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# The Multiple Tool Monetary Policy Experience of Turkish Central Bank

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# The Multiple Tool Monetary Policy Experience of Turkish Central Bank 08-12-2014

Bismillah Alrahman alraheem,

Alhamdulillah Rabbul Alameen wassalat wassalam ala sayidena Muhammad

Dear all Ladies and Gentlemen, I brought the warmest Greetings from Istanbul, Turkey to you. Salam, to all of you. Sister Bahnaz has requested me to cover Turkish Monetary Policy experience. And I decided to cover the multiple tools in the monetary policy experience of Turkish Central Bank; of course, the opinions I express here will be my personal views, not the central bank's views.

Here as an outline, we have five topics about monetary policy, but if the time permits, I can cover some Islamic finance experience in Turkey. The Global Financial Crisis changed the perception of Central Banks, before and after the Global Financial Crisis especially before and after the collapse of Lehman Brothers, the views about the function of central banks changed. And also Turkish Central Bank made the necessary steps for the new environment.

What happened after the Financial Crisis? Here we have two charts, in the left hand side, we see the policy rates in advanced economies of the USA, Euro Area and Japan, you see interest rates are going down. Why? Because the central banks of those countries are getting money to their economy, getting excess liquidity to their economy. And the consequence of this is the capital influence to emerging markets from the advanced economies, when the central banks of the advanced economies increase the liquidity, that money flows to emerging markets and this causes volatility (it is not stable, sometimes increasing sometimes decreasing). The capital flow is not a big problem but volatility is the problem. And the usual Risk appetite you see after 2008, it decreases.

They use their investors to not rent/make investment in emerging markets as before. In 2010 after the crisis, what was the position of the Turkish Economy? There was a need for rebalancing in the economy. Why? Because there was a current account deficit, capital flows as well as credit growth as percentage of GDP were increasing. As you can see on the left hand side, in Turkish economy, the energy needed is very significant. If you exclude the energy import, even sometimes in 2008 and 2009, we give current account surplus, not deficit. But including the energy, we always give current account deficit.

Here we see the exports and imports, you see imports are increasing in year 2010 onwards while the exports are decreasing. The reason was the contraction in the European economies. Because the mean export market of Turkey is Germany and other European countries, when the economy contracts means that the demand decreases and exports to

Europe decrease. But thanks to God, our Turkish entrepreneurs achieved to find new markets, especially in Africa, in far East, and even in the Gulf area. And the lack of exports to European countries somewhat filled with the new markets.

Now after setting the scene, I will cover what is the change in Central Banking, before the Crisis, before Lehman Brothers collapsed, we called it Conventional, and after: the New Framework. As Conventional view, there was a single aim for the central banks, that was price stability (to keep inflation in low and stable growth. And there was a single tool which is Policy Interest Rate, after, as in the New Framework, the aim expanded to include the financial stability, and instead of a single tool, multiple tools started to be implemented. Critics on Conventional Central Banking. The conventional approach fails to account adequately financial-sector risk and is therefore too narrowly focused. Before the global financial crisis, there was a universally accepted view: "Central Banks should only be responsible for Price Stability and prudential policies should be implemented in micro basis". After the bankruptcy of the Lehman Brothers, this view has changed. US Fed was ineffective to foresee and take necessary measures for Mortgage Crisis. The conventional framework assumes limited or non-existent cross-border spill-overs of monetary policies. This last sentence is very significant, because after the Global Crisis, we witnessed spill-overs of monetary policies. Especially the monetary policies of the advanced economies such as the US Fed, the monetary policy of US Fed is spreading around the world and affecting all the economies.

When we continue on the Critics on Conventional Central Banking, we can say that the incompatibility of national monetary policies in the presence of spill-overs is heightened (as I have mentioned) when countries follow different monetary policy regimes. The period in which the Inflation Targeting regime was tested was exceptionally benign. This is before the crisis, the general accepted the view of Inflation Targeting policy. Many countries starting with New Zealand applied Inflation Targeting policy, including Turkey as well. But when we look at the environment in those days, it was very calm, there was no fluctuations, no volatility, and it was possible to apply Inflation Targeting. High increase of government debt in advanced countries and the slowing growth of traditional export markets for developing countries creates pressure under Central Banks' independence, which is a very important element of Inflation Targeting. After the crisis, Inflation Targeting and Central Bank independence is under debate. The general's accepted view is that the Central Banks should safeguard price stability and contribute to financial stability. That means that Central Banks should not ignore Price Stability without damaging the Price Stability, should contribute to the Financial Stability. Academic work estimates a growth cost of 0.25 percentage points for every 10 percentage points of rise in inflation. That means 10% increase in inflation results with 0.25% decrease in growth (Inflation damages growth). For Financial Stability, the critic's point is credit growth, if there was a rapid credit growth, then it's dangerous. Rapid credit growth is a leading indicator of Financial crises.

From Micro-to-Macro-prudential tools in financial regulation, when should Central Banks act? A joint optimization problem is there: Using monetary and regulatory policies in concert to pursue price and financial stability, should Central Banks be primary institution responsible for Financial Stability, here there are two models in the world: Unified approach and coordinated approach.

