

VAKIFBANK TURKISH ECONOMY WEEKLY

What macro and financial indicators
tell about Turkish bond market?



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	Benchmark Bond Yield	Industrial Production	Industrial Production (3M MA)	Capacity Utilization	Debt Stock	Domestic Debt Stock	Budget Balance	Current Account Balance	Current Account Balance (12M Sum)	Portfolio Investment	Portfolio Investment (12M Sum)	Securities Portfolio	Inflation	Core I Index	Inflation Expectations (12M After)	Inflation Expectations (24M After)	CBRT Rate	Developed Countries Average Rate	Developing Countries Average Rate	Effective Exchange Rate (CPI Based)	Effective Exchange Rate (PPI Based)	Exchange Rate Basket	EMBI (Global)	EMBI (TR)	EMBI (Spread)	TR CDS (5Y)	CDS (Spread)	MSCI	US 2Y Generic Bond Yield	US 10Y Generic Bond Yield	Germany 2Y Generic Bond Yield	Germany 10Y Generic Bond Yield
Benchmark Bond Yield	1.00	0.16	0.31	0.45	-0.88	-0.92	0.23	-0.25	-0.92	-0.33	-0.53	-0.89	-0.75	-0.70	0.50	0.07	0.96	0.76	0.95	0.09	0.11	-0.55	-0.36	-0.65	0.51	0.54	0.74	-0.46	0.61	0.26	0.82	0.74
Industrial Production		1.00	0.86	0.83	-0.27	-0.15	0.38	-0.56	-0.20	0.09	0.34	0.04	-0.21	-0.16	-0.02	-0.19	0.23	0.47	0.11	0.56	0.61	-0.63	0.64	0.42	0.65	-0.56	0.52	0.60	0.51	0.59	0.48	0.45
Industrial Production (3M MA)			1.00	0.94	-0.42	-0.29	0.45	-0.62	-0.37	0.03	0.30	-0.10	-0.31	-0.25	0.13	-0.13	0.40	0.61	0.31	0.70	0.71	-0.78	0.61	0.37	0.67	-0.48	0.58	0.56	0.59	0.57	0.62	0.55
Capacity Utilization				1.00	-0.57	-0.45	0.49	-0.64	-0.51	-0.05	0.25	-0.19	-0.49	-0.46	0.09	-0.24	0.56	0.77	0.42	0.74	0.76	-0.88	0.57	0.26	0.81	-0.40	0.72	0.51	0.74	0.68	0.75	0.68
Debt Stock					1.00	0.99	-0.29	0.33	0.80	0.31	0.43	0.72	0.95	0.92	-0.10	0.35	-0.96	-0.93	-0.79	-0.28	-0.24	0.77	0.03	0.32	-0.61	-0.22	-0.82	0.17	-0.82	-0.45	-0.94	-0.88
Domestic Debt Stock						1.00	-0.24	0.23	0.81	0.35	0.52	0.79	0.94	0.90	-0.16	0.28	-0.97	-0.87	-0.83	-0.15	-0.12	0.66	0.19	0.46	-0.52	-0.36	-0.77	0.32	-0.75	-0.35	-0.89	-0.83
Budget Balance							1.00	-0.37	-0.27	0.03	0.06	-0.10	-0.20	-0.17	0.10	-0.07	0.26	0.33	0.18	0.40	0.43	-0.43	0.27	0.13	0.38	-0.18	0.40	0.15	0.35	0.37	0.39	0.39
Current Account Balance								1.00	0.38	-0.24	-0.23	0.09	0.19	0.27	-0.04	0.19	-0.29	-0.46	-0.22	-0.55	-0.54	0.57	-0.56	-0.34	-0.63	0.34	-0.51	-0.43	-0.44	-0.42	-0.49	-0.44
Current Account Balance (12M Sum)									1.00	0.23	0.33	0.86	0.62	0.61	-0.57	-0.14	-0.90	-0.73	-0.97	-0.30	-0.34	0.60	0.26	0.53	-0.48	-0.48	-0.65	0.35	-0.54	-0.17	-0.75	-0.62
