Central Bank of the Republic of Turkey

DERIVATIVES MARKETS:

Turkish Derivatives Exchange

3 February 2005

İzmir

Ladies and gentlemen, my distinguished guests,

It is indeed a great pleasure for me to address you today on the occasion of the opening of the Turkish Derivatives Exchange, which is the beginning of a new era for the Turkish economy.

Today, I will focus on the changing process of the Turkish economy within the framework of uncertainty and risk factors. I will also talk about the development of derivatives markets within this process, including their functions in the economy and especially in monetary policy. My remarks will be based on a macro perspective rather than a micro perspective.

When we look at the Turkish economy, it can be clearly seen that risk management and derivatives markets, where risk is managed, as well as the institutionalized risk management culture established in the economy have failed to reach a satisfactory level and yet are still weak both in financial and real sectors, although this had constantly been on the agenda since the1980s. The questions to ask here are why risk management principles could not be established in our economy in a modern sense until now and why functionality in the derivatives markets could not be achieved in the proper sense.

At this point, two factors come into the foreground:

The most important and principal factor to be underlined in both an economic and social aspect is chronic inflation and the uncertainty that its presence has caused in Turkey for thirty years. This period has seriously damaged the economy. For instance, money and capital markets failed to develop, long-term financial resources remained limited and it was not possible to develop markets, which occupy a significant share in the capital markets of developed countries, namely those for the provision of housing financing. Moreover, our economy has failed to achieve sound integration with international markets and a short-term vision has prevailed in all fields, including the social arena.

Furthermore, chronic inflation triggered volatility in basic economic indicators, including growth and employment, as well as in variables such as exchange rates and interest rates. The excessive volatility in economic fundamentals resulted in a continuous increase in uncertainty and crises. Thus, after each economic crisis, uncertainty jumped to a higher level. Uncertainty and volatility caused a vicious circle and made risk management almost impossible.

At this point, let me elaborate on the concepts of uncertainty and risk, which are of great significance for both policy practitioners and the economic agents acting as decision-makers and have a key role in the development of derivatives markets.

Although the word “risk” refers to both its literal meaning and uncertainty in daily use, in fact these two concepts differ from each other as to their effects on economic agents and events. Risk can be measured. Cases where the course and results of the events cannot be measured nor predicted are not referred to as risk but uncertainty. In other words, the intangible aspect of events is defined as uncertainty.

Due to the intangible nature of uncertainty, its results and the extent of its effects cannot be predicted. Probability cannot be attributed to uncertainty. Uncertainty is inevitable and its results are unmanageable. There exists no market that can avoid uncertainty.

On the other hand, risk refers to the measurement of the future effects of events. Risk can be calculated; results of risks can be explained by certain probabilities. In this context, risk is predictable and we can manage its results. There exist markets for risk management.

In Turkey, high and volatile inflation has been the main source of uncertainty for the last 30 years. Concepts of uncertainty and risk have become indistinguishable. Hence, it has been impossible to implement risk management or to establish risk management agents on this slippery slope.

At this point, I would like to deal with a technical matter. As it is known, volatility is priced in derivatives markets. When uncertainty is high, volatility increases significantly. This makes pricing difficult and in these circumstances prices reach very high levels. Hence, risk management becomes almost impossible. This is one of the underlying reasons for the poor risk management in our country. The fact that future uncertainty was high until recently due to macroeconomic instability had kept the general level of interest rates in an upward trend. As a result, these two factors have prevented the smooth operation of derivatives markets.

The other factors that have led to the poor development of risk management and of derivatives markets in Turkey are high public deficits and the fragility of the public finance caused by high public deficits. As we are all aware, in the past, capital accumulation was based on public resources in Turkey. However, as a result of increasing public deficits, the capital provided by the public sector to the private sector was then extended by the private sector to the public sector. In this context, the market developed by government securities that are issued against public debt have become the most important and only market, which uses almost all the resources of the economy due to increasing public debt as well as high real interests payable. Such a framework, in other words, an environment where public finance is rather dominant did not allow the emergence of new financial instruments to finance the private sector, nor the deepening of financial markets. Moreover, portfolio diversification, the simplest element of risk management; could not be achieved.