For example in the UK, before the Financial Crisis, banking supervision, which is a responsibility was in a different institution separate from the Central Bank (it was the Financial Services Authority), after the crisis, the British people decided to unify the banking supervision, Financial Stability issues and Central Banking. But we see another example in Indonesia, before the crisis, they were separate and now they are unified. There are two models, they can be separate and they can be unified, the supervision of the banks and the Central Banking functions. In Turkey, it was separate and still is separate before and after the crisis. We have banking regulatory authority, which works separate from the Central Bank. In summary, there are two approaches: First option is to use capital flow measures to restrict inflows while tightening via interest rates (e.g. Brazil and South Korea). That was the fact there were high amounts of capital flows, and how should we restrict this? Brazil and South Korea did it by tightening, which is increasing the interest rates. The second approach is without changing policy rate use macro prudential measures to restrict domestic credit and domestic demand

Now I will explain how did turkey central bank do it:

#### What are the non interest policy tools

- 1) Balance sheet and liquidity measures
- 2) Required reserve ratios
- 3) Interest rate corridor
- 4) Measures on forex rates and reserves
- 5) Measures on USD swaps
- 6) Measures on foreign currency denominated mortgage market
- 7) And measure on loan/ security ratio

Can be mentioned as the non interest policy told, let's say we see at the countries, on the top we see the measures and vertically we see which country did apply it,

	Balance Sheet and Liquidity Measures	Required Reserve Ratios	Interest Rate Corridor	Measures on Foreign Exchange Rate and Reserves	Other
U.S.A.	V				V.
Euro Area	V	V	V		√1
U.K.	V				V1
Japan	V				√!
Switzerland	V			V	N'
Canada	V				√!
Philippines		1		1	
Hungary			V		√2
Poland		V		V	
Czech Republic	V				
Russia		V		V	
Brazil		V			
Peru		V			
Colombia		V		V	
China		V		V	V/3
Indonesia		V	V	V	
India		<b>√</b>	V	V	V <sup>3</sup>
South Korea				V	

For example, the United States applied balance sheet and liquidity measures that means injected money to the economy.

- Incorporating financial stability without diluting the price stability objective
- Leans against the wind using a combination of monetary tools
- Close coordination with other responsible agencies is a must
- Better communication and greater clarity

Source: Relevant central bank websites.

And coordination between central banks should be done

In Turkey -as in many other countries- we have financial stability committee, in the financial stability committee, central bank is represented, banking supervision and regulation agency PRSA is represented, minister of finance is represented, and they come together at least once a month, with the chairmanship of the minister responsible for treasury.

## CENTRAL BANK OF REPUBLIC OF TURKE ADOPTED A NEW MONETARY POLICY FRAMEWORK SINCE NOVERMEBR 2010 "POLICY MIX"

When we add the financial stability to the price stability, and when we use more tools than one, we call it POLICY MIX, central bank of the republic of turkey adopted a new monetary framework after November 2010,

LOW AND STABLE INFLATION (price stability) DOESN'T GUARANTEE MACRO ECONOMIC STABILITY FOR FINANCIAL STABILITY PRUDENTIAL TOOLS ARE NEEDED

Macro perspective are needed rather than micro perspective interest rates are not enough as a policy tool interest rate for price stability can be different than for financial stability

Without Diluting price stability the central bank applying policy mix incorporate financial stability

	Policy Framework				
-	Old Approach	New Approach			
Objectives	Price Stability	Price Stability Financial Stability			
Policy Tools	Policy Rate	Structural Tools Discretionary Tools			

Here, we can see a summary, old approach and new approach, before the crisis, the objective was only price stability and tool was only policy rate. But after, price stability, and price stability are the objectives, and structural tools and discretionary tools are added to the policy tools

#### What are those structural tools applied by central bank of republic of turkey?

Central bank of republic of tool after 2010 applied:

- 1) Maturity Based Reserve Requirements
  - 2) And currency based reserve requirement
  - 3) Leverage based reserve requirement
  - 4) And reserve options mechanism

I guess most of the audience know what is reserve requirement but let me mention in one point that a bank collecting deposit 100 cannot place that 100 as loan to the economy, some part of that 100 should be kept in the central bank for example 10, that 10 is called the reserve requirement and the amount available for loan is 90, of course beside reserve requirement there is also liquidity requirements. That means the banks cannot place total amount collected from depositors.

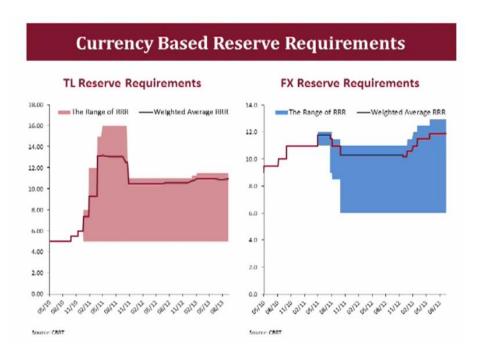
#### MATURITY BASED RESEARVE REQUIREMENT

Now there is a fact in turkey that the maturity of the deposit are short, which is not good for the economy, the maturity of the deposits if extended longer than 1 year it is better because those deposits will be used for investments. To achieve this target; central bank of republic of turkey applied 2 different reserve requirement rates or ratios, if the maturity is less than 1 year; it is 11.5%, but if the maturity is more than 1 year, than it is 5%, what is the purpose?!, to push the banks to collect longer term maturity deposits. Because if 100 is collected with maturity less than 1 year, the bank can give 89 of it as loan, but if it was a deposit maturity more than one year it can give 95 of it as loan.

