#### CAPITAL ACCOUNT LIBERALIZATION: THE CASE OF TURKEY

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> Discussion Papers No: 9210 January 1992

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#### I. INTRODUCTION

After experiencing serious macroeconomic imbalances in the 1977-1980 period fundamental policy changes were introduced in Turkey on 24 January, 1980. The problems addressed were typical of a balance of payments constrained middle income country: inability to service foreign debt and therefore inability to finance imports required for production, high inflation rates, and all other related macroeconomic imbalances. The reasons for the 1977-1980 crisis and subsequent developments, including post 1980 developments, are already studied extensively by a number of researchers. We shall therefore refer the reader to the relevant literature, e.g. Celasun and Rodrik (1989). Ekinci (1990), Uygur (1991), and concentrate on the narrower topic of external financial liberalization or capital account liberalization and the related topic of exchange rates which has attracted much less attention.

The January 24 package was not merely a temporary stabilization package. It was rather a first step in a series of liberalization and outward oriented restructuring policies that have pervaded the whole decade. Such a restructuring required the structure of production and domestic demand to be adjusted to generate and maintain exportable surplus. Moreover, the engine of this process would be the private sector, unlike the previous periods when it had been traditionally the government. Thus, the policy makers were faced with the difficult task of designing the necessary framework to encourage the private sector to take the leading role in this restructuring. The external financial liberalization can be seen as the logical extension of this private sector driven outward orientation. There are two sets of problems related to implementation and timing of liberalization. Implementation would require the necessary institution formation, which includes the creation of agents, markets, and a legal framework. The timing problem involves an matching institutional set up with the sequencing of various stages of liberalization. Moreover, even if we accept the argument that external financial liberalization is a necessary extension of the general

The two, i.e. external financial liberalization and capital account liberalization are not entirely identical concepts. The former includes liberalizing financial transactions and debtor-creditor relationships among residents, as well as those between residents and non-residents, denominated in foreign currency. The latter by definition would include transactions between residents and non-residents only (see UNCTAD 1991, Part II, chp. on this distinction). The subject of this study is the broader issue of external financial liberalization.

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liberalization philosophy, and that timing problems have been solved, there arises the problem of degree of opening up the economy to the external world. This is important, because the trade-offs and spillovers between different sectors gives rise to certain problems related to implementation of monetary policy in particular and trade and industrialization policy in general. We shall discuss the Turkish experience within this context in this study.

By benefit of hindsight, and for purposes of this study it appears to be fruitful to subdivide the decade into three sub-periods:

- 1. Initial period 1980-1983
- 2. Deepening of liberalization 1984-1987
- 3. Post 1987 period

This periodization does not imply any breaks in the drive for liberalization and structural change. One common feature of all these periods is that the economic policy team in office, although in different capacities, has been the same throughout, except from the summer of 1982 to November 1983. The periodization is helpful for analytical purposes and corresponds to what we believe to be important turning points in policy regimes. In section 2 the first period will be covered. Sections three and four cover the two other periods respectively. Finally, a conclusion follows. In Appendix A some time series properties of market and official exchange rates are presented. A timetable showing major economic policy and institutional changes is given in Appendix B.

## II. INITIAL PERIOD 1980 - 1983:

The January 24 package aimed at relieving inflationary pressure and increasing international competitiveness. The starting point was characterized by high and completely monetized public deficits and substantial unused industrial capacity due partly to import and energy shortages. Moreover, the economy was to generate necessary surplus to enable itself to resume normal debt servicing within the next 3-5 years. This obviously required a restructuring of aggregate demand away from domestic absorption. Viewed from this perspective the package and subsequent policy measures display a coherent structure.

One element of the package was the removal of all types of price controls on private and public (produced by State Economic Enterprises (SEEs)). Removal of price controls on SEE products, mainly intermediate goods, meant a substantial reduction in indirect

subsidies. Together with removal of direct subsidies this alone resulted in a major change in realative price structure as well as a quantum jump in the price level. Deregulation of prices of privately produced goods helped reduce widespread shortages of basic consumer goods. Price decontrol initially resulted in an outburst of inflation (see Table I.1), but it also helped reduce public deficits as operating losses of SEEs were sharply reduced. Another source of deficit reduction was a swift reduction in public current expenditures, mainly salaries and wages of public employees, in particular and total expenditures in general. As a result public deficts and with it the rate of inflation were sharply reduced within two years. The shift in the relative price structure and reduction of real wages were also instrumental in reducing domestic absorption (for details see sources quoted above).

Another important ingredient of the package was the measures relating to export-import and foreign exchange rate regimes. The package marked the beginning of a single minded drive for outward oriented transformation. A huge devaluation (28% real devaluation in 1980) and substantial increases in export incentives, especially tax rebates, resulted in spectacular increases in total, and especially manufacturing, exports(see Table I.1, for a recent detailed analysis of export promotion policies see Uygur (1991)). Thanks to the debt rescheduling and generous fresh official lending, from the OECD consortium led by Germany, World Bank and the IMF, and increased export earnings import shortages were eliminated almost instantenously. This combined with increased exports made possible a quick output recovery especially in the manufacturing sector, in 1981, possible despite a fall in domestic absorption. There were also certain measures taken in the import regime of the country. These amounted to reduction of quota list and enlarging liberalized lists of imports, and removal of duties on intermediate goods imports by exporters. Major changes in this respect were to take place in the second phase of the period as we shall discuss below.

As for exchange rates the package eliminated multiple exchange rate practices, except initially for fertilizer imports. A steep devaluation was followed by monthly mini-devaluations that resulted in 28% real devaluation in 1980 despite a three digit annual inflation rate. Exporters were allowed to retain part of their foreign exchange receipts, bank that were authorised to hold foreign exchange positions were allowed to retain upto 80 percent of their receipts and use them to finance certain imports (mainly oil, petroleum products, fertilizers). All restrictions on foreign travel by exporters were lifted immediately, while they were relaxed gradually for the rest of the residents. In May 1981 a crawling peg regime was initiated whereby the Central Bank started daily announcements of the official exchange rate. In the rest of the period there were various minor moves towards allowing

an increasing number commercial banks to function as intermediaries, in more effective and enhanced capacities, in foreign trade. (see Annex B). The policy of real devaluations were continued and by the end of 1983 the TL was devalued by 41% in real terms (see Table I.1 and Chart 1).

In June 1981 a major step was taken towards financial liberalization and interest rate restrictions on bank lending and deposits were lifted. Banks reacted to this by a "gentleman's agreement" by avoiding open interest rate competition and interest rates were inceased immediately to 50 percent on annual time deposits. Altough this figure may look low compared to three digit inflation rate in the same year, it represents a major shock in a country where historically money, the Turkish Lira (TL), had very little time value in terms of interest earning capacity. Moreover, following the steep reduction in the rate of inflation in the subsequent years it also represented real, for the first time from time immemorial, interest rates (see Table I.2). As a result, spectacular increases in time deposits were observed. Consequent reduction in velocity was also instrumental in reducing the rate of inflation.

But high deposit interest rates accompanied by restrictive monetary stance by the authorities resulted in increases in lending rates, also in real terms, which in turn meant increased non-performing loans of the banking sector. The reason for this is to be found in the financing structure of firms in the economy. Firms heavily depended on banks and trade credit to meet financing needs<sup>2</sup>. Given that part of the trade credit extended relies ultimately on bank credit, this means a virtual bank dependent financial structure. Thus, most firms, especially in the non-corporate sector, found themselves in the unexpected, and previously unknown, situation of having to service sizeable debts at high interest rates and this meant increased default on bank and/or trade credit. To stay liquid, individual banks attemted to increase their share of the deposit market. Bound with the "gentleman's agreement" they found a way out by marketing certificates of deposit through third parties known as bankers. Some of these bankers collected money simply by circulating their own IOU's by offering rates as high as 10 percent per month and could sell these funds to firms at the verge of bunkruptcy. Officials were helpless in this totally unregulated area and some piecemeal regulatory attempts did not prevent a collapse of the scheme, which had degenerated into a Ponzi scheme whereby new borrowing was being used to pay interest on

<sup>&</sup>lt;sup>2</sup> In 1984 share of short term bank loans and trade credit in total liabilities of firms was 71% declining only to 63% in 1989 according to Ersel and Ozturk (1990).

previous debt, dragging with it two commercial banks in the summer of 1982. A costly rescue operation, estimated to be 2.5% of GDP, was undertaken. The chief architect of the reform package and the minister responsible for economic affairs resigned.