The most significant point in this process is that, as an outcome of both the structure of financial markets and other policies implemented, a lot of risks such as exchange risk, interest risk, price risk and non-payment risk were assumed by the public. In this scenario, the private sector did not feel the need to manage its own risks. In other words, individuals and institutions left risk management to the government and this process created a vicious circle.

In conclusion, the uncertainty caused by chronic inflation and high public debt created by public finance deficit hindered the development of risk management and therefore, of derivatives markets.

I am glad to say that as of today we have started to solve problems of the past. The Turkish economy is still undergoing a structural change process and significant progress has been made.

Let me outline this process of change in the Turkish economy in three main points, which will serve as guidelines to the necessary steps we should take in the future.

The first point is that we have made great progress in the fight against inflation, the primary source of uncertainty as well as in establishing lasting macro-economic stability. Today, inflation is in single-digits. More importantly, our surveys measuring expectations reveal that inflation is now under control and price stability is definitely an achievable target.

The tight fiscal policy implemented during the process of establishing macroeconomic stability has contributed to both entering a growth period based on solid foundations arising from the private sector; reducing the role of the private sector by decreasing fiscal dominance and establishing stability through its impact on expectations.

In addition, following these developments, the capital accumulation process is undergoing a change. The source of growth is no longer the public sector, but the private sector. A rise in productivity has come to the foreground in all sectors. We are about to establish an economic structure for which measurements and criteria of the global market apply.

In this scenario, the ease of uncertainties brings risk management and risk instruments into the foreground. From now on, each economic unit will assume and manage its own risk as in every sound market. This is the underlying concept in derivatives markets in the world.

Secondly, I would like to focus on four concepts that are relatively new for our country; namely institutionalization, accountability, transparency and, in this context, the importance of communication policies. Both the institutionalization of the policies in implementation and transparency of the government agencies implementing these programs and sharing them with the public play a key role in easing the uncertainties in our economy.

The third point I would like to share with you is the increase in confidence, which is actually an outcome of the change in Turkish economy. To clarify this point, public confidence in the economic policies in implementation and favorable expectations of the results of these policies have increased and are continuing to increase.

The most concrete indicator of this confidence is that the inflation target is becoming a more credible nominal anchor for economic agents; in other words, it is more commonly used as a reference.

The existence of a strong nominal anchor in an economy, which can be used as a reference, helps to shape other economic variables. Accordingly, volatility both in economic fundamentals and in other variables gradually decreases. This point is of great importance with respect to resolving the pricing difficulty arising from excessive volatility, as I have already emphasized at the beginning of my speech.

Today we are happy to see that economic units are now able to foresee longer terms and they are in a position to carry out longer-term transactions. These developments are very important steps for determining benchmark interest rates for pricing derivatives operations.

As a consequence of the macro-economic stability and structural reform process, we have now reached the point where we can implement/perform risk management.

The Turkish Derivatives Exchange is the most important pillar and complementary element of this process. In all our presentations held in Anatolian cities, at the Grand National Assembly or in the Council of Ministers Meetings since 2001, we, as the Central Bank, have pointed out the importance of the derivatives market and reiterated that these markets are a ‘must”.

Now that we have briefly considered the phase of uncertainty and the process of development of risk management in Turkey, I would like to give you an overview of this development process in the world. First of all, let me remind you that although conducting transactions on the futures market dates back to a long time ago, its development was a time-consuming one.

Regarding this issue, I would like to share with you some information that I believe to be interesting. The first recorded account of derivative contracts can be traced 2500 years back to the ancient Greek philosopher Thales of Miletus, who during the winter, negotiated what were essentially called options on oil presses for the spring olive harvest. We know that rice futures were being traded in Japan in 17th century and options and futures for grains were traded in Holland in 18th century.

The development of the financial derivatives exchange accelerated parallel to the need for hedging increased exchange rate risk after the collapse of the Bretton Woods System, which lasted for approximately 30 years and provided a system of fixed exchange rate system in the 1970s. At the outset of this process, many people severely objected to the establishment of derivatives exchanges claiming that they would encourage volatility and increase speculations and manipulations on the markets. This very much reminds me of the “it is not possible in Turkey” or “it is not the right time,” comments I hear whenever we try to implement something new.

