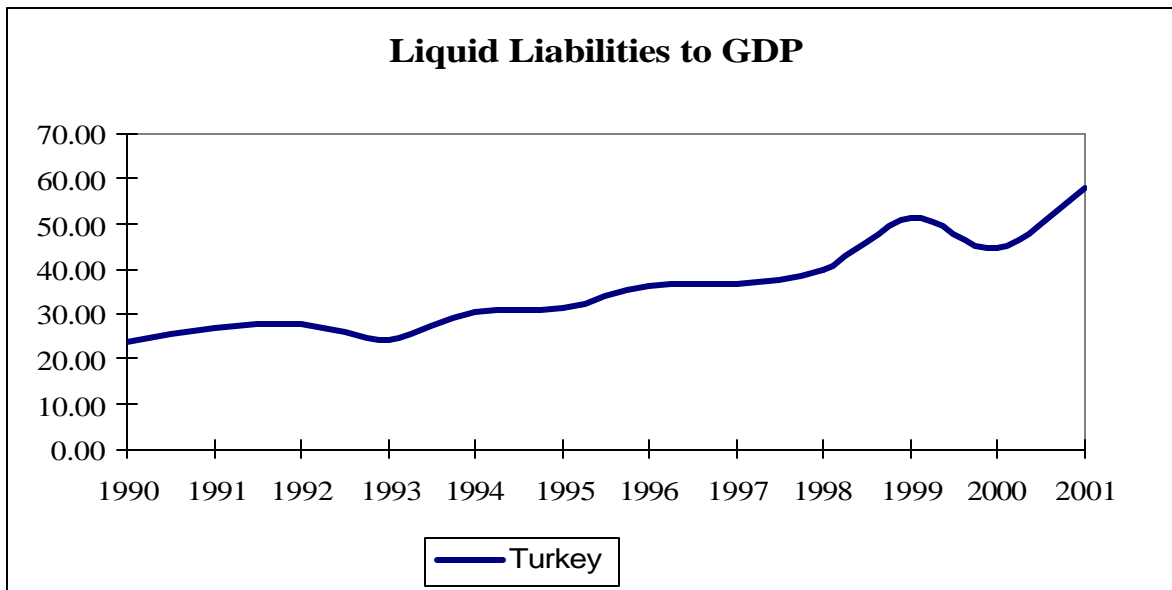


Figure 2a: Quasi-Liquid Liabilities to GDP in Latin American Countries: 1990-98

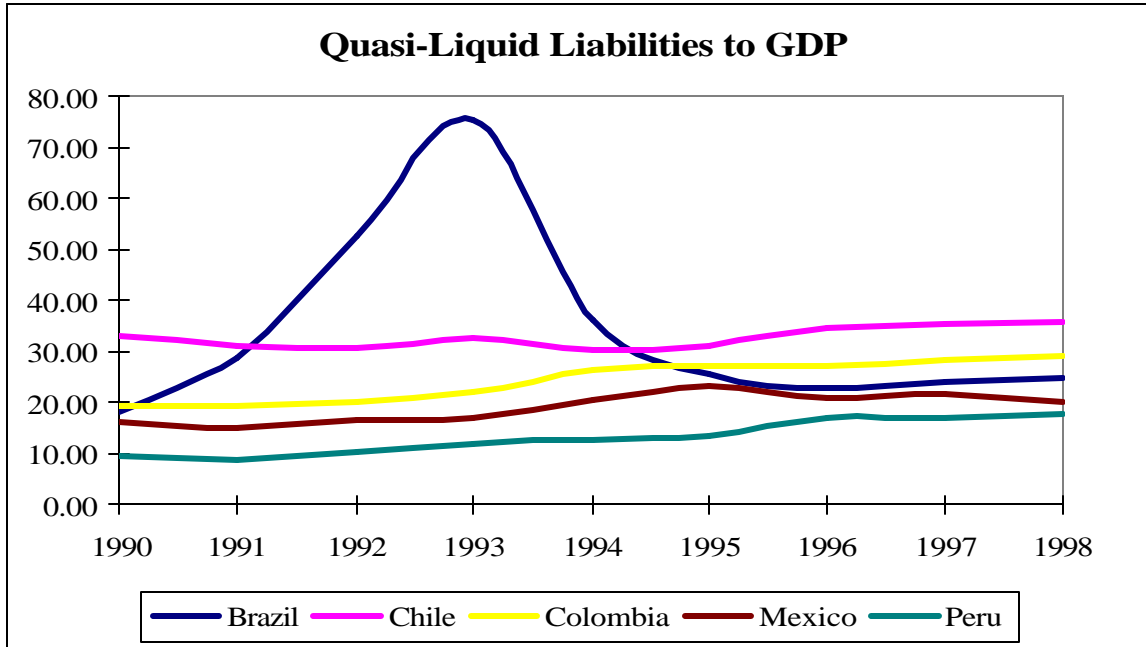


