

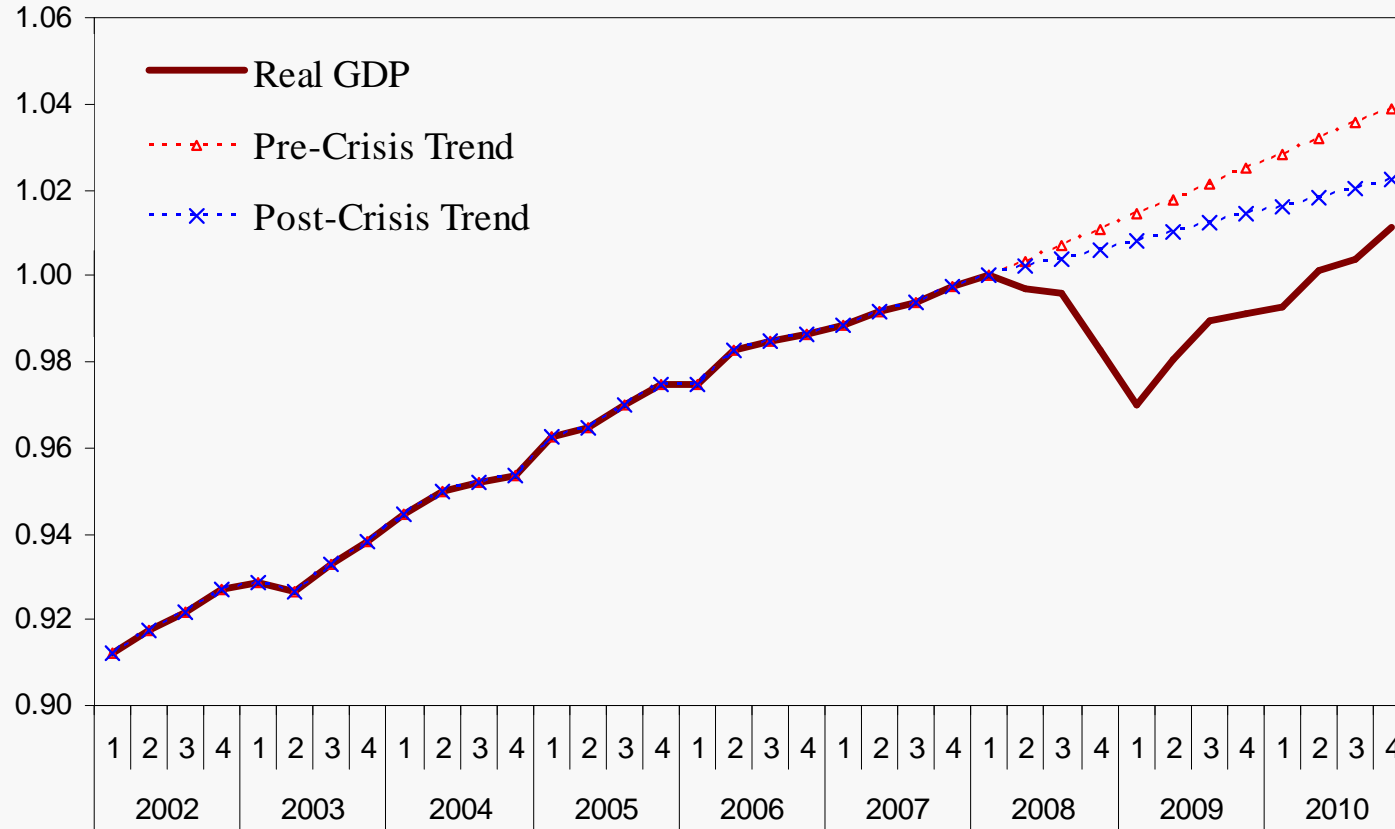
CENTRAL BANK OF THE REPUBLIC OF TURKEY

Erdem Başçı
Deputy Governor

April, 2011

Potential Growth and Output Gap

Output Gap and Potential Growth
(natural logarithm, seasonally adjusted, 2008 Q1=1)