The Nobel prize winning economist Milton Friedman’s speech at the opening of the foreign exchange options market at the Chicago Mercantile Exchange in Autumn 1971 contains some very important information for us. Let me read a very short extract of his speech:

“Financial instruments relating to foreign trade are all complementary and the English case shows that financial services may well become a very profitable export item. Within this framework, development of a derivatives market, which is normally expected to exist in the markets, not in another country but in the USA is important not because it increases trade and investment here but e it enables export of these services as well. Development of derivatives market would support the development of other financial activities in the country, would bring additional income through exports in services sector and enhance the effectiveness of monetary policy.”

Today the transaction volume in derivatives markets is very much above the transaction volume in spot markets, in other words, in markets where the trading and exchange of goods traded are realized on the same day. In 2004, the volume of daily foreign exchange options transactions, excluding over-the-counter markets, was US dollar 1.2 trillion, which equals 65 percent of the overall market volume.

Today we are about to bring in, and more importantly, institutionalize risk management principles and to initiate the derivatives market process. This process is of great importance with respect to the overall economic activities. It should be borne in mind that this process will sometimes be arduous and time-consuming and it will also be a self-fulfilling process. Even if it takes a long time, sooner or later the derivatives market will be established in our country.

I am pleased to say that I am very happy to witness the efforts to develop a derivatives market and this achievement as well as its significance for the entire economy is a very important step for Turkish economy.

At this point, I would like to share with you an expression we frequently reiterated at the initial stage of the fight against inflation, which was supposed to be a tough and long-lasting process:

"Even a thousand-year long journey starts with a single step."

As I have mentioned before, derivatives markets are one of the components of economies that "***ought to be present anyhow in the natural evolution of markets***"*,* as put forward by Friedman. At this stage, I would like to draw your attention to the magnitude and significance of the functions performed and changes brought about in the economy by these markets, which were also evaluated within the framework of the experiences of other countries. The more informed we are about this subject, the more derivatives markets will be embraced and derivative instruments will become more widespread. Considering the three-dimensional nature of the functions of financial markets; time, risk and information, the time dimension creates risks concerning the future, whereas the information dimension facilitates more accurate decisions to be taken as the future can be predicted with fewer errors.

Within this framework, the first function of derivates markets is to ensure the management of risks on a wide spectrum ranging from financial instruments such as foreign exchange and interest rates to commodity prices. The second function is to provide economic agents with correct information through the prices formed in the market. At this point, let me clarify certain points with regards to the floating exchange rate regime, which has been implemented in Turkey since 2001 and in almost eighty countries all over the world up to now. This has to do with the exchange rate being among the first contracts to be operative in the Turkish Derivatives Exchange, as well as its significance within the context of risk management, which is the primary function of derivatives markets.

As we have emphasized at all times since the first day of the floating exchange rate regime in Turkey, under this regime exchange rates are determined by supply and demand conditions. The level of the exchange rate is shaped by economic developments, external shocks, and expectations and fluctuations in the risk premium are applicable to all of them. Neither the Central Bank nor any other authority has any commitment or target whatsoever as regards the level of exchange rate.

At this point, I would like to underline two points missed by those who held the opinion from the start that the floating exchange rate regime could not be implemented in Turkey, as the risk in this regime was too high, there would be too much volatility in the foreign exchange markets, and the economy, especially the foreign trade would be adversely affected as a result of these.

The first point is that when pegged or foreseeable exchange rate regimes are implemented, as they have been in the past, in economies like ours where capital movements are free, the exchange rate risk does not disappear, but is assumed by the public sector or by the central banks as the monetary authority. Considered as a whole, in environments where the economy has a relatively fragile structure, further elevated by the loose fiscal policies of governments, this may be even more costly than each economic unit assuming its own exchange rate risk under the floating exchange rate regime.

