



The Central Bank of the Republic of Turkey

MONETARY POLICY REPORT

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I. INTRODUCTION

1.1. General Assessment

In the first five months of the year, the consumer price inflation derailed from the end-year target due to rise in costs and volatility in the market mostly stemming from exogenous developments. However, in the second five-month period, consumer prices inflation verged on the 20 percent target with the dissemination of these unfavorable factors.

The Central Bank of the Republic of Turkey (CBRT) adjusts short-term interest rates, which it uses as the main policy instrument, by analyzing prospective changes in the variables that affect inflation within the framework of various scenarios. In the period when inflation displayed an upward trend, CBRT had projected and announced that the rise stemmed from exogenous and temporary factors and inflation would head down again after this “extraordinary” phase ends. Actually, the developments after the first quarter of the year proved this projection true. Within this framework, with a long-term perspective, presuming that the steadfast implementation of the economic program would continue and there would be no deviations from the fiscal discipline and structural reforms, the CBRT eased short-term interest rates six times during April-October period. Thus, overnight borrowing interest rate, which was 44 percent in April came down to 26 percent by October. CBRT’s decision to share its optimistic view with the public also improved expectations.

Many factors underlie the downfall in inflation in June-October period. Among these factors can be listed the appreciation of Turkish lira vis-à-vis other currencies, improvement in cost conditions due to decline in real wages and increase in productivity, slowdown in food and agricultural prices, the overall consistency of the public pricing policy with the inflation target and absence of domestic demand pressure.

The developments which did not only laid the ground for the mentioned favorable conditions but also supported the downward trend in inflation, are simply a consequence of the monetary and fiscal policies implemented in harmony with the current economic program: First of all, the consistent monetary and fiscal policies carried out in harmony with the inflation target contributes to the atmosphere of confidence and attenuate concerns about sustainability of debts and helps decrease

expected inflation. These developments contribute to the decline in interest rates, appreciation of Turkish lira and, thus, underpins struggle with inflation on the costs side. Monetary and fiscal discipline does not allow an uncontrolled revival in domestic demand and avoids a pressure on inflation on the demand side. In other words, it can be asserted that economic growth does not come from a short-term consumption boom as in the case of year 2000, but from both consumption and investment expenditures and thus, growth in demand does not surpass growth in production potential of the economy.

1.2. Recent Economic Developments

The primary surplus, which was defined as a performance criterion within the framework of the Stand-by agreement signed with the International Monetary Fund (IMF), followed the targeted path in the first nine months of the year. By the end of September, all monetary performance criteria and indicative targets have been attained.

The cost conditions developed favorably in the aftermath of the Iraq war. Especially the course of exchange rates played an important role in the decline in inflation rate. In April-October period, the Turkish lira appreciated vis-à-vis the exchange rate basket composed of 1 US dollar + 0,77 EURO by 9.5 percent in nominal terms. Improvement in economic fundamentals coupled with IMF's clarification of the repayment plan for the public debts to IMF so as to spread them over time were effective in appreciation of Turkish lira vis-à-vis other currencies.

Appreciation of Turkish lira helped decrease the costs of imported inputs and decline in real wages in industrial sector led to a drop in production costs of private companies, which together contributed to the slowdown in inflation. Rise in productivity in 2002 continued in 2003 as well, but this rise did not lead to an increase in real wages, which in return accelerated decline in unit costs of private companies. These developments in unit costs enabled private companies to compete on prices in international markets.

The impact of the decline in costs manifests itself on private manufacturing sector prices. The private manufacturing sector prices, which did not mark a monthly increase below 1 percent from 1994 through 2002, remained below 1 percent in April-October period and marked an average of 0.5 percent.

Another factor in the decline in inflation in the second half of the year was the slump in the rise in prices of food and agriculture group surpassing the seasonal factors. Developments in public administered goods prices can also be counted as another factor that worked in favor of the decline in inflation. Appreciation of Turkish lira limited price increases in administered goods inter alia, fuel products. Despite the relative rise in public prices in June and July, the price adjustments were kept at a level not to jeopardize the end-year inflation target.

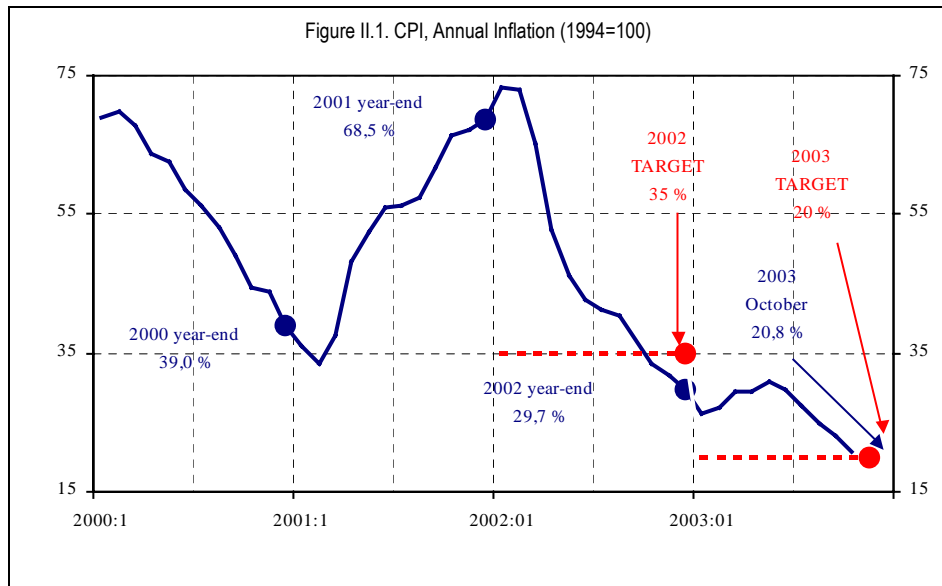
Domestic demand did not reach a level to strain the production capacity and this became another favorable factor of the downward trend in inflation. In other words, the revival in 2003 did not lead to a pressure on the demand side that could push up prices. As was the case in 2002, the primary factor that constrained hikes in consumption expenditures in 2003 was the sustained decline in real wages and income in industrial and agricultural sectors.

The saving measures that were being resorted to due to the current tight fiscal policy also constituted a factor that constrained public sector consumption and investment expenditures. However, it should be borne in mind that the signaling effect of generating primary surplus is very important. In fact, fiscal discipline bound to the primary surplus target facilitated the decline in real interest rates and stability in exchange rates. These favorable developments enhanced both consumer and investor confidence and helped private sector fixed capital expenditures increase especially in the first half of 2003. The rise in private investments mostly rests on the hike in exports demand. In the first nine months of the year, ratios of capacity utilization in certain sectors surpassed the long-term averages. Consequently, seeing the stability in financial markets, the private companies increased their investments on machinery-equipment, as they wanted to expand their production capacity.

As a result of these developments, annual increase in consumer prices, which reached 30.7 percent by May, decreased by 9.9 percentage points in the five-month period and came down to 20.8 percent by October. Inflation expectations reacted positively to these developments as well. According to the results of the CBRT Expectations Survey carried out in the second half of November, the expected end-year annual inflation rate dropped down to 19.2 percent, a figure that's below the targeted rate.

II. Developments in Inflation

Although consumer prices inflation exceeded the path drawn in line with the inflation target in the first five months of the year, it displayed a slump in the following four months and annual price increase converged to the 20 percent target. This development verified the CBRT's projections included in the monthly inflation reports that the mentioned rise was of a temporary nature and stemmed from exogenous factors and inflation would head down again after removal of these factors.

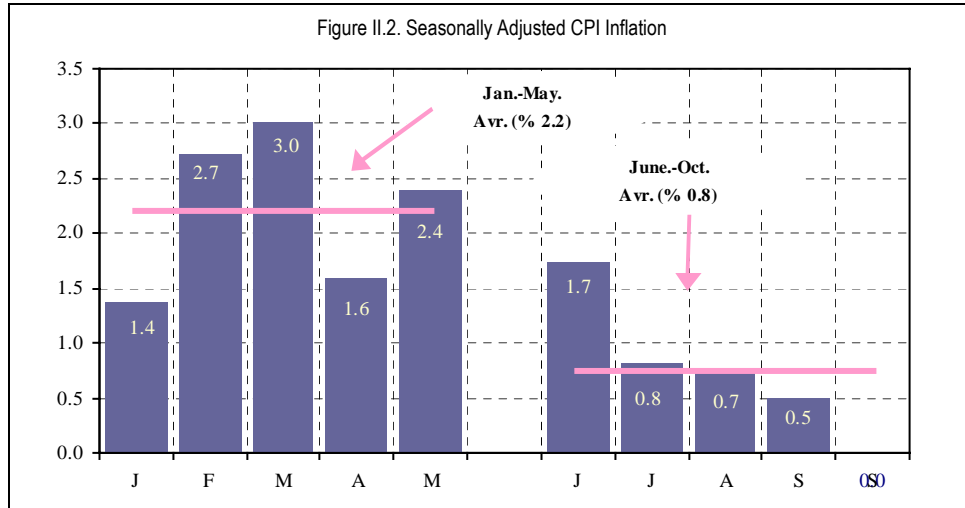


Rate of increase in consumer prices, which reached 30.7 percent by the end of May, decreased by 9.9 percent from June through October and came down to 20.8 percent (Figure II.1). The seasonal factors in summer months made a push-down effect on prices. The discrepancy between the first five-month period and the second five-month period with regard to inflation trends becomes more evident when the figures are seasonally adjusted. The average seasonally adjusted monthly inflation, which was 2.2 percent in January–May period, dropped down to 0.8 percent in June–October period.

The factors that played a role in the decline in inflation were: (i) increase in confidence due to monetary and fiscal discipline coupled with improvement in expectations and as a consequence of these: (ii) improvement in cost conditions, especially appreciation of Turkish lira vis-à-vis foreign currencies, (iii) favorable course of food and

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agricultural prices¹; (iv) public sector pricing policy; (v) favorable domestic demand conditions .



The cost conditions developed in favor of the decline in inflation in the aftermath of the Iraq war.

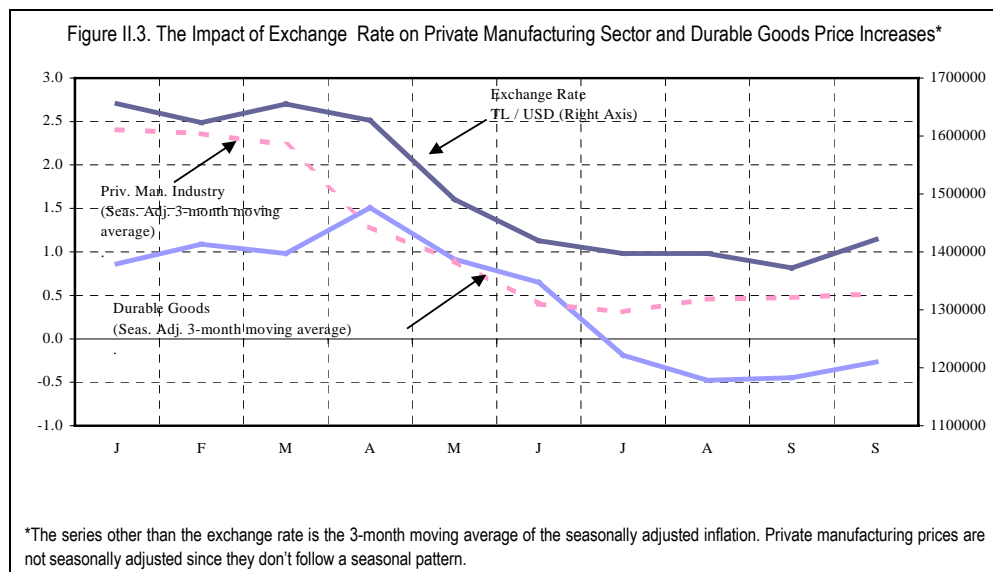
The cost conditions developed in favor of the decline in inflation apparently in the aftermath of the Iraq war. The course of exchange rates, which is an important component for costs, has had a significant impact on inflation in this period. It is evident that there has been a radical structural change in the economy after transition to floating exchange rate regime. Except for extraordinary phases, the exchange rate movements have always been upwards in the managed float period and the CBRT stepped into the markets and bought or sold foreign exchange in order to make sure that the appreciation in exchange rates stayed at a level consistent with the economic policies. After switching to floating exchange rate regime and allowing exchange rates to be determined through the unrestricted interaction of supply and demand in the foreign exchange market, exchange rates started to move upwards as well as downwards. These developments incited a change in the previous economic structure involving the practice of keeping overwhelmingly foreign exchange-denominated savings and devoting a large part to FX-denominated items in the assets or liabilities sides of the balance sheets. The change in the former structure contributed to the improvement in economic fundamentals and restoration of confidence as well as to the appreciation of Turkish lira vis-à-vis other currencies in the aftermath of the war in Iraq. Besides, the IMF drew a repayment plan for Turkey's debts so as to apportion the total amount over three years. This development enhanced expectations that Turkey would not come up with a foreign exchange shortage in the near future and played an important role in the appreciation of Turkish lira.

¹ Due to their distinctive inflation dynamics, food prices and public prices can act contrary to the macroeconomic conditions and general inflation trend. Therefore, it is advisable to study price increases in these groups separately in order to be able to reach an accurate analysis of inflation in certain cases.

The favorable impact of the appreciation of Turkish lira can most clearly and severely be observed in Wholesale Prices Index (WPI). Wholesale prices recorded a decline for five months in a row from May through August, and WPI decreased by a cumulative 3.2 percentage points in this period. Moreover, cumulative increase in WPI in September and October was limited to 0.7 percent. Although the agricultural prices that headed down due to seasonal factors and fuel prices that are determined automatically according to the exchange rates contributed significantly to these favorable developments, the impact of the decline in costs of private manufacturing sector industry is evident as well. A diachronic study reveals that monthly rate of increase in private manufacturing sector prices, which never came below 1 percent between 1994 and 2002, remained below 1 percent for 7 months in a row in April–October period and recorded an average increase of 0.5 percent.

For the CPI, the impact of exchange rate developments is observed most clearly in the prices of petroleum products, energy and consumer durables. The energy prices were kept at a low level thanks to the

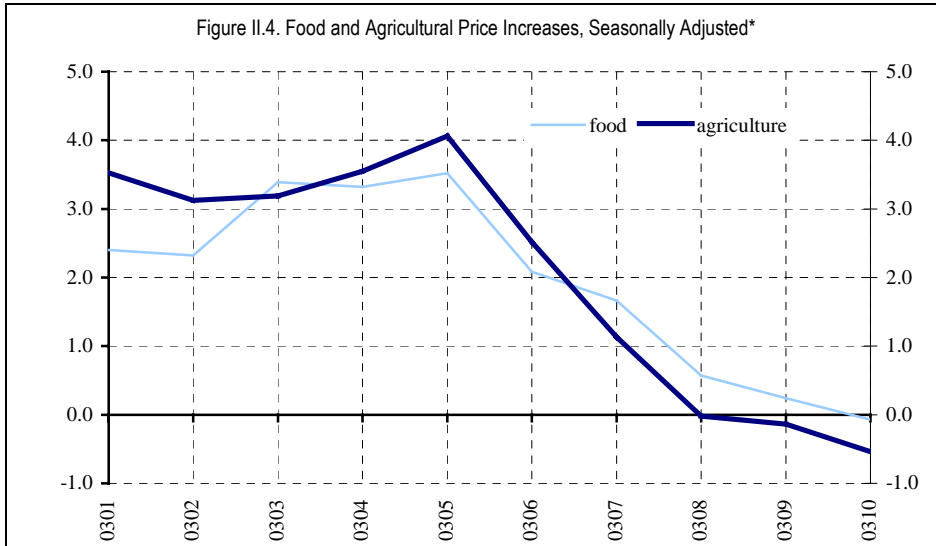
The favorable impact of the appreciation of Turkish lira is most clearly observed in Wholesale Prices Index.



appreciation of Turkish lira, besides the shifting of energy production from high-cost resources to low-cost resources. Despite the existence of significant recovery signals in demand for consumer durables especially in the last few months, the price increases were kept well-below the historical average values. Prices in consumer durables group, which is largely composed of imported goods and import substitute goods and comprises private motor vehicles, electrical and non-electrical devices, and recreation and entertainment instruments,

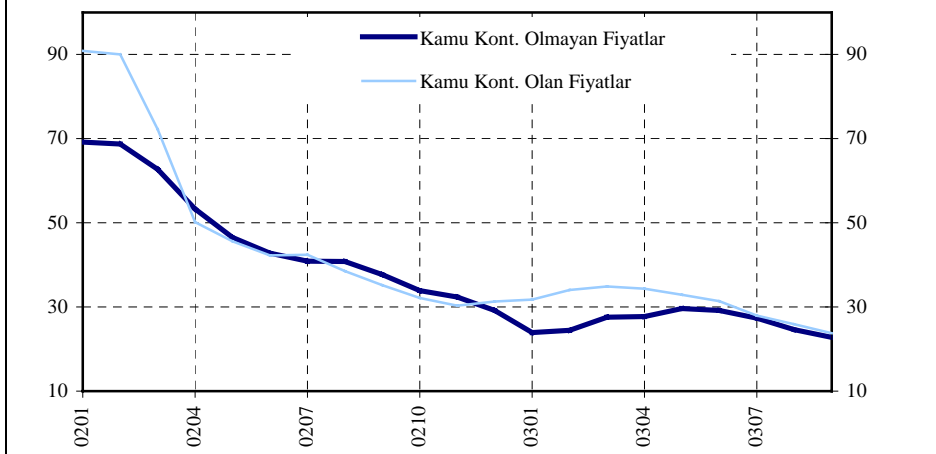
decreased by 3.1 percent in the last six months. In order to be able to compete with the imported goods that gained a price advantage over their competitors due to the appreciation of Turkish lira, prices were pulled down and this became an important factor in the aforementioned decline.