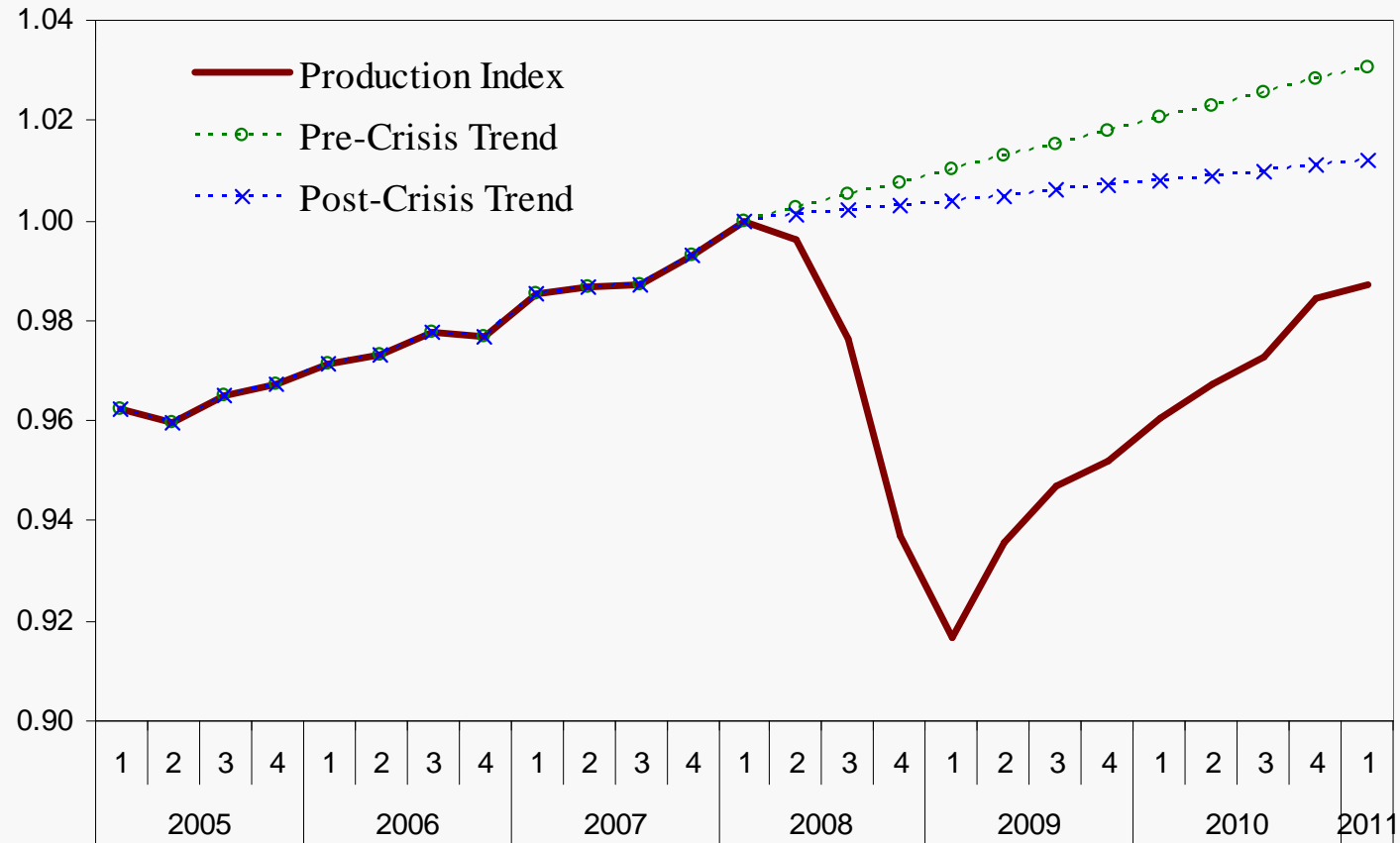


Source: TURKSTAT, CBRT

Export Oriented

Output Gap and Potential Growth

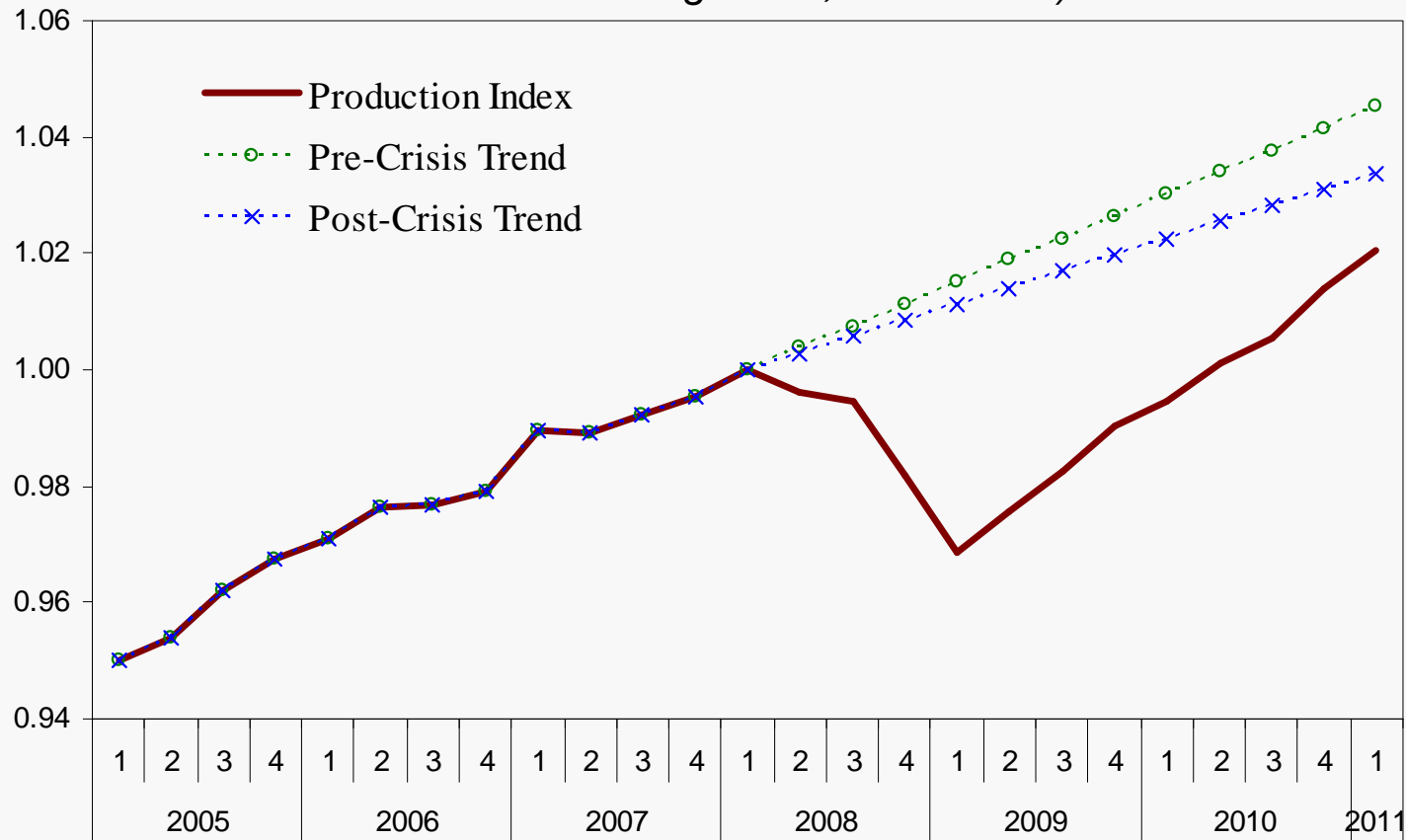
(Export oriented manufacturing sectors, natural logarithm, 2008 Q1=1)



