



**Central Bank of the Republic of Turkey**

**DOLLARIZATION: CONSEQUENCES AND POLICY OPTIONS**

14 December 2006, Istanbul

Distinguished Governors, Academicians and Guests,

I would like to welcome you all to the conference entitled “Dollarization: Consequences and Policy Options”. I would also like to thank you for sharing your precious knowledge and experiences with us. As this conference is one of the activities organized in the context of the 75<sup>th</sup> anniversary of the Central Bank of Turkey, it gives me an honor to give the start for it.

Before continuing with my address, I would like to comment on the motives that lie behind the topic of this conference. Although Turkey has never had hyperinflation, it experienced high and chronic inflation for the past almost 30 years before 2001. Living long years with chronic inflation led to huge losses in the credibility of our national currency, which is important for us as an institution responsible for issuing national currency and maintaining stability of it. From this perspective, it will be appropriate indeed to discuss dollarization in depth, I believe.

Given the wide range of issues related to dollarization and the limited time available, I will make some brief remarks on the concept of dollarization in general and touch upon the Turkish experience in particular.

Dear Guests,

Dollarization has evolved as one of the noteworthy features of the globalization during the last two decades. The integration of the international financial system, the removal of restrictions on capital mobility and the increasing trade volumes have contributed to the evolution of dollarization. Although it was a phenomenon in different economies for a long time, the word “dollarization” has become a well-known term in the 90’s. In this period, the number of countries that gave foreign currencies the legal tender status increased and the official dollarization has been a widely discussed issue.

Alternatively, unofficial dollarization has expanded even more and has become a pervasive phenomenon in a wide range of countries. The number of countries where the ratio of foreign exchange deposits to total deposits higher than 30 percent increased from 7 in 1990 to 46 in the year 2000<sup>1</sup>. Similarly unofficial dollarization in Turkey has also evolved during this decade. I will therefore focus on unofficial dollarization in the rest of my address.

Distinguished Guests,

In general, dollarization occurs in circumstances where residents lose confidence in their own currency. The evidence from countries has also shown that dollarization process advances by certain stages. At the first stage, domestic currency loses its function as being a store of value, which is called “asset substitution”. Following this basic level, dollarization takes the form of “currency substitution” referring to the domestic currency’s loss of functions as being unit of account and means of payment.

Apart from this, dollarization can take some other forms like “liability dollarization”, “payments dollarization”, “real dollarization” and “financial dollarization”. Among these, particularly financial dollarization, which can be described as the combination of asset and liability dollarization, has gained ground in recent years in many emerging countries, including Turkey.

I can cite the following factors, which I am going to examine under the two main headings, as influential on dollarization: namely the macroeconomic instability and the market imperfections.

In the context of macroeconomic instability, inflation is the most important issue to be considered: dollarization is a rational response of economic agents to inflation

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<sup>1</sup> De Nicolo, G.; Honohan, P.; Ize, A. (2003); “Dollarization of the Banking System: Good or Bad?”; IMF Working Paper; WP/03/146.

uncertainty that reduces the confidence in domestic currency. In this regard, dollarization is technically explained by the portfolio approach as the higher expected volatility of inflation relative to that of real exchange rate.

Also, the issue of high and fragile public debt structure along with high budget deficits has considerable impact on dollarization. In the case of “time inconsistency”, when governments create inflation in order to decrease the real burden of the debt, the risk premium of the debt denominated in domestic currency tends to rise. In essence, this pushes governments to borrow in foreign currencies, and hence gives rise to dollarization.

In this respect, “original sin” is a specific term, which was first coined by Eichengreen and Hausmann<sup>2</sup> in 1999; and which means that countries without fully developed financial markets are obliged to borrow in foreign currencies since borrowing in their national currencies at longer maturities is almost impossible.

The other main factor behind the dollarization is related to the market imperfections. Market distortions, fixed exchange rate regime accompanied with high inflation, low institutional quality, poorly developed domestic financial markets, currency-blind financial regulations and safety nets in foreign currency such as deposit insurance can all be evaluated under this framework. Due to those imperfections, moral hazard problems arise and this in turn results in a larger demand for foreign currency. As the studies<sup>3</sup> have shown, the low quality of legal and political institutions and the lack of legal protection for domestic creditor provide incentives for dollarization.

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<sup>2</sup> Eichengreen, B.; Hausmann, R. (1999); “Exchange rates and Financial Fragility”; NBER Working Paper No:7418.