Figure 2b: Quasi-Liquid Liabilities to GDP in Turkey: 1990-2001

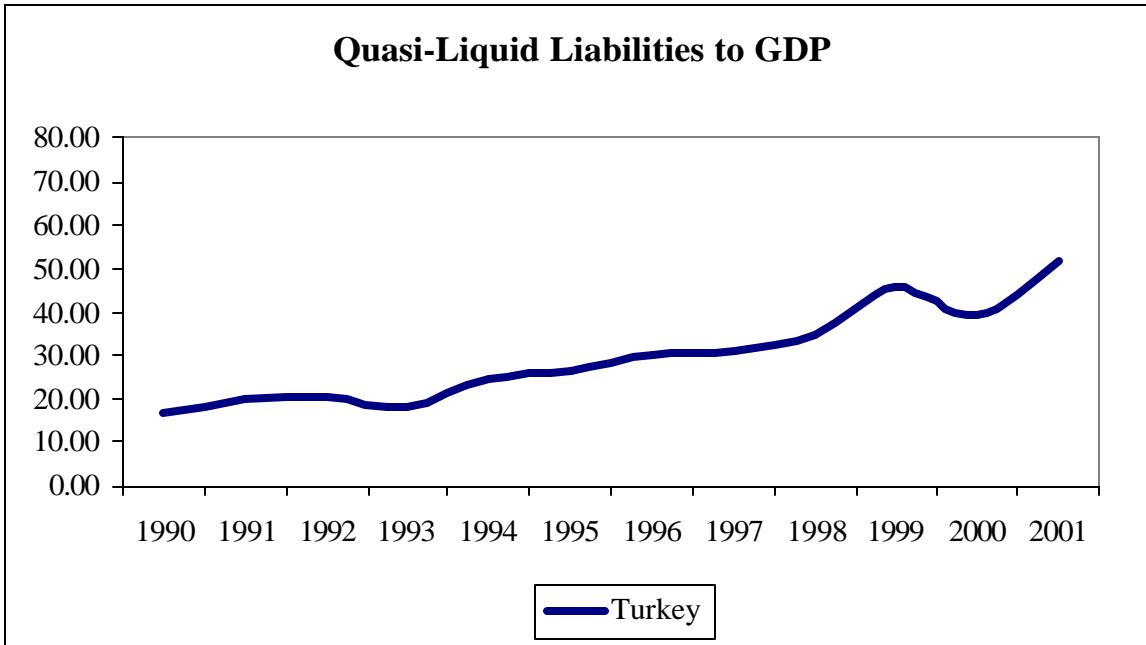


Figure 3a: Domestic Credit provided by Banking Sector to GDP in Latin American Countries: 1990-98