As of the beginning of 1983, the authority to determine interest rates on deposits was relegated to the Central Bank. During 1983 further steps were taken towards institutionalization and regulation of financial structure in general and banking sector in particular (see Annex B). A relative set back was experienced in export growth and inflation rate during the year as a result of financial turmoil and lack of commitment on behalf of the new economic team. Finally, in November general parlamentary elections were held. This marks the beginning of the second period in our analysis. Before that a brief reappraisal of the first period is in order.

There can be little doubt that the stabilization aspect of the January 1980 package was a success in reducing the PSBR/GNP by 5.6%, and inflation by nearly 70% within a year while resuming and maintaining positive growth rates. Equally successful was the spectacular increases in exports which together with high infrastructure investment expenditures by the public sector became the engine of growth throughout the period. The burden of adjustment then fell on other items of total absorption through income redistribution. Important aspects of this successful initial stabilization were the initial excess capacity and the relief provided by debt rescheduling and fresh lending which helped resume import capacity. In short the initial period involved a restructuring of domestic demand through income distribution. Nothing fundamental in the direction of restructuring of production towards outward orientation was done in this period, as the policies relied on using existing capacities intensively.

On the financial liberalization front it appears that everbody, including the regulators, were caught by surprise. The legal and institutional framework was simply not suitable for supervising and regulating such an abrupt move towards liberalization. The Turkish experience in this respect shows the tremendous importance of such framework in the making of markets especially in financial matters. The important setback experienced at the end of 1982 was partly the result of nonexistence of an appropriate regulatory and supervisory legal and institutional framework. Taking bold steps and then solving problems as they appear proves to be a costly procedure particularly in financial matters.

Another aspect of the period regarding interest rate deregulation was that it involved a learning period whereby agents came to attribute a much higher positive time value to money so that desire for interest became deeply seeded in the economy. This meant a major break with the past when debt validation would be guaranteed by externally financed growth and monetization. In particular, most of bank related lending-borrowing arrangements in the economy would be in the final analysis validated by monetization. This monetization would in some cases take the form of a Central Bank credit to the bank extending preferential credits. In cases where subsidized credits were involved this would imply an indirect monetization through Central Bank credit to the government to meet consequent budget deficits. Taking into account of the fact that almost all sectors were beneficiaries of some sort of direct or indirect incentive scheme, this meant that money and finance was never really a problem, hence the assertion made earlier that the TL didnot have a significant time value (even in nominal terms) in terms of interest earning capacity. The bitter experience of 1981-82 resulted in learning to attribute a positive time value to the TL.

The pre-1980 scheme of subsidizing everything was unsustainable and needed to be reversed. An elimination and/or restructuring of subsidization was in order. A more selective and supervised credit policy was, and still is, required. As a stabilization measure, which would by nature be temporary, cost of credit could be increased, while measures to improve the regulatory structure and institutional framework of the financial system would be taken. In fact in the post-1980 period the preferential credit system was not abolished. Credit to exporters, for one thing, has been subsidized throughout. It can be argued that some structure of preferencial credit system and regulated finance is needed in development and structural adjustment process (see UNCTAD 1991, Part II, Chp.3 for a discussion). Financial liberalization in the form of a shock treatment of high and variable interest rate policy<sup>3</sup>, coupled with later measures relating to external financial liberalization, has introduced elements into the system which are very difficult to undo and which may be detrimental to the development of such a financial structure.

 $<sup>^{3}</sup>$  For example, nominal interest rates on time deposits were adjusted three times in both 1983 and 1984 and six times in 1986.

#### III. DEEPENING of LIBERALIZATION 1984-1987:

By far, the most important policy move concerning external financial liberalization was contained in Decree No. 28 put into effect on 29, December 1983. Decree 28, and later Decree 30 of July 1984, and following circulars, introduced simultaneously trade and substantial degree of external financial liberalization. On the trade front, to be brief, the major move was to adopt a negative list approach in the import regime, thereby eliminating all quantitative restrictions except for a limited number of goods (such as arms, drugs etc.). Export procedures were considerably simplified and incentives were amended.

There are three dimensions of external financial liberalization in general (see UNCTAD 1991, p. 129-130):

i. Allowing residents, especially financial and non-financial corporations, to berrow freely in international markets for reasons other than trade financing.

ii. Allowing residents to transfer capital and to hold financial assets abroad and non-residents to issue liabilities or hold assets in domestic markets,

iii. Allowing debtor-creditor relations among residents denominated in foreign currency.

Decrees 28 and 30 were partial on the first area, only authorized banks, corporations holding investment incentive certificates and foreign trade companies were allowed to contract for foreign loans. In the second area, non-residents were given considerable freedom to acquire assets, financial or real, within the country and repatriate the proceeds or capital. Authorized banks were allowed to hold foreign exchange positions abroad and engage in forward trading in international markets. Presumably this flexibility to banks was given to enhance their capacity in meeting the financial needs of exporters in particular and foreign trade in general. The rights granted to non-residents were partially addressing the then topical political issue of allowing foreigners, especially Arabs, to purchase real estate in Turkey. Another motivation might have been the making of an headway in the direction of the long-run aim of attracting foreign capital.

There were no immediate sizable capital inflows resulting from these two areas of liberalization. Foreign borrowing by banks amounted to US.S 410 ml.of medium and long term credit<sup>4</sup> and zero short term net credit in 1984. Compared to 1983 this does not show a

<sup>&</sup>lt;sup>4</sup> This amount was contacted by only two banks, one of them, the largest state bank, taking 360 ml.S.

marked increase of capital inflows into the banking sector. (See Table 2.1.) Moreover, from the balance of payments data it is seen that capital account balance declined to US.\$ 73 ml. in 1984 from US.\$ 883 ml. in 1983. Also net errors and omissions in 1983 and 1984 were almost the same, so that even if we consider them as capital inflows there is no increase that can be attributed to external financial liberalization. (See Table 2.3) Short term flows. measured here on a net basis, seem to have gained some weight in 1985-1987 period. On the other hand, acquisition of financial and real assets by non-residents were meager at best<sup>5</sup>. In short, the southern cone type of short term influx of capital and concomitant real appreciation was not experienced at early stages and the TL continued to be devalued in real terms in 1984. There are several related reasons for the lack of capital inflows. As only holders of investment incentive certificates were given the privilege of finding foreign credit, many corporations were unable to enter the market. It is important to note that no public guarantees were granted even to those with investment certificates. Another reason was that Turkey had just overcome a debt crisis with substantial arrears confronting it and international credit rating was only picking up. Thus, foreign lenders would be reluctant to engage in further lending to the private sector except for big corporations. Banks on the other hand were recovering from a financial crisis and they were having difficulties in finding trustworthy customers even in the TL loan market, so that they would be reluctant to borrow abroad to lend domestically.

Concerning the third area of financial openness, i.e. allowing debtor-creditor relations among residents denominated in foreign currency, the major move was to allow residents and non-residents to open foreign exchange deposits in domestic banks. These are shown in Table II.1. It is clear that these deposits continued to grow markedly, except for 1988, rather than being a once-for-all portfolio substitution. The extent of currency substitution in 1985 and 1987 were especially large. Naturally, the freedom to buy, sell and own foreign exchange was given simultaneously. Prior to the decree, holders and dealers in foreign exchange, other then through official channels, would be criminally liable. Although this law was never really enforced and had been practically suspended after January. 1980, its abolishment meant a major break. Turkey's proximity to Europe and sizable migrant worker population in Germany had made it possible for a buoyant illegal foreign exchange market operating especially in Istanbul. This market, referred popularly as Tahtakale

<sup>&</sup>lt;sup>5</sup> Cumulative direct foreign investment in the period 1984-87 was only 443 ml.U.S.S., giving a rough indication of the probable size of such flows.

market, had always been sizable, although no direct estimates are available, and a major source of financing for illegal imports<sup>6</sup>. Following the decree it was legalized and blackmarketers became foreign exchange dealers overnight.

Allowing residents to open foreign exchange (FX) deposits is normally justified by arguing that it is a means for reversing capital flight. As trade was liberalized and the private sector became a major earner of foreign exchange, it would be quite difficult to maintain foreign exchange restrictions in the form it existed before the reform. Allowing residents to own foreign exchange without giving them the right to open FX deposit accounts could have resulted in capital flight given the increased FX earnings of the private sector. Thus, it is possible to argue that FX deposit holding was initiated to prevent potential capital flight given that FX holding was liberalized. Moreover, the scheme had the benefit of attracting unproductive FX holdings into the banking system.