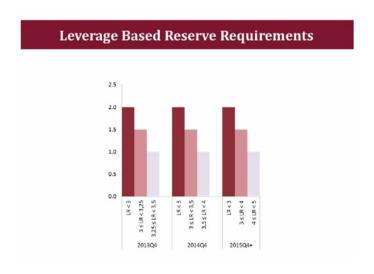
Here for Turkish total deposit and foreign deposits the rates are different and also the liabilities which are subject to reserve requirement are classified as core liabilities and no-core liabilities

because the amount of the reserves requirement rate ratios are applied on the liabilities of the bank because the deposits are liabilities, besides deposits also there are other liabilities for example Turkish banks issue bonds, also they are subject to reserve requirement, than if it is not deposit, you see the rates are also different.

The range for required reserve ratio, we talk about the range which is according to the types of liabilities subject to reserve requirements, there are different rates for different kinds of liabilities, therefore you see the range is in between in 2011 in between 16% and 5 but later it is decreased to 10%, you see the average is under the top rate of the range, as it is the rated average of requires reserve rations. The point I have already covered about the reserve requirement was about the maturity of the deposit.



Now another type of reserve requirement which is based on leverage, leverage ratio if less than 3, if in-between 3 and 3.25, in between 3.25 and 3.5 the reserve requirements are different.



The purpose is to manage the liquidity of the banks imposing different rates of reserve requirements

And there is a famous topic here that is called

#### **RESERVE OPTION MECHANISM (ROM)**

The banks collect Turkish deposit and Foreign exchange deposits, and these deposits are subject to reserve requirements in terms of the liability denominated for example if it was Turkish lira liability, reserve requirement is Turkish lira, if it was a foreign currency liability; The reserve requirement is in US dollars for example, but this option gives the banks to set aside the reserve requirement in a different currency which the liability is denominated, for example your liability can be denominated in Turkish lira but you can keep your required reserve in US dollar to give this opportunity to the bank is called, reserve options mechanism

#### How does it work?

ROM gives option to hold FOREX or Gold reserve, in increasing tranches in place of TL reserve requirement; you see here also gold is included. After this ROM mechanism in turkey high amount of gold has flown from house hold to the banks, because the banks, if they set aside required reserves in terms of gold, it is cheaper than setting aside in terms of Turkish lira, even setting aside the required reserves in foreign currency is cheaper than keeping it in Turkish currency therefore this mechanism worked

#### What are the benefits of ROM:

Smoothens the impact of capital flow volatility on exchange rates and balance sheets of the Turkish Banks limiting the adverse effect of the excess capital flow vitality, thus ROM is an "Automatic Stabilizer" to change in capital Flows contributes to the financial stability.

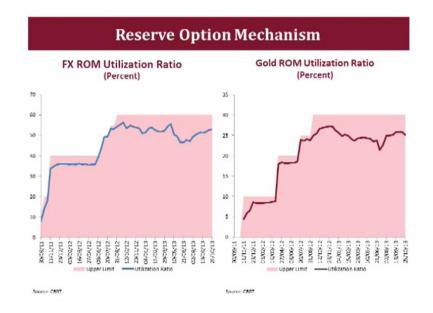
#### How does it work?

Central Banks of republic of Turkey, depending on the economic conditions, sometimes increase the Rom. Sometimes decrease, for example if foreign capital is flowing in the country, central bank increases and thus the excess foreign currency will come to the central bank without damaging the Turkish lira, US dollar exchange rate

ROM aims to support the "FX reserve management" of the banking System: giving flexibility to Turkish Banks, adjusting their Forex reserve endogenously in accordance with their liquidity needs

And of course increases the Forex reserves of the CBRT or even Gold reserves of Central Bank of Turkey are increased after ROW mechanism is applied

Here you see the Reserve Option Mechanism (ROM) utilization Ratio



Here in the left hand side you see 60% that means 60% of the Turkish lira required reserve can be set aside in Forex, and in the right hand side it is lower in gold it is 30% but these are the higher rates but the rates in real life are under those highest maximum level

#### How does it work?

There is no single rate for example for foreign exchange rate. First of all let me emphasize what is reserve option coefficient, the reserve option mechanism and there is also reserve option coefficient, coefficient is putting some tranches of the Turkish required reserves and applies different rates to different tranches

For example

Forex ROC		> 30 % TL Required Reserve				
> 60 % of the 7	TL Required					
Reserve		7	0	- 0.20	1.4 %	
→ 0 - 0.30	1.4 %	>	0.20	- 0.25	1.9 %	
> 0.30 - 0.35	1.5 %	>	0.25	- 0.30	2.4 %	
> 0.35 - 0.40	1.8 %					
> 0.40 - 0.45	2.2 %	In	effect	as of Se	eptember 2011	
<b>0.45 - 0.50</b>	2.5 %				•	
> 0.50 - 0.55	2.7 %					
0.55 - 0.60	2.8 %					

For Gold you see the ranges are different, that means there is no single rate applied, first a coefficient is applied after the coefficient is applied the amount subject to the ROM is found.