The second point is that the presence of derivatives markets would enable foreign trade firms, under the floating exchange rate regime, to act as if exchange rates were pegged. In other words, with the development and widespread use of derivatives markets, the level of foreign trade would not differ under the floating exchange rate regime from that under the pegged exchange rate regime, and exchange rate risk would cease to be a factor influencing the level of foreign trade[1].

Although these markets are being newly founded in Turkey, I would like address a point, which often comes up in international literature and which I believe might arise in Turkey in the coming periods. Leaving aside the fact that speculative transactions are frequently made in derivatives markets, and especially the foreign exchange market, these markets are alleged to increase risk and volatility in the economy. However, derivatives markets do not create new risks in the economy; instead, they allow the management of the imminent risk. The origin of such thoughts is a common misperception with regards to transactions carried out speculative purposes.

Especially in foreign exchange markets, the level of exchange rate is determined not by forward transactions, but by spot market transactions. As transactions in the derivatives markets do not affect one-to-one the supply or the demand-side liquidity, they equally do not affect the price formed in the spot markets. In this case, speculative transactions that might be observed in the derivatives markets should not be expected to have a drastic impact on the spot markets.

Furthermore, as I have already pointed out several times, there are two groups of speculators in markets. The first group buys when prices go up, expecting them to rise further or sells when prices go down, expecting them to decline even more; we can describe this group as bad speculators. This is the type of speculator mostly seen in Turkey. Also in the process of the fight against inflation, this group held its assets in foreign exchange, in line with old habits; thus continuing to buy foreign exchange at high rates, with the belief that Turkish lira would depreciate anyway, used no instruments whatsoever for risk management; and when Turkish lira appreciated under the floating exchange rate regime due to market conditions, it criticized the stability program and policies implemented. This group of speculators, despite increasing volatility to a certain extent, cannot remain in the market for long, as they generally lose money.

The second group or the good speculator, on the other hand, in line with his/her forecasts, sells when it is a bull market and buys when it is a bear market. Leaving aside the problems of causing volatility, this group contributes to stability in the markets.

[1] Baron D. (1976), "Flexible Exchange Rates, Forward Markets and the Level of Trade", The American

Within this framework, it is possible to see members of both groups in any market. In an effective market, it is not possible to make a profit continuously guided by bad speculation, nor do the prices formed in the market approach those prices indicated by economic variables. Consequently, speculation does not have much effect on prices created in an effective market; on the contrary, it may make a positive contribution to the markets by increasing liquidity. Hence, speculation is not a threat in derivatives markets, but a guide in activating the spot market by increasing liquidity.

Another important point with regards to derivatives markets is that these markets enhance the predictability of spot markets, which form the basis, and help them perform more effectively, by enabling the expectations of economic units in the future to be measured and reflected on prices. As a matter of fact, prices in derivatives markets are actually the prices that are expected in spot markets in the future.

Consequently, derivatives markets contribute to the predictability cash flows of economic units and their profits or losses arising from risk or volatility by reducing excessive volatility in spot markets, on one hand, and by offering an opportunity to economic units for risk management, on the other hand.

In this way, fragilities in the firms sector arising from deteriorations in balance sheets are restored and the economy as a whole strengthens itself against shocks. At this stage, I would like to highlight one more point about the floating exchange rate regime. In Turkey, the firms sector has to be cautious about imbalances in foreign exchange denominated assets and liabilities on their balance sheets. Under the floating exchange rate regime, firms with foreign currency-denominated income and domestic currency-denominated expenditure, or vice versa, should restore the imbalances on their balance sheets, in other words, eliminate the exchange rate risk they are faced with. In order to achieve this, firms should observe risk management principles and employ derivatives market instruments.

The firms sector, especially production firms, can allocate more resources for production by reducing the financial risks on their balance sheets. This also makes an important contribution to enhancing the competitiveness of firms.

As of 2003, 92 percent of world's largest 500 non-financial firms are protected against risk through derivatives instruments and this further reinforces the importance of such

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instruments. Moreover, I would like to point out that the benefits of derivatives instruments do not depend on the size of the firms they are used by. Derivatives instruments are beneficial for all firms and the decision to use these instruments is largely shaped by the goals of the firm rather than its size.