Portfolio Investment										1.00	0.41	0.25	0.34	0.33	0.01	0.16	-0.35	-0.28	-0.32	0.13	0.21	0.03	0.32	0.39	-0.06	-0.39	-0.20	0.28	-0.15	-0.03	-0.19	-0.16
Portfolio Investment (12M Sum)											1.00	0.67	0.40	0.36	-0.16	-0.05	-0.40	-0.12	-0.42	0.56	0.57	-0.13	0.54	0.65	-0.06	-0.65	-0.33	0.76	0.00	0.17	-0.27	-0.31
Securities Portfolio												1.00	0.57	0.49	-0.59	-0.27	-0.79	-0.50	-0.89	0.09	0.03	0.31	0.52	0.71	-0.27	-0.68	-0.53	0.66	-0.32	0.06	-0.60	-0.52
Inflation													1.00	0.96	0.15	0.55	-0.87	-0.89	-0.62	-0.19	-0.14	0.70	-0.02	0.24	-0.55	-0.13	-0.74	0.10	-0.83	-0.45	-0.86	-0.83
Core I Index														1.00	0.22	0.62	-0.83	-0.88	-0.58	-0.24	-0.17	0.69	-0.06	0.20	-0.58	-0.11	-0.72	0.06	-0.78	-0.45	-0.82	-0.79
Inflation Expectations (12M After)															1.00	0.88	0.32	0.02	0.61	-0.01	0.12	-0.03	-0.49	-0.56	0.01	0.52	0.14	-0.48	-0.06	-0.14	0.15	0.07
Inflation Expectations (24M After)																1.00	-0.15	-0.45	0.19	-0.23	-0.08	0.37	-0.50	-0.42	-0.31	0.42	-0.23	-0.44	-0.45	-0.35	-0.29	-0.32
CBRT Rate																	1.00	0.90	0.91	0.26	0.24	-0.71	-0.19	-0.48	0.56	0.37	0.78	-0.27	0.76	0.37	0.90	0.81
Developed Countries Average Rate																		1.00	0.70	0.53	0.48	-0.90	0.21	-0.10	0.73	-0.03	0.82	0.14	0.91	0.61	0.94	0.87
Developing Countries Average Rate																			1.00	0.17	0.20	-0.52	-0.39	-0.64	0.40	0.58	0.62	-0.46	0.48	0.11	0.72	0.60
Effective Exchange Rate (CPI Based)																				1.00	0.96	-0.77	0.61	0.47	0.48	-0.53	0.33	0.63	0.47	0.49	0.41	0.34
Effective Exchange Rate (PPI Based)																					1.00	-0.76	0.58	0.42	0.50	-0.51	0.33	0.60	0.46	0.50	0.40	0.32
Exchange Rate Basket																						1.00	-0.47	-0.19	-0.73	0.34	-0.74	-0.41	-0.87	-0.70	-0.86	-0.80
EMBI (Global)																							1.00	0.91	0.48	-0.91	0.22	0.87	0.33	0.48	0.20	0.20
EMBI (TR)																								1.00	0.07	-0.94	-0.17	0.86	0.04	0.22	-0.15	-0.15
EMBI (Spread)																									1.00	-0.22	0.89	0.28	0.70	0.79	0.79	
TR CDS (5Y)																										1.00	0.02	-0.92	-0.21	-0.45	0.01	-0.02
CDS (Spread)																											1.00	0.00	0.78	0.67	0.93	0.94
MSCI																												1.00	0.30	0.50	0.02	0.03
US 2Y Generic Bond Yield																													1.00	0.79	0.89	0.88
US 10Y Generic Bond Yield																														1.00	0.63	0.75
Germany 2Y Generic Bond Yield																															1.00	0.96
Germany 10Y Generic Bond Yield																																1.00