As for the effect of the reform on currency substitution we distinguish two forms. The first one being currency substitution by non-bank public. In this case it must be noticed that there was already some degree of currency substitution in the form of foreign exchange hoardings and gold holding by residents. We do not know the extent to which foreign exchange deposits replaced foreign exchange hoardings and gold holdings. However, it is most likely that the right to maintain foreign exchange deposits has intensified currency substitution. The second form which may be called institutional currency substitution means currency substitution by banks and other financial intermediaries. We shall discuss this important aspect of the reforms subsequently. In any event, allowing residents to open foreign exchange deposits has institutionalized the demand for foreign exchange as an asset entering into portfolio choices of agents, thereby starting the process of delinking of exchange rate changes and current account flows.

Another important development in 1984 was the Central Bank decision, based on Decree 30, to import and sell gold to residents against TL. Gold price was determined by converting the world price of gold at the official exchange rate. Initially, there was a rush on gold because the official TL price of gold was lower than the market price. Naturally, sustainability of supplying any commodity below its market price can not last for long. As the spread was considerably reduced later in the year (1985) gold demand from the Central

<sup>&</sup>lt;sup>6</sup> In the crisis years of 1978-1979 even intermediate goods imports were financed through Tahtakale. In normal times a major item of illegal imports would be gold. A traditional illegal import item, foreign eigarettes, was also financed in Tahtakale. After import liberalization State Monopolies started importing and marketing eigarettes so that this source of business was closed in Tahtakale.

Bank was reduced. The practice continued until the beginning of 1989, but the amount of gold supply replaced by the Central Bank remained rather limited as the official price remained higher than the market price.

These developments had a substantial impact on the workings of the Tahtakale market. First of all, the ability of Turkish workers in Germany to open foreign exchange deposit accounts with Turkish banks meant that at least part of the foreign exchange flows from Germany to Tahtakale was channelled into the banking sector. Second as gold imports were financed through Tahtakale, sale of gold in exchange for TL reduced the demand for foreign exchange for financing illegal gold imports. However, this reduction remained rather limited after the end of 1985. It can be also mentioned that other items, like foreign cigarettes, financed through Tahtakale started to be imported through official channels. Of course, part of this reduction was compensated by an increase in ordinary people's demand for foreign exchange for holding foreign exchange deposits. This is the result of the fact that there was now the demand for foreign exchange as a domestically interest earning asset, and the only way ordinary people could come to own a foreign exchange deposit was to buy the foreign exchange in this market. Although no direct measurement is possible, it is most likely that the net effect was a reduction in the size Tahtakale market<sup>7</sup>. In fact, this could have been, in our view, one rationale for the reform. For it meant a fundamental increase in the role of the banks in the foreign exchange market. For a better understanding of this argument, a more detailed exposition of the reforms relating to foreign exchange position management by banks is in order.

Banks were allowed to maintain and manage foreign exchange positions as early as 1974. However, in the seventies as most foreign exchange was subject to allocation through a complicated interventionist regime, the role of banks in the foreign exchange market remained limited. In the post 1980 period certain adjustments were made in this respect prior to 1984. These adjustments were limited to enchancing the ability of banks to act as intermediaries in the payments mechanism and some progress was made in this respect. This is an expected development in view of the drive for outward oriented restructuring of the economy. As less and less foreign exchange was subjected to allocation by the government and the principle was to achieve an outward oriented restructuring through the private sector, an institutionalization of the international payments mechanism was required. This in turn necessitated the majority of foreign exchange dealings to be conducted through the banking sector. The presence and the strength of the Tahtakale

 $<sup>^7</sup>$  The ultimate reduction of the size of Tahtakale was to take place later in 1989 as we shall see.

market appears to have clashed with this objective. Thus, the policy measures induced by Decree 28, and especially Decree 30, had elements that sought to reduce the importance of Tahtakale as a major determinant in the foreign exchange market. We have already reached the conclusion that the measures did have the required impact of reducing the weight of the Tahtakale and institutionalizing the foreign exchange market.

The new system, gave the banks more freedom in managing their FX positions and made them central to receiving flows from FX generating activities. It was expected that this would increase efficiency in international payment mechanism and in use of scarce FX resources. At top of the system would rest the Central Bank, hereafter CBRT (Central Bank of the Republic of Turkey), with its own financing needs, especially those resulting from servicing official or officially guaranteed external debt.

The smooth functioning of such a system requires the uninterrupted flow of foreign exchange from the earning sectors to the commercial banks, and from commercial banks to the CBRT. To ensure these flows, initial measures included two related measures: i. exporters of merchandise goods were required to sell at least 80% of their proceeds to commercial banks within three months, ii. a surrender requirement was imposed on banks whereby they would have to sell at least 20% of their purchases of foreign exchange from exporters (merchandise and invisible) to the CBRT. It is noteworthy that foreign exchange earnings resulting from the so called invisibles were not subjected to (i) above, though as a rule they were expected to be repatriated within reasonable time. The proceeds from invisibles could be sold, fully or partly, to banks or they could be deposited with the banks. Since these earnings were not subject to tax rebates and other cash incentives as merchandise exports, the privilege to freely dispose of the proceeds must have played an important role as an incentive. Not surprisingly receipts from invisibles, especially the "other" item, has grown markedly throughout the period (see Table II.3). Proceeds from invisibles would not be subject to surrender requirements when deposited, because only purchased amounts are subject to such requirements. It is also significant that foreign exchange deposits were not subjected to reserve requirements. Thus, the scheme had elements that were potentially in contradiction with securing the required flows of foreign exchange from the banks to the CBRT. Another requirement for the smooth functioning of the system was the convergence of market, commercial bank and official exchange rates. If market rates were to exceed commercial bank rates by a substantial margin, sale of foreign exchange to the banking sector, especially those arising from invisibles, would slow down. Hence, it was important for the parallel rates to converge to the official rates. In this respect the increased role of banks, as a result of the institutionalization we have been

discussing, in the foreign exchange market has been instrumental in reducing the spread between market and commercial bank rates. As for the commercial bank and CBRT rates, initially banks were allowed to fix their rates within a 6% band around the CBRT rates, provided that the spread between buying and selling rates would not exceed 2%. This practice continued until the end of June 1985, at which date banks were left free in determining their own exchange rates.

In July 1984, following Decree 30, the 20% surrender requirement on banks was replaced with a new regulation. The new regulation on the management of foreign exchange positions of banks sought to establish an equilibrium between the foreign exchange resources of banks and the use of these resources. Thus, rather than imposing rigid ratios and regulations, the new framework involved measures that stipulated a minimum ratio of liquid foreign exchange holdings against their FX liabilities, and a limit for maximum amount, depending on the size of FX assets of a bank, of foreign exchange holdings. Any amount exceeding these limits would have to be sold either to other banks or to the CBRT, thus imposing an implicit surrender requirement. It must be mentioned that the definition of liabilities that was subject to minimum and maximum ratios did not include all liabilities such as FX deposits. In addition banks were required to hold the excess of foreign exchange deposits plus foreign credits received over foreign exchange credits extended. Thus there were no reserve requirements on foreign exchange deposits as the term is usually understood. In December, 1984 banks were required to hold 20% of their foreign exchange deposits as part of their liquid assets. Even then, however, this is not the same thing as establishing legal reserves as deposits with the CBRT. The flaws inherent in this regulation is evident. First of all banks could avoid the implicit surrender requirements by reclassifying and/or underreporting their liabilities so as to fall outside the liability definition of the regulation. Second, and more important, banks could choose to hold any amount of foreign exchange as an asset for reasons unrelated to needs arising from trade financing and debt servicing. That is, the new regulatory structure opened the way to what we have called institutional currency substitution, and the process of exchange rate becoming an asset price accelerated.