Here, I would like to touch upon a point about the information transmission function of derivatives markets. Derivatives markets offer economic agents the chance to price their expectations of the future. Thus, thanks to derivatives markets, expectations become measurable and through prices, more information concerning the future is shared with other economic agents. This structure enables a more effective resource allocation mechanism through more effective financial markets in the economy as a whole.

Besides their contribution to the effectiveness of the resource allocation mechanism, the development of derivatives markets helps the financial sector to grow. Hence, derivatives markets contribute to the increase in national income and employment by indirectly encouraging more effective resource allocation and by providing value added impact.

Derivatives markets introduce new investment instruments to the financial intermediary system, or in a broader sense, to the financial system. This, in turn, increases the number of instruments investors can use in order to diversify their portfolios and thus deepens financial markets.

If we analyze what the diversity in investment instruments means for our country, we see that thanks to the derivatives markets, both real sector and financial sector investors will be able to manage their risks in diversity in line with the world markets and this structure will help our country to integrate with world markets.

Here, I would like to draw your attention to the large number of studies that stress the favorable effect of the presence of sufficiently developed, deepened and efficient derivatives markets on foreign direct investments.

In addition to all these benefits derivatives markets provide to the economy, they bear extra importance as a complementary element of financial markets in terms of their interaction with monetary policy and thus with the central bank.

As you know, establishing financial stability is one of the most important factors to be considered by all central banks that have set price stability as their primary objective. In this framework, derivatives markets, which help to sustain financial stability through their contribution by reducing volatility in the markets, support central banks in maintaining financial stability.

The second contribution of derivatives markets to the monetary policies of central banks is that thanks to their functions in risk management and in providing information, they expedite and activate the transmission mechanism used by monetary policy in giving direction to the economy.

Central banks adopt a long-term perspective in their target and try to affect the long-term movements of economic variables with the decisions they take. In this framework, it is crucial for a central bank to have as much information of a long-term nature about the economy and the future as possible. Hence, derivative markets play a crucial role in enlarging the information set used in monetary policy via the information they provide about the future.

The critical point here is that while derivatives markets enable the enlargement of the information set required by central banks in making their decisions, on the one hand, they improve the flow of information about the future course of monetary policy needed by economic agents and make contributions in terms of assuring a more predictable monetary policy, on the other hand.

In the framework of the interaction between monetary policy and the derivatives markets, of which I have tried to outline main points, I should clearly state that the development of Turkish Derivatives Exchange will make outstanding and diverse contributions to monetary policy.

Transactions in the Turkish Derivatives Exchange will play a key role in the inclusion of quantitative and forward-looking information in Central Bank reports, especially with the transition to explicit inflation targeting after 2006.

Before I finish, I want to mention a few issues concerning the future of derivatives markets in Turkey.

A new era will start with the operations of the Turkish Derivatives Exchange. The main goal in the coming period should be carrying out all the arrangements concerning the functioning of derivatives markets with the utmost care while bearing in mind that these markets act as a catalyst for the whole economy. Moreover, measures should be taken in order to direct banks and firms towards transacting in these markets.

Examples in other countries show us that there is a strong positive correlation between the transaction volume and liquidity rise of derivatives markets and the presentation of the issue, introduction of the markets and the training to be given. It has been confirmed that the development of derivative markets in many countries such as Malaysia, Singapore, Hong Kong, Mexico, Brazil, Chile and Japan was fueled by training programs aimed at enabling the economic agents to perform more effective risk management using derivatives instruments. Taking these examples into consideration, we see that the training of inland institutional and individual investors bears great importance in Turkey as well, where derivatives markets are a new concept. The Central Bank has provided all kinds of support for the development of these markets and will also continue to give support from now on. However, it is crucial that especially non-governmental organizations should fulfill their liabilities, introduce the Turkish Derivatives Exchange to their participants and provide the necessary training.

To conclude, I would like to emphasize once more that a drastic step has been taken today with the inauguration of the Turkish Derivatives Exchange, in line with recent favorable developments in our country. I hope this step will bring with it new opportunities for the future.

Thank you.