Source: TURKSTAT, CBRT

Domestic Oriented

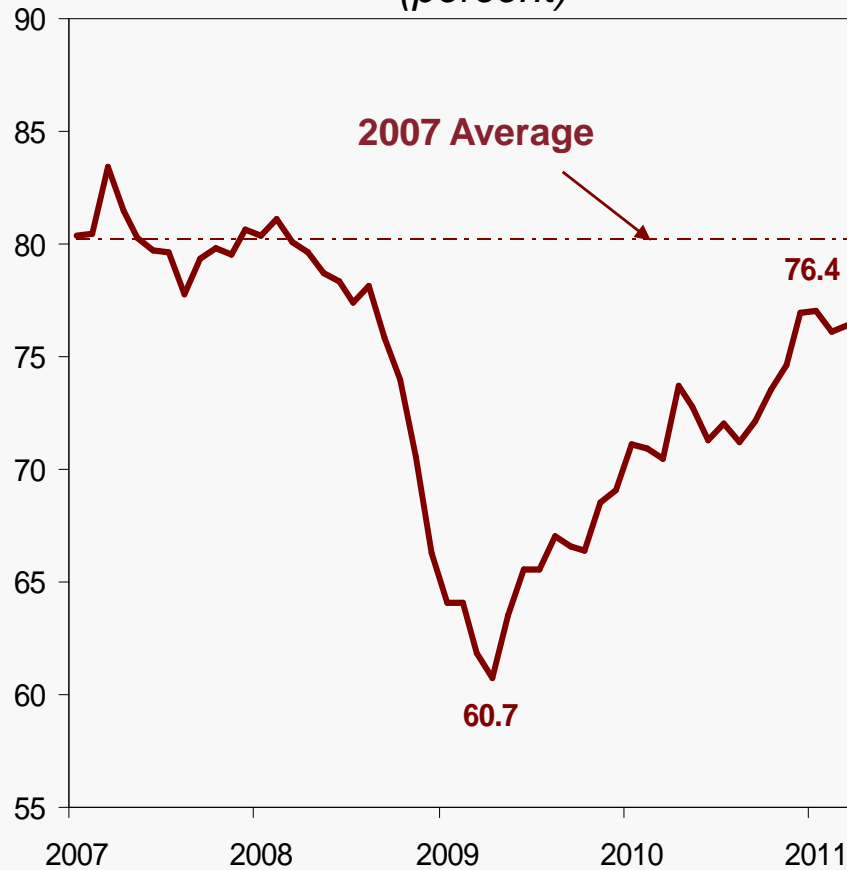
Output Gap and Potential Growth
(Domestic market oriented manufacturing sectors,
natural logarithm, 2008 Q1=1)