Another factor that affected inflation figures was the food and agricultural prices. Developments in this sub-group made a positive impact on inflation. Food prices displayed a decline in the last three months due to seasonal factors. However, even when seasonally adjusted, the rate of increase in food prices slowed down significantly in the last 4 months, compared to the first 5 months of the year. A similar trend was observed in agricultural prices, one of the sub-items of WPI (Figure II.4).



* evsimsellikten Arındırılmış Oranların Üç Aylık Hareketli Ortalaması

Grafik II.5. TÜFE, Kamu Kontrolünde Olan ve Olmayan Fiyatlar (Yıllık Yüzde Değişim)



Any adjustments, which did not comply with the inflation target, were refrained from in the administered prices, and this worked in favor of inflation as well. Rate of increase in public prices accelerated relatively in June and July. But still, the increments were far from undermining the disinflation effort or jeopardizing the end-year inflation target. Developments in exchange rates acted as one of the factors that limited rise in the prices of public administered goods, especially of petroleum products. Public pricing policy is of importance from two aspects: First of these aspects is the fiscal discipline, which is an indispensable factor of economic stability and the other one is the struggle with inflation, one of the most critical problems of Turkey. Although following a low-level price increase policy is important for attaining the inflation target, pursuing structural reforms and arrangements and enhancing productivity in public sector is of crucial importance for avoiding any harms to fiscal discipline and ensuring the sustainability of this pricing policy in the medium and the long run.

Public pricing policy is important for the program from two aspects: First, fiscal discipline that is indispensable for the economic stability and the second, struggle with inflation that is the most important problem of Turkish economy.

Recovery in domestic demand has not yet reached a level that might strain the production capacity. The monthly industrial production data, especially the data pertaining to consumer durables, contain signals for significant recovery in demand. However, the significant rise in production and sales of consumer durables is believed to have stemmed from an increase in demand due to the decline in costs and prices in this sector, besides the realization of the postponed consumption of durable goods during the crisis period. Meanwhile, no such improvement was observed in the demand for semidurable goods. The inflationary effects of such a recovery that is confined to certain sectors would be more limited compared to a general upturn in the domestic demand.

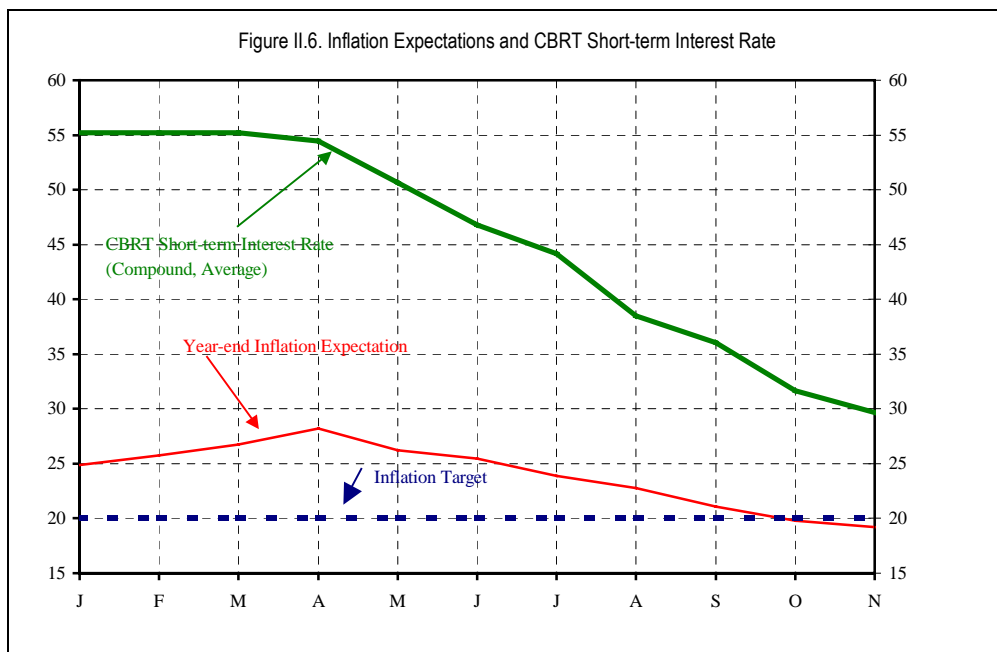
Another factor that played a role in the decline in inflation is that domestic demand has not yet reached a level that might strain production capacity.

So far, we have been dealing with the four factors that played a role in the decline in inflation: exchange rate developments, course of food prices, public pricing policy and weak domestic demand. The fifth factor, which makes the largest contribution to the reduction in inflation by way of contributing to the establishment of all these favorable conditions and directly affecting inflation through expectations, is the monetary and fiscal discipline that came along with the economic program. The improvement in expectations, which came about as a consequence of the current economic program should be emphasized here (Box II.1).

Fiscal and monetary discipline that came along with the program is the most important factor in the decline in inflation.

Inflation expectations, which deteriorated during the war in Iraq, started to improve again after the market was convinced that the volatility in the mentioned period mostly stemmed from temporary factors. The results of the CBRT Expectations Survey conducted in the second half of November show that expected end-year inflation rate has come down to 19.2 percent and it was observed that participant's confidence that the end-year inflation would be attained has enhanced compared to the previous month. The CBRT has projected the favorable developments in inflation and eased short-term interest rates 5 times in June-October period. CBRT's sharing its positive attitude with the public has also played a role in the improvement of expectations.

The CBRT eased short-term interest rates 5 times in June-October period.



One of the primary goals of the program is to decrease real interest rates permanently and to achieve sustainability in domestic debt stock in the long run and thus, to alleviate the debt burden on the economy. The above-mentioned developments helped Treasury's borrowing interest rates to decrease both in nominal and real terms. Although real interest rates are still high compared to those in developed countries, it is believed that current developments have calmed down concerns about the sustainability of the debt stock and have played a part in the improvement in inflation expectations in the medium and long run.

BOX II.1. INFLATION TARGET AND EXPECTATIONS

Inflation expectations and the way these expectations are formed have an important influence on inflation dynamics. Especially, in stabilization programs, in which inflation is reduced gradually, managing expectations in line with the inflation target is crucially important for the success of the program.

In economies that have been exposed to high and volatile inflation for long periods, inflation expectations are mostly backward-looking and are affected dramatically by past inflation figures. Therefore, the ability of targeted inflation rates announced to steer expectations remain limited. In such a case, the social costs of disinflation process become higher. In cases where there is firm confidence with the stabilization program and inflation expectations are formed in a forward-looking manner, the economic agents take into account the targeted inflation rates while making decisions. Thus, both the costs of reducing inflation are eased and the effects of exogenous shocks of temporary nature remain comparably limited.

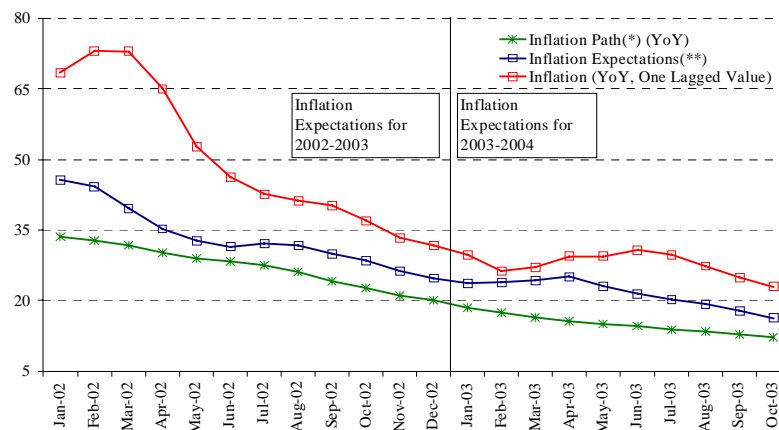
Within this framework, in the period from the turn of 2002, when the CBRT initiated an active struggle with inflation and implemented an implicit inflation targeting strategy, till today, to what extent the inflation expectations were steered in line with the targeted inflation becomes an important question.

Target Inflation, Actual Inflation and Expected Inflation

The CBRT Expectations Survey, which has been conducted since August 2001, compiles the estimations and expectations of representatives from the finance sector and real sector about the consumer prices inflation for the current month, for the next two months, for the end-year and for the next 12 months. It is observed that while expectations about inflation for the current month and the next two months are susceptible to past inflation rates and cyclical developments, and are very easy to fluctuate; expectations about inflation for end-year and for the next 12 months tend to follow a comparably stable course. In order to achieve an observation free from temporary factors, the degree of compliance of inflation expectations with the inflation path that is drawn according to the targeted rate is inspected by using the expectations over the next 12 months series.

Figure 1 shows expected inflation over the next 12 months, annual inflation and the inflation path drawn in accordance with the end-year targets as contained in the CBRT Expectations Survey.¹ While annual inflation indicates the percentage increase in CPI compared to the same month previous year, the targeted inflation path and expectations are for the next 12 months. As depicted in the figure, inflation expectations for the next 12 months have always remained between the targeted inflation rate and the past inflation rate. In other words, economic agents take into account the targeted inflation rate but also consider the actual inflation rates while forming their expectations. It is observed that while expected inflation rates were much closer to the targeted path in 2002, in the first couple of months in 2003, which was marked by the war in Iraq, it converged to the past inflation rate.

Figure 1. Inflation Expectations and Inflation Target



Source: CBRT Expectation Survey, SIS

(*) The path is consistent with the year-end inflation targets, (**)CBRT Expectation Survey 1st period results for 12 month ahead CPI inflation expectations.

¹ As inflation targets are for end-year, a simple interpolation method has been employed in order to establish an inflation path that is compatible with the end-year target.

In order to have a better understanding of the relationship between inflation expectations, targeted inflation and the actual inflation rate, a simple empirical study has been conducted and a regression analysis has been established, in which the dependent variable stands for the expected inflation for the next 12 months. In this equation, expected annual inflation rate for the next 12 months is explained by the end-year target and the inflation path that is drawn in line with the end-year target. Such an approach is believed to succeed in catching the effect of actual inflation and targeted inflation on inflationary expectations.

Table 1 shows the details of the estimation results. The equation has been estimated imposing the restriction that the sum of coefficients of the two explanatory variables are equal to 1.² It is observed that in the estimation period, inflation expectations are largely derived by the inflation path that is consistent with the inflation target. As the number of observations is quite limited, it is not possible to completely rely on this result, however, the study still gives us a hint that the participants expect that the downward trend in inflation will continue in line with the targeted rate in the long run.

Table1. Inflation Expectations Estimation Results (*)

Explanatory Variables (**)	(I)	(II)	(III)
Inflation Path Consistent with the Target	0,84	0,74	0,70
Past Inflation	0,16		
Annualized CPI (***) (last 3 months)		0,26	
Annualized CPI (***) (last 6 months)			0,30

(*) Sample: Dec. 2001-Oct. 2003

(**) The sum of the coefficients is restricted to be equal to 1

(***) Annualized figures for 3 and 6 months moving average of seasonally adjusted monthly CPI inflation

An alternative approach for measuring the relative impact of inflationary expectations is using the near-past inflation rates (like the averages of the last 3 or 6 months) instead of the inflation rates of the past 12 months and repeating the above regression analysis. Actually, the economic agents are generally affected by the rise in prices in the last couple of months rather than in the last 12 months. Within this context, when the annualized seasonally adjusted monthly inflation series for the last three-month or six-month periods are included in the regression instead of the annual inflation series, it is observed that the impact of targeted inflation rate on inflationary expectations head down compared to the first equation (from 84 to 70 percent), but still remain high and significant.

Conclusion

The above-mentioned findings show that while forming inflationary expectations, economic agents take into account the inflation path that heads down in line with the targets, as an important parameter. In other words, while past inflation rate still holds as a statistically significant variable, it is observed that the economic agents, who participated in the Survey, base their estimations on the assumption that the annual inflation will gradually decrease parallel to the targeted inflation path.

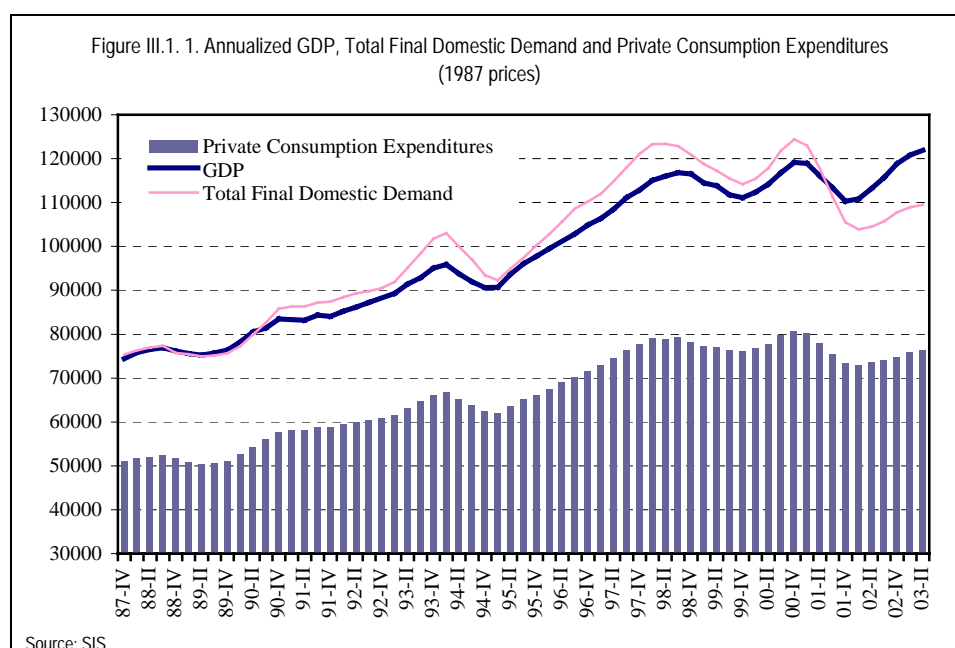
² In cases where the sum of the coefficients has not been restricted to 1 and are estimated separately, it has been found out that the coefficients of both the past inflation and the inflation path consistent with the targeted rate were statistically significant in all specifications.

III. Developments in Supply and Demand

III.1. Domestic Demand

When the sources of economic recovery, which started during the second half of 2002 and continued in 2003, are analysed, it is observed that the growth of the economy is basically stands for the increase in stocks and exports (Table III.1.1). There is no doubt that, the effect of growth on prices based on increase in the final goods leading domestic demand rise and based on stock accumulation do not end with the same result. While growth due to domestic demand forces the production capacity of the economy and put pressure on inflation, growth due to stock accumulation has limited effect on price increases. In fact, during 2002 and in the first half of 2003, limited increase of total final domestic demand whose rate of increase remained below the growth rate of GDP, limited the price increases as a result of lack of demand pressure on consumer prices (Figure III.1.1).

The limited increase of total final domestic demand whose rate of increase remained below the growth rate of GDP, limited the price increases as a result of lack of demand pressure on consumer prices.