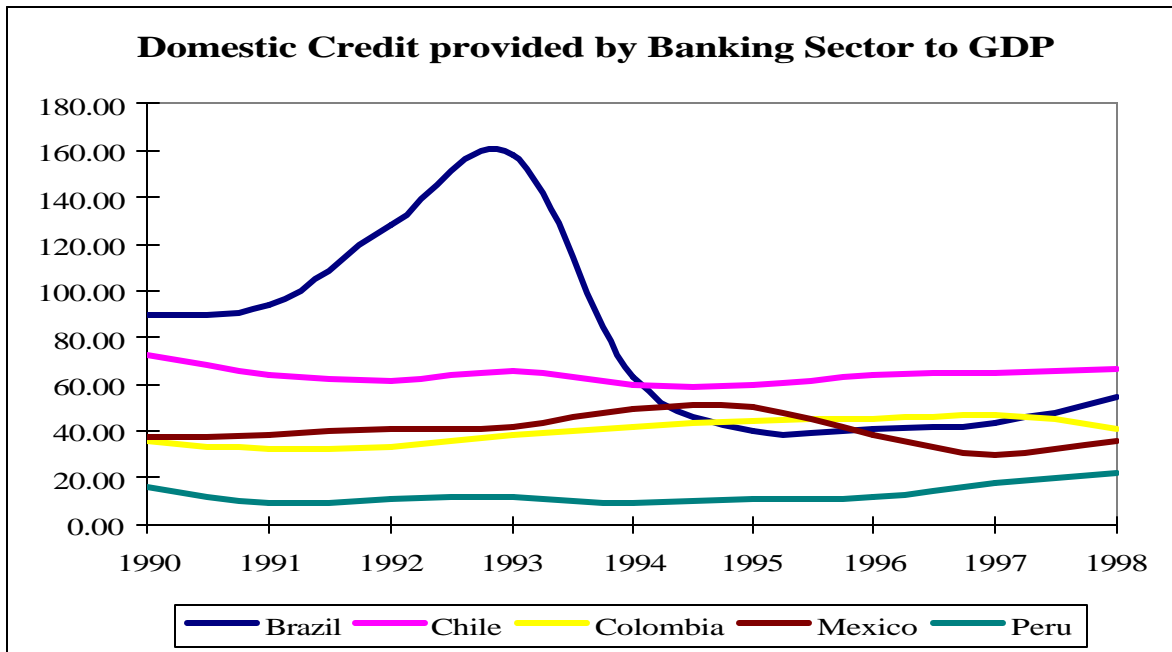


Figure 3b: Domestic Credit provided by Banking Sector to GDP in Turkey: 1990-2000