Source: TURKSTAT, CBRT

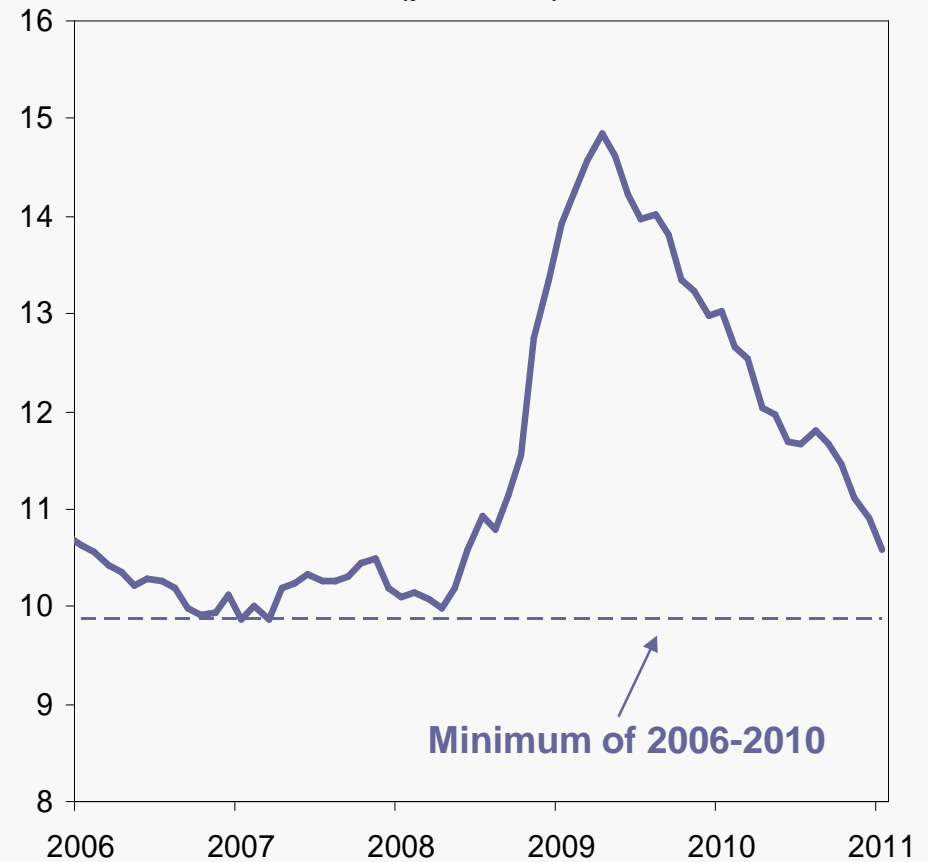
Capacity Utilization and Unemployment Gap

Capacity Utilization Rate (percent)



*Seasonally adjusted
Source: TURKSTAT, CBRT

Unemployment Rate* (percent)