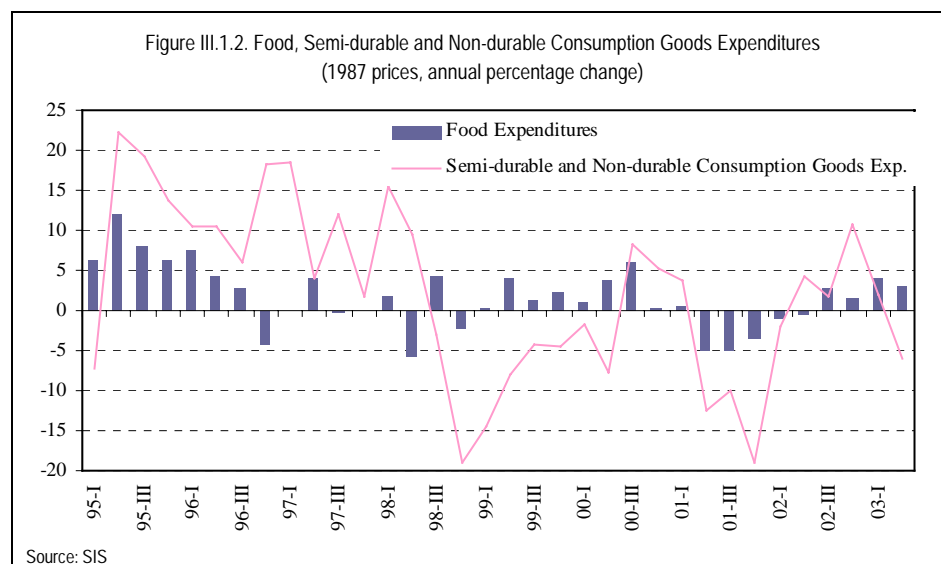


When the consumption expenditure, which is one of the components of total final domestic demand, is analysed by sub-groups, it is observed that mainly expenditures for durable goods and services have increased in the first half of 2003 by 15.6 percent and 8.2 percent, respectively compared to the same period of the previous year (Table III.1.1). In the same period, food expenditure, being an important indicator for the level of domestic demand, increased slightly, whereas expenditure for semi-durable goods decreased (Figure III.1.2).

Table III.1.1. GDP Developments by Expenditure Side (Annual Percentage Change)

	2002					2003		
	I	II	III	IV	Annual	I	II	First Half
1- Consumption Expenditures	-1.5	3.1	3.4	4.3	2.4	5.6	1.9	3.7
Public	2.2	2.6	12.0	4.5	5.4	-3.0	-2.9	-2.9
Private	-1.8	3.2	2.5	4.2	2.0	6.5	2.5	4.5
Durable Goods	-7.0	8.7	1.8	6.2	2.1	20.4	10.7	15.6
Services	2.4	11.1	9.1	10.9	8.7	10.9	6.1	8.2
2- Fixed Capital Formation	-28.8	-2.3	5.9	22.2	-0.8	9.3	5.5	7.1
Public	-18.1	3.0	29.8	22.7	14.5	-37.8	-11.3	-19.8
Private	-30.9	-4.2	-3.7	21.8	-7.2	20.4	11.9	15.5
3- Stock Change*	6.7	12.2	3.9	6.0	7.0	5.6	4.2	4.8
4- Exports of Goods and Services	10.4	5.0	15.8	12.3	11.0	14.5	12.5	13.4
5- Imports of Goods and Services	2.1	20.3	19.3	22.1	15.7	23.9	20.2	21.9
6- Total Domestic Demand	-1.0	14.9	8.2	14.7	9.2	11.6	6.7	9.0
7- Total Final Domestic Demand	-7.5	1.9	3.9	8.1	1.7	6.3	2.7	4.4
8-GDP (Expenditure Side)	2.1	8.9	7.9	11.4	7.8	8.1	3.9	5.8

*Contribution to GDP growth, percent
Source: SIS



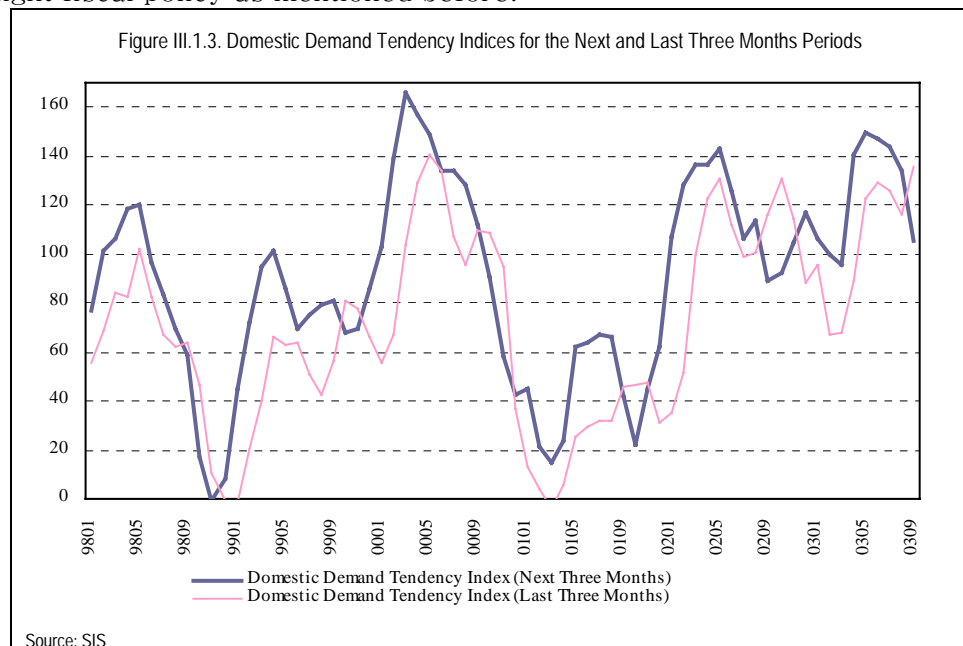
The main factor limiting the increase of consumption expenditures in 2003 as well as in 2002 is the deterioration in real wages and incomes. Moreover, significant appreciation of the Turkish lira since April 2003, eroded the savings of households in foreign currency and postponed the consumption expenditure. In addition, the contraction in the production and the resulting deterioration in the workers' wages in the agricultural sector, which constitutes a significant portion of total employment, is another factor that effects the consumption expenditure negatively.

On the other hand, expenditure reducing measures expanded due to the target of primary budget surplus, which is determined within the framework of the current tight fiscal policy, led low levels of public sector consumption and investment expenditures. However, signaling effect of generating primary budget surplus should be emphasized at this point. In fact, fiscal discipline as result of attaining the target of primary budget surplus, leads reduction of real interest rates as well as stabilization of foreign exchange rates. Therefore, by increasing the

confidence of both the consumers and the investors, fiscal discipline stimulates private consumption and investment expenditures. Within this framework, the ending of Iraqi War, which broke out on March 2003, shorter than the expectations and the implementation of the economic program in a decisive manner declined the uncertainty in the markets, and consequently, by effecting the confidence positively, lowered inflationary expectations, stabilized foreign exchange rate and decreased the interest rates. In fact, during the period of April–October 2003, Turkish lira appreciated by approximately 9.5 percent against the currency basket whereas Treasury’s domestic borrowing interest rates declined by 28.2 percent. However, it is thought that the current real interest rates are not as yet low as to stimulate private consumption. The income effect, due to the contraction in real wages and employment, is the primary factor limiting the effects of favorable developments in the credit channel on private consumption expenditures.

Expenditure measures expanded due to the target of primary budget surplus, which is determined within the framework of the current tight fiscal policy, led low levels of public sector consumption and investment expenditures.

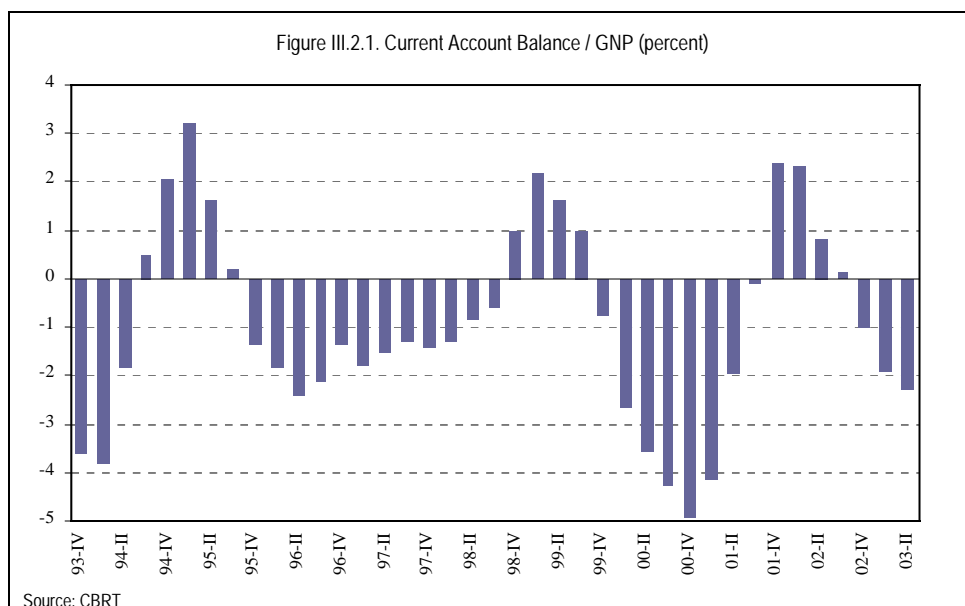
When investment expenditures, which is one of the determinants of total final domestic demand, are examined, it is observed that during the first half of 2003 total fixed capital investment expenditures rose based on the private sector. In this period, the increase of industrial production as a result of the favorable export performance and the rise in the rate of capacity utilization enabled the private firms, intending to extend production capacity, to invest in machinery and equipment in the steady state atmosphere of financial markets. However, public sector investment expenditures stayed at low levels as a result of the current tight fiscal policy as mentioned before.



In addition to the mentioned developments, according to the domestic demand tendency indices of the last and the forthcoming quarter, which are prepared by utilizing the CBRT Business Tendency Survey (BTS) indicators, there is limited recovery in the domestic demand, however, it is not expected to put pressure on inflation until the end of the year (Figure III.1.3).

III.2 Foreign Demand

In the period of January–October 2003, current account resulted in a deficit of US dollar 4 billion (Figure III.2.1). The deficit was mainly resulted from the rise of foreign trade deficit and the increase in the investment expenditures.



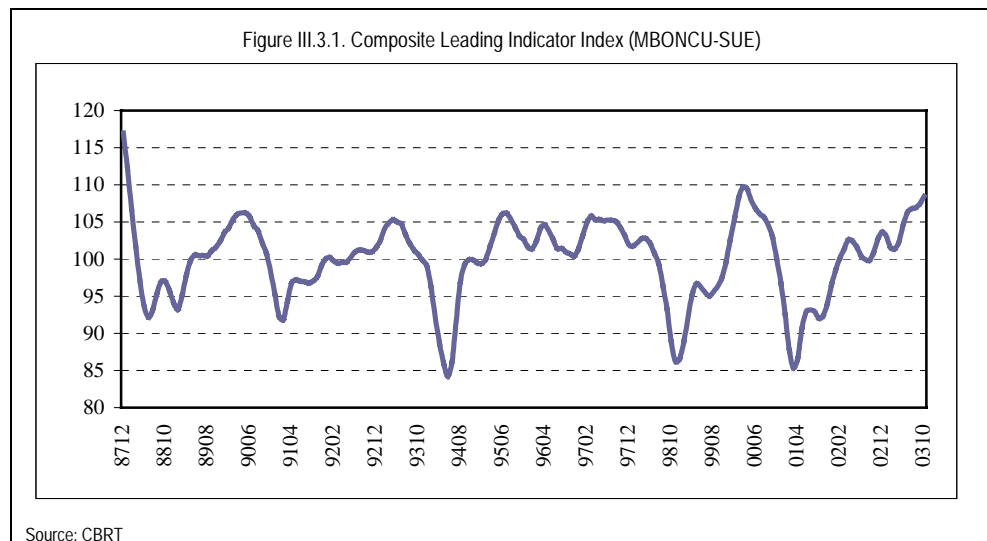
Increase of 30.4 percent in exports in this period, primarily resulted from the manufacturing industry production which constituted approximately 94 percent of total exports. Due to limited domestic demand recovery, industrial production increase mainly directed towards foreign markets. Besides, despite the appreciation of the Turkish lira in 2003, the continuing low levels of unit labor costs affected exports positively.

Increase in total imports was due to imports of intermediary and investment goods which constitute almost 90 percent of the total. While significant rise observed in industrial production increased imports of intermediary goods, market confidence led by the macroeconomic stabilization and favorable expectations rose imports of investment goods. Moreover, the appreciation trend in the real exchange rate is another factor supporting imports in this period.

Turkish Exporters Assembly data show that exports rose as a result of industrial production continued after September as well. On the other hand, increasing trend in VAT levied on imports indicates rise in imports. In case of ongoing trend of the current foreign trade data, it is predicted that current account balance will give a deficit of 3.2 percent of GNP at the end of the year. However, it is believed that mentioned deficit does not have the potential of exerting pressure on inflation via the exchange rate, and thus consequently by the cost rise, due to the increasing borrowing facility of the Treasury and the banks as well as the significantly high level of foreign exchange reserves of the CBRT.

III.3. Supply Developments

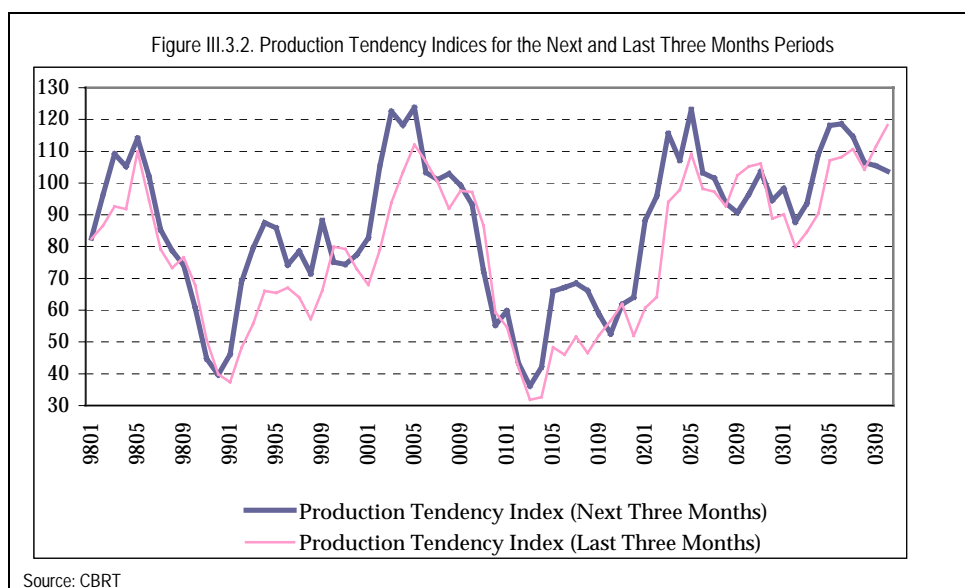
The results of SIS Monthly Industrial Production Index indicate that total industrial production in January–October 2003 period rose by 8.4 percent compared to the same period of the previous year. Manufacturing industry production grew by 9.1 percent in the same period with a significant contribution to the growth of industrial production.



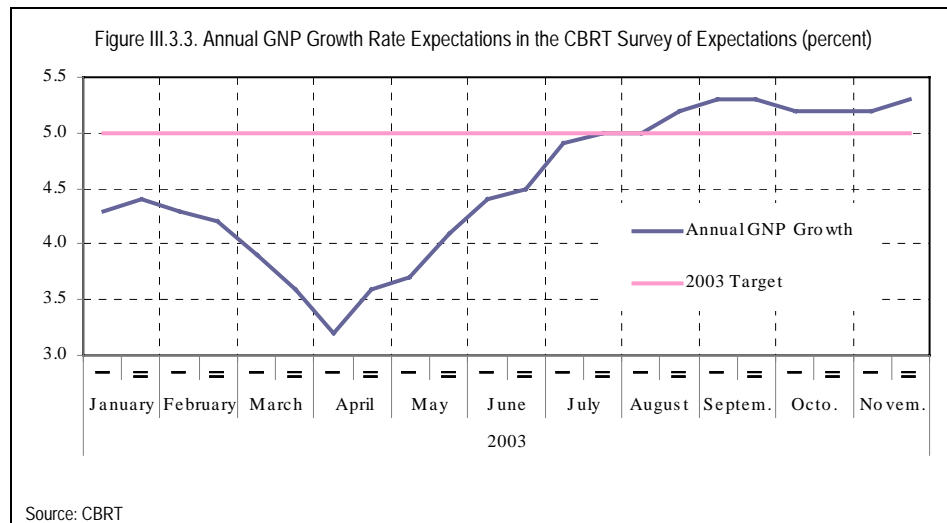
Since April 2003 stability observed in the financial markets and the increase of confidence in the economy is affecting the firms' production and price expectations positively. Parallel to these developments, interest rates declined in the mentioned period. Furthermore, inflation data of October, which strengthens the predictions that the year-end CPI target could be reached, contributes the increase of positive expectations regarding the course of the economy (Figure III.3.1).

Increasing trend in manufacturing industry capacity utilization rate, which was observed since March 2002 also continued in the period of

January–September 2003 and maintained its high level in October. According to data announced by SIS, capacity utilization rate in total manufacturing industry was realized as 80.8 percent in October 2003. The decrease observed in capacity utilization rate in total manufacturing industry compared to the September was mainly due to public sector. Despite this situation, rise in the private manufacturing industry capacity utilization rates is an encouraging development for the ongoing rise in production. However, substantially high rates of capacity utilization in some sectors require rise in investment expenditures that will increase capacity and productivity, and consequently, enable continuation of the production increases in the following periods. In line with this, it is believed that, the high rates of capacity utilization in the machinery–equipment sector, which produces investment goods, and the main metal sector, which produces most of the intermediate goods for the machinery–equipment sector, reflect the increase in the expenditure of investment goods.