By the end of 1985 the flow of foreign exchange to the Central Bank was somewhat curtailed. "Some banks were using foreign exchange more as a means of investment rather than a means of international payments. Moreover, the volume of credit obtained from international markets was above acceptable levels from the point of view of general macroeconomic targets of the country. On the other hand, the regular flow of foreign currency to the CBRT, necessary in order for it to undertake foreign obligations in an

orderly manner, was not always possible for these reasons. The tendency of banks to hold foreign exchange was also detrimental to the development of interbank markets that were expected to strengthen." (Altay 1987, p.55). In other words, institutional currency substitution had gained momentum. As a result, surrender and reserve requirements, 20% each, were introduced at the beginning of 1986, and finally in March 1986 banks rates were constrained to a 1% band around the official rate. In March reserve requirements were reduced to 15%, but the previous rate of 20% still applied to foreign exchange deposits measured as of end of 1985<sup>8</sup>.

. We have already mentioned the flaws inherent in the scheme, especially its potential for deepening currency substitution in general and institutioanal currency substitution in particular. Another important flaw was the fact that there was no mechanism to ensure the convergence of CBRT and commercial bank rates of exchange, given that banks were free to determine their own rates. Under these conditions the CBRT had no institutional means to intervene in the foreign exchange market in the sense the term is usually understood, i.e. by buying and selling foreign exchange with a view to affect the market<sup>9</sup>. As seen in Chart 2, the spread between market and official rates were above 3% prior to the restriction imposed on bank rates in March 1986. It is noteworthy that the spread was reduced considerably in the rest of 1986. An important aspect of these developments, from our general perspective, is the fact that foreign exchange market intervention took the form of putting restrictions on banks. This is in conformity with our earlier observation that banks had become the main agents in the foreign exchange market so that ability to affect bank decisions gave authorities a means of controlling the foreign exchange market. The institutionalization of the market, although incomplete at the time, had already gained certain momentum to enable the authorities to use their powers to influence bank positions and exert considerable influence in the market.

In retrospect, we conclude that this first attempt at freeing the commercial bank rates was premature and bound to be reversed. This was another case of liberalization without having the necessary institutional and supervisory framework. As was mentioned, at the time the Central Bank had very little means to intervene in the foreign exchange market. Thus intervention had to be, in the final analysis, by imposing restrictions which should

<sup>8</sup> Banks were required to establish these reserves in six equal installments starting January 1986.

<sup>&</sup>lt;sup>9</sup> CBRT could in principle intervene directly through banks provided that it had enough reserves. In the absence of an official FX market this would require a lot of reserves. However, at the time CBRT reserves, especially liquid reserves, were quite low. (See Chart 3, and Saracoglu (1990).

have been in force in the first place, like surrender and reserve requirements. Thus, two years after the initiation of external financial liberalization, other measures were introduced to enhance the supervisory powers of the CBRT over banks in 1986. First of all, uniform accounting and reporting principles for the banking sector was introduced. This was a necessary precondition for a more effective supervision of the banking sector by the CBRT. Later in October 1986, other measures were introduced to increase the CBRT's ability to supervise the FX position of banks. The definition of foreign exchange holding of banks was extended to include securities denominated in foreign currency. Foreign exchange risk ratio was introduced. Accordingly, banks were required to maintain the ratio of foreign exchange holdings to direct liabilities (foreign exchange deposits ÷ foreign credits) between 90 and 110 percent. They also had to extend at least 50% of their foreign exchange deposits as FX credits.

A discussion of the probable reasons for the remowal of restrictions on bank rates in 1985 and their reinroduction in 1986 will be illuminating. It is not possible to understand these and subsequent developments without reference to monetary policy. In 1985 the CBRT started reserve money targeting. According to Annual Reports of the CBRT two sources of excessive reserve money growth was identified; credit to government and FX purchases from the banks. To cope with the first, auctioning of government securities was started in May 1985. The reserve money targeting dictated an upper limit for the credits to the public sector. Anything above that limit would be met by borrowing from the market. The government securities, with their market determined interest rates, tax free and riskless status provided attractive investment opportunities both for commercial banks and other investors. In addition, they were to be used as part of banks' liquidity requirements. These attractive features together with enforcements by the authorities to use them as part of liquidity requirements, increased the demand for them and eased the pressure on the CBRT to meet the Treasury's demands 10.

As for the second source, difficulties were encountered in keeping the reserve money growth within targeted range as the sale of FX by banks to the CBRT increased rapidly from 1984 onwards. (CBRT Annual Report 1985, p. 26.) As a matter of fact the reserves of the banking sector (CBRT plus banks) increased by USS 1.48 ml., partly as a result of FX

While in 1985, the amount of government paper issued was TL 1.6 billion, in 1990, this figure had increased to TL 30.6 trillion. In 1988, to stop the increase in interest rates, the Treasury changed the auction mechanism starting from June by setting the interest rates in the auctions which was a set back to free market rules. As a result, the amount sold at the auctions started to decline. The Treasury in turn, very much in need of short term financing, went back to the old system in November.

deposits. This can be one explanation for the removal of 20% surrender requirement in July, 1984. This optimism about abundance of FX seems to have continued in the beginning of 1985. In 1985, ". as part of efforts to control the money supply the CBRT introduced (FX-TL) swap transactions with domestic banks.." (CBRT Annual Report 1985, p. 31.) In other words the CBRT was avoiding final FX purchases to meet its reserve money targets in the first half of the year. As a result, the contribution of net foreign assets to the reserve money growth was relatively limited compared to the previous year. However, by the end of the year the optimism proved to be wrong. In fact in the year as a whole the reserves of the banking sector declined. Combined with intensification of institutional currency substitution as mentioned above, the flow of FX to the CBRT declined. The result was the restrictions imposed in the beginning of 1986.

This experience was the first instance of the potential conflict between monetary policy and flexibility in bank FX position management. It became evident that reserve money targeting could not succeed by restricting FX purchases from the banks. Thus, the need for additional tools in conducting monetary policy became apparent. In this respect TL interbank opened under the auspices of The Central Bank, in April 1986. Through interbank banks were able to offer their excess reserves to the ones who were short of them. This was important considering the fact that up until then The Central Bank redicount facility, which was a medium term instrument, was the only choice for banks in meeting their reserves needs. The establishment of interbank created an alternative to Central Bank rediscount facility. To participate in the interbank banks had to hold government securities as collateral, which was another source of demand for government paper. In the interbank, the interest rates originally were being determined according to supply demand conditions without the interference of the Central Bank. The Central Bank was only acting as a blind broker between the borrowers and lenders in transferring the excess funds. Interbank, since it was the main market in meeting banks' short term liquidity needs, developed quite fast. Originally, in 1986, the number of banks participated was around 10. When the banks got used to dealing with overnight operations through time. interbank became an indispensable part of their every day life. Now there are 62 banks currently dealing in interbank. Total volume of transactions which was TL 5311 billion in 1986 had reached to TL billion 253625 by 1990.

The open market operations was another instrument needed for a better control of money supply by injecting and withdrawing reserves and in February 1987, The Central Bank started engaging in open market operations (OMO). Through open market operations, by outright purchases, sales, reverse repos and repos, the CERT was able to control the banks'

liquidity positions and hence the money supply. In addition, since the OMO desk, to be able to engage in open market operations, had to acquire securities' portfolio, the opening up of this market helped the Treasury in selling its government securities as it also helped easing the pressure on the CBRT in meeting the Treasury's needs. It was also helpful in developing secondary market for government paper. The open market operations, by withdrawing excess liquidity in the market together with interbank<sup>11</sup> increased the number of instruments, and therefore the flexibility the Central Bank in controlling banks' reserves. It also created an alternative for banks in placing their funds.

In 1987, the CBRT encountered even more difficulties in meeting its reserve money and M2 targets. One reason for this was coming elections at the end of the year. As a result price increases of SEE products were postponed while expenditures were increased. This. while increasing public deficits, moderated inflationary pressures until the end of the year. Public deficits increased sharply, PSBR reaching 7.8% of GNP, having been reduced to 4.7% of GNP in 1986. Thus, credits to public sector could not be kept within desired limits. The other and more important reason from our perspective was the increased conflict between interest rate policy and FX policy. In the beginning of the year interest rates on deposits of all maturities were reduced, possibly, in response to the low inflation figures experienced at the end 1986. While M2 target was observed in the first half of the year, the liquid components of M2 growed faster than projected. Moreover, currency substitution accelarated. From Table 2.2 it is seen that in the year as a whole M2/GNP declined by 1.5%, while the decline in M2Y/GNP was only marginal. This is due to increase in the ratio of FX deposits of residents to GNP, computed as the difference between first two columns of the table, to 4.4% from 3.1% in 1986. The interest rate policy became unsustainable by the second quarter. Effective from July, interest on annual time deposits and TL 10 ml. and over CD's were deregulated, while the regulation on shorter maturities were maintained. This measure aimed at changing the maturity structure of financial savings in favor of longer terms, while also slowing currency substitution. In short, the resolution of the conflict required the giving up the interest rate tool as a means of monetary policy, at least partially.