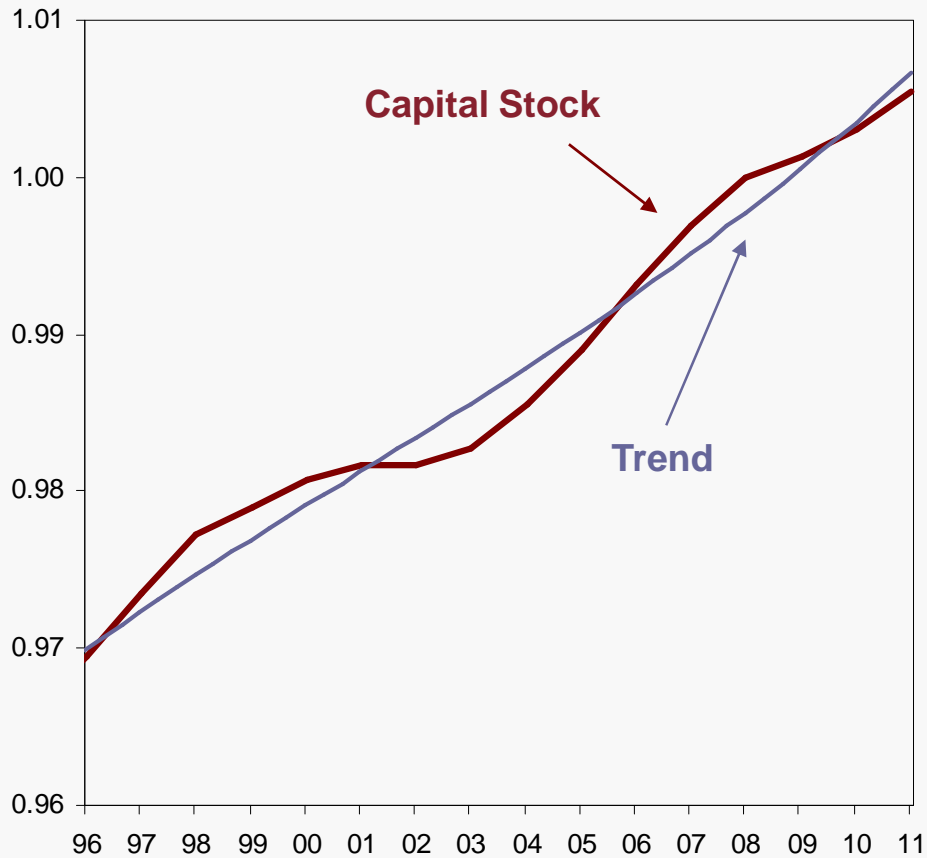


*Seasonally adjusted
Source: TURKSTAT, CBRT

Potential Output: Capital and Labor

Capital Stock*

(constant prices, natural logarithm, 2008=1)



Source: TURKSTAT, CBRT

Labor participation rate*

(percent)



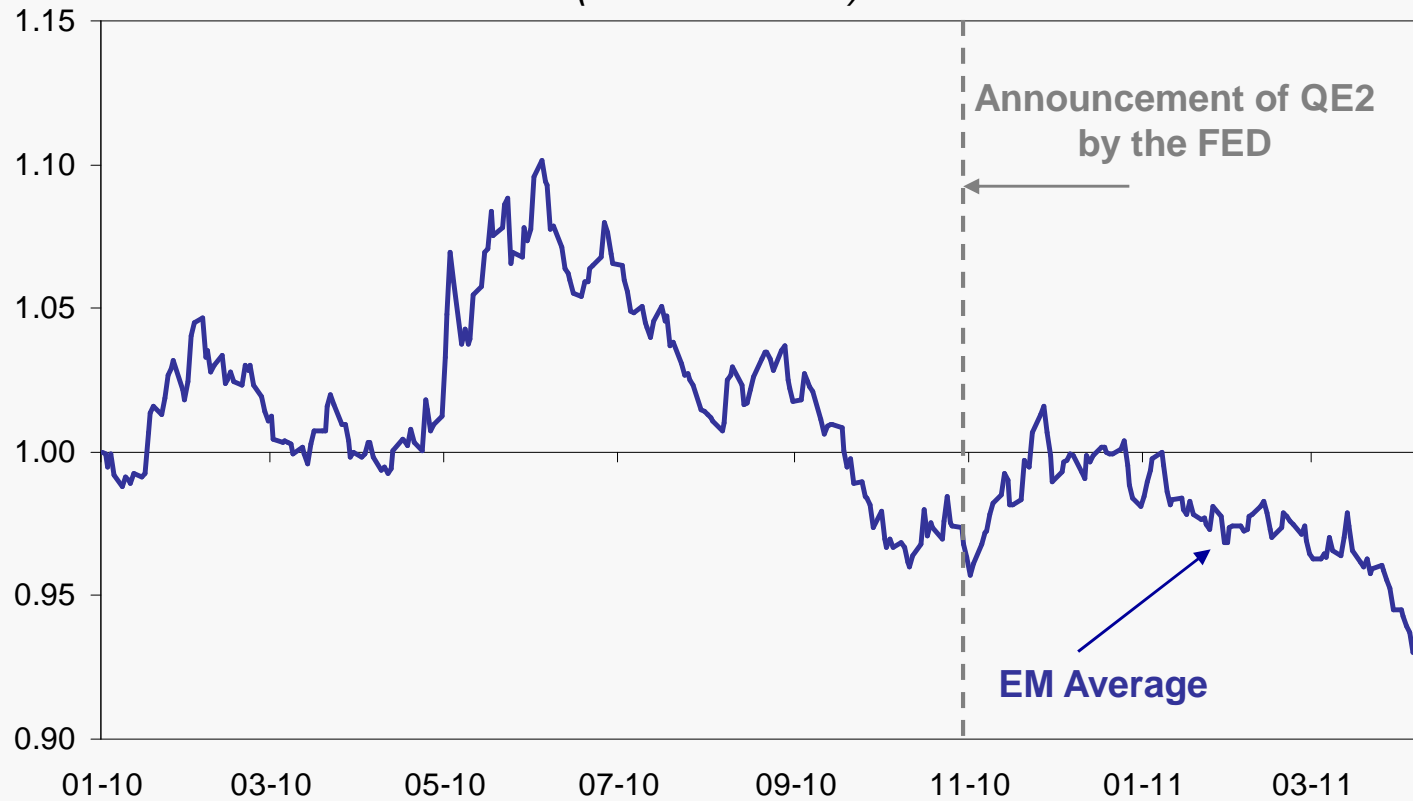
*Seasonally adjusted
Source: TURKSTAT, CBRT