Furthermore, as the production tendency indices for the last and the next quarter, which are prepared by utilizing CBRT's BTS indicators, are prevailing their high levels, it is believed that rapid production increase will continue in the next months (Figure III.3.2). Consequently, it is believed that manufacturing industry will grow rapidly during the last quarter of the year and end-year estimate of growth will be within reach. Moreover, expected increase in GNP growth rate, which takes place in the CBRT Survey of Expectations, rose to 5.3 percent in the second survey period of November compared to the previous period (Figure III.3.3).

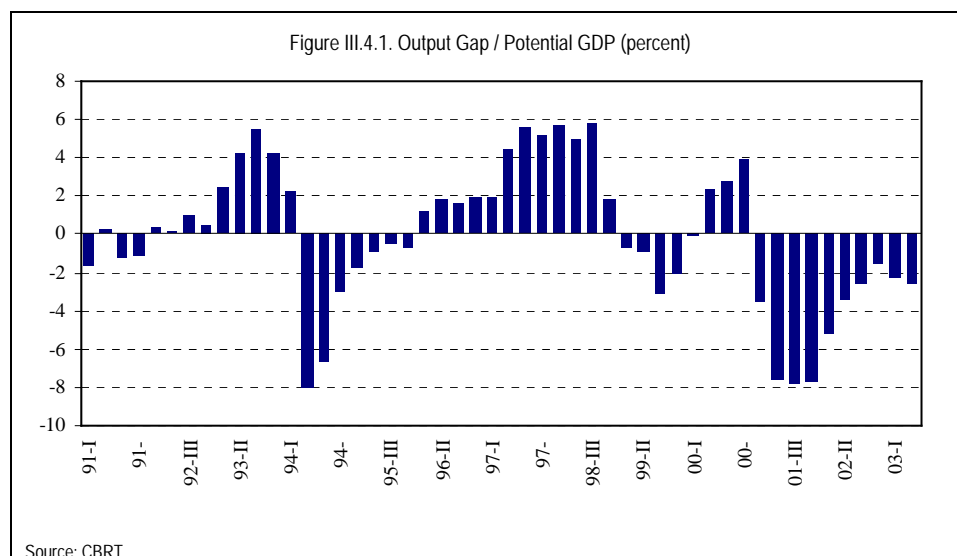


III.4. Predicted Capacity Pressure

There is a close relationship between economic growth and inflation. In economics theory, this relationship takes place as the inflationary effect of the difference between the actual production and the potential production of the economy. The difference between the potential output, -which is defined as the highest possible production capacity in an economy with current labor, capital and technology- and the actual production level is referred as the output gap. Output gap is an important indicator for the demand-oriented pressure as it figures out the excess or under capacity in an economy. In order to predict the course of prices in the next periods, output gap, which could be calculated by various methods, is one of the indicators especially monitored by the central banks that are implementing inflation targeting.

One of the above mentioned methods in calculating the output gap is based on the Kalman filtering technique. Measurements regarding output gap which are calculated by the CBRT through the mentioned method indicates that currently Turkish economy is below the potential production level (Figure III.4.1). Accordingly, recovery of 2003 did not put demand-oriented pressure on prices and therefore, it is predicted that it will not affect the prices negatively. Within this framework, it is thought that predicted GNP growth for 2003 and consumer price inflation target are compatible and attainable.

Measurements regarding output gap which are calculated by the CBRT indicate that currently Turkish economy is below the potential production level.



III.5. Cost Pressure

Index for real wages per hour declined by 3.2 percent whereas productivity per working hour rose by 4.4 percent in the first half of 2003 compared to the same period of the previous year (Table III.5.1). Productivity increase observed in 2003 as well as 2002, which is not reflected to the real wages, accelerates the decline of private firms' unit costs (Figure III.5.1). When analyzed from the supply-side, positive course of unit labor cost, which is also used as an indicator of cost competitiveness, contributes to the deceleration of price increases by decreasing production costs of private firms.

Decline in unit wages contributes to the deceleration of price increases by decreasing production costs of private firms.

Table III.5.1. Employment, Real Wages and Productivity Developments in the Manufacturing Industry
(Percentage Change Compared to Previous Year's Same Period)

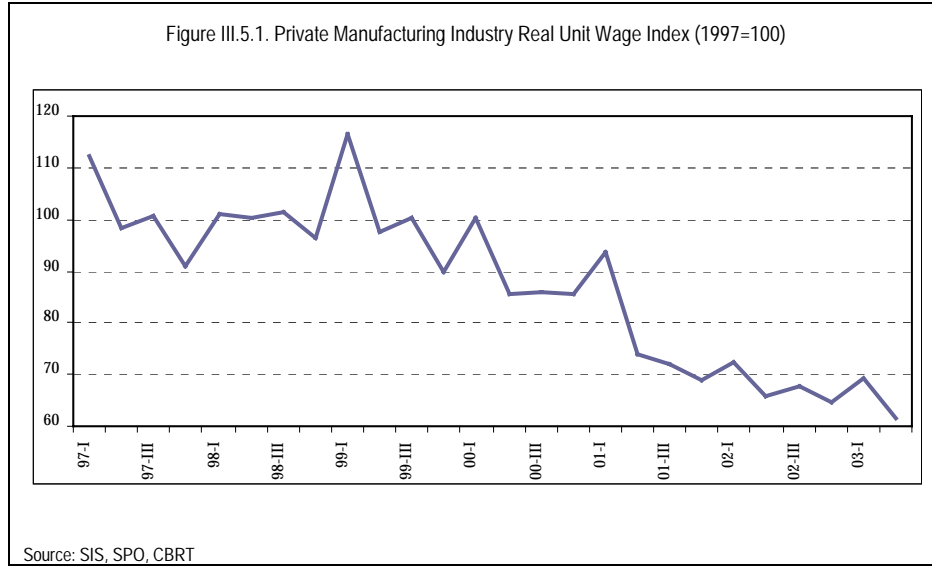
	2002					2003		
	I	II	III	IV	Annual	I	II	First Half
Employment⁽¹⁾	-6.9	0.1	3.4	6.0	0.6	5.0	1.6	3.2
Public	-11.4	-12.0	-8.0	-5.1	-9.1	-4.1	-6.5	-5.3
Private	-6.1	2.3	5.5	7.8	2.3	6.2	2.7	4.4
Real Wages⁽²⁾	-15.9	-4.2	-2.7	-0.5	-5.4	-1.0	-5.4	-3.2
Public	-12.6	5.9	4.1	6.9	1.4	-2.5	-8.9	-5.7
Private	-15.1	-3.2	-1.1	1.1	-4.2	0.8	-2.8	-1.0
Productivity⁽³⁾	10.3	10.4	7.0	6.6	8.6	4.6	4.1	4.4
Public	15.7	22.4	20.7	8.0	16.4	4.7	8.2	6.4
Private	9.6	9.0	5.0	7.9	7.8	5.5	4.1	4.8
Earnings⁽⁴⁾	-17.4	-4.5	-6.5	-2.2	-8.0	-5.5	-10.7	-8.1
Public	-14.7	4.4	-2.3	7.0	-2.1	-3.5	-12.3	-7.9
Private	-16.4	-3.6	-4.3	-1.6	-6.8	-4.5	-8.7	-6.6

(1) SIS, Manufacturing Industry Production Worker Index, 1997=100

(2) SIS, Manufacturing Industry Real Wages Index per Production Hours Worked, 1997=100

(3) SIS, Manufacturing Industry Partial Productivity Index per Production Hours Worked, 1997=100

(4) SIS, Manufacturing Industry Real Earnings Index per Production Worker, 1997=100



In 2003, increases in the salaries of civil servants and wages of workers in the public sector were determined in line with the inflation target. Wages of the public workers were increased evenly¹ by 55 million Turkish lira in the first half of 2003, while the increase was 9 percent for the second half of the year. The civil servants salaries were increased by 5 percent in the first half of 2003 and by 7.8² percent for the second half of the year. As the increase of the private sector wages is based on public sector's income policy, wage rises in 2003 is not expected to create a cost pressure.

Besides, declining crude oil prices following the Iraqi War and appreciation of the Turkish lira against foreign currencies restricted price increases by decreasing production costs and played a significant role in the declining trend of inflation.

¹ It is decided that the payment will be due by the end of the thirteenth month after the collective labor agreements.

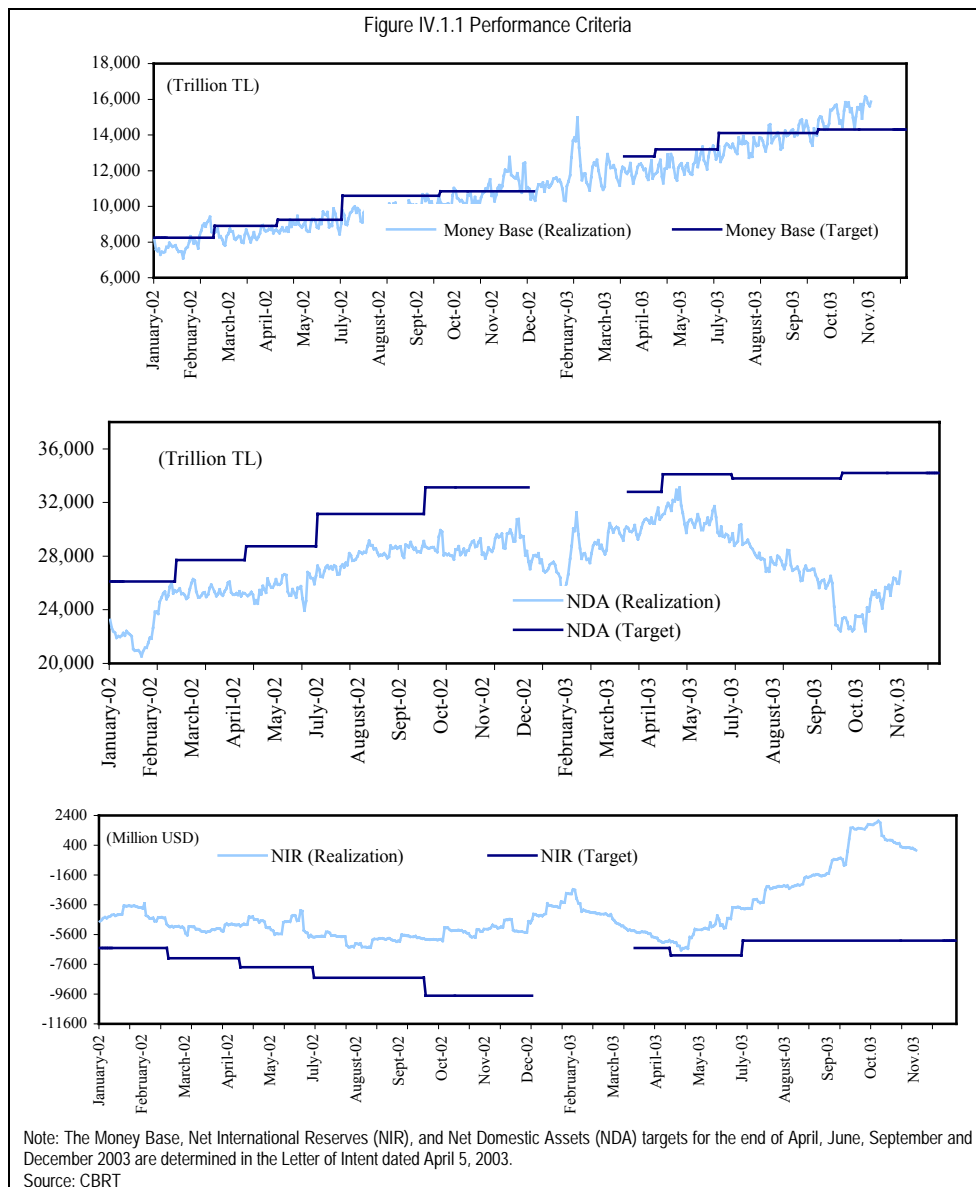
² The increase in the civil servants salaries which was decided upon for the second half of 2003 is even and corresponds to an increase of 7.8 percent on average.

IV. Developments in Financial Markets

IV.1. General Framework of Monetary and Exchange Rate Policy

Implicit inflation targeting policy, which has been put into practice in 2002, is maintained in 2003. In accordance with this policy, while short-term interest rates are employed as the primary policy tool, monetary performance criteria and indicative targets are monitored within the framework of the program carried out with IMF. All criteria and targets set for the end of April, June and September 2003 were achieved (Figure IV.1.1). Nevertheless, developments in October and November brought forth the possibility of exceeding the upper limit of end-year money base target (Box IV.1).

All criteria and targets set for the end of April, June and September 2003 were achieved.



BOX IV.1. DEVELOPMENTS IN MONEY BASE IN OCTOBER-NOVEMBER 2003 PERIOD

The Central Bank of Turkey's monetary policy is fundamentally based on the consistency of future course of inflation with the target. In this context, short-term interest rates are used as primary tool. Moreover, some monetary aggregates are also monitored as performance criteria within the framework of current program. However, as frequently discussed in the literature, particularly in the last decade, while the correlation between monetary aggregates and inflation is close to nearly one in the long term, this correlation may break off in the short term. Especially at the times when new financial tools come into question and/or sharp drops are observed in inflation and interest rates, this breaking becomes evident. As a matter of fact, though the money base figure in nature of performance criterion, which was targeted as TL 14.300 trillion for the end-2003 within the framework of current monetary policy, was set in line with the 20% inflation target and the 5% growth forecast, developments in October and November brought forth the possibility of exceeding upper limit of money base for the year-end.

Evaluation of contributions of the money base sub-items to money base in January-November 2003 period reveals that the determining factor in the level of money base is the developments in currency issued (Table 1). In fact, the increase in money base, which realized above the projections for October and November, resulted mainly from the increase in currency issued.

Table 1. Contributions of Sub-items of Money Base to the Change in Money Base (Percentage)

	January-June 2003	July-September 2003	Oct.-November 2003
Money Base	100,0	100,0	100,0
<i>Issue</i>	68,7	75,7	81,7
<i>Required Reserves (TL)</i>	17,8	14,9	8,9
<i>Free Deposits</i>	13,5	9,3	9,5

Source:CBRT

When developments in real money base and real currency issued in January 2000-November 2003 period are analyzed, it is seen that real increase that has started by 2002 and become more apparent since May 2003 is remarkable.

Figure 1. Real Money Base Developments *

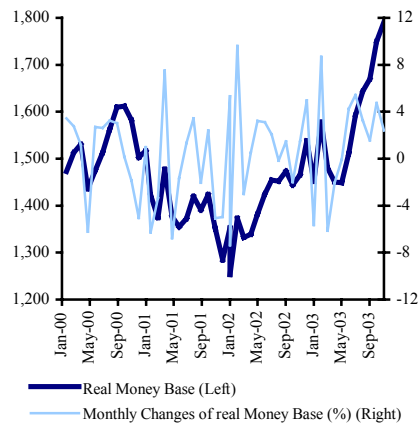
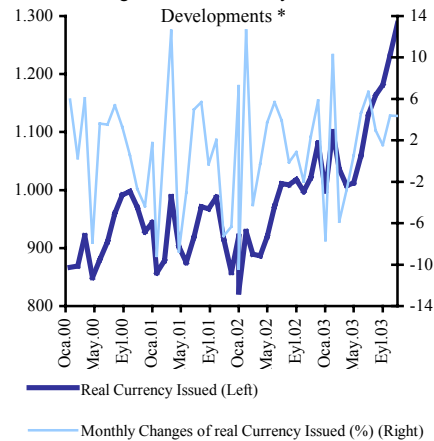


Figure 2. Real Currency issued Developments *



* Monthly average Money Base and Currency Issued values are divided by CPI to obtain real variables.
Source: CBRT

Developments in January 2000-November 2003 revealed that the increase in real currency issued was negative in October-November period of both 2000 and 2001. The increase in real currency issued turned into positive in 2002. However, this trend did not cause any problem in the achievement of money base target set for end-2002. In 2003, the increase in real currency issued became more apparent and rose by 8.9 percent. Analyzing the ratio of the last five working days averages of currency issued to monthly averages in October and November by years, it was observed that despite a downward trend in currency issued in 2000 and 2001 following an ordinary increase in transaction-oriented money demands of economic agents in mid-month, this turn-back movement was not realized in 2002 and particularly in 2003 (Table 2). These developments indicate that this currency issued-originated increase in money base in October and November 2003 may possibly be permanent.