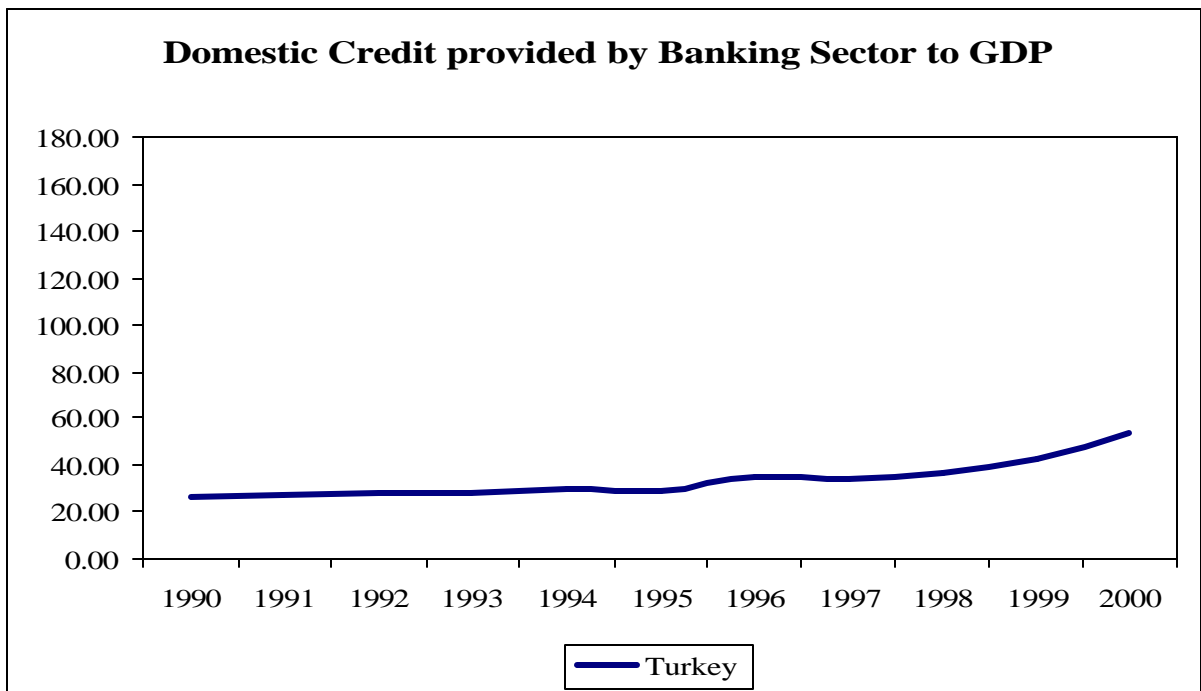


Figure 4a: Market Capitalization in Latin American Countries: 1990-98

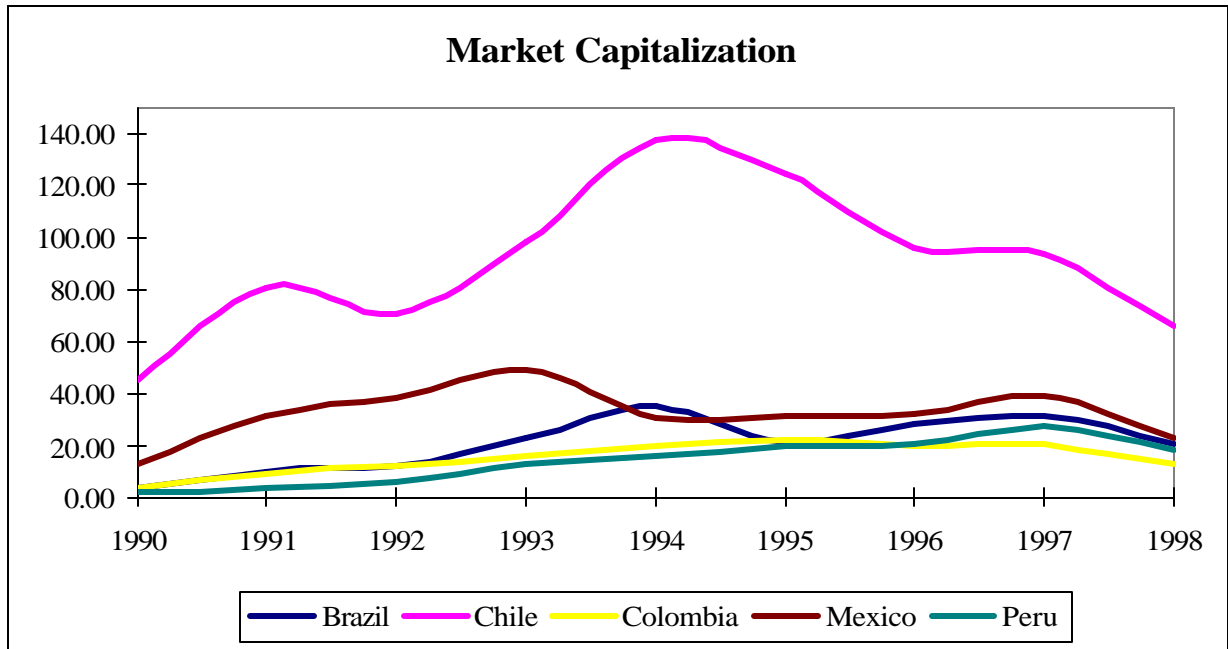


Figure 4b: Market Capitalization in Turkey: 1990-2001