<sup>3</sup> De Nicolo, G.; Honohan, P.; Ize, A. (2003); “Dollarization of the Banking System: Good or Bad?”; IMF Working Paper; WP/03/146.

Dear Guests,

Now, the question is why we should care about dollarization. Before anything else, it increases a country's vulnerability to shocks. Here let me mention the vulnerabilities of two major sectors in an economy: one arising from dollarization in private sector and the other one having to do with dollarized public debt dynamics.

Beginning with the private sector, the dollarized financial systems and the companies' dollarized balance sheets are obviously exposed to solvency risks, due to currency mismatch problem. Keeping in mind that the risks for both financial and real sectors are interrelated, the banks that lend in foreign currency to firms, which earn revenues in domestic currency, are also indirectly affected. In such cases, the whole economy becomes more vulnerable to shocks due to amplified risks resulting from dollarization. A recent strand of literature and country cases such as the Asian meltdown of 1997 and the 2000-2001 banking crisis in Turkey, have all emphasized the importance of such vulnerabilities brought about by dollarization.

Moreover, firms adjust their prices more frequently in a dollarized economic environment where depreciation of national currency is perceived as permanent. Thus, dollarization leads to higher pass through effect from exchange rates to prices via deteriorating pricing behaviour of firms.

Ultimately, from the public sector's point of view, the issue of debt sustainability is highly influenced by dollarization. In fact, public sector is exposed to problems similar to that of non-trading firms indebted in foreign currency<sup>4</sup>. There is no doubt that dollarized debt adversely affects government's solvency as its assets are in domestic currency. In this sense, given the high level of dollarization, the fluctuations in real

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<sup>4</sup> Galindo A.; Leiderman L. (2003); "Living with Dollarization and the Route to Dedollarization"; Inter-American Development Bank; Working Paper; 526; p. 14

exchange rate might turn an apparently sustainable fiscal situation into an unsustainable one. Furthermore, public sector insolvency can immediately lead to banking sector insolvency if domestic banking system holds large claims against government.

Dear Guests,

Before continuing with the Turkish experience, I have to add that dollarization deserves a special attention from a central banker's perspective.

As we all know, the choice of exchange rate regime is of critical importance for a central bank. The empirical findings show that in economies with serious balance sheet mismatches, the policy makers prefer fixed or controlled exchange rate regimes<sup>5</sup>.

On the other hand, flexible exchange rate regimes provide more room for monetary policy that enables to respond to external shocks freely. It has also been found by using cross-country data for the banking sector that more volatile exchange rates reduce the share of the foreign currency denominated loans and deposits<sup>6</sup>, thus contributes to prevent dollarization.

However, even if a flexible exchange rate regime is chosen *de jure*, dollarization and high pass through effect from exchange rates to inflation may cause "fear of floating", thus monetary authorities are put under pressure to intervene in fluctuations

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<sup>5</sup> Choi, W.; Cook, D. (2004); "Liability dollarization and the bank balance sheet channel"; Journal of International Economics; Vol. 64(2), p. 247-275.

<sup>6</sup> Arteta, C. O. (2002); "Exchange rate regimes and financial dollarization: does flexibility reduce bank currency mismatches?" International Finance Discussion Papers 738; Board of Governors of the Federal Reserve System.

in exchange rates at all costs. In such a case, the policy makers are left in a big trade off between monetary policy independence and balance sheet mismatches<sup>7</sup>.

Obviously, there is not one single commonly accepted solution for all countries. Nevertheless, country experiences in recent years have shown us that there is a tendency in choosing more flexible exchange rate regimes under the assumption that vulnerabilities regarding mismatch problems are accurately hedged.

Subsequently, dollarization affects monetary policy through the increased volatility of money demand. Thus, the traditional transmission of monetary policy would not work properly as central banks have no direct control over foreign currency assets. Accordingly, as Kevin Cowan and his colleague<sup>8</sup> mentioned in their study, dollarization limits the capacity of central banks to conduct stabilizing monetary policy in the short run and to a large extent limits the ability of monetary authority gain credibility in the long run.

Distinguished Guests,

Having given a brief introduction into the notion of dollarization, now I would like to talk about the Turkish case. As in many other countries, the dollarization in Turkey also took its roots from macroeconomic instability with fixed or predictable exchange rate regimes, inefficient market regulations and the lack of credibility of economic policies.

In order to comprehend the dollarization in Turkey better, it would be reasonable to look at the macroeconomic instability and examine the evolution of dollarization in a historical perspective.