Source: VakıfBank

Any signal, high pricing bond market?



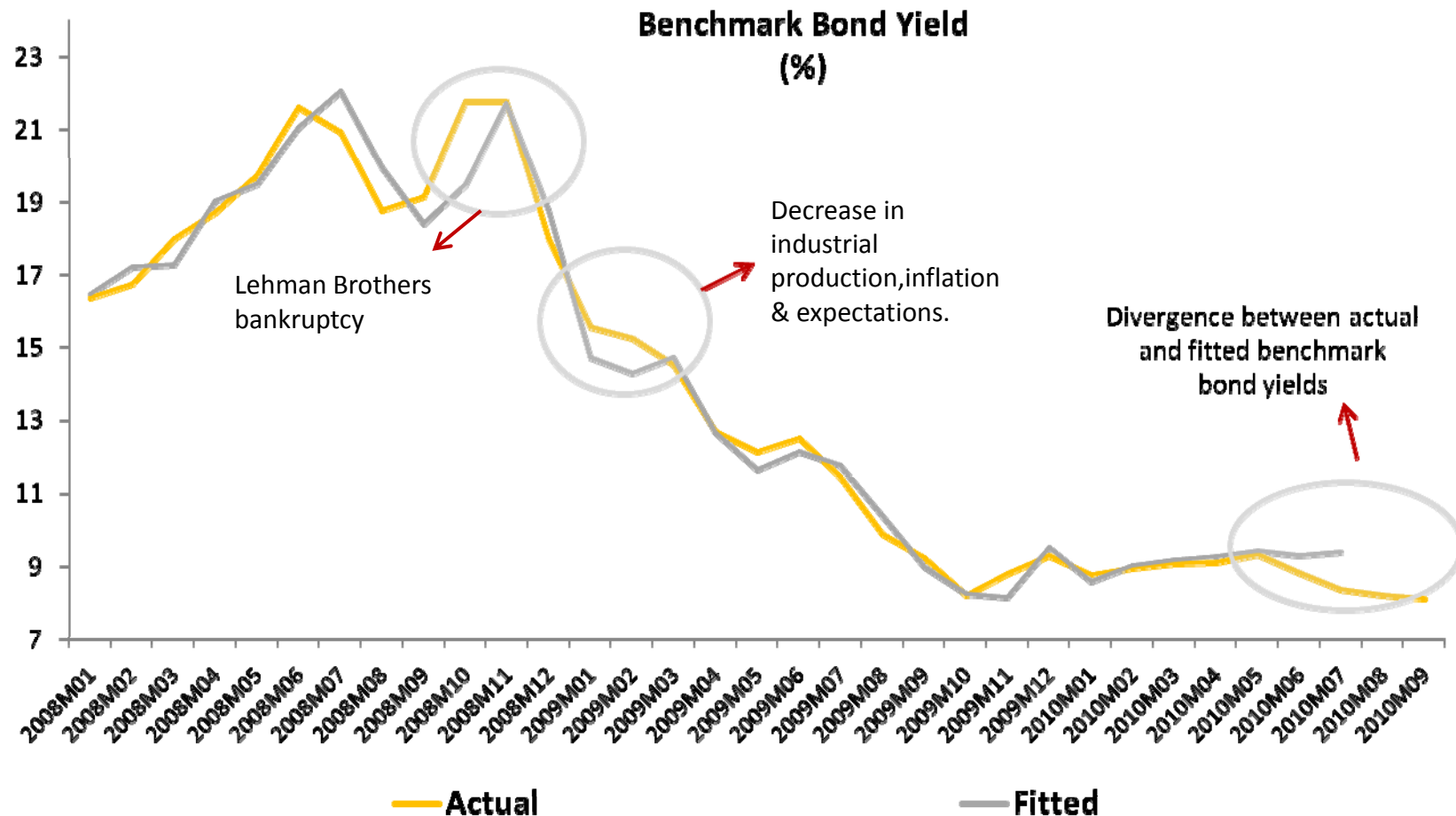
The starting point for our analysis is to form a model which aims to explain the determinants of Turkish benchmark bond yield level. Our model has 0.975 Adjusted R². Below is the summary of our model.