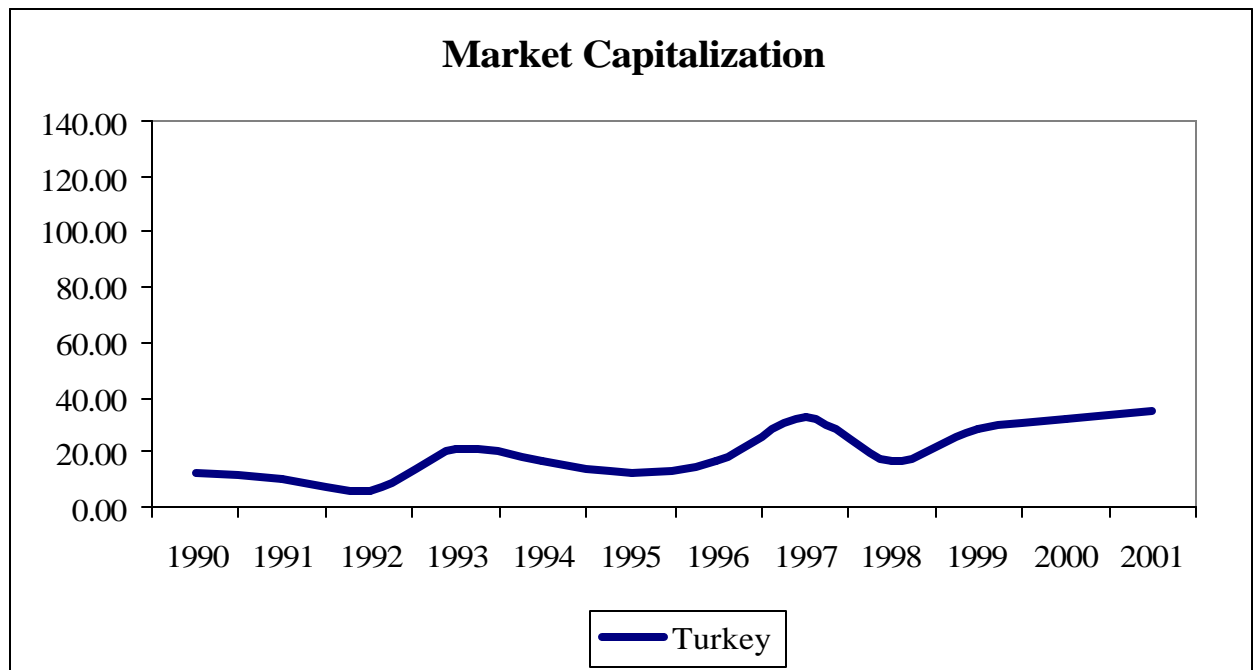


Figure 5a: Central Government Debt to GDP in Latin American Countries: 1990-98

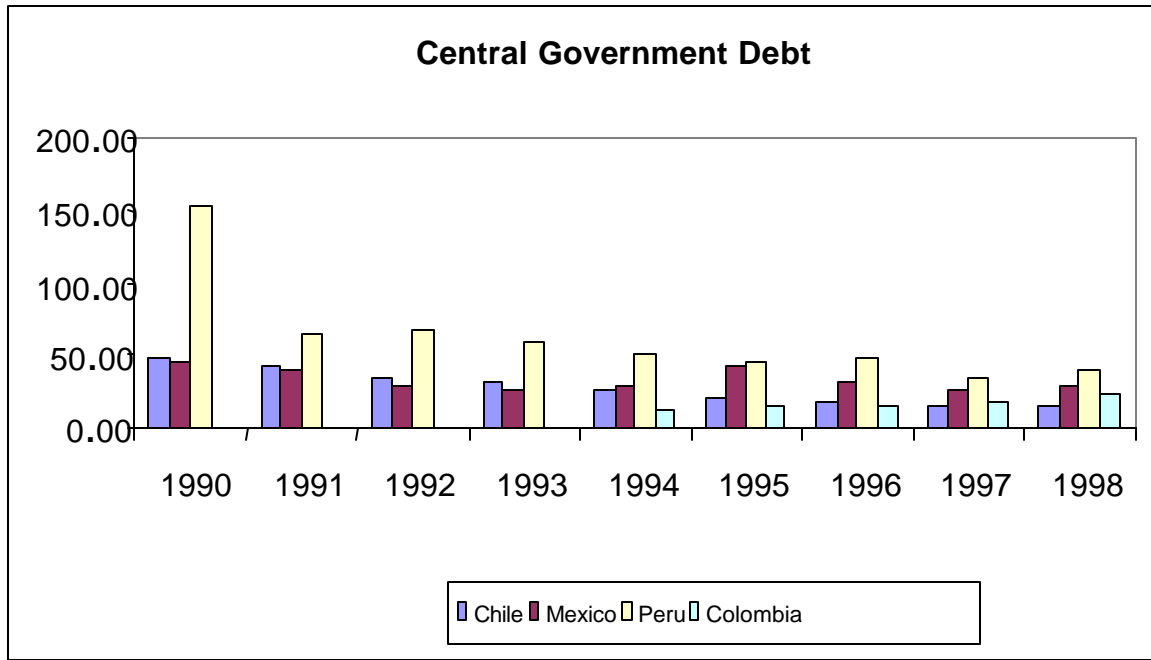


Figure 5b: Central Government Debt to GDP in Turkey: 1990-2000