Table 2. Currency Issued (Monthly Average) *

	2000			2001			2002			2003		
	Change %	Real Change %	Last Five Working Day Ave. / Monthly Ave.	Change %	Real Change %	Last Five Working Day Ave. / Monthly Ave.	Change %	Real Change %	Last Five Working Day Ave. / Monthly Ave.	Change %	Real Change %	Last Five Working Day Ave. / Monthly Ave.
July	7,7	5,4	1,00	8,2	5,7	0,98	5,4	3,9	0,98	6,3	6,7	1,02
August	5,5	3,3	1,00	2,6	-0,3	1,02	2,0	-0,1	1,00	3,1	3,0	1,00
September	3,7	0,6	0,97	8,1	2,0	1,01	4,4	0,9	0,99	3,5	1,5	1,01
October	0,3	-2,7	0,97	-1,6	-7,2	0,96	1,3	-2,0	1,00	5,9	4,4	1,02
November	-0,8	-4,4	0,96	-2,4	-6,3	0,99	5,3	2,4	1,02	6,8	4,4	1,09
July-Sep.	17,9	9,5		20,0	7,5		12,3	4,7		13,4	11,5	
Oct.-Nov.	-0,5	-6,9		-3,9	-13,1		6,7	0,3		13,0	8,9	

* Percentage changes are calculated on monthly percentage change compared to the previous month and the percentage change in the specified time span for each period.

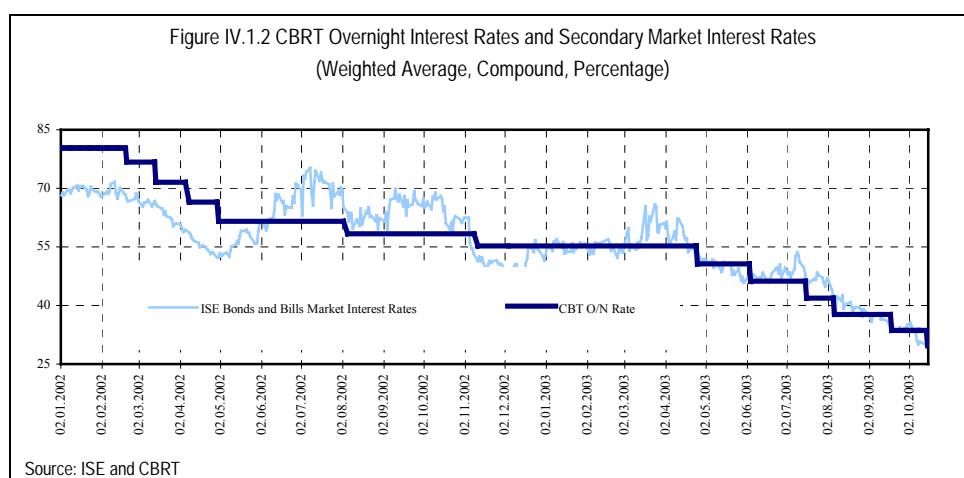
Source: CBRT

It is thought that the most important reason for the increase in currency issued during October-November 2003 period is the growth in domestic demand. Relative recovery in domestic demand in last few months induced the upward trend in consumer credits and credit cards in real terms. Accordingly, the expansion in money base gained pace.

The improvement in inflation expectations as well as the opinion of economic agents that the end-year inflation target would smoothly be achieved along with the stable downward trend in annual inflation rates that has started by the second quarter of the year contributed to the increase in money demand. Moreover, the downward movement in interest rates and the strengthening Turkish Lira due to the ending of Iraq war in a shorter time than expected and the relative removal of uncertainties are considered as other significant reasons for the increase in money demand.

As a result we can say that despite some difficulties that may be experienced in achieving the end-year money base figures set by the monetary program because of the aforementioned developments, the probability of achieving the end-2003 inflation target is considerably high. In this situation, exceeding of money base over the program projections will not cause any problem for CBRT, whose primary objective is to achieve and maintain price stability. In other words, current monetary policy will continue to be implemented and short-term interest rates will be set in line with the future inflation figures.

CBRT considers fundamental variables that determine the future course of inflation while setting its interest rates. In this framework, ease of cost-push inflationary pressure due to the decline in exchange rates and oil prices following the end of Iraq war, the improvement in inflation expectations along with the increasing confidence and the decisions on structural reforms set forth in the economic program as well as the measures towards budget discipline stand as the key factors that lie behind the interest rate cut by CBRT for six times since April (Figure IV.1.2).



With the end of Iraq war, a general downward trend has been observed in secondary market interest rates by mid-April.

With the end of Iraq war, a general downward trend has been observed in secondary market interest rates by mid-April. Favorable developments regarding US loan and ongoing drop in inflation supported this trend. Nevertheless, the tendency of interest rates reversed from time to time due to tensions arising from Iraq conflict and political arguments. Besides, the developments about the negotiations before and after IMF reviews had also an effect on the expectations of the market. In this context, secondary market interest rates displayed an upward trend starting from the second half of June until the interest rate cut dated July, 16 2003. At this point, the shift of secondary market transactions to government securities in longer maturities and the rise in average interest rates, calculated by weighting the interest rates at all maturities by their trading volume, due to the increase in interest rates of government securities should also be taken into consideration. After the interest rate cut in July 16,2003, secondary market interest rates continued their downward trend (Figure IV.1.2).

In economies that implement inflation targeting, short-term interest rates set by central banks are employed as the primary monetary policy tool. In order to ensure proper and duly functioning of this policy tool, firstly, the changes in short-term interest rates should also change other interest rates. And secondly, all these changes should affect total

demand and total supply, directly or indirectly (such as amount of credit, exchange rate, expectations, etc.). In this framework, the first question that should be asked is the nature of factors affecting the impact of interest rate changes by CBRT on the course of market interest rates.

A central bank, whose primary objective is to achieve price stability, should set interest rates in line with the consistency of its inflation forecasts with the inflation target within the framework of inflation targeting monetary policy strategy. If future inflation figures are consistent with inflation target, the central bank will cut short-term interest rates. In this situation, the drop in interest rates will give a strong signal that 'everything works fine' and hence will have a favorable effect on expectations. Moreover, if there is a high debt stock resulting from wrong economic policies adopted in the past, this signal will ease the doubts about the sustainability of debt stock and diminish the impact of one of the reasons that lead to high real interest rates. In other words, it will reduce the risk premium.

Operation of this mechanism without interruption primarily depends on high credibility of the related central bank, in other words, the overlap of its words with its actions. Secondly, the signals sent by the central bank should not be lost in different messages given by other authorized units. For instance, if any of the authorized units other than the central bank complains about the course of any macroeconomic indicator stating that the central bank should cut interest rates, such a statement would lead to distortion in signal. In such situation, a new interest rate decision to be made by the central bank merely in consideration of likely future inflation figures might be perceived by economic agents, which still have not forgotten the impacts of bad macroeconomic implementations of the past, as being taken because of wishes or pressures of authorized units. Hence, the effect of the signal that 'everything works fine' will completely be lost and the monetary authority's credibility will be impaired unfairly. Conclusion: impaired confidence to implementation of macroeconomic policies will lead to high level of risk premium and interest rates in general.

Movements of overnight interest rates and secondary market interest rates since early-2002, the date CBRT has started to implement implicit inflation targeting, reveal that: The general tendency of both interest rates are common. However, the strong and positive relationship between these two interest rates that should exist could not have been established in the proper sense yet. In general, secondary market interest rates may considerably exceed the CBRT overnight interest rate. Almost all these upward deviations stem from domestic and foreign developments, which lead to widespread doubts that the implementation of current program, a 'must' for the management of debt, is under risk (Graph IV.1.2).

BOX IV.2. YIELD CURVE

Yield curve is the plot of the interest rate on bonds with different terms to maturities. In other words, yield curve describes the relationship among interest rates of different maturities. The changes in the level, slope and the curvature of the yield curve contain data about the effect of a realized shock in economy on interest rates. In response to a shock, if the interest rates of all maturities are affected by equal amounts there will be a parallel shift, if the interest rates of different maturities are affected by different amounts than the slope or/and curvature of the yield curve will change.

Shape of the yield curve contains important data, particularly to indicate the expectations, which can be used by the policy makers. Among the theories developed in the literature on yield curves, Liquidity Premium Theory is suitable for explaining the shape of the yield curve in Turkey. In the Liquidity Premium Theory changes in the slope of the yield curve are attributed to the changes in the expectations of future short-term interest rates and movements in the term premium. Liquidity Premium Theory asserts that term premium is positive stemming from the presumption that investors prefer short-term investment to long-term bonds due to characteristic of short-term investment being more liquid compared to long-term investment. Along with liquidity preference of investors, term premium comprises the risk associated with uncertainty regarding future realizations of interest rates (interest rate risk). Term premium will increase with increased interest rate risk during periods of rising uncertainty, and will decrease as uncertainty alleviates.

Relationship among interest rates of different maturity is mathematically expressed by the following equation.

$$R_t^n = \left[\frac{1}{n} \right] E_t [r_t + r_{t+1} + r_{t+2} + \dots + r_{t+n-1}] + \Phi_t^n$$

In this equation,

R_t^n = Interest rate of the investment instrument with maturity of n period at time t

r_{t+i} = One period interest rate at time (t+i); $i=1, 2, \dots, n-1$

E_t = Expectations formed with the information set at time t regarding the future realizations of the variables;

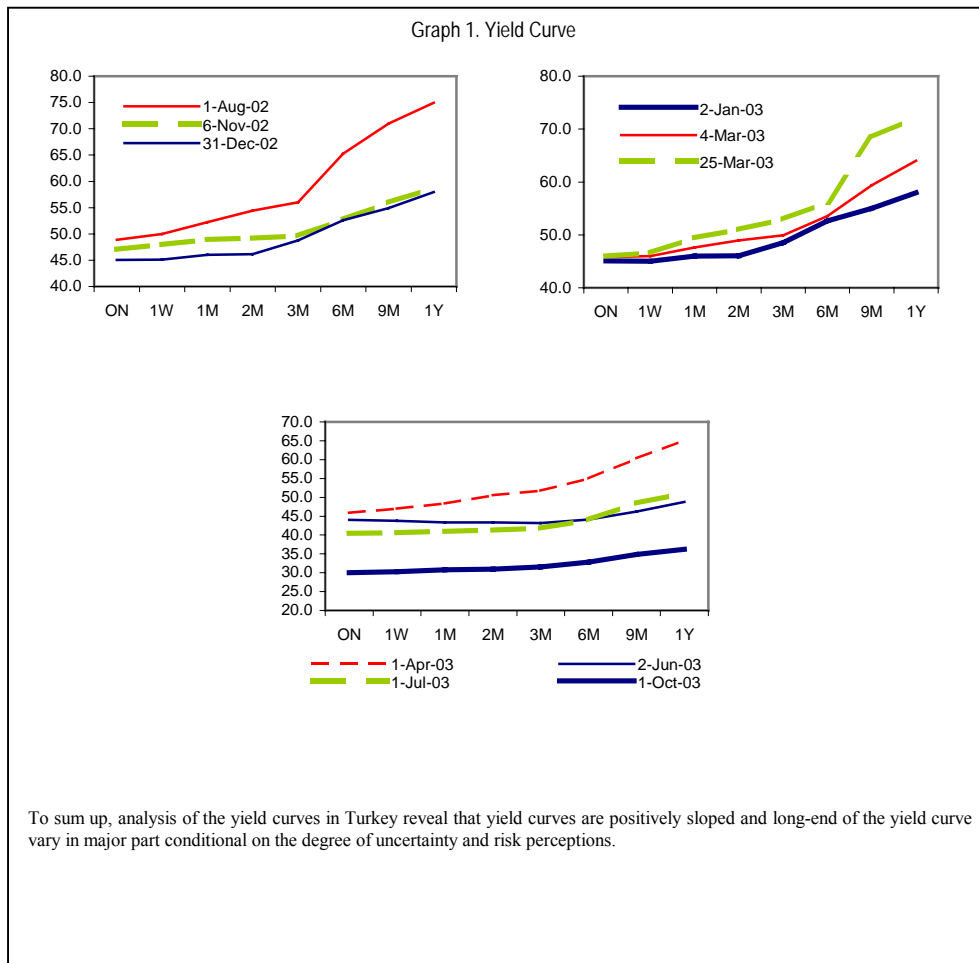
Φ_t^n = Term premium of the n period investment instrument at time (t)

Yield Curve analysis in Turkey of the 2002 August – 2003 October⁽¹⁾ period reveals that yield curves are positively sloped and the slope varies between the short-end and the long-end of the yield curve. Short-end of the yield curve is flatter compared to the long-end. In the long-end of the yield curve slope increases conditional on the degree of uncertainty and risk perceptions. In other words, interest rate increases with maturity. In Turkey, during most of the period, slope change takes place at three months maturity, implying that risk premium for the maturity of three month and higher is substantially high. Economic agents, due to the lack of clear foresight of the period longer than three months, become more vulnerable to possible interest rate movements when the maturity of investment exceeds three months. Hence, in this case investors are inclined towards more liquid and short-term investment. Therefore, during periods in which inflation expectations are stable, however uncertainty and risk perception are present, yield of short-term interest rates decline compared to the yield of long-term investment instruments. Analysis of the long-end of the yield curve in Turkey reveals the influence of the term premium, which changes with the course of the concerns related to the sustainability of the domestic debt stock. In Turkey, major determinant of the state of the yield curve is the shocks that hit the economy.⁽²⁾

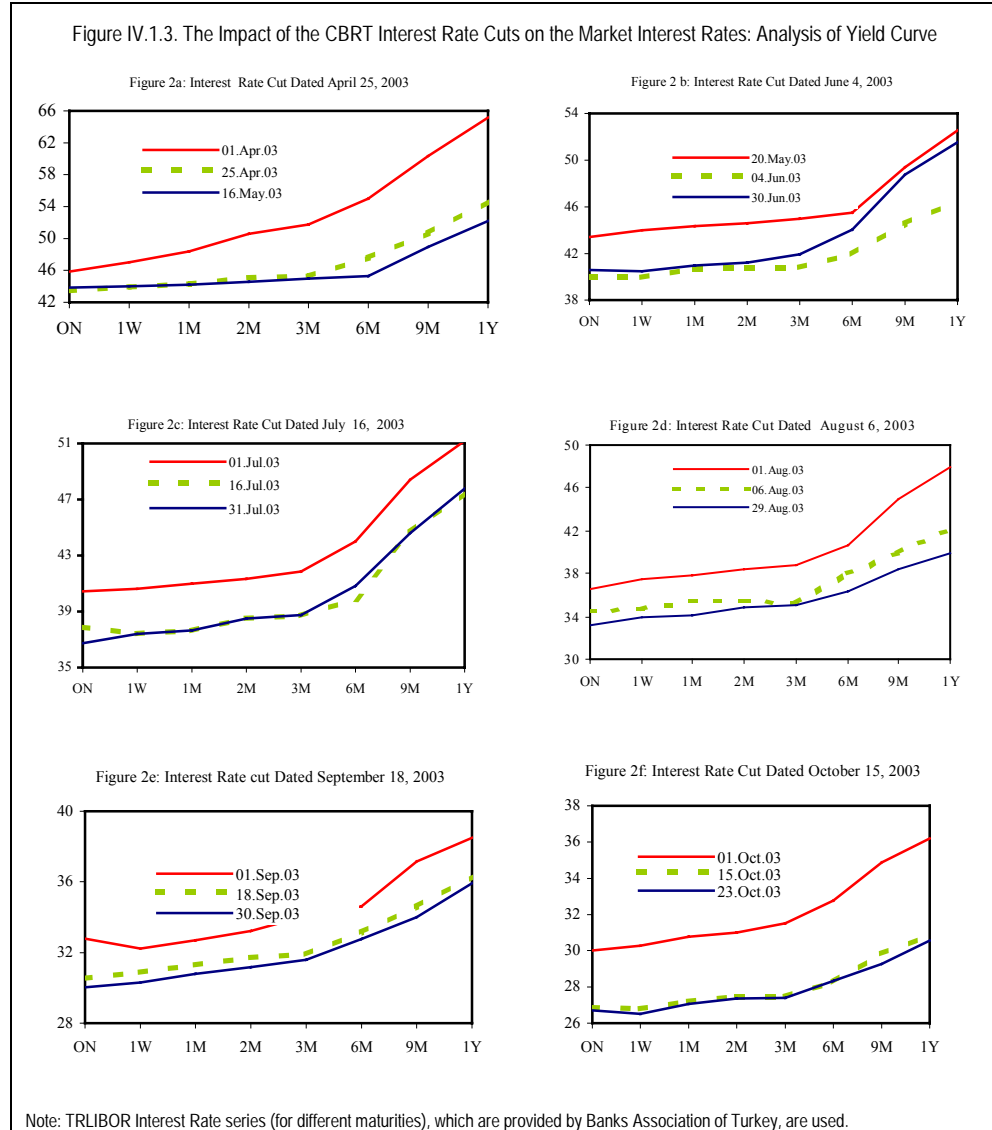
Political stability established following the general election in November 3, 2002 has led to a decline in the interest rate at all maturities. Uncertain environment caused by the military operation of USA against Iraq in March 2003 has led to an increase in the interest rates at all maturities and resulted in upward shift of the yield curve at all maturities.