There are Discretionary tools by CBRT

#### **Tools Funding Strategy and Liquidity Policy**

TL liquidity Management

- Policy Rate
- Weekly Repo (was the policy rate)
- Monthly Repo (stopped)
   Are the tools

There is an Interest Rate Corridor I will show it to you now, until this point we talked about policy tools rather than interest rate, now we came to interest rate in conventional central banking there is one interest rate determined by the central bank which is called the policy rate, but here there are different rates which aim to keep the interest rate in between the corridor determined by the central bank: the liquidity of the economy is given by the central bank, the banks keep government bonds, and if they bring their government bonds to the central bank for some limited time, can get liquidity, this is called Repo, repurchasing agreement, there is weekly Repo, also Monthly Repo, but in last meeting of monetary policy committee, monthly repo is stopped and weekly repo was called policy rate before but now it is not called policy rate.

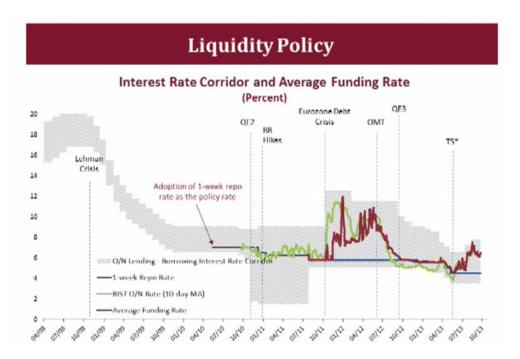
What is the interest rate corridor it is the

- Interbank- Overnight Interest Rate of central bank of Turkey
- Also, there is a market in Istanbul of foreign exchange market Quotation at Borsa Istanbul (BIST) Repo Market ]

Some days, depending to economic conditions, if the central bank wants to tighten the liquidity, some days are declared as additional monetary tightening days, if it is an additional monetary tightening day, then on those days funding supplied via quantity auction method at the policy rate reduced or given none at all, instead, market is funded via market price based auctions, and hence all rates settled close to the upper-bound of the interest rate corridor, here the policy is that the central bank says, I will give a limited amount quantity with a predetermined rate, after that, if the banks need more liquidity, should go to Bursa Istanbul Repo market and buy from there with a higher interest rate and the average lower interest rate and higher interest rate applied, the average is the average funding rate of the banking system

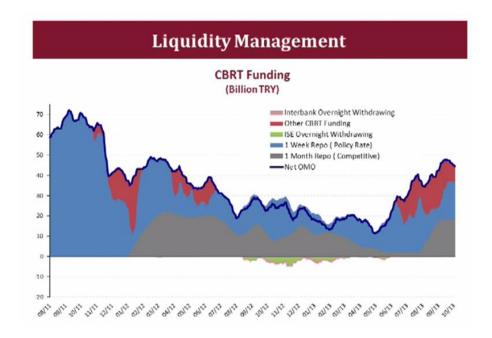
Reserve option mechanism is also a discretionary tool and ROM functions as sterilized Forex Interventions, what does it mean? If the central bank decides to intervene in the Forex market, enters the market as buyers, creates demand for Forex, here applying ROM, the central bank does not purchase the Forex but attracts takes those Forex currencies to the central bank as reserve requirement, and this is called "sterilized Forex interventions because the central bank buys Forex from the market it must give Turkish Lira which will increase the volume, but here the mechanism the central bank does not give lira but attract Foreign currencies into the central bank

Here after the explanations, you see the fluctuations in between 2008 – 2013 and lehman Crisis have happened in October 2008, you see there is all night lending borrowing corridor, this corridor



This corridor is the overnight lending and borrowing interest rate of, the central bank wants the policy rate should stay in between those limits of the corridor, and you see that it is accomplished.

Here we see the amount of interbank overnight withdrawing CBIT funding, ISE overnight withdrawing, 1 Week Repo (Policy Rate), 1 Month Repo (Competitive), Net OMO



You see, net Open Market Operations is increasing in last month of 2013

I will mention that in Turkey, the banking supervision is separate from central bank, it is done by banking regulations and supervision agency, and this BRSA took many measures which helps the monetary policy of Central bank

#### For example

- Levy on Consumer Loans
- Loan-to-Value Restriction
- Risk Weight on Consumer Loans
- General Provisioning Requirement

Here are the measures in details, I will leave this presentation, and those who are interested can go in details.

With the amendment on 8 October 2013 by BRSA; new regulations have been declared with regards to both corporate and retail loans.

Amendments made in retail loans related to:

- Credit Card Limits: this is very new and will be started in 1st January 2014
- Minimum Payment Ratios
- Risk Weights in Capital Adequacy Ratio (CAR)

What is Loan -to -Value Raito and Loan-to-Income Ratio

This is also a measure done by BRSA, if you will have a housing loan for example you cannot borrow more than 75% of the value of the house let's say, if the house cost 100, you can borrow maximum 75

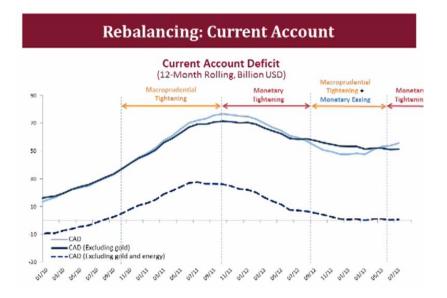
What is the new one: loan to income ratio; you cannot borrow more than 25% of your income, this is loan-to-total income