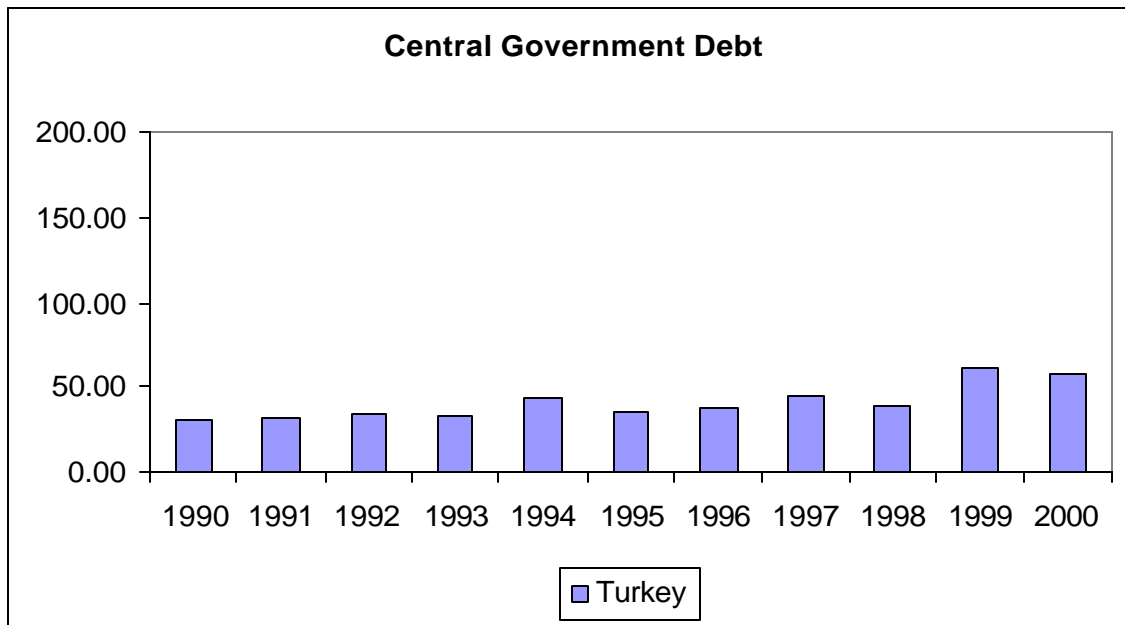


Figure 6a: Overall Budget Deficit in Latin American Countries: 1990-98

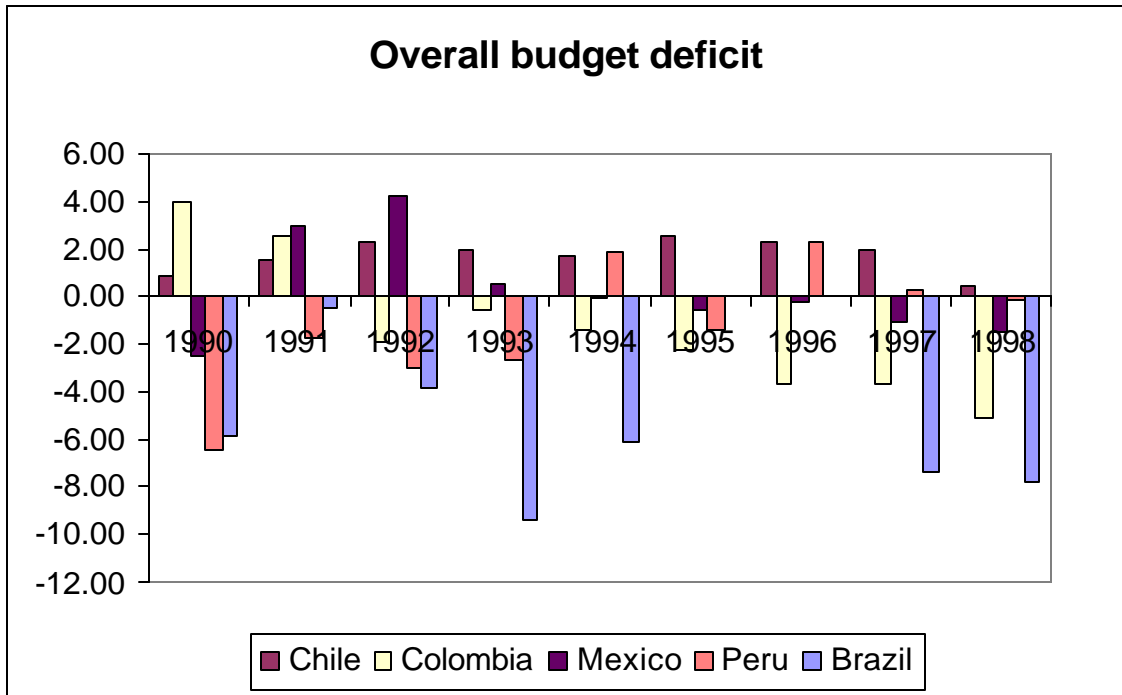


Figure 6b: Overall Budget Deficit in Turkey: 1990-2001