(1) Yield curves are drawn for the particular dates within the period under consideration. For date selection; economic environment prior to the general elections of 3 October 2002 (1 August 2002) and political stability established after the elections (6 October 2002), uncertain political/economic environment stemming from issues related to the budget in end-year 2002 and delay in the completion of IMF 4th Review (31 December 2002- 4 March 2003), uncertain political/economic environment resulting from the USA military operation against Iraq in March (25 March 2003) were taken into account.

(2) Interest rate policy of the Central Bank can also be effective on the state of the yield curve. (This concept is described in detail within the report with the help of Graph IV.1.3.)



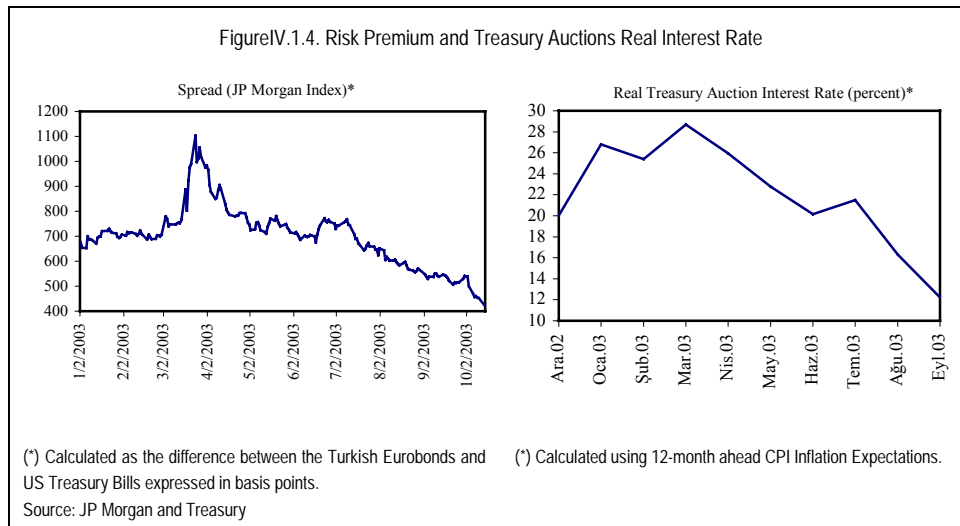
While making interest rate cut decisions, the Central Bank took action after its forecast has partly become clear that there would not be any uncertainty or instability in the short run. In this context, it was observed that interest rates fell on the days interest rates were cut and maintained their low level in the following days. Nevertheless, following the interest rate cut in June 4, 2003, this mechanism failed to operate due to the ‘clamor effect’ stemming from discourses upon the sustainability of IMF program and the level of exchange rates. Hence, the market interest rates did not accompany the Central Bank interest rates. As a matter of fact, while one-year, 9-month and 6-month interest rates climbed to their pre-interest rate cut level as of June 10, 2003, three-month interest rates and interest rates with shorter maturities also rose, but these remained at a lower level than of their pre-interest rate cut level (Figure IV.1.3).



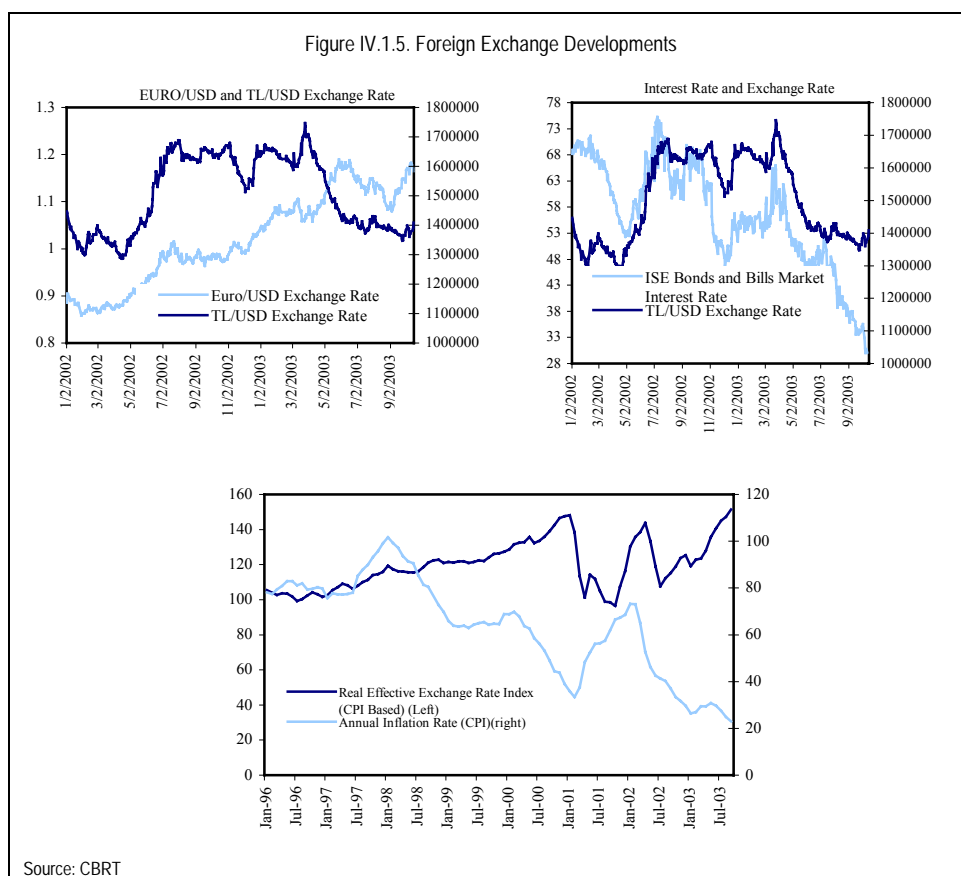
As a conclusion, when the short term interest rate cut by the CBRT is evaluated in terms of its results, the level of risk perception is found to be notable at the times of interest rate cuts. When the level of risk perception is low, interest rates with every maturity fall. On the other hand, when the level of risk perception is higher, short-term interest rates display a limited decline, whereas long-term interest rates remain unchanged.

Weighted average compound interest rates determined in Treasury auctions has also realized at lower levels since April in line with the secondary market interest rates. Accordingly, real interest rates are still at higher levels despite their downward trend. Interest rate spread, which is the difference between long-term government bonds issued in

international markets and the interest rate on benchmark bonds with the same “maturity and that are usually employed in measuring risk premium for country, maintained its downward trend that has started in April, except a rise between the end of June and early-July (Figure IV.1.4).



Undoubtedly, risk perceptions, which are effective in determining the course of interest rates, reflect on the exchange rates as well. In the first half of 2003, uncertainties about Iraq war led to a volatile course of exchange rates. Reverse currency substitution and excess foreign exchange supply arising from the end of war and ease of uncertainties led to a rapid appreciation of Turkish lira partly due to the sharp depreciation of US dollar against euro. The downward trend in exchange rates lost pace as of June and exchange rates started to pursue a more stable course. During this period, CBRT directly intervened in the markets by buying foreign currency for five times since May in order to avoid an excessive volatility in the exchange rate in accordance with the exchange rate policy announced in the program and started to conduct foreign currency buying auctions in order to increase its foreign exchange reserves. Total foreign exchange bought by the Central Bank during May–October period reached US dollar 9.9 billion. By the end of September, exchange rates entered in upward trend due to the reduction in excess foreign exchange supply and banks’ foreign exchange demands in order to settle their end-year accounts. Developments in Russia had an accelerative impact on this trend as well. Due to these developments, the Central Bank suspended foreign currency buying auctions by 22 October 2003 (Figure IV.1.5).



The course of future interest rates and exchange rate movements is of great importance with respect to inflation dynamics. In this context, the recent course of exchange rates is expected to have a limited impact on inflation. Balance of payments figures for August revealed that current account deficit did not impose any pressure on CBRT reserves. In the second half of 2003, borrowing facilities of the Treasury and banks from international markets are expected to ease demand-push effect of increased imports. FX open position figures of the banking sector announced by BRSA as of early-October do not involve a structure that may impose pressure on exchange rates.

The recent course of exchange rates is expected to have a limited impact on inflation.

According to CBRT Survey of Expectations, by the second half of October, the 24.1% money market overnight annual simple interest rate by the end of the year and the 25% annual compound interest rate of the three-month Treasury Bill auctions are below current figures of these variables. On the other hand, risk premium is expected to remain at a certain level due to the developments about sending the Turkish army to Iraq and concerns over likely deviation from the target set within the program carried out with IMF with respect to the end-year budget performance. Nevertheless, rehabilitating the banking sector,

permanent and efficient measures on public finance and sustainable budget discipline will eliminate the physiological effect of wrong economic policies of the past and will reduce risk premium. In this framework, downward trend in real interest rates is expected to continue in the longer run gradually. The abovementioned developments may also have an influence on the future course of the exchange rates. However, it should be well perceived, for comprehending CBRT's policy decisions and receiving right signals, that exchange rate-interest rate relationship does not involve a deterministic structure (Box IV.3).

BOX IV.3. INTEREST RATE-EXCHANGE RATE RELATIONSHIP

In a world where capital movements are free, interest rate, the price of currency of home country, and exchange rate, the price of currencies of foreign countries, do not act independent of each other. This dependence is usually formulated by purchasing power parity and interest rate parity.

In theory, the interaction between interest rates and exchange rate realizes primarily via three channels.

First channel: Foreign exchange, which is a financial tool, is an alternative to other interest-yielding tools. Higher interest-yield boosts the demand for financial assets in terms of domestic currency while all other things are constant. In such situation, investors sell their foreign exchange holdings and this leads to excess supply and appreciation of domestic currency. Foreign investors' demand for financial assets in terms of domestic currency until interest rate parity is achieved when domestic interest rates are higher than foreign interest rates produces the same result.

Second channel: Rise in interest rates increases both interest-yield of household and interest burden of firms and banks at the same time. When profits of firms, which finance their activities by bank credits, diminish due to their increasing production costs, they curb their production at the first stage. While slowdown in cash flows to firms augments debt burden of firms, the stability of banking sector's balance sheet and accordingly financial system deteriorates due to default credits. In high interest rate environment, asymmetric information, adverse selection and moral hazard contribute to this mechanism by restricting lending activities (credit rationing) or leading to risky credit lending (default debts). As a result, high interest rates lead to slowdown in the economic activities as well as financial instability by deteriorating the balance sheets of firms and banks. Consequently, pessimistic expectations strengthen causing the depreciation of country currency (appreciation of exchange rate).

Third channel: Interest rate, which involves value of currency of home country and various risk premiums, is the indicator of confidence in the economy of a country at the same time. When economy is under bad (good) conditions or future prospects are pessimistic (optimistic), both exchange rates and interest rates are expected to rise (to drop). This impact is typically determined by financial policies: High interest rates augment interest burden of public debt services and thus lead to rise in inflation expectations, increase in risk of assets in terms of domestic currency and weakening of country currency (appreciation of exchange rate). This mechanism, through which a negative correlation between the expected value of country currency and risk premium is anticipated, explains why interest rate parity mentioned above cannot be usually achieved in empiric trials.

It is not possible to consider these three channels independent of each other. Therefore, the impact of change in interest rates on exchange rates depends on the interaction between these three channels and the relative dominance of one of these channels. In economies, which the interest rate is predictable, a negative relationship between exchange rate and interest rate is expected. Motivation of acquiring maximum interest yields is valid. Therefore, investors may cause appreciation of domestic currency by creating excess foreign exchange supply that stems from their foreign exchange sales. In floating exchange rate regime, the second and/or third channel(s) may be assumed as the dominant channel. High interest rates may depreciate the value of country currency both by having an unfavorable effect on economic activities and increasing concerns over the management of public debt stock. Another point that should be emphasized at this stage is the fact that exchange rate may act free from economic fundamentals due to the developments in foreign exchange liquidity.

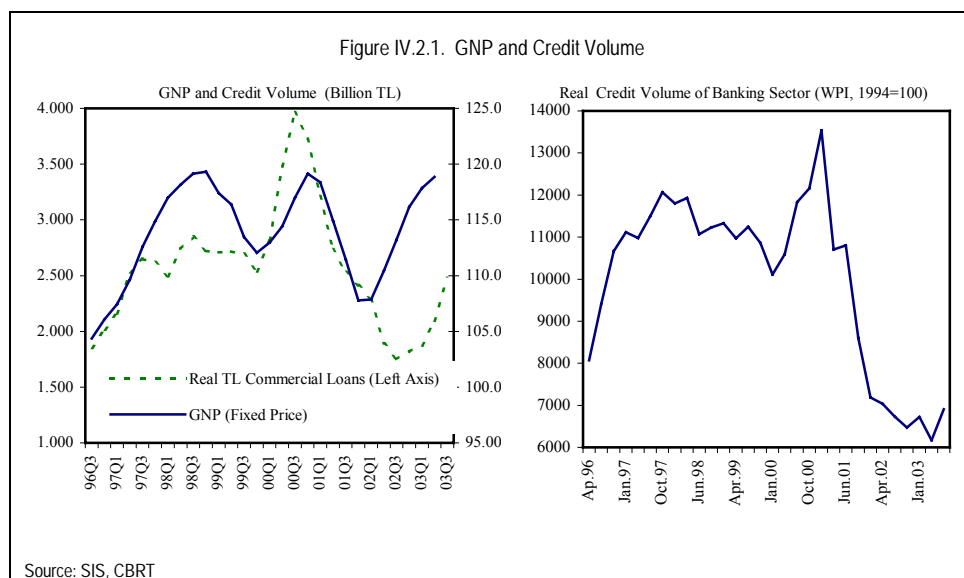
In Turkey, especially after April 2003, the appreciation of domestic currency, despite the downward trend in domestic interest rates, led to the questioning of interest rate-exchange rate relationship. In the light of theoretical framework summarized above, it may not be right to expect a predictable relationship between interest rate and exchange rate for every period. As a matter of fact, despite the negative relationship between interest rate and exchange rate during the pre-2001 crisis period, during which the exchange rate was predictable, this relationship has become positive in the after-2001 floating exchange rate period.

IV.2. Banking and Credit Developments

The structure of banking sector was strengthened to a great extent within the framework of restructuring program. However, it should not be overlooked that this process has not been completed yet. Drops in interest rates and exchange rates due to the improvement of expectations of economic agents since May with the end of Iraq war ensured a sounder financial structure in the banking sector.

Drops in interest rates and exchange rates ensured a sounder financial structure in the banking sector.

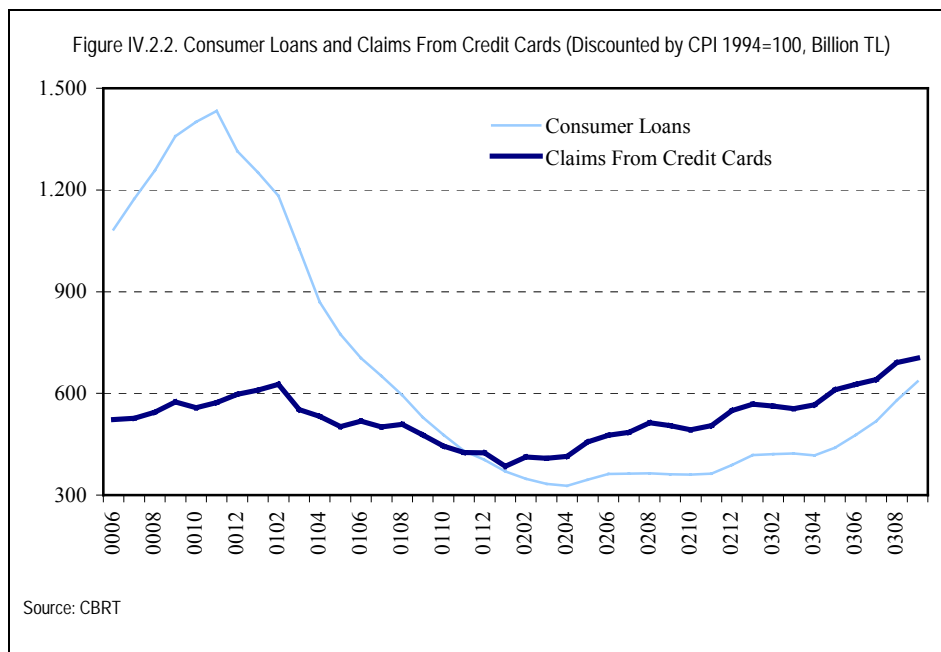
Although the role of banking sector in real sector financing has increased, albeit slightly, in the last period, its role is still minor in world scale (Figure IV.2.1). The banking sector, whose financial structure has started to recover, has commenced to re-extend credits to real sector. The increase in commercial credits is expected to have a favorable effect on economic growth in the coming period. Nevertheless, the share of credits extended to real sector in GNP is considerably low both due to high level of public sector’s borrowing needs and high intermediary costs.