This is right now under debate in Turkey, but it is declared

Okay, how did Turkey do after 2010, between October 2010 to august 2011, there was a strong Global risk appetite and short term capital inflows were coming to emerging markets, in this situations what did CBRT do; aimed to lengthen the maturity of the capital inflows and to prevent excessive appreciation of Turkish Lira, and what was the policies want, reserve requirement ratios are raised to control domestic demand and to prevent excessive credit flows

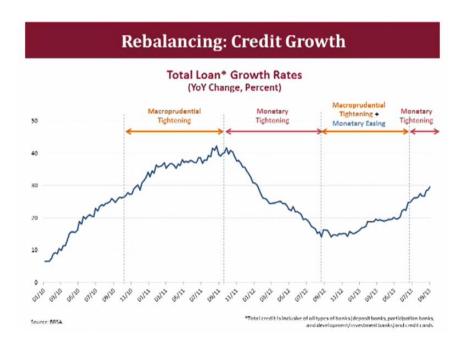
After August 2011 to June 2012, the conditions changed compared to the first era where there was strong Global risk Appetite but in the second one there is escalation in Global Risk Aversion, and what does the central bank do, here tools are used in opposite directions, Turkish Lira reserve requirement were reduced to decrease the liquidity requirements of the Banking Sector.

Here we have a look at the current account of turkey, you see excluding Gold and energy, excluding Gold, and total,



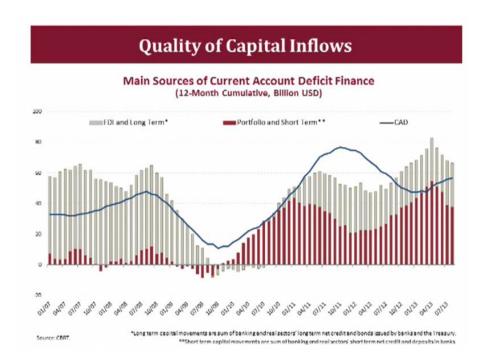
When there is monetary tightening in between November 2011 and September 2012, the current account deficit goes down, but before it macro-prudential tightening was not effective on the current account deficit.

Here we see the total loan to growth rate, year on year change, you see what happens in the period which there is macro-prudential tightening and monetary tightening and macro-prudential tightening and monetary easing



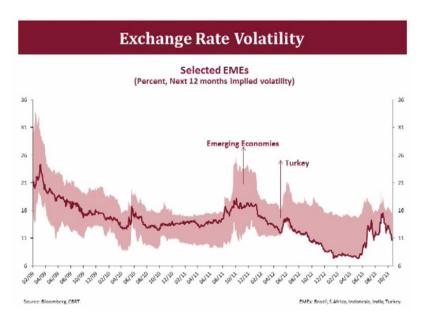
There are 4 different areas in which the monetary policy mix is changing and you would see the effect of it

Quality of Capital inflows, which are coming as foreign direct investment also portfolio and short term, you see in the last months portfolio and short term is increasing, and what was the purpose of required reserve to increase the maturity of deposit, you see if there is a little improvement



And international reserve of central bank includes foreign currency and gold brought by the central bank as required reserves therefore the international reserves are increasing.

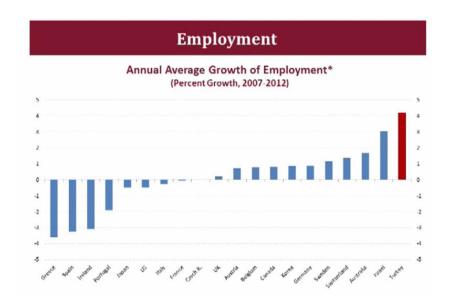
In emerging market economies, there were exchange rate volatility but look at turkeys position in end of 2011 and beginning of 2012, although the volatility is very high in emerging economies, in turkey it is not so high, under the average of emerging economies



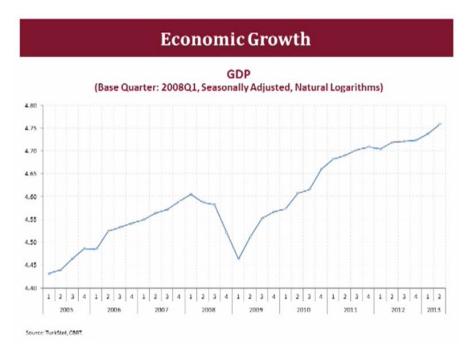
And as I have mentioned in the beginning there is inflation targeting regime in turkey and inflation target is 5 % but unfortunately we are 2% points over the target rate if it becomes at the end of the year above target rate +2 (which mean 7%) the central bank will write an excuse letter to the prime minister, to the government, if it is under the target rate then no need for writing excuse letter to

the government, there is a possibility that we will write an excuse letter this year but also may not, it is in the critical point

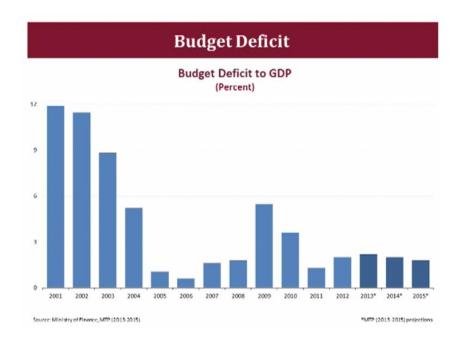
And employment you see, the European countries here also Korea and compare the annual average growth of employment is higher among these countries, which means Turkish economy can create more jobs better compared to other countries you see here.