Quantitative Easing vs. Quantitative Tightening

- Quantitative easing in major economies has continued in response to weakness in economic activity and heightened sovereign risks, resulting in unprecedented increases in central banks' balance sheets.
- Facing a significant degree of capital inflows, some developing countries have resorted to quantitative macroprudential tightening, even capital flow measures.
- Turkey has also initiated quantitative tightening via its exit strategy in April-November 2010 (QT1) and reserve requirement hikes after November 2010 (QT2).

Appreciation Pressure

EM currencies against USD*
(4 Jan 2010=1)



*Average of emerging market currencies, including Brazil, Chile, Czech Republic, Hungary, Mexico, Poland, South Africa, Indonesia, South Korea and Colombia.

Source: Bloomberg, CBRT

Two Approaches

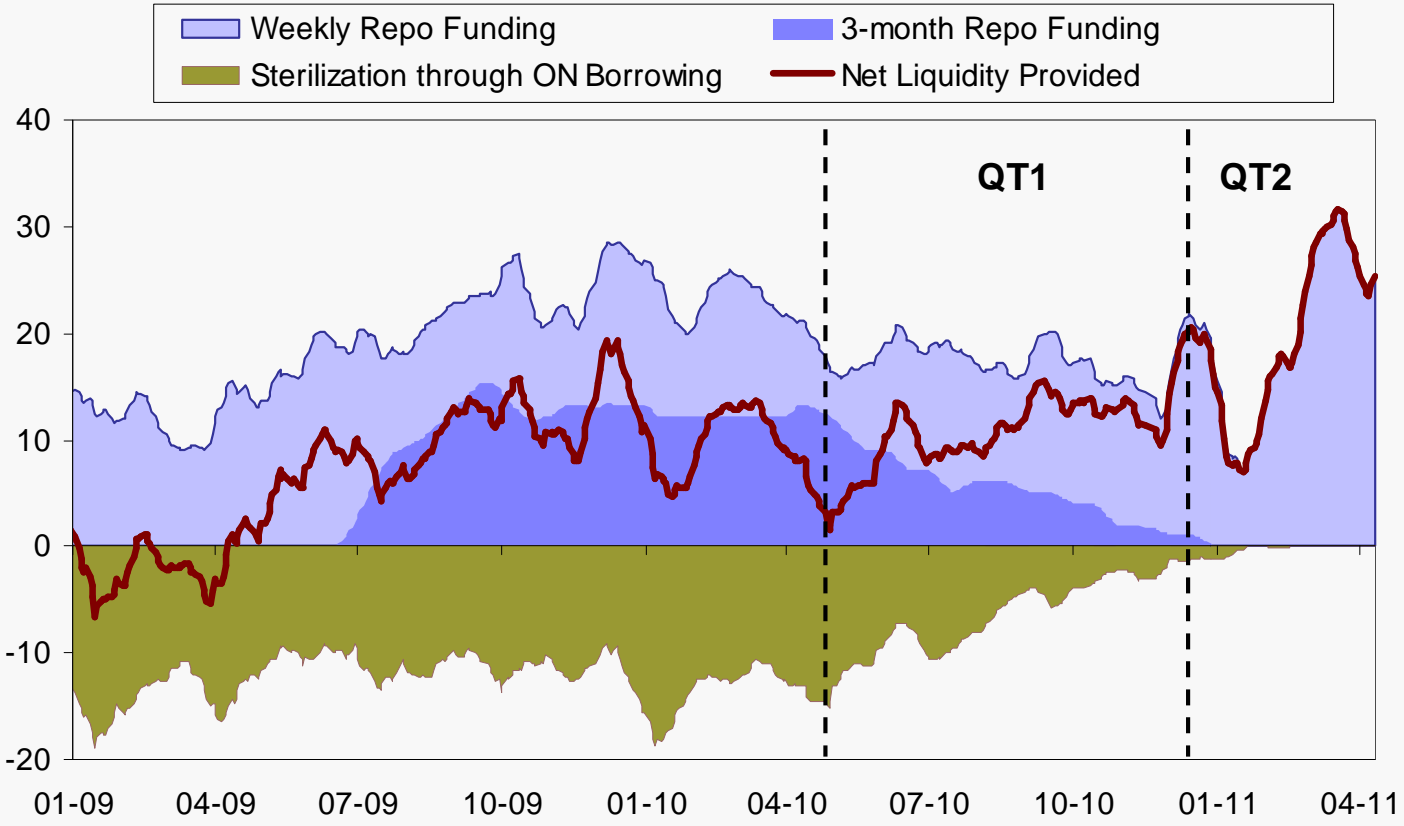
- **Approach 1:** Use capital flow measures to restrict inflows while tightening via interest rates (Brazil, South Korea)
- **Approach 2:** Use macroprudential measures to restrict domestic credit and domestic demand while keeping the short term interest rate differentials as low as possible (Turkey)