Estimated Model:

Dependent Variable: Average Turkish benchmark bond yields

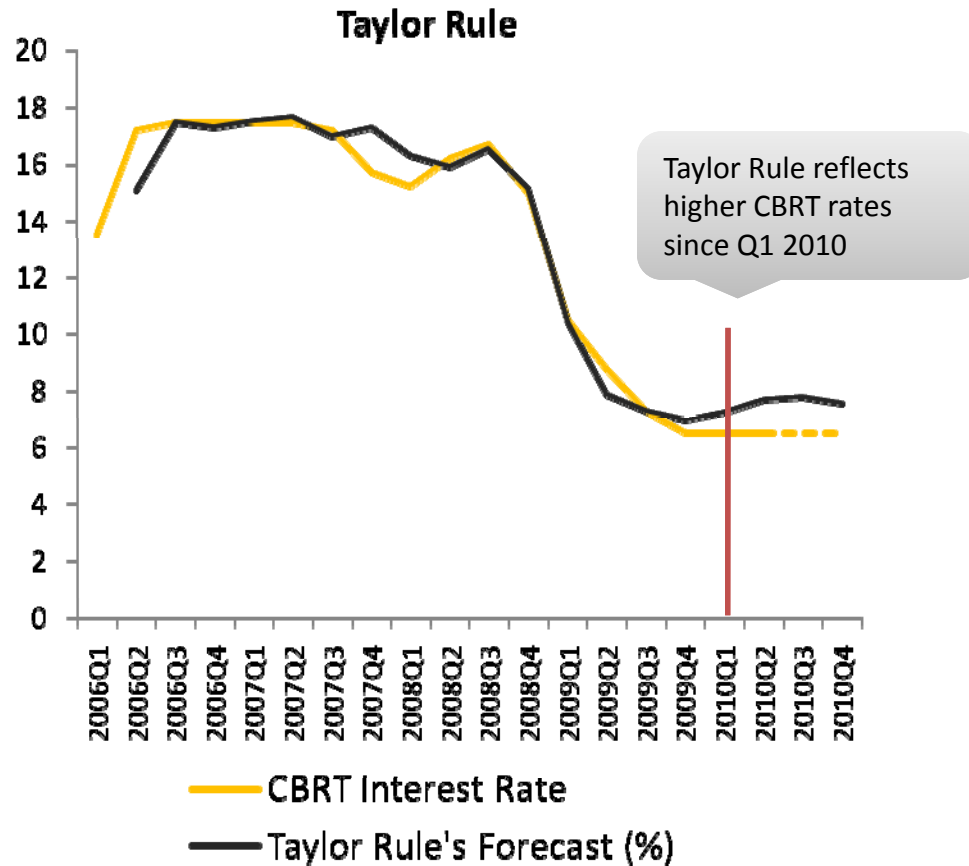
Variable	Coefficient	Prob.
Constant	48.7559	0.0000
Industrial Production Index (3 Month Moving Average)	0.0832	0.0000
Expected annual CPI by the end of the next 24 months	1.8796	0.0013
12 Months Cum. Current Account Balance	-0.00009	0.0004
Core I Inflation Index	-0.2591	0.0001
Domestic Debt Stock	-0.0671	0.0183
R ²	0.978	
Adjusted R ²	0.975	
Durbin Watson	1.880	
Sample: 2004 M09-2010 M091, with White's heteroscedastic consistent standard errors		
Source: VakıfBank		

In accordance with our model, the fair value of the benchmark TRY Yields is not in line with macroeconomic indicators since February 2010



Source :Bloomberg, Vakifbank

The Taylor Rule also supports the model results



Taylor Rule;