And this is the picture of GDP growth

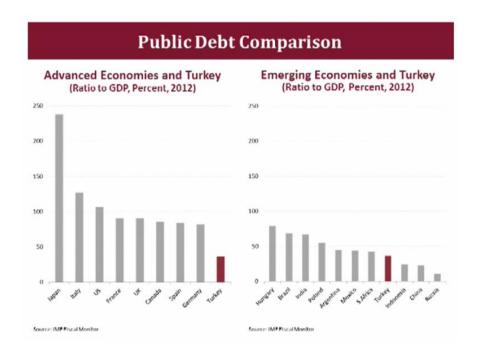


And also the fiscal policy helps the central bank policies, here budget deficit to GDP is low in turkey and this helps central bank policies.

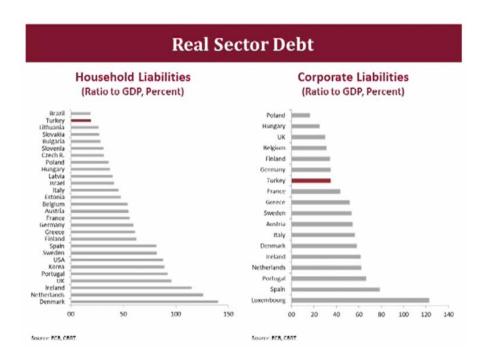


And public debt is also reasonable levels, even the European counties cannot achieve mastic criteria but turkey can do it.

And here there is public debt comparison between countries you see Japan has high public debt as it is known, turkey is lower than the others, and on the right hand side we compare with the emerging economies, Indonesia, china, and Russia are better than Turkey, but turkey is better than the countries on the left hand side



And here we see the debt of the household and corporates, this is the right hand side corporate liabilities it is important in turkey, there is no government that higher amount but the private sector has debt.



Housing loans are not so high compared to other countries



#### **Summary**

And let me summarise,

- bringing inflation down to single digit has removed one of the most important obstacles to growth as we have referred to academic work in the beginning
- A multi-instrument monetary policy supports financial stability by smoothing out the fluctuations in credit and currency
- Improvements in price stability and financial stability improve balanced growth prospects in Turkey.
- Strong banking sector has been an important factor for the achievements of Turkey after the global financial crisis.
- The flexible monetary policy adopted by the CBRT as well as the strong balances helps Turkey to take timely measures against any shock.

Here my presentation about monetary policy of Turkish central bank ends.

And now one hour is over almost, if you like, I can share with you the Islamic banking and capital and money market experience in Turkey if you are not tired, but we can stop here also

#### **QUESTIONS & ANSWERS**

#### Question 1)

بسم الله الرحمن

لي استفسار بخصوص الكوريدور، لا زالت تركيا مصممة على استخدام الكوريدور، وهو فيروس يستخدم في العلاج، وهو بؤدي إلى تضخم ويهدر الموارد المالية للشعب في المدى البعيد، وقد انتشر في الشرق الأوسط. فلماذا تصر تركيا على استخدامه في النظام النقدى كأحد السياسات

Why does Turkey use the interest rate corridor?

#### Answer 1)

Actually first of all you said virus right for interest, that is another view or belief and ideology but there is a reality in Turkey that is Turkey is an interest based economy, what is our purpose or the purpose of the government not to increase the interest rate so high, because interest rate is an element of cost, the interest rate corridor helps to keep the interest rates not to go up over one maximum limit, the corridor has two levels, minimum level which is borrowing rate and maximum level which is the lending rate putting that high limit, central bank of turkey wishes to achieve affordable interest rates, not so high, it is used to keep interest rates in a given limit. But also if we come back to the virus, also in Turkey as if you like we can go on, in Turkey we started to develop Islamic finance, we have four Islamic banks, but we do not call them Islamic, we call the participation, because, in my opinion it is not good to say or to call banking with a name of a religion, there is no Christian bank or Jewish bank, therefore, even in the global arena, the people like Turkish title participation bank, and participation finance, we have four participation banks, two of them are listed companies, since 1985 there are developing, in last 3 – 4 years, besides the banking also capital and money market instruments are introduced in Turkish economy, these participation banks cannot benefit from the liquidity facilities of the central bank, why? I have mentioned, how the liquidity is injected to the economy, the banks brings their government banks for repo, against it gets liquidity, the participation cannot keep government bonds which is interest based, therefore,, until

recently, there was an opportunity, this equality between conventional banks and participation banks, but central bank now changed this position, also the Turkish treasury issued Sukuk, which is Islamic bond, actually it is not a bond it depends on equity but generally it is called Islamic bond let me not go further, the Sukuk issued by the treasury if bought by participation banks and brought to central bank for repo now on central bank accept those Sukuk as collateral for liquidity, this is an achievement, a progress, also maybe you have heard, there is a new cooperation called IILM international Islamic liquidity management cooperation, which is why I am here, tomorrow there is governing board of IILM which is founded by 10 central banks, including Islamic development bank IDB, and in 2013 Qatar central bank governor was chairing the governing board, I am the chairman of the audit committee of IILM, we ,Turkish central bank also invested in IILM, we have share, we are one of those 9 central banks which are shareholders in IILM, IILM issued Sukuk short term Sukuk to solve the liquidity problems of the Islamic financial institutions, these are three months maturity Sukuk, the amount is not 490 million US dollar, and recently is rolled over, 3 months ended and new issuance happened, now if any Turkish participation bank invests in IILM Sukuk, also Turkish central bank will accept it as collateral for repo, liquidity facility. And also in turkey we have, capital market instruments as indexes, there is participation index, and it is also useful for those who wish to invest in equity market in Islamic way