Phases in Monetary Policy

- **Phase-1**: Full Liquidity Support (after the collapse of Lehman Brothers, September 2008)
- **Phase-2**: Monetary Exit Strategy (April 2010)
- **Phase-3**: New Policy Mix (starting from November 2010)

Funding after Monetary Exit

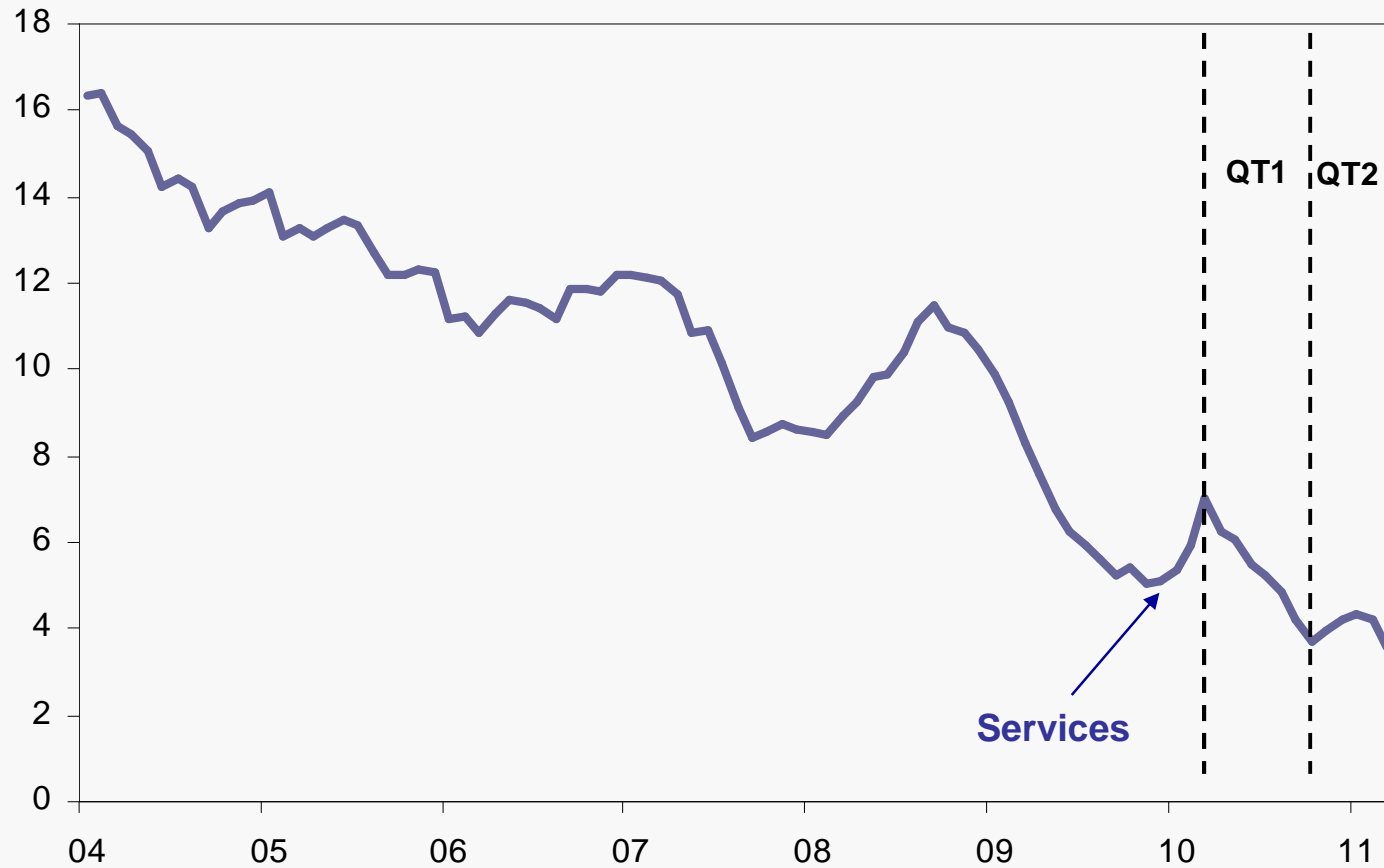
Central Bank Liquidity (billion TRY)