$$i = b_0 + b_1(\pi - \pi^*) + b_2(y - y^*),$$

π : Inflation






π^* : Inflation Target

y : Output

y^* : Potential Output

Sources: Bloomberg, Vakifbank

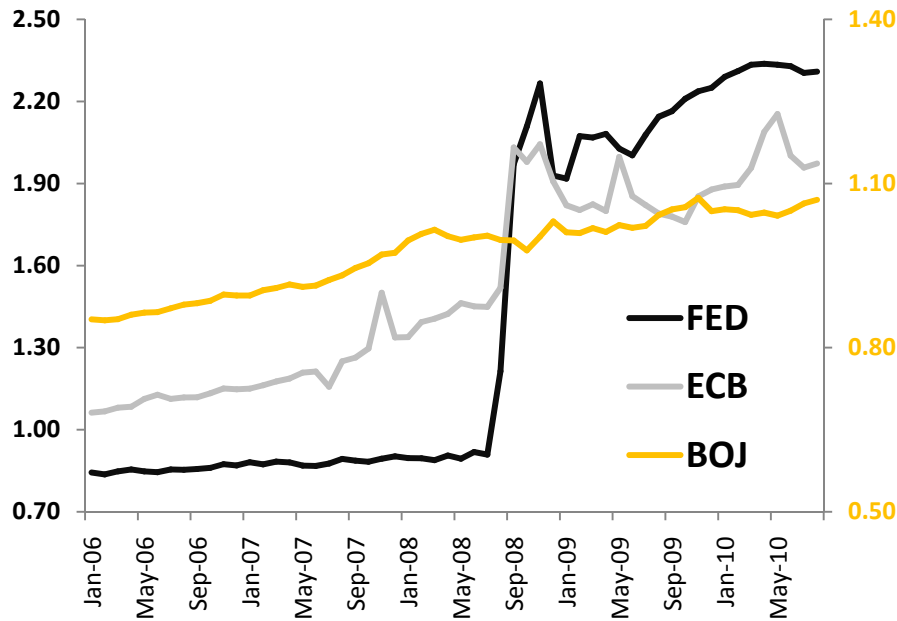
What could explain the difference between actual and fitted curves?

-  *High Global Liquidity*
-  *High Pricing of Bond Market in EM Countries*
-  *Low Inflation Expectations for Turkish Economy*
-  *Strong Fiscal Stance*
-  *Turkish Banking Sector willingness for high asset size*

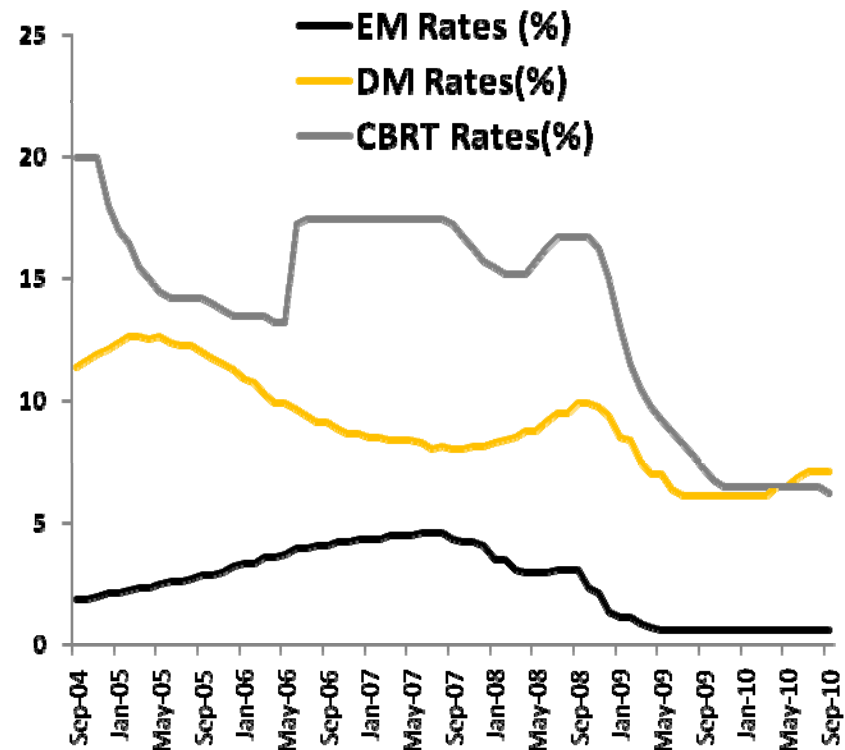
1. High Global Liquidity

During the crisis period in global economy, especially in developed markets several measures were taken to increase the amount of liquidity.