The exchange rate policy was one of slower nominal depreciation, which resulted in real appreciation in the year as a whole. After the general elections in November, there was a sudden surge in inflation fuelled by SEE price increases. In the face of this inflationary outburst, the exchange rate policy lost its credibility completely and a major speculative

<sup>11</sup> Maturities of OMO were usually longer then that of the interbank.

attack on the TL developed, engineered essentially by banks. The spread between official and market rates exceeded 10% (see Chart 2). The events were a repetition of the events at the end of 1985 on a much larger scale with the same effects. This takes us to the next period in our analysis.

#### IV. POST 1987 PERIOD

The speculative attack on the TL intensified during the first month of 1988. To stabilize financial markets, on February the 4th a new set of measures were put into effect. These included a higher interest rates on all TL deposits, higher reserve and liquidity ratios, higher rediscount rate, higher surrender requirements and the introduction of a 5% witholding tax on the interest earnings from FX deposits. The ceiling on sight deposits was increased to 36% from 10%. As sight deposits accounted for a quarter of total deposits at the time, this implied a sizeable increase in cost of TL funds to banks. The amount of tax rebates to exports were made conditional upon the time lag of bringing the proceeds. No tax rebates were payable after three months, while during the first month tax rebates would be paid with an extra premium. It is clear that the measures aimed at increasing the demand for TL and by implication reducing demand for foreign exchange, as well as increasing the flow of foreign exchange to the CBRT<sup>13</sup>. As a result of this liquidity pressure on the banks the spread between official and market rates were reduced substantially. (See Chart 2). Also from the third quarter onwards the liquid reserves of the CBRT started increasing. (See Chart 3).

The spread between official and market rates fluctuated unevenly until November. Test results in Annex A, indicate that the two rates were not cointegrated during the year. As explained in the appendix official rates exhibited deterministic trend, while market rates had a unit root, i.e. it was first differenced stationary. This means that shocks to the market rate were permanent, while fluctuations around the trend of official rates were transitory. We interpret this as indicating instability in foreign exchange market in particular, financial markets in general. The instability in the financial markets continued throughout the year, with mixed signals. In August, encouraged by relative stability in the FX market (the spread was 1% in July), interest rate ceilings on time deposits were reduced, proportionally

<sup>12</sup> The higher rates on deposits involved an increase in ceiling rates. Banks were free to determine their rates provided the upper limit was not exceeded. Interest rates moved upto the ceiling rate of 65% (it was previously 50-53%) for 1 year deposits.

<sup>13</sup> In January 1988 the amount of FX surrendered to the CBRT was only U.S.S. 147 ml., compared to a monthly average of U.S.S. 364 ml.in the rest of the year.

more for shorter maturities. The aim was, presumably, to maintain the maturity structure favouring longer-terms, while reducing the cost of funds. However, in 'August and September the spread started to widen, exceeding 5% in the latter month. In September, the FX Interbank Market<sup>14</sup> was established under the auspieces of the CBRT, which really became operational in October. On October the 14th, after a combined CBRT operation in the TL and FX interbank markets, TL appreciated by 10% in nominal terms. To understand these developments, somewhat detailed analysis is required.

In February 1988, In the TL interbank, to hold the interest rates within a certain band, upper and lower limits were established by the CBRT. When the rates go beyond those limits, The CBRT would intervene. Thus, the CBRT introduced a new interest rate policy tool at a time the control over deposit interest rates were being lost. Use of these bands together with the FX Interbank markets that were established later the CBRT could exert considerable influence in TL and FX markets as we will see shortly.

Starting from September, the spread between the official and the free market rate started to widen due to speculative movements. Foreseeing the continuation of this movement, the CBRT started withdrawing money through both interbank and open market operations. So by the October the 14'th, liquidity was considerably tight just when the market was very much in need of TL. The Central Bank decided to intervene in the market to lower the FX rate which was believed to have reached an unacceptable levels due to speculative activity. The intervention was done by using both the TL and the FX markets. In the interbank the interest rates were increased to 300%, while in the FX market the CBRT was prepared to sell US \$250 million. The banks caught between the two, had nothing else to do other than selling their FX to meet their TL needs. This operation was successful in reducing the value of the dollar by 170 TL.i.e. the TL gained 10% in value. This was the most important operation the CBRT had achieved through the cooperation of both the TL and the FX markets, although nothing was sold in the FX market. This event shows the importance of institutionalization since, without the FX market's existence, the very same intervention. assuming that there were enough reserves, would require a lot of foreign exchange to be sold in the market. The nominal appreciation of the TL was a temporary phenomenon. However, it turned out to be the starting point of an ongoing process of a slower nominal depreciation and thus a real appreciation of the TL.

<sup>&</sup>lt;sup>14</sup> These markets were TL-FX, TL-Foreign Currency(FC), FX-FX, FX-FC, FC-FC, TL Time Deposits-FX Time Deposits, FX Time Deposits.

Until October 14th, banks and other financial institutions were concentrating on FK position management to the disadvantage of TL position management. The significance of the operation was that it reinstituted the long forgotten importance of TL. When the banks were caught with insufficient TL balances, they had to sell part of their FX holdings due to the CBRT refusal to extend TL credits on acceptable terms. Another important aspect of the CBRT's operation was its timing. It almost coincided with the deregulation of deposit interest rates on the 12th of October. At that date authorities gave up their control over deposit interest rates completely. The pressure exerted on the banks in interbank markets resulted in sharp increases in deposit interest rates. By October the 19th the interest rates on one year time deposits had reached 85% from 65% <sup>15</sup>. The increase in interest rates was the most important reason that reversed currency substitution. This also explains the slower rate of nominal depreciation and the convergence of market and CBRT rates that took place initially until the beginning of 1989. (See Chart 2). The sustainability of the process, however, requires further explanation.

The reserves of the CBRT in general and liquid reserves in particular continued to increase, liquid reserves reaching USS 2.5 bl. by the end of 1989. (See Chart 3.) This gave increasing power to the CBRT in FX market interventions, thus increasing public's confidence that the CBRT was capable of controlling speculative movements. There were other developments that increased the authority of the CBRT. In the beginning of 1989 the practice of selling gold for TL was terminated, and in April the FX-Gold market started officially. This was the ultimate blow to the Tahtakale market<sup>16</sup>. Thus, the institutionalization of the FX and TL markets was completed in 1989, giving the CBRT more flexibility in influencing bank behavior.

Finally, in August 1989 Decree 32 was declared. The decree widened the scope of the liberal FX and capital account regime set out in earlier decrees. (See Annex B) The new regime involved partial convertibility of the TL. After some revisions in February and March 1990, Turkey notified the IMF in April 1990 that she accepted obligations of Article VIII, sections 2, 3, and 4 of the IMF's Articles of Agreement. This meant full convertibility of the TL, with most restrictions on capital movements having been effectively removed. It

<sup>. 15</sup> Actually rates on all maturities were increased on the average 20% points within the week. Total time deposits of the banking sector increased by 32% in the last quarter of the year.

<sup>16</sup> From April to December 1989 transaction volume in the FX-Gold market was USS 1.1 bl. worth of 90.2 tons of gold.

is important to note that starting from the last quarter of 1989 and especially in 1990 there were substantial and wide ranging reductions in import duties. Together with slower rate of nominal depreciation of the TL, this had a disinflationary impact.

The CBRT did not commit itself to any announced exchange rate policy neither in 1989 nor in 1990. As a matter of fact the Governer of the CBRT announced in 1990 that "..we will never follow the policy of keeping the FX rates low by selling our foreign exchange reserves..." (Saracoglu (1990, p.28)) However, it did have an implicit exchange rate policy or at least there was the perception of such a policy by the public. In view of increased powers of the CBRT, as explained above, the CBRT policy was credible. The spread between the CBRT rates and market rates remained less than 1% (See Chart 2), and the two rates were cointegrated in both years. (See Annex A.) The CBRT was a net purchaser in the FX interbank in both years, while it was a net seller in the TL interbank. Thus, the slower rate of depreciation, and the concomitant real appreciation, of the TL was the result of market forces, and was sustained by capital inflows. The effect of removing restrictions on capital inflows was a spectacular increase in capital inflows in 1990. In Table 2.1 it is seen that gross inflow of short-term capital into the banking sector increased from USS 2.9 bl. in 1989 to USS 12.6 bl. in 1990<sup>17</sup>.