#### Question 2)

I just want to know first, if you know what's the market share of these participatory finance or Islamic banks, and do you really plan to expand this share for example like Malaysia they have a target to reach by 2020 they would reach a certain percentage, this is the first questions

Second questions I can see that the process of issuing money is totally lending based, on government debt, why don't you consider or would you be willing to consider if the central bank give another version of money and monetary control through issuing certificates through investment certificates in those supporting banks, and in this case the function of lending of last resort to those banks conventionally and participatory banks shall I say participatorily,

#### Answer 2)

That's good idea, first the share is unfortunately 5-6% in the banking system, participation banks have in terms of assets and loans, but now the government has an initiative to establish a participation bank owned by the treasury, Turkish treasury, that means state owned participation banks, now the preparations are developing, I hope that the development will increase the share of the participatory bank.

Coming to the second issue which is theoretical, first theoretically the structure of the giving money to the economy in Islamic way should be structured, as I know Iran has something like you explained but even there if am not mistaken there is an interest rate, there are several books, actually the literature on Islamic economics is not developing as the literature in Islamic finance, Islamic banking an finance literature is getting bigger articles, books, etc., but the literature in Islamic economics is not so, maybe it is difficult, there are several books, first the academics should work on it, structure the basement, then some countries can apply it and implement it

#### Question 3)

Thank you for the very interesting lecture, I was curious that you showed that in turkey the employment growth rate was close to 4 %, job creation rate, I was just curious given what is having in Europe, what is driving this growth in turkey, what are the expanding sector in turkey,

The other question relates to what you mentioned about the excuse letter to government, given the long history of inflation of turkey, I would assume that when it comes to inflation the central bank would be more sensitive about keeping inflation level low, the 5% itself is not a low target, in other countries we see 2-3%,

#### Answer3)

Manufacturing industry in turkey especially car manufacturing in turkey is going up, and also the services sector is expanding, those two are the priority having increase in job creation.

And this writing excuse letter is an issue of inflation targeting, in those country if there is an inflation targeting, then the excuse letter will be written

#### Question 4)

Thank you very much for this well though presentation, you as your excellency as a key person in devising probably the policy for the central bank tool to move out from the crisis that the world is witnessing and specifically the neighbouring country like Greece, in very summarised way, what did turkey learned from the financial crisis that have happened, and what contributed to some of the points that you have presented

#### Answer 4)

In turkey, from 200- to 2004 we had a banking crisis and now we are indebted to debt crisis, after that crisis Turkish economy has recovered the banking system and the crisis didn't hit turkey in finance, the crisis hit turkey in trade channel, commerce channel, because we lost our export market after the crisis, in terms of finance we were strong, another point is that sometimes being undeveloped is becoming advantage, Turkish finance system was not so complicated and developed, hedging and synthetic instruments etc. were not available in turkey that was an advantage for turkey to keep the financial crisis away

#### Question 5)

Quick question probably a sensitive question as well. As a central bank how do you manage the diverse opinions and disagreements you normally receive regarding your policies, from important bodies like IMF, if they say this monetary framework is complicated, what does the central bank, I am curious as an insider thinks, do I convince the IMF, do I ignore them?

#### Answer 5)

in terms of the IMF, thanks to God, we are free their mandate, since we have already paid our debt, of course there is article number 4 inspection issue, but they cannot impose any policy to turkey, therefore we are comfortable, but there are some different views in turkey, there are several economy ministers in turkey, and for example, if the Turkish Lira is appreciating, the minister responsible for export is claiming but if Turkish Lira depreciate, he is happy, and this is good for cheques and balances, each and every minister looks from his own perspective, and in economy of course an issue not always good for all the actors of the economy, some actors can benefit, other not, the critics not coming from IMF, but inside, also of course the investors, investing in Turkey, for example, there were not comfortable that Turkish central bank didn't increase interest rate, they expected and forced Turkish central bank to increase the interest rate but the central bank did not do it and they were not comfortable, they were not happy with the grades

#### Question 6)

First of all thank you very much for the convincing presentation,

My question goes around one of your answers, the impact of crisis on the Turkish economy and the especially the burden on the commercial and trade sector, and on that front of your previous slides were touching on the credit growth in turkey and there is a very important and sensitive relationship between the real sector, the real economy and the banking sector, on that front, how do you see the connection between the banking sector in turkey vis-a-vis the problem the SME in turkey, and they are the ones that actually have been hardly hit by the crisis especially that Turkey is famous with the Anatolian tigers that is the SME which has been the backbone of the economy through the course of 1990s which actually really helped the acting party government and it's the economy's bases, so what does the Turkish experience say about SME and the connection through the banking industry and can we have an implication on the whole middle east or MENA region