DM Central Banks Balance Sheet Size

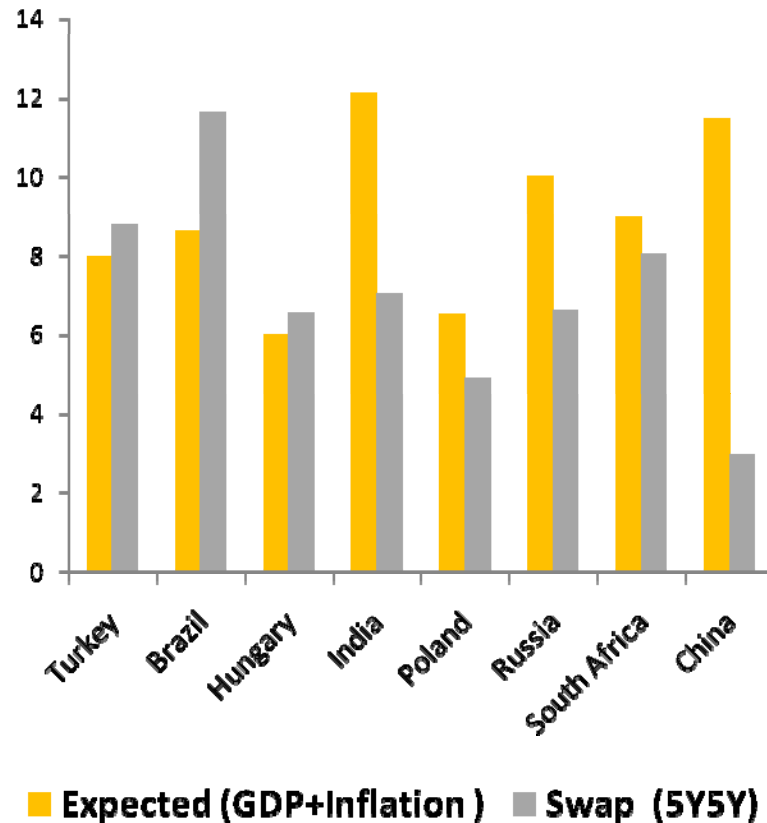


Source: Bloomberg



Source: Bloomberg

2. High Pricing of Bond Market in EM Countries



Sources :Bloomberg, IMF

In theory,

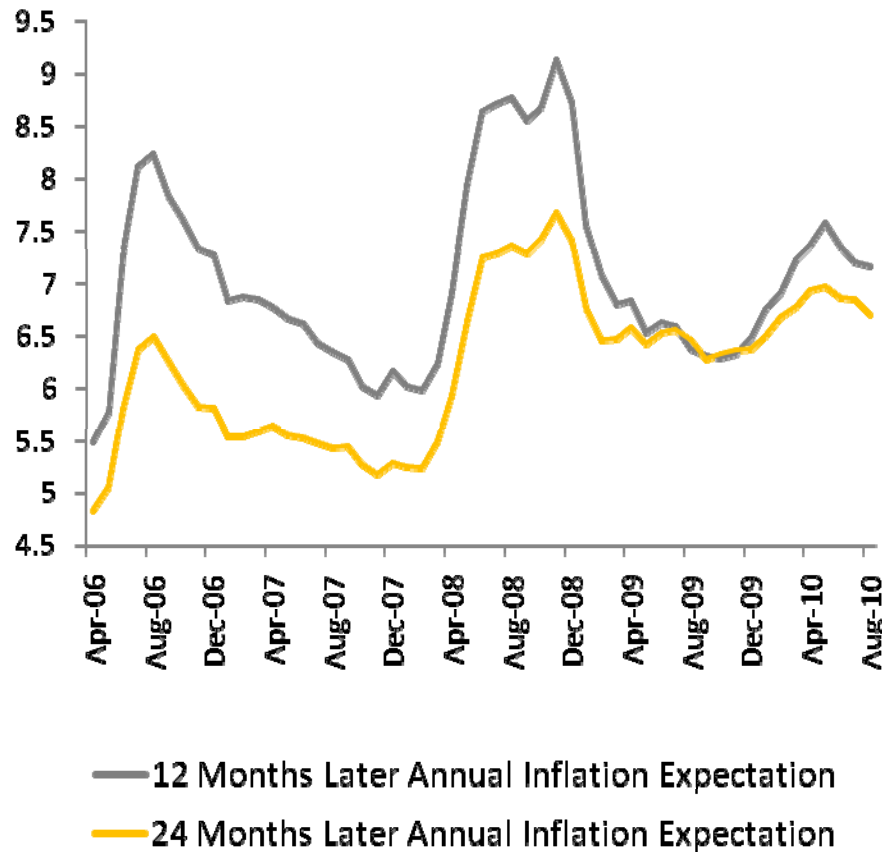
**Long term yield = Inflation Expectation +
Growth Expectation +
Risk Premium**

However,

In most of the EM countries, long term yields are lower than the summation of inflation and growth forecasts of IMF.