In March 1989, The CBRT and the Treasury had reached an agreement first to liquidate the Treasury's debt to CBRT by giving the CBRT long term government paper and second to limit the short term advances to the Treasury<sup>18</sup>. This gave CBRT increased scope for monetary programming. In January 1990 the CBRT announced, for the first time in its history, a monetary program. The program set targets within a band for its total assets, domestic assets, total domestic liabilities and Central Bank Money (CBM)<sup>19</sup>. The main aim was to increase the share of CBM in total liabilities. This was motivated by the fact that the share of CBM in total liabilities had fallen to 30.9 by the end of 1988 from 59.6 in 1981. This is a dramatic indication of the extend of currency substitution. In the medium term the aim was to phase out FX liabilities to residents which is in part the result of FX deposit reserve requirements. The results are shown in Table 3.1. It is important that even the lower limit of the CBM target was not reached, while total asset target was exceeded. This

<sup>17</sup> Net short term inflow to the economy (banks + other) was USS 1896 ml., gross inflow being USS 15 bl. in 1990.

<sup>18</sup> If the Treasury remained within the ceiling limit it would be charged 4% which is marginal compared to market rates. Anything above the limit, upto 15% of budget appropriations, would be charged the market rate.

<sup>19</sup> Central Bank Money shows the total TL liabilities of the CBRT. Total domestic liabilities is the sum of CEM and FX liabilities to residents.

is clearly the result of exceeding the implicit foreign asset target. In other words the CBRT accumulated foreign assets at a faster rate than it desired. The conflict between monetary policy and deregulating capital flows took the form of undershooting of targets relaing to TL liabilities of the CBRT.

The role of public sector deficits in the sustainability of the real appreciation of the TL while the economy was accumulating reserves needs to be mentioned. The PSBR/GNP ratio was 7.1% and 9.5% in 1989 and 1990 respectively. The share of CBRT and domestic borrowing in financing the PSBR was 3.8% and 80.6% in 1989; 3.5% and 90.4% in 1990, respectively. Given that public debt instruments were short-term with high rates of return, and that the expected rate of depreciation was lower as a result of the credibility of the CBRT policy, it was obviously more profitable to borrow abroad and lend domestically. Thus, the the reduction in public sector direct foreign borrowing was replaced by increased private foreign borrowing. This is the expected outcome of freeing external borrowing, as was done with Decree 32, given the large public sector deficits. It also explains the failure of the CBRT monetary program in meeting its CBM and foreign asset/liability target in 1990.

#### V. CONCLUDING REMARKS

We have surveyed the salient features of external financial liberalization experience of Turkey over a decade. It is inevitable that there is always a feedback between FX markets and the TL markets in general. We had to consider these other developments where it became pertinent to the analysis.

One important feature which we have tried to emphasize was the fact that the institution formation in financial markets had to start from scratch. The existing structures in developed countries, while being informative in defining the ultimate goal<sup>20</sup>, was not very helpful in the formation process. Thus, up's and down's in the process were inevitable to a certain extent. The experience of Turkey in this respect has valuable lessons for developing countries.

<sup>&</sup>lt;sup>20</sup> The usefulness of existing financial structures in developed countries for formulating policy goals in developing countries is of course a debatable matter. However, the aim has typically been to replicate those structures in developing countries.

There was the additional problem of timing. Timing can be understood in two respects. One is the sequencing of various stages of liberalization. We will not elaborate on this aspect which has attracted attention under the sequencing literature. The other is the timing of a particular liberalization with the establishment of institutions necessary for an adequate supervision, regulation and, more importantly, functioning of the intended market. To create a market and then try to make it gain depth, requires tremendous effort and a learning process. First of all, it requires a well defined authority to lead the process. Even the determination of this authority and its functions may be problematic and a source of policy shifts which may destabilize financial markets.

The last issue we wish to address is an appraisal of the external financial liberalization from the point of view of results and aims. We have argued that aims were partly determined as a logical extension of the outward oriented restructuring policies, to create a suitable environment for attracting foreign capital and making the payment scheme more efficient.

An efficient international payments mechanism mediated by the banking system is desirable. However, to make the banking system the main agent in the payments mechanism was not an easy matter given so many years of regulation. As a result of these regulations a powerful parallel market had developed and it required a path-breaking move to initiate the institutionalization of the payments mechanism. The introduction of FX deposit scheme with the associated freedom to hold and utilize FX has served this purpose. Moreover, as we have argued, it was a preventive measure against potential capital flight. The cumulative logic of liberalization then required easing of restrictions on bank FX position management. These developments, altough were consistent with the internal logic of liberalization, their consequences were not taken into account with sufficient weight by the authorities.

The most important consequence was the initiation of currency substitution especially by financial institutions. Currency substitution means demand for foreign exchange as an asset. The extent of currency substitution can be seen from Table 2.2. There was a strong remonetization in the 1980-1983 period, as measured by M2/GNP and CBM/GNP ratios. From 1984 onwards with the introduction of FX deposit scheme and removal of restrictions on the bank FX position management, there has been a marked demonetization throughout, except for marginal improvements in 1985 and 1986. It is noteworthy that the CBM/GNP ratio has been falling throughout. In 1990 the ratio of resident FX deposits to GNP was 4.8%, representing almost two thirds of the total TL liablities of the CBRT.

Once the stock of foreign exchange assets reaches a certain amount, the decisions related to this asset stock comes to dominate decisions related to FX flows arising from current account transactions. This results in a weakining of the link between exchange rates and current account activities as exchange rate becomes an asset price. But this means that the rate of return on foreign exchange, which is mostly determined by expectations relating to the future course of exchange rates, becomes an important determinant of portfolio decisions. The authorities have, in general, only indirect means to influence such expectations. The crucial issue here becomes the credibility of the Central Bank policies. The information content of the signals generated by the authorities may diverge from the intended message, if they are not in line with other information that agents use in forming their expectations. In other words, the reforms resulted in an increased sophistication of the functioning of financial markets and increased difficulty in implementing monetary policy. This in turn necessitated the increased sophistication of institutions and policy tools. The initiation of various interbank markets and open market operations were the result of this increased sophistication.

In 1987 interest rate policy strived to keep interest rates below a level which would restrain economic activities excessively while at the same time making financial savings attractive. (CBRT Annual Report 1987, p. 49.) As we have seen, the policy was in conflict with currency substitution and was abandoned later in the year. In fact in 1988, deposit interest rates had to be completely deregulated. Thus, an important policy tool had to be left to the fluctuations in the market. The CBRT started using the TL interbank rates as the main policy tool. The limits set in the interbank would be an indicator of the liquidity in the market, as perceived by the CBRT. The interbank rate did function as a measure of liquidity as long as there were capital inflows in 1989 and in 1990, i.e when pressures in the FX market were low. However, following the Gulf crisis in the beginning of 1991 FX market came under pressure as capital inflows were reduced and there was a withdrawal of FX deposits. The rate of nominal depreciation accelerated. By manipulating interbank limits or the quantity it supplies to the market, the CBRT has been trying to prevent the excess liquidity chanelling itself into the FX market. Also, deposit interest rates have been raised by banks. In short, interest rates in the economy have become dependent on the developments in the FX market. In a country where industrialization is the ultimate goal two relative prices, real FX rates and interest rates, are very important. We have seen that the control over both relative prices have been lost as a result of excessive external financial liberalization that took place in 1989. Complete removal of restrictions on capital flows after Decree 32 has really no rationale, at least for the present researchers. We

believe that debt management with a view to reduce the interest burden on the economy should have been a main policy objective. Excessive liberalization in the form of complete removal of restrictions on capital flows has made the formulation of such a policy an extremely difficult, if not impossible, task. In other words, even if one accepts some parts of the liberalization measures as necessary, arising out of internal logic of liberalization, the degree of liberalization remains a crucial issue.