#### Answer 6)

The issue of small and medium size enterprises is very important as you have mentions, the Anatolian tigers, in turkey we have a ranking of companies according to the sales from manufacturing. First 500 and second 500, the number of "Anatolian tigers" in the first 500 and the second 500 is increasing, also it is usually witnessed that participation banks are more helpful to those Anatolian tigers, because they are manufacturers, and participation bank to give loan there should be a purchase, they finance through murabaha, thus they finance manufacturing, thus the participation bank help for SME is a lot, also the government has an agency supporting the SME. To be an example to other countries, the most important advantage of Turkish economy is having political stability, since 2003, there is a single government and stable political environment this helped a lot the economy, and also the fiscal policy of the government, helped because the budget deficit was under control since 2003, I have shown some charts about it, the government debt and the public budget deficit are in lower levels and this is an advantage.

#### Question 6.1)

Just as a follow up question, my expectation regarding the Turkish experience as a model to other countries was actually was with a different focus especially the introduction of the national incentive system in turkey which is based on the regions and the government provides special incentive mechanism towards different companies in different sectors and different cities, and one aspects of those incentives raised to financial eases or in terms of energy consumption of taxation so on and so forth, so on that front I was asking if there is a connection between the banking sector and the government using the banking sector in order to provide those kind of incentives and I think this could be an area for future research for turkey which could be transferred to other countries

#### Answer 6.1)

That is right there are incentives but those are also debateable, because when you give incentive sometimes the entrepreneurs are misusing that incentive, for example you give 0 rate interest loan the entrepreneur gets that loan but uses it in different place, instead of investing in the incentive given area. Also the incentives are usually changing from this area to that area, there are complaint..etc. but in an all in all look, yes incentives are working.

#### Question 7)

I will speak in Arabic

حقيقة في العالم العربي، على الأقل بصيغتي الشخصية، احس بأن سياسا الأثراك هم الاكثر انفتاحا علينا في العالم العربي من الاقتصاديين والبنكيين، لا نكدنا عليهم الكثير في التجربة الاقتصادية التركية، وبهذه المناسبة اود ان اسال فعلا هل هناك في قائمة البنوك العالمية في العالم بنك تركي قوي لديه فروع في مختلف الأماكن في العالم العربي والعالم الأخر . نحت مثلا في قطر لدينا بنك قطر الوطني الذي هو أكبر بنك في العالم العربي وفي الشرق الأوسط هل هناك بنك بنفس قوة بنك قطر الوطني على الأقل في تركيا، وله فروع في الدول المحيطة بشكل خاص، .

Are there strong international Banks in Turkey that is considered among the top in its region and in the world? As in Qatar the Qatar national bank is considered to be the biggest bank in the Middle East and the Arab world?

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سوال الثاني، النهضة الاقتصادية التي شهدتها تركيا هل ساهم فيها القطاع البنكي بطريقة متميزة، هل هناك في تركيا بنوك استثمارية قامت بدور تنموي حقيقي واعطت صورة فيها نوع من الابتكار في القطاع البنكي عموما وان كان في القطاع التقليدي.
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Are there investment banks in turkey that contributed to the economic and financial development in a unique way?

#### Answer 7)

Thank you; In turkey we have around 50 banks, and 3 of them are government owned, state owned banks, and Turkish banks has branches in Balkan countries, some in Russia, some in Bahrain. The loan policy of the Turkish bank is leaning to consumer loans, not giving loan to the companies, of course it is available but the profitability they prefer to give consumer loans, credit card loans, this increases the credit volume and therefore the BISA now taking measures to stop the increase in consumer loans and also Turkish banks are investing in treasury bonds for example, if you look at the

balance sheet for example, high percentage of the assets are government bonds instead of giving loan to the economy they prefer to keep government bonds. But if we compare this with the past, in the past it was very high, the banks were collecting deposits and investing to government bonds and stop, now the percentage of loans given to the economy now is increasing but should increase more.

#### Question 8)

Where was the idea of the excuse letter adopted from? And what are the legal bases upon which this right is derived from?

#### Answer 8)

As I mentioned before it is an element of inflation targeting regime, we started in 2006, and in Turkish central banking law, there is an article that the inflation target is determined with discretions from the central bank and the government, the inflation target is determined together central bank and the government. After the target is determined the job of keeping inflation rate in that limit belongs to the central bank that's why the central bank is responsible for that target rate if it isover 2 point over the target rate the letter should be written according to the article of the central banking law. It was not before 2006, started after inflation targeting regime.

#### Question 9)

Being the last question; I just want to ask quick question that you have mentioned that there are 2 types of approaches to deal with the financial stability, unified approach and coordinated approach, I just want to know which one of them was more resilient towards crisis and is it still continuing?

#### Answer 8)

Actually the case is that if you are having separate authorities as UK, during the crisis you say that the financial services authority couldn't foresee this crisis that why we should get it to the central bank and they unify it after crisis

But in Malaysia they were together during the crisis now they said it did not work properly and we should separate it. It depends, there is no single solution, depending on the condition of the country, but of course in principle; both can fail.