➔ High global liquidity keeps interest rates low in developing countries more than macro-economic indicators suggest.

3. Low inflation expectations for Turkish Economy



Source: CBRT

CPI inflation had a downward trend since the start of global crisis mainly because of depressed demand . However inflation volatility has been high on the back of volatility in food prices.



In spite of high volatility, CPI is still at a very low levels historically.



Low level of inflation affects the inflation expectations positively.



That supports the low rates in Turkish bond market.

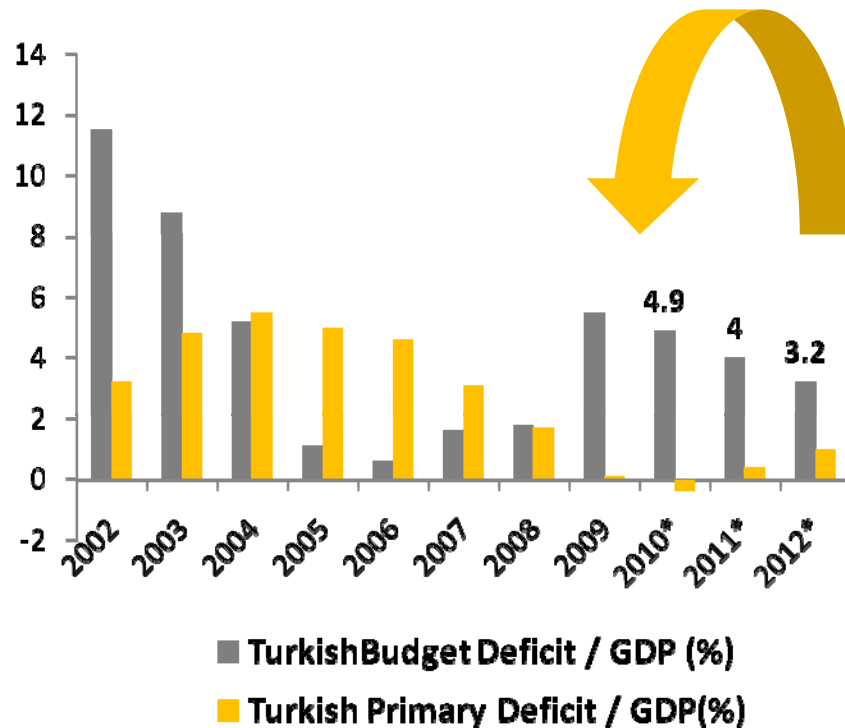
4. Strong fiscal stance

With global crisis, low level of revenue base and implementation of fiscal policies caused sharp increase in budget deficit and debt to GDP ratio globally.

DM economies' debt stocks are much higher than EM economies' .



Turkey stands out with its fiscal discipline in Emerging Markets.



Budget performance in the first eight months of 2010 is in line with the Medium term programme's targets. (for the end of 2010, target for budget deficit/GDP is 4.9%).

As of August 2010;