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Table I.1 Selected Indicators, 1960-1983

, V	1980	1981	1982	1983
GNP, ~ Change	-1.1	4.1	4.5	3.3
PSBR/GNP	10.5	4.9	4.3	6.0
WPI, % Change	107.2	36.8	2710	30.5
Debt Service/Exports	47.4	31.9	31.2	33.2
Exports/GNP	5.0	7.9	10.6	11.1
Exports/Imports	36.8	52.7	65.0	62.0
Dari FRE Eur Dato				
Real Eff. Exc. Rate U.S.S	100.0	119.2	140.4	153.2
DM DM	100.0	91.5	102.8	105.5
Total(1)	100.0	112.3	130.9	141.3
Real Interest Ratas(2)	~38.9	E.0	12.0	2.2

Notes: (1) Weighted average of the two with weights 75% and 25% respectively. Price deflators are those of CBRT Honthly Eulletins. Nominal exchange rates are averages of CSRT buying and selling rates.

(2) Nominal after tax rates are deflated by WPI. The rate shown refers to the highest among all maturities.

SOURCE : SFO(1990), CERT, Own Calculations.

Table II.1

					1987			
FX DEPOSITS (ml. \$)	<b>E3</b>	1180	2051	2437	5740	5824	6751	9301
Resident	_	636	1337	2137	3995	4139	4690	6021
Non-resident	83	211	724	1250	1745	1585	2061	3750
FX CREDITS to BANKS	from abr	cad (m	17. 5)					
Medium-Long Term	125	410	342	174	584	723	227	506
Short Term (Net)	107	٥	235	350	436	-43	-29	1014
(Gross inflow)	-	-	-	-	-	(3890)	(2913)	(12523)
Real Eff. Exc. Rate (1)								
U.S.\$	153.2	159.4	168.4	159.7	152.3	162.4	148.9	125.1
DH	105.5	105.3	105.5	135.0	147.5	152.9	135.7	128.5
Total	141.2	153.3	152.5	153.7	151.1	160.0	145.8	125.8
Real Interest Rate								
Inflation rata	30.5	50.3	43.2	29.6	32	E.53	69.6	54.0

Notes : (1) See Table I.1 (2) See Table I.1.

SOURCE : CERT, own calculations.

Table II.2 Monetary Ratios, % of GNP

	H2	MZY	CEH
			<del></del>
1930 -	-15.5 -	15.5	11.5
1981	12.1	18.1	12.5
1932	22.E	22,8	14.5
1923	24.0	24.0	14.5
1924	22.6	23.2	11.8
1985	24.2	25.9	10.5
1925	24.6	27.7	9.7
1937	23.1	27.5	9.3
1983	13.8	25.3	.S.4
1989	20.5	25.7	9.1
1990	20.2	25.0	7.5

Notes: M2 is broad definition of money stock.

M2Y = M2 + FX deposits of residents.

CSM is the Central Bank Money showing total TL liabilities of the CSRT. All stock figures are monthly averages.

SOURCE : CERT

Table II.3 Balance of Payments, bl. U.S.\$

	1920	1981	1982	1983	1984	1985	1928	1937	1988	1939	1990
Trade Balance	-1.6	-3.9	-2.6	-3.0	-2.9	-2.9	-3.1	-3.2	-1.ε	-4.2	-9.£
Tourism (net)	C.2	0.3	0.2	0.3	0.3	C. S	0.6	1.0	2.0	2.0	2.7
Other (net)	0.0	0.6	0.9	0.8	1.0	1.2	1.5	1.8	2.4	E.1	4.3
Workers' Remittance	2.1	2.5	2.1	1.5	1.8	1.7	1.6	2.0	1.8	3.C	3.2
Non-Intarast C48	-2.3	-0.5	0.5	-0.4	0.2	0.7	0.7	1.6	4 ' 7	3.5	C.5
Interest Payments	-1.1	-1.4	-1.6	-1.5	-1.6	-1.S	-2.1	-2.4	-2.E	-2.9	-3.3
CAS	-3.4	-1.9	-1.C	-1,5	-1.4	-1.0	-1.5	-0.8	1.8	1.0	-2.£
CAPITAL ACCOUNT Medium-Long term Short-term	0.57 0.67 0.60	0.90 0.72 0.12	0.28	88.0 80.0 08.0	0.07 0.73 -0.65	1.07 -0.41 1.43	2.12 1.31 C.81	1.59 1.84 0.05	+0.95 1.32 -2.25	C.78 1.38 -0.58	3.97 0.97 3.00
EXCEPTIONAL FINANCING	1.37	0.32	0.90	1.00	0.68	0.00	0.00	0.00	0.00	0.00	6.68
ERRORS and OMISSIONS	1.43	0.65	-0.075	0.41	0.47	-0.84	-0.12	-0.51	0.52	0.57	-2.4:
RESERVE CHANGES	-0.09	0.01	-0.17	-0.15	0.07	-0.12	-0.79	-0.97	-0.89	-2.7ε	-1.21

....Table III.1 Monetary Programming, x increase

			1990
	1989	1930	Program Target
Total Assets	27.7	24.1	12 - 22
Foreign Assets	57.0	45.2	22.2 - 32.2
Domestic Assats	15.2	11.9	6 - 16
Foreign Liabilities	14.9	22.5	-2 - 6.2
to Non-residents	1.4.5	27.5	8.2 - 17.9
to Residents	15.6	12.1	-23.520
CEM	56.3	25.6	38 - 48
Domestic Liabilities	39.4	21.6	15 - 25

Notes : Program targets show lower - upper growth rates.

SOURCE : CERT

# CHART 1. REAL EFFECTIVE EXCHANGE RATE

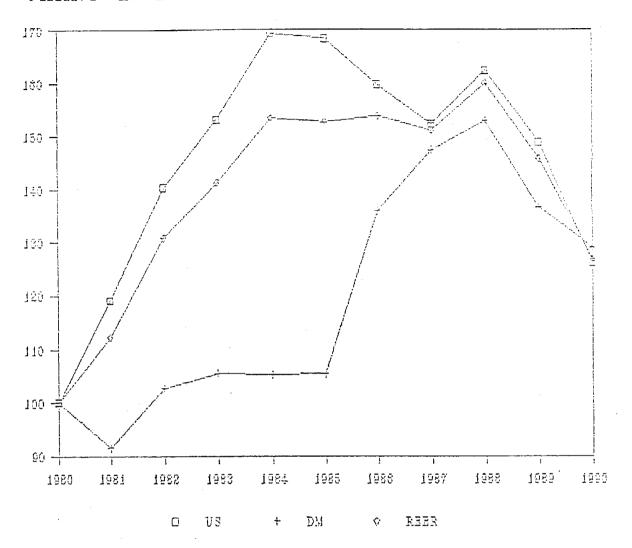
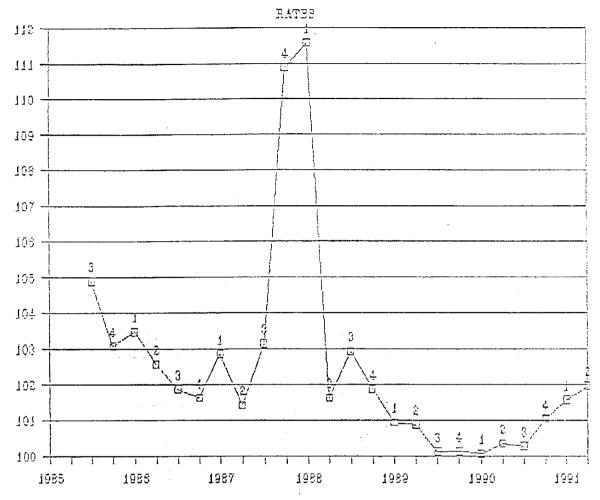
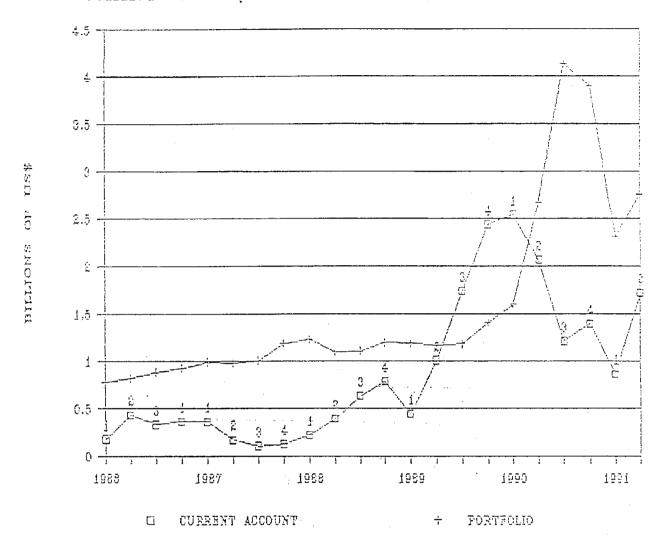


Chart 2. MARKET and OFFICIAL EXCHANGE



🛘 market/official

# CHART 3 LIQUID RESERVES OF THE CBRT



d0 = Slope dummy corresponding to January

d1 = One sample dummy corresponding to October

d2t = trend dummy corresponding to period from the opening of FX market to the end of the data

Removing first the trend and later the constant according to Dolado's method left the following equation

$$AIsrb = d0 + d1 + Isrb(1) + d2$$
  
(2.84) (3.42) (2.63) (-1.89) DW = 1.83

Which showed the existence of a unit root with 50 observations for 1988 free market data.