High level of intermediary costs restrict the power of banking sector to finance real sector by increasing the costs of credits to firms and reducing pay back capacity of extended credits. Therefore, big and financially strong firms tend to prefer foreign borrowing with low interest. Meanwhile, small and medium- sized enterprises, which do not have any borrowing facilities from abroad, have to borrow from domestic banks with higher interest. Therefore, small and medium sized

enterprises are the sectors which are most effected by the narrowing of credit volume.

The upward trend in consumer credits and credit cards that has started with the ease of uncertainties arising from Iraq war can be expected to contribute to the recovery in domestic demand in the coming period (Figure IV.2.2.). Nevertheless, no inflationary pressure is expected, which may stem from low level of production that fails to exceed potential production or from sluggish recovery in personal consumption expenditures. Besides, due to the low level of non-performing loans in consumer credits, it is not expected to make an impact that will increase the credit risk. Moreover, due the increase in the government securities portfolio of non-banking sector, this sector suspends its expenditure. This situation stands as a factor that obstructs likely recovery of domestic demand.

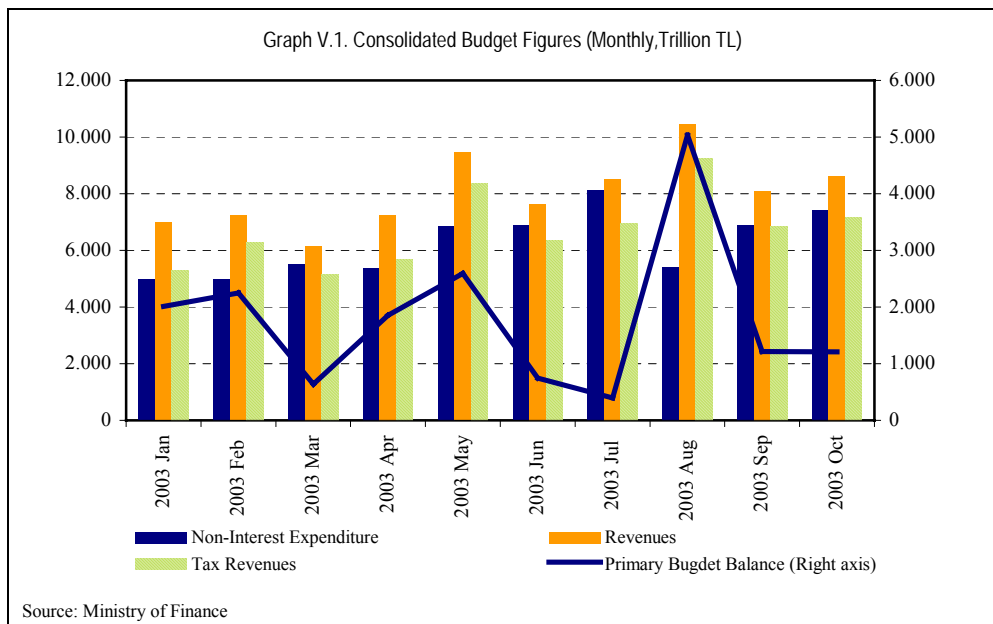


V. Public Finance

Primary budget surplus has a significant role in reducing debt burden to a stable level. Primary budget surplus, determined by fiscal policy, along being a source for debt payments is also an indicator of the Government’s determination for the implementation of the economic program. In this context, the size of the primary budget surplus and the way its obtained plays a significant role in shaping expectations regarding both inflation and the debt stock. The course of expectations effect growth through influencing real interest rate and foreign exchange rate and consecutively private consumption and investment expenditures (Section III.1).

Under the Stand-by Arrangement with the IMF, the consolidated public sector primary budget surplus constitutes a performance criterion for public finance. In the IMF letter of intent for 5th Review, the ratio of consolidated primary budget surplus to GDP has been targeted as 5 percent for 2003. This target has been set within the framework of the main macroeconomic indicator estimates and supplementary measures taken to attain primary surplus target. Consequently, developments pertaining to these two factors play a significant role on the 2003 primary budget performance evaluation.

It should be clarified at this point that sustainable primary surplus necessitates activity in the informal economy to be registered and structural reforms such as tax reform to be completed.



Primary budget surplus exhibited a favorable performance in the first ten months of 2003. Favorable performance in tax revenues and the pursued tight fiscal policy have been influential in this achievement. In view of the course of budget expenditures in the first nine months some of the sub-items are expected to exceed year-end targets, while some are expected to realize below targeted levels. Under these circumstances, supplementary budget has been prepared. Appropriation needs of the sub-items that are expected to exceed year-end targets are satisfied via shifting appropriations among sub-items, without necessitating need for additional funding.

Table V.1. Consolidated Budget Figures

	2003 Jan-Oct Actual (TL Quadrillion)	2003 Target (TL Quadrillion)	Realizations (Share in Target, Percentage)
Revenues	80.4	100.8	79.7
Tax Revenues	67.3	86.0	78.3
Domestic VAT	12.2	16.0	76.4
SCT	18.3	22.4	81.7
VAT on Imports	9.3	11.7	79.8
Expenditure	112.4	145.9	77.1
Non-Interest Expenditure	62.4	80.5	77.6
<i>Personnel</i>	24.8	28.0	88.4
Other Current	4.9	9.3	52.8
Investment	4.0	8.0	49.6
<i>Tax Rebates</i>	6.8	6.8	99.7
<i>Social Security Institutions</i>	14.1	14.9	94.9
Interest Expenditure	50.0	65.5	76.4
Primary Surplus	18.0	20.3	88.4

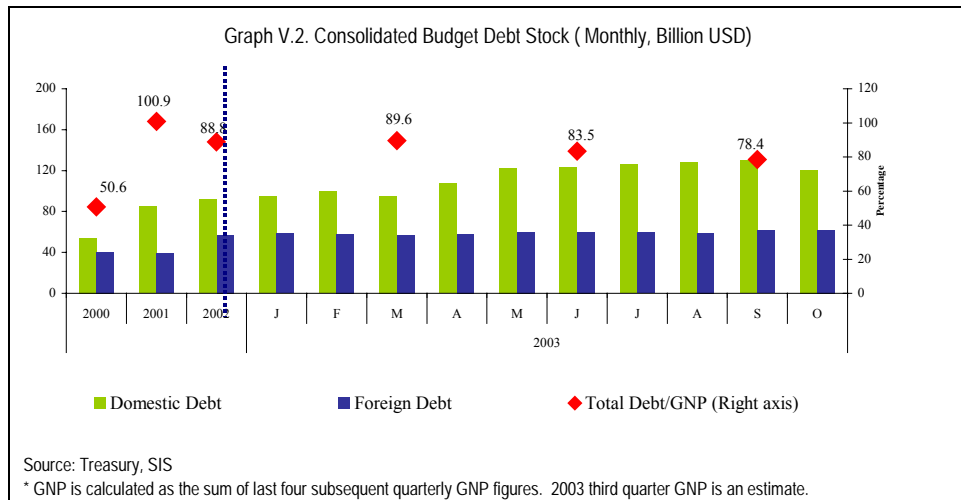
source: Ministry of Finance

Additional measures were taken in July and September against the possibility for the 2003 year-end primary surplus to realize below the foreseen target. Additional measures relating to budget revenues include the increase in Special Consumption Tax (SCT) applied to alcoholic beverages and motor vehicles. Even under the case that these measures are reflected on prices, the impact on year-end inflation is expected to be limited. Moreover, as a consequence of these supplementary measures taken in order to achieve year-end primary budget surplus target, possible adverse effect of fiscal policy on expectations has been prevented.

V.1. Developments in Debt Stock

Developments in total debt stock play an important role in shaping expectations regarding the permanence of borrowing.

In October 2003 consolidated budget total debt stock increased by 22.9 percent in terms of US dollars compared to the end of 2002 and reached US dollar 182.6 billion. During this period, external debt stock displayed a limited increase, whereas domestic debt stock increased by 31.8 percent and reached US dollar 120.8 billion. Domestic debt stock exhibited a relatively stable course following the significant rise in April 2003. On account of the uncertain environment, over essential borrowing of the Treasury, to be utilize in the following debt services and accrued principal payments to Compulsory Savings Account (CSA) accounted for the rise in domestic debt stock in April. In August and September the rise in domestic debt stock in terms of US dollars was the result of the appreciation of the Turkish lira. However, the point to be emphasized in year 2003 is the significant decline in the total debt stock to GNP ratio. The following were influential in such a decline: (i) decrease in external debt stock in terms of the Turkish lira due to the appreciation of the Turkish lira against the US dollar, (ii) high GNP growth, and (iii) improved borrowing conditions and in this respect decline in the borrowing requirement for the year.

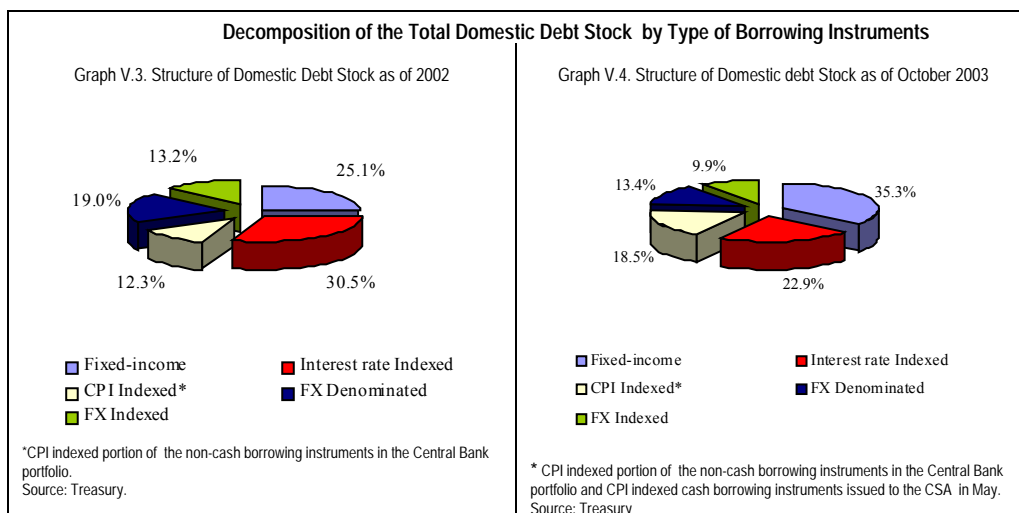


Through January–October 2003, political stability established following the elections, and favorable environment regarding the sustainability of the economic program had a positive impact on external indicators of Turkey. It is possible to track this development from the Turkish Eurobond spread (Figure IV.4). Spread exhibited a downward trend following August 2001. However it has increased in certain periods due to domestic and external developments which cast a doubt on the sustainability of the economic program. During January–October the

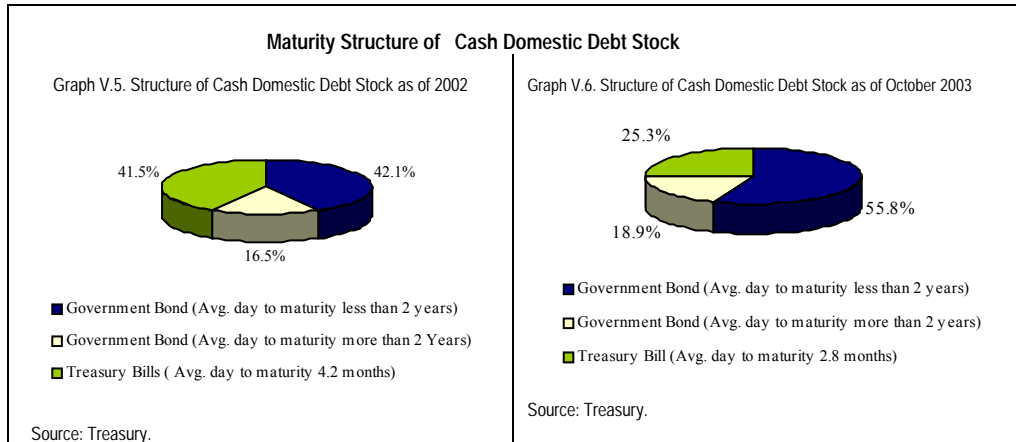
Political stability established following the elections and favorable atmosphere regarding the sustainability of the program had positive impact on external indicators of Turkey.

opportunity to borrow from abroad has increased. Bond issuance worth Euro 1.250 million and US dollar 3.850 million took place in 2003.

Along with the level of the debt stock, its decomposition by type of borrowing instruments and maturity structure have an impact on molding expectations. High share of the domestic debt stock indexed to interest rate, foreign exchange rate and inflation rate within total stock and short maturity of fixed-income portion of the stock are significant factors leading to high short term debt service burden. External and domestic economic uncertainties or political instability lead to an increase in interest rates and foreign exchange rate. Thus, bringing up the issue of rollover risk in the short-term and sustainability of the debt stock in the medium term. As of October 2003, 65 percent of domestic debt stock consists of foreign currency denominated, foreign currency linked and variable rate borrowing instruments (Figure V.4).

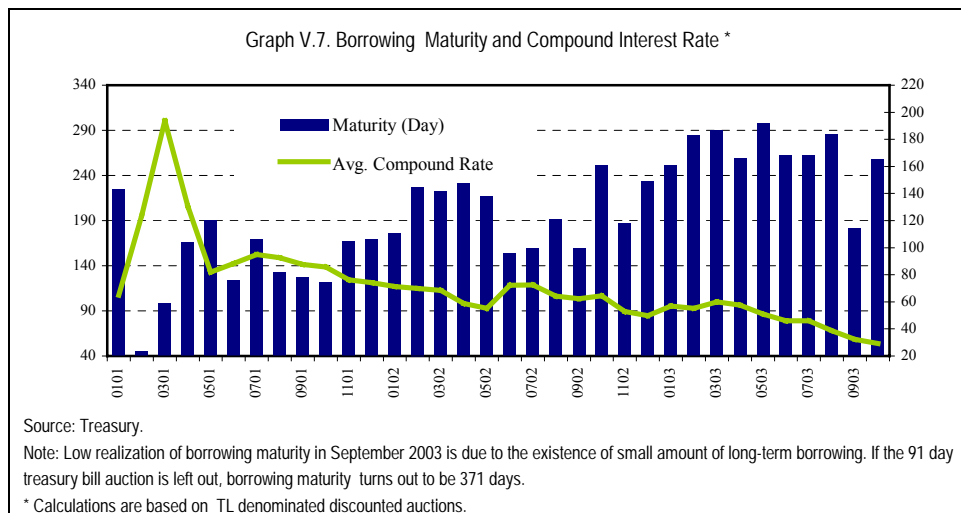


Adverse developments in interest rates and foreign exchange are reflected in the borrowing costs in short term, when the maturity of the debt stock is short. As of October, average day to maturity of 55.8 percent of cash domestic debt stock is 12 months and of 25.3 percent is 2.8 months.



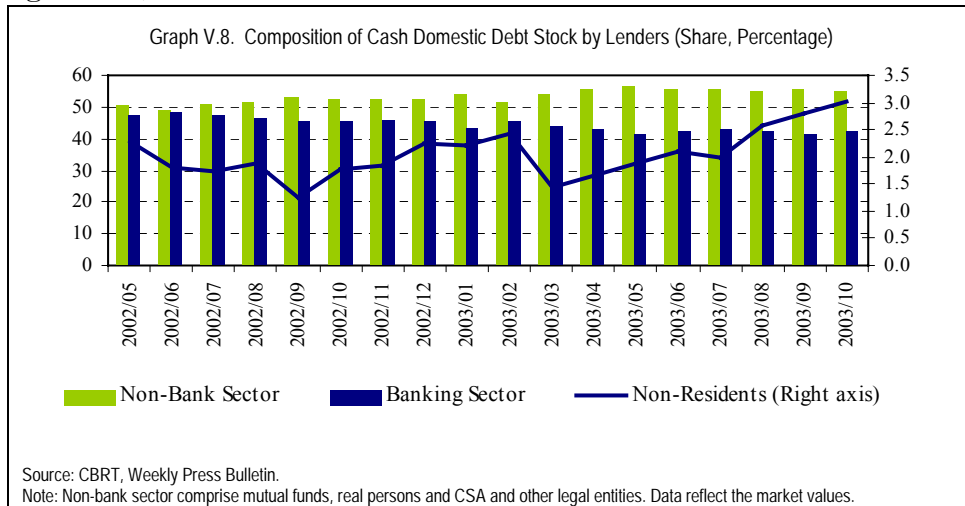
Analysis of the developments in the structure of overall domestic debt stock compared to the end of 2002 reveal that the share of fixed-income securities in the overall domestic debt increased whereas the share of FX-denominated, FX-linked and interest-indexed securities decreased. Moreover, compared to the end of year 2002, days to maturity of cash debt stock has slightly declined. Within this framework, despite the favorable developments in the structure of debt stock, still present vulnerable structure may adversely effect inflation expectations in the case of long-lasting instabilities.