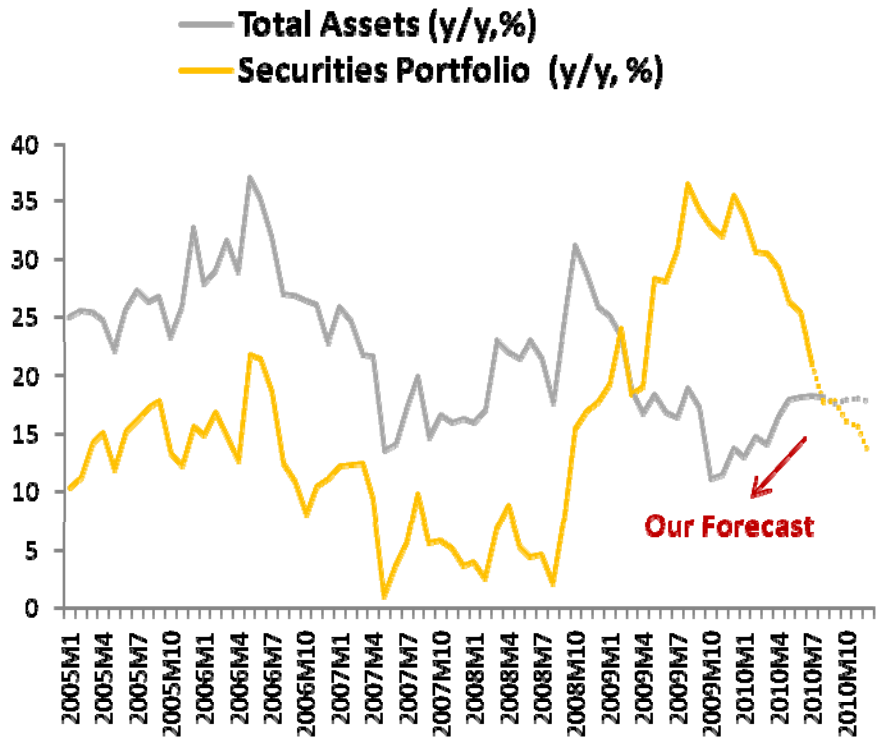
- ✓ Outstanding Gross Debt of Central Government increased %9 yoy and reached to 462.9 billion TL.
- ✓ Share of domestic debt stock and external debt stocks are 75% and 25%, respectively.
- ✓ Domestic debt rollover ratio is 87.5% between Jan-July 2010.

Source: CBRT

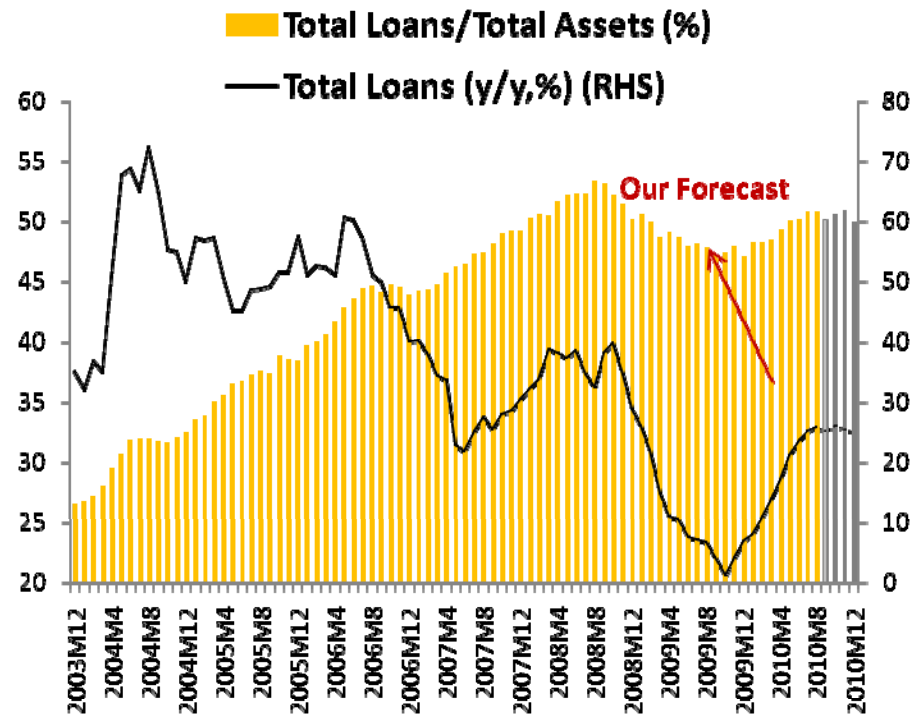
5. Turkish Banking Sector willingness for high asset size



Global crisis crowded out loan portfolio of banks and increased the amount of securities holdings which supports record low yields.



Source: BRSA, VakifBank



Source: BRSA, VakifBank

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