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<sup>7</sup> Frankel J.; Schmukler S.L.; Serven L. (2004); "Global transmission of interest rates: monetary independence and currency regime"; Journal of International Money and Finance; Vol.23 p.701-733.

<sup>8</sup> Cowan, K.; Quy-Toan Do. (2003); "Financial Dollarization and Central Bank Credibility"; World Bank Policy Research Working Paper No.3082.

With the 1980's liberalization policies, the barriers on foreign exchange transactions of commercial banks were removed and the Turkish residents were allowed to open foreign exchange deposits in 1983. Beginning from that date, the volume of foreign currency denominated deposits had started to increase.

In my opinion, the liberalization of the financial system without macroeconomic stability and the necessary institutional and structural changes made the economy more vulnerable to shocks in 1990's. Besides, the imprudent fiscal policies resulted in high levels of public sector borrowing requirement and put the debt sustainability on top of the agenda. Along with it, the accommodative monetary policies and the lack of the Central Bank independence led to high and chronic inflation rates. In order to tame inflation and to achieve the macroeconomic stability, a number of exchange rate based stabilization programs were launched, but all of them were either interrupted or abandoned, causing loss of confidence to economic policies.

Accordingly, 1990s and the early 2000s were the times, during which Turkey had frequently faced with economic crises and turmoils. Average annual inflation realized as around 75 percent in the period between 1990 and 2001. The ratio of net public debt to GNP reached to 90 percent by 2001. All these, coupled with the currency-blind market regulations such as blanket guarantee on foreign exchange deposits boosted the financial dollarization in Turkey.

A closer look into the figures indicates how severe the dollarization was. From 1990 to the end of 2001 the ratio of foreign exchange deposits to total deposits increased from the level of 25.5 percent to 57.6 percent; the share of foreign exchange deposits in broad money supply went from 19.7 percent to 55 percent. Similarly as of 2001, the share of foreign currency loans in the total loans of the banking sector reached to 47.2 percent, while the share of foreign currency



denominated and indexed debt of the government in its total domestic debt increased to 36 percent<sup>9</sup>. As of 2001 Turkey became one of the most dollarized economies in the world.

Distinguished Guests,

Dollarization process in Turkey has two striking characteristics. First of all, dollarization rose significantly even the real rates of return on foreign exchange deposits were lower than that on the Turkish currency deposits. This indicates the fact that the political and macroeconomic instability in the country, particularly high inflation and inflation uncertainty, had played the major role in the dollarization process.

Secondly, Turkey had lived through the first stage of dollarization in which the foreign currency is used mainly as a store of value and partly as a unit of account, but not as a medium of exchange. In this context, the dollarization in Turkey can be called as financial dollarization.

Distinguished Participants,

After the 2001 crisis, the implementation of tight monetary and fiscal policies together with the structural reforms has enabled the country to bring the inflation down to single digit numbers and to reduce the ratio of public debt to GNP significantly. Also, financial markets have become deeper and less fragile. In this context, the banking sector reform that aimed to strengthen the regulation and supervision of the banking sector, restructure the public banks, improve the asset and loan quality and the capital adequacy ratio of the system has been of great importance.

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<sup>9</sup> Bahmani-Oskooee, M.; Domaç, İ.; "On the Link Between Dollarization and Inflation: Evidence from Turkey"; The Eighth Dubrovnik Conference on Monetary Policy and Currency Substitution in Emerging Markets; Dubrovnik; June 27-29, 2002

Additionally, the progress made towards economic stability, particularly the significant decrease in inflation, enabled us to drop six zeros from the Turkish currency. This currency reform has increased the credibility of the Turkish currency both in internal and external markets. The issuance of the New Turkish Lira debt instruments by foreign banks in the international markets is an important indicator of this increasing credibility. Consequently, the desire and the need to invest in foreign currency in order to hedge the value of wealth decreased significantly and investors have started to increase the share of Turkish currency assets in their portfolios.

The amendments made in the Law of the Central Bank of Turkey in 2001 have been a turning point and instrumental for the efforts to maintain macroeconomic stability. With these amendments, achieving and maintaining price stability is stated as the primary objective of the Central Bank and the Bank acquired its instrumental independence. In fact, the independency has given the Bank the opportunity to set its policies for longer terms, free of political cycles and pressures.

As an assurance given to the public to ensure the long term price stability objective, the independence of the Central Bank of Turkey together with its transparent and effective communication policy have increased the credibility of the monetary policy.

Besides, the new monetary policy framework implemented first as implicit and then as full-fledged inflation targeting regime together with the floating exchange rate regime have contributed a lot to the decline in dollarization since 2002, as the literature<sup>10</sup> suggests.