Despite the favorable change in the structure of the debt stock compared to the end of 2002, still present vulnerable structure may adversely effect inflation expectations in the case of long-lasting instabilities.

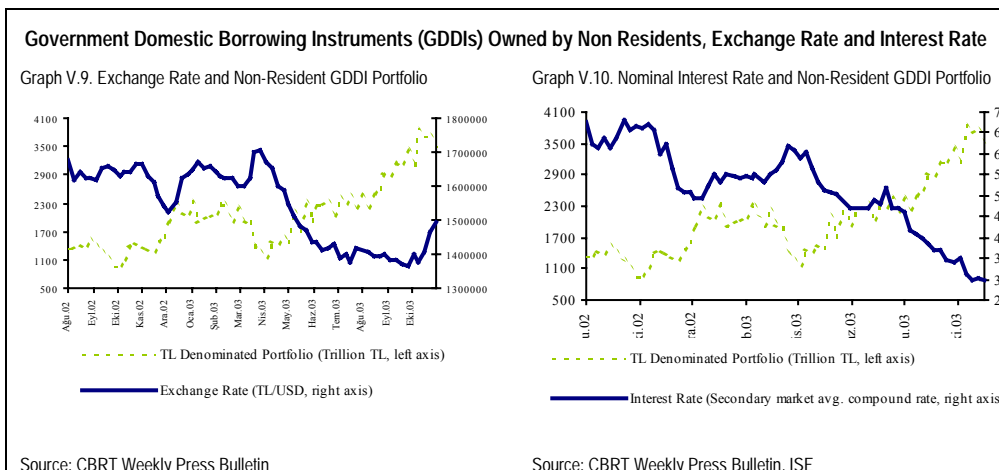


Developments relating to domestic borrowing have an effect on the future structure of the domestic debt stock. Domestic borrowing along with determining the course of domestic debt stock, reflects the changes in the expectations of investors. Lengthening borrowing maturity and low borrowing cost in January–October 2003 period point out the favorable expectations of investors (Figure V.7).

When evaluating the probable impact on inflation of the developments in composition of the domestic debt stock by lenders, portfolio size of the non-bank sector and government securities held by non-residents gain importance. Dependent upon the developments in real interest rates, high share of households and firms under the non-bank sector within the overall domestic debt stock can be influential in determining total consumption and investment expenditures through the wealth effect. (Figure V.8).



Movements in the Turkish lira denominated government domestic debt instrument portfolio (GDDI) of non-residents are influential on interest rates and foreign exchange rate. As of end October, Turkish lira denominated government securities held by non-residents reached Turkish lira 3.5 quadrillion (Figure V.8, V.9, V.10).



VI. OUTLOOK

Probable developments and potential risks concerning inflation for the coming period, can be analyzed under four main headings. These are; domestic demand and production foresights, cost factors, monetary and fiscal discipline, and inflation expectations.

VI.1. Demand and Cost Factors

No domestic demand pressure is foreseen as of the last quarter of 2003, that exceeds the production capacity of the economy and may jeopardize the realization of the inflation target. Domestic demand developments will be of great importance in attaining the 2004 target for inflation, taking into account their positive impact on the downward trend in inflation from the beginning of 2002. When components of domestic demand are analyzed, highlights are as follows:

VI.1.i. Private Consumption Expenditures

The low level of employment at this period, led to a deterioration in the distribution of income and paved the way for an imbalance in the allocation of consumption expenditures. The salary and wage increases set for the public sector for 2004, show that there will be only a limited increase in real income next year, restricting domestic consumption expenditures. Bearing in mind the fact that salary and wage increases in the public sector are used as an indicator by the private sector, it is likely that real income increases of those working in the private sector will be of restricted nature as well. Besides, no significant increase is expected in agricultural income either. In 2004, growth rate of agricultural production is expected to go up while the rise in the prices of agricultural products is expected to slow down.

As for interest rates, which are one of the determinants of private consumption expenditures; the downward trend in interest rates since April 2003, is likely to influence private consumption expenditures in two ways. The first probable impact is the easing of real interest rates owing to the favorable course of economic stance, leading to higher demand for consumer credits, which in turn, promote private consumption expenditures. Despite the decline in interest rates, the low level of real wages and income is anticipated to restrict the domestic demand. The second likely impact, in case the decline in interest rates continues, is the channeling of the interest income accumulated over the long-term (wealth effect) to consumption expenditures. Nevertheless, this channel is not expected to have an impact on consumption expenditures in 2004 that is substantial enough to lead a deviation from

the inflation target. First of all, although their downward trend continues, it is likely that the real interest rates will still be at relatively high levels, in 2004. Secondly, savings in terms of foreign exchange, which constituted half of total savings in 2003, depreciated in real terms. This may cause the limited income increases of 2004 to edge towards savings yet again, rather than consumption, to compensate for the above-mentioned loss in real terms, in wealth. Despite these two effects, the positive contribution of private consumption expenditures to the decline in inflation is expected to go down in 2004, compared to 2003. That is why, the Central Bank will be closely monitoring the developments in consumer credits, as well as other indicators related to domestic demand.

VI.1.ii. Private Investment Expenditures

The firms are expected to increase their capacity, in case the favorable export performance of 2003 continues in 2004 as well, bolstering private investment expenditures. In the first nine months of 2003, capacity utilization rates rose above long-term averages, in the production of semi-durable and non-durable consumption goods, as well as that of intermediate goods, while approaching long-term averages for other sectors. With the assumption of retaining the export markets of 2003 in 2004, making new investments in the private manufacturing industry arises as a prerequisite. Easing of uncertainties, owing to the uninterrupted implementation of the economic stabilization program, and carrying on with fiscal stability, are believed to boost investors' confidence, and hence, increase the demand for investment.

Table VI.1. Aggregated Capacity Utilization Ratios (Private Sector)

	Durables	Semi-Durables	Non-Durables	Investment Goods	Intermediate Goods
January-03	64.0	82.8	71.7	69.7	80.0
February-03	58.5	77.0	66.9	65.8	75.5
March-03	68.8	82.6	75.0	75.8	80.2
April-03	66.6	79.2	71.4	75.4	84.0
May-03	67.3	83.6	73.2	81.2	84.8
June-03	73.8	79.7	72.7	79.4	88.3
July-03	71.3	83.2	68.8	81.1	84.8
August-03	51.3	79.6	69.9	79.3	81.5
September-03	75.6	82.3	75.6	83.3	83.0
<i>2003 Average</i>	66.4	81.1	71.7	76.8	82.5
<i>Average⁽¹⁾</i>	66.9	80.9	71.3	78.4	78.4
<i>Average⁽²⁾</i>	68.6	81.3	71.8	79.5	79.9

(1) Covers 1991-2002 period.

(2) Covers 1991-2002, excluding the crisis years 1994 and 2001.

Source: SIS

VI.1.iii. Public Consumption and Investment Expenditures

In case of proceeding with the measures aiming at healthier and more efficient structures in fiscal discipline and the public sector by means of their restructuring, the growth rate of public consumption and public investment expenditures is expected to be at a quite low level, in 2004. Within the context of budgetary targets for 2004, public consumption expenditures are targeted to remain at as low as 2.8 percent. The investment expenditures, however, are predicted to increase by 5.9 percent, after the 22 percent decline in 2003.

VI.1.iv. Production Expectations

As for the production side, agricultural sector developments possess crucial importance regarding the growth-inflation relationship for the coming periods. As the year 2004 corresponds to a “good” year in terms of agricultural production cycles, it is believed that agricultural production will upsurge, and thus the favorable effect of agricultural prices on inflation will continue. In the industrial sector, the increase in exports is expected to be the main determinant of production increases in 2004. The foresight that domestic demand will not be increasing in a significant manner in 2004, supports the idea that production increase will continue to be export oriented.

*VI.2 Cost Factors**VI.2.i. Exchange Rates*

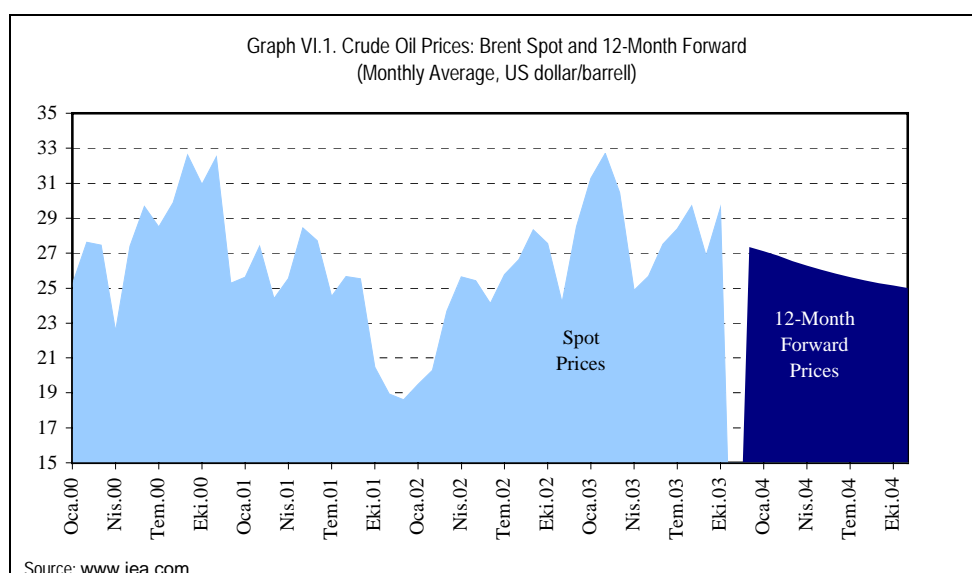
Without any doubt, interest rates and the course of exchange rates in the coming period, are of vital significance in terms of the inflation dynamics. Within this framework, the course of exchange rates in recent terms do not give negative signals in terms of inflation. CBRT balance of payments data suggest that, as of end-September, the current deficit did not exert any pressure on the CBRT reserves. It is expected that increased borrowing facilities from international markets for the Treasury and the banks, will be restricting the demand-led pressure on exchange rates, caused by higher imports, in the second half of 2003. Neither do the figures, published by the Banking Regulation and Supervision Agency, pertaining to the foreign exchange open position of the banking sector as of end-October, manifest a structure that may exert pressure on the exchange rates.

Just as the case with interest rates, the future course of exchange rates is also closely related to steadfast implementation of the program. In case of proceeding with the fiscal and monetary discipline, as well as the structural reforms, also in 2004, it is obvious that no such

development that may jeopardize the inflation target is foreseen in exchange rates. This foresight will gain further strength as the highly qualified structural reforms are materialized, solidifying fiscal discipline in the public sector in the medium and long term.

VI.2.ii. Crude Oil Prices

Being an important cost factor, crude oil prices are influential on prices at many sectors, and primarily, the public manufacturing industry. Having risen significantly in the January–March period, as a consequence of the developments related with the Iraqi operation, international crude oil prices eased to a great extent in April and May, but resumed their upward trend then onwards. Yet, as of September, crude oil prices are quite lower than their level at the January–March period.



The analysis made by the International Energy Agency (IEA) suggest that, crude oil prices will remain at their present levels until the end of the year, and there will be no increase in the amount of oil supplied by Iraq. Furthermore, the low level of commercial oil stocks in the OECD countries, coupled with the announcement by OPEC that measures will be taken to restrict the market supply in the coming period, weaken the expectations of a decline in international crude oil prices. Nevertheless, forward market prices, reflecting the expectations for crude oil prices, do not point to a risk posed by crude oil prices, with respect to inflation in 2004, unless an unusual development takes place.

VI.2.iii. Administered Prices

Public price increases have been in line with the inflation target since March 2003. Nevertheless, public sector prices, excluding those of the petroleum products, were above the WPI increase, during this period. The increase in the public sector prices was of limited nature, thanks to the decline in crude oil prices following the Iraq War, as well as the downward movement of exchange rates. Public sector prices are not believed to pose a risk for the inflation target, in the last quarter of 2003.

It was announced by the Government that there will not be any increase in the prices of electricity or natural gas, in 2004. As long as the crude oil prices and the exchange rate do not exert extraordinary hikes, it is highly likely that the pricing behavior will continue to be one not jeopardizing the fiscal discipline in the public sector and also the inflation target in 2004. Such external shocks may necessitate price adjustments to be able to reach the budgetary targets. In the medium and long term, the negative impact of such shocks on the fiscal discipline and inflation can only be minimized by the implementation of structural reforms and arrangements aimed at increasing productivity in the public sector.

VI.2.iv. Labor Costs

For 2004, the increases at civil servants' salaries and public sector workers' wages, were set in compliance with the inflation target. Civil servants' salaries were decided to be increased by 6 percent and public workers' wages by 5 percent, for the first and second halves of 2004. Besides, in case that these increases remain below the inflation rate realizations, the differences will be paid afterwards. So, taking into consideration the average inflation target for 2004, no significant increase is expected in the civil servants' salaries or the public sector workers' wages. As pointed out earlier, public sector incomes policy is used as an indicator by the private sector, in determining the private sector wage/salary increases. Besides, the rate of unemployment is quite high. On account of these reasons, the private sector salary increases are not expected to cause a cost-led pressure in 2004, even in the case of a higher level of employment.

VI.3. Monetary and Fiscal Discipline

The policy of "implicit inflation targeting" which began to be implemented in 2002, is in place in 2003 as well. Accordingly, under the floating exchange rate regime, CBRT uses short-term interest rates as

its main policy tool in the fight against inflation. Speaking in terms of its main features, this monetary policy strategy will remain in practice also in 2004.

With respect to fiscal policies, developments that may jeopardize the inflation target are not anticipated in the last quarter of 2003. Within the framework of the Stand-by agreement with IMF, the fifth review was approved and the sixth review was completed. The fiscal policies for 2004 are designed in line with the target of 5 percent growth and 12 percent inflation. According to this, the ratio of total public sector borrowing requirement to GNP is targeted to decrease from 8.7 percent in 2003, to 8.1 percent in 2004. Also, the ratio of total public sector primary budget surplus to GNP, which is a performance criterion, is targeted to realize at 6.5 percent for both 2003 and 2004.

Despite a relative improvement, the fragility of the debt stock continues. This fragile structure may negatively affect inflation expectations, in case that the economic instabilities persist for a long period of time. Furthermore, there is a possibility that the public investments rise, prior to the March 2004 local elections. In case that the public investment expenditures are increased more than what was planned, it is possible to deviate from the primary budget surplus target, the risk perception of the market may go up, and the deterioration of expectations may have a negative impact on inflation. Consequently, a temporary increase in investments as a result of such a practice will cause public sector budgetary facilities to contract in the coming periods, and investment potential to decline. Moreover, every setback for the confidence environment will take its toll on private sector investments. CBRT believes that it is time to draw lessons from the long-term consequences of this practice which was frequently encountered in past election periods, and it is time that such policies become obsolete.

VI.4 Inflation Expectations and Other Risks

Inflation realized below the targeted value, in 2002. The results of the CBRT Expectations Survey for the second half of November show that inflation expectations for end-2003 also fell below the end-of-year target of 20 percent. Both developments have been effective in increasing the public reliability of the inflation target of 2004. As a matter of fact, inflation expectations for the coming 12 months continue to decline, in line with the decline in inflation. Expected inflation for the next twelve months retreated to 14.7 percent in the survey for the second half of November. The consistent downward decline in the

general expectations trend since the beginning of 2002, show that the economic units forecast continuation of the decline in inflation (Box II.1).

Despite a significant downward trend is attained in inflation and expectations that the inflation target will be reached in 2004 are strengthened, there are some additional risks, that need to be underlined, with regard to inflation next year. The first one of these risks is the probable course of food prices and agricultural prices in 2004. The slowdown of the increases in the prices of these groups, was observed to have made positive contributions to the decline in inflation, in the second and third quarters of 2003. The likelihood of this trend not continuing in 2004 poses a risk with regard to inflation. Developments regarding expectations, though pointing to a significant improvement in terms of the breach of the inertia in inflation, show that the effects of backward-indexation continue in some sectors, such as that of education and health. Price rigidities in these and other sectors may also be evaluated as another risk factor for the 2004 inflation.

A point that needs to be emphasized here is the importance of economic units' acting in accordance with the inflation target, while deciding on wage and price related matters, for the target to be attained. Price adjustments and incomes policy for the public sector, for 2004, were designed to be in line with the inflation target. If the economic units in addition to the public sector also take their decisions with the inflation target in mind, it will make important positive contributions to the disinflation process. Thereby, inflation having been brought down to single digit figures, an opportunity for entering into a sustainable economic growth process again, will arise.