### b) Effective sale rate for 1988

While there is a unit root in the free market, examination of the effective sale data showed the existence of a deterministic trend for effective sale data.

Where:

Alefsat = effective sale date differenced one period.

lefsat1 = effective sale date lagged one period.

d1 = one sample dummy corresponding to October

d2 = dummy corresponding to the period from October till the end of the data

d2t = trend dummy

refsat 1, 13, 4, 8 = augmentation for autocorrelation correction.

The test statistics showed that there is no unit root, but deterministic trend in the effective sales data. Since the two data do not both have the same degree of unit root, no cointegration test can be performed.

In 1989, however, unit root test results for both effective sale and parallel market rates show that both have the unit root, and they are cointegrated.

### a) Effective Sale Rate for 1989

In the effective sale rate data, upon a graphical representation of the data, we see there is a break in the second week of May. To incorporate this fact an intercept dummy (d4) into the second week of May(starting from the second week in May, till the end) and a trend dummy (trend\*d4), together with a one sample pedictive dummy (d3) into the same period was put into the equation. The following result with 6th degree autocorrelation correction:

$$\lambda$$
 leftsat = const + trend + lefsat 1 +  $\lambda$  lefsat 6 + d3 + d4 + dt4.  
(0.92 (0.12) (-0.89) (-2.14) (-2.12) (-18) (.12)

Removing the trend and dt4, according to Dolado, left

Which showed that there is a unit root in the effective sale data.

b)Parallel market rate for 1989

The examination of the parallel market rate showed that originally there was no unit root, however whan a dummy is put into the equation to incorporate the break, the data this time showed unit root. The breaking point in this data, however is different than that of the effective sale data. Here the breaking point is in the 3rd week of April.

The equation corrected for 6th degree autocorrelation is

Removing the trend and the trend dummy:

$$\bot$$
Isrb = const + lsrb 1 + d5 + d6 ÷  $\bot$ Isrb 6 (2.75) (-2.69) (.28) (1.98) (-2.13)

Showed the presence of unit root in the data.

The cointegration tests between effective sale data and free market data, showed that the two data are cointegrated

For 1991, unit root tests for both effective sale and parallel market rate, showed the presence of unit root for both cases.

Alefsal = lefsal 1  

$$4.47$$
 DW =  $2.07$ 

Second differencing the data and ckecking again for unit root:

showed, that there is no longer unit root.

The unit root test for parallel market rate with removed trend, constant and second degree autocorrelation corrected showed

the existence of unit root

The second differencing of the data showed that there is no longer unit root.

Contegration test results:

Changing the places of lefsal and Isrb Isrb = const + lefsal

$$AU2 = const + V2 (1log)$$
  
.21 -4.36 DW = 1.79

The results showed that effective sale and free market rate are contegrated.

BERALIZATION EPISODES: POLICY NEASURES and INSTITUTIONAL ARRANGEMENTS: 1980-1990

	Financial Liberalization	Trada Liberalization .	Exchange Race Policy
<u> </u>		•	
	increased by 2 percentage points. C3 discount rates were also raised.	accounts abroad the maximum of \$% or \$ 10,000 of their export ear- nings.Imports of raw materials and intermediate inputs by exporters	TE was devalued by 40.8 %. 19:10 TL Hultiple exchange rate practices were abolished except for fartili- sers and pesticides (19:60 TL)
:		exempted from import duties provi- ded these were financed from own foreign exchange holdings. CS was authorised to extend as credit upto 80% of import deposits to exporters.	Banks were permitted to keep upto 20% (previously 26%) of their forei exchange receipts and utilise thase funds for financing certain interes
		Liberalised list of imports were enlarged.	
April:		Bank credits extended to exporters were to be exempt from stamp duties and other charges.	TE was devalued by 5.0%.
Жау		Exporters were authorised to retain a portion of their foreign exchange earnings. The ratio was 80% for industrial exports, 10% for fresh fruits and vegetables, engineering and consulting services.	
June	Interest rate regulations on bank		Il was davalued by 5.8%.
July	lending and deposits were abolished	oranted to some industrial exports.	
ځ مربورو		laport regulations were eased.	TL was davalued by 2.8%.
lugust		Licence requirements on industrial	Turkes develued by 6%.
u Lob∈r		exports were removed.	The was devalued by 3.72.
Ноч в дой	: ·		Il was devalued by 1.5%.
Decemba	. · · · · · · · · · · · · · · · · · · ·		
1981 ====== Januar	Y	New import regime abolished the quota list. Liberalised list I was enlarged and advance deposit rate	TL was devalued by 3%.
		— were raduced: — — — — — — — — — — — — — — — — — — —	TL was devalued by 4.4%.
Fabrus			It was revalued by 0.31.
Warch April			Il was devalued by 2.7%. Banks were authorised to extend FX credits to Turkish contractors working abroad.

February Witholding tax on interest earnings. was reduced to 10% from 20%. Rates on 3 months deposits was increased.

March | Interest rates on deposits of & months maturity and private sector bonds was increased.

Interest rates on 2 and 6 months Hay daposits were further increased.

Decree No 30 was put into effect. July

Interest rate on 3 month deposits August was further increased.

December Under the authority of Decree 30 the CB started importing and salling gold for TL to private and legal gersons.

1985 ::::::

New Banking Law was put into effect. X27 Periodic auction of government

securities starts. June

Banks were authorised to fix their buying-selling rates freely.

====== January

1385

der requirements at a rate of 20%. Importers were requested to obtain ---- They were also required to establish 20% required reserves with the CB on their FX deposits on a weekly basis. Required reserves on FX deposits were to receive interest.

Banks were subjected to FX surren- Prohibited list was abolished. an import licence.

FX surrender and required reserve \_\_ratios were reduced to 15%. \_

Banks were to fix their exchange rates within a 1% band around the official rata. However rates on inter bank fx transactions could be freely determined.

.aril

Interbank Honey Market was established. The C8 was to act as a blind broker among the participants.

October

Bank selling and buying rates of foreign exchange could be at most 1% above the CB selling rate plus service charges and commissions.

..... February (Interest rate callings are deterto the war wined by the CE. Banks were free to Thomaset their rates subject to cailings.

> The CB started Open Warket Operations.

The CB started lending/borrowing April operations within the TL Interbank

Reserve requirement rate on FX July deposits was increased to 20% from 18%, while rates on TL deposits was reduced by &X. Restrictions on interest rates paid to one year time deposits, CDs of TL 10ml, or more, and private securities were lifted.

Nevember

General Parliamentary Elections.

1933 ::::::

February New measures are implemented. Accordingly, 1 year deposit rates were to be determined by the banks ye requirement ratio was increased by 2 percentage points to 16%. Bank after 90 days, while during the

> 23%. CB rediscount rates were increased by 8-12 percentage paints.

Advance payments on imports were increased to 16% from 7%. Export earnings were to be repatriated subject to a ceiling of 65%. Reser- within 6 months of accrual. No tax rebates would be paid to exporters liquidity ratio was to be 27%, from first month tax rebate rates were to be multiplied by a factor of 1.2.

April

Tax rebate rates were to be gradually faded out until the end of the year when tax rebate schame would be abolished.

Banks, special finance houses, and July authorised legal persons to particicate in the FX markets were allowed to buy gold from the Ca paying in TL or FX.

Foreign Exchange and Foreign August Banknotes markets were established under the auspicies of the C8.

> Rasarye requirement ratio was increased to 11%.

September Liquidity ratio of banks was . increased to 30%. Government domestic debt instruments held by banks were to be considered as part. of the liquid assets of the banks. Reserve requirement ratio was reduced to 14%.