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<sup>10</sup> Leiderman, L; R. Maino and E. Parrado (2006); "Inflation Targeting in Dollarized Economies"; IMF Working Paper, WP/06/157

In this respect, we can refer the findings of the portfolio approach in Turkey very clearly. To be more specific, the volatility of exchange rates has increased due to the floating exchange rate regime on the one hand and inflation and its volatility have declined significantly on the other. Since higher exchange rate volatility relative to inflation volatility decrease the hedging benefits of foreign currency assets<sup>11</sup>, this monetary policy framework can be said to help the process of “liraization”, a term that was suggested by Dr. Leiderman at the conference on “Inflation Targeting: Performance and Challenges” hold by the Central Bank of Turkey at the beginning of this year.

Here, I want to make a point on the floating exchange rates. The floating exchange rate regime has transferred the exchange rate risk to the market and made economic agents to perceive and understand the importance of risk management and using hedging instruments and derivatives market better. In this context, as we have mentioned in several platforms, the opening of the Turkish Derivatives Exchange Market in February 2005 has been an important step. Accordingly, promoting the use of this Market by a wider range and the development of the hedging instruments further are very important for both the financial stability and dedollarization.

Distinguished Guests,

As a result of the steps taken towards macroeconomic stability and the implementation of prudent policies, the level of dollarization in Turkey started to decrease after 2001, despite some pauses.

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<sup>11</sup> Bahmani-Oskooee, M.; Domaç, İ.; “On the Link Between Dollarization and Inflation: Evidence from Turkey”; The Eighth Dubrovnik Conference on Monetary Policy and Currency Substitution in Emerging Markets; Dubrovnik; June 27-29, 2002

As of November 2006, the share of foreign exchange deposits in the total deposits<sup>12</sup> and in the broad money supply were 38 percent and 35.5 percent respectively. Also the ratio of foreign currency loans to total loans in the banking sector decreased to the level of 16 percent in the same period. Moreover the share of the foreign currency denominated and the indexed debt of the government to total domestic debt decreased to 15.8 percent as of October 2006.

By any measure, this, I believe, is a remarkable performance. But all these positive developments do not enable us to call it a persistent and permanent dedollarization process, for sure.

It is apparent that the level of dollarization in Turkey is still high, which is an important challenge for monetary policy-making. Obviously, the dollarization is not declining fast naturally. This confirms the evidence that even if the inflation falls and the macroeconomic stability is maintained to great extent, the memories of the past inflationary and unstable economic environment can cause economic agents to carry on their past habit of holding foreign currency assets and create an inertia.

Therefore, even a small threat to the macroeconomic stability or any kind of internal or external development that increase uncertainty perceptions can easily lead to a deterioration in expectations and give rise to an increase in dollarization. The last turmoil in the global and domestic financial markets has been a concrete proof of this fact.

Thus, the dedollarization is not a straightforward process. As a clear evidence of this, the findings of Reinhart and her friends<sup>13</sup> show that only two countries, Israel and

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<sup>12</sup> Provisional data

<sup>13</sup> Reinhart, C.M; K.S. Rogoff and M.A. Savastano; 2003; "Addicted to Dollars"; NBER Working Paper Series; No:10015

Poland, out of a total of 85 countries managed to achieve large and lasting declines in domestic dollarization. Accordingly, we can say that dedollarization is a difficult and long lasting process that is very much related with the macroeconomic stability and proper incentives.

Hence, what we should do first is to continue with the current sound macroeconomic policies and structural reforms in a decisive way.

Second, in order to start dedollarization, an active dedollarization strategy such as the so-called “carrot and stick approach” in the literature, which consists of regulations that will encourage the use of the Turkish currency, should be planned.

However, as Ize and Levy-Yeyati<sup>14</sup> suggest, before launching an overly ambitious policy agenda, we should make all the necessary researches to understand the roots, risks and costs of dollarization and the implications of policy reforms made against it. I think, this conference provides a big opportunity for all of us to share our opinions and experiences and to enlighten the process by which the dedollarization takes place.

Distinguished Participants,

I would like to conclude my words by repeating that I am very glad to welcome such distinguished economists from all over the world. I am sure that we have a lot to draw on the experiences of each other. I hope you enjoy both the conference and your stay in Istanbul.

Thank you very much.

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<sup>14</sup> Ize, A. and E. Levy-Yeyati (2005); “Financial Dedollarization: Is it For Real?”; IMF Working Paper; WP/05/187