Source: ISE, CBRT

Disinflation via Quantitative Tightening

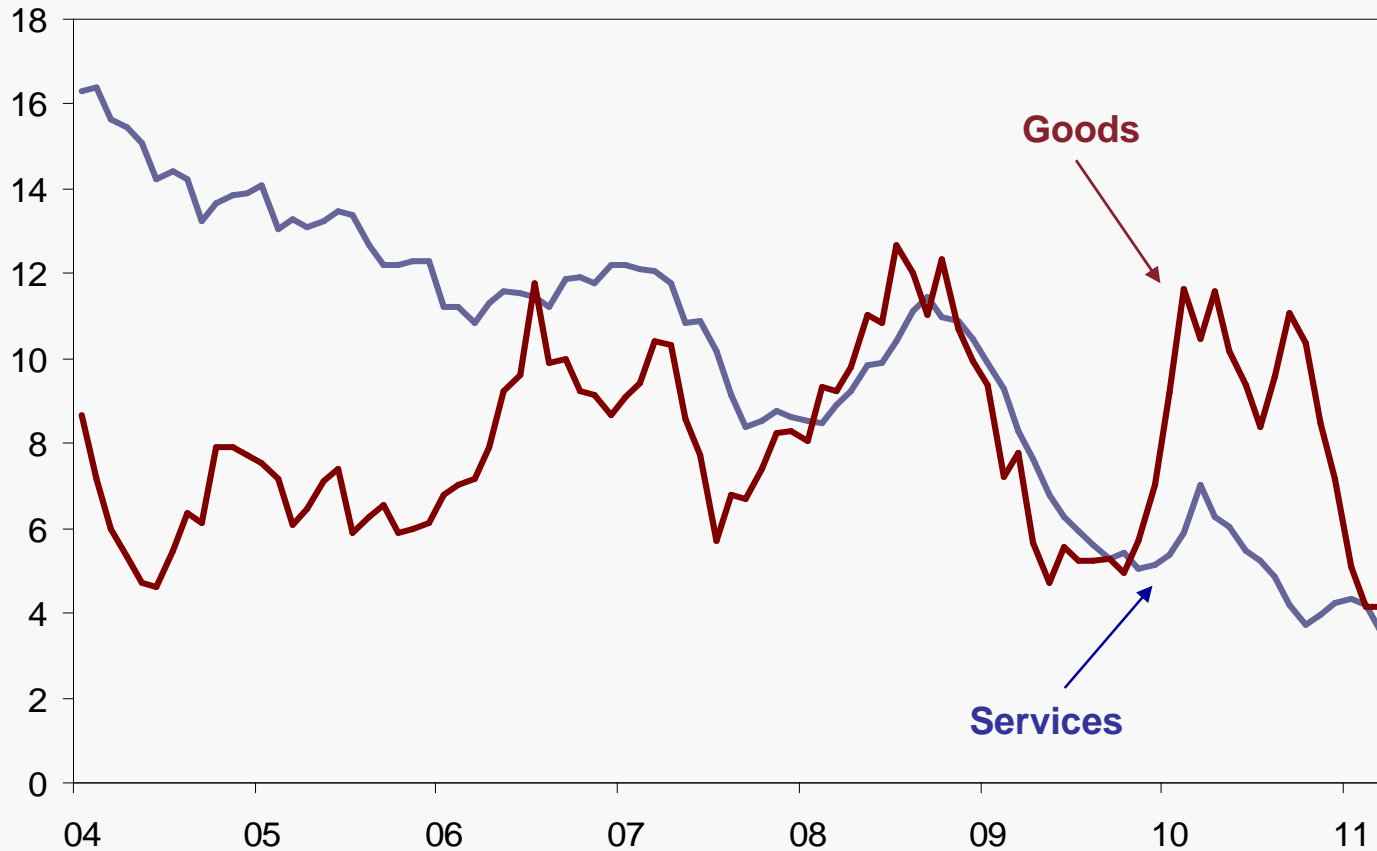
Services Prices
(year-on-year change, percent)



Source: TURKSTAT, CBRT

Disinflation via Quantitative Tightening

Goods and Services Prices
(year-on-year change, percent)



Source: TURKSTAT, CBRT

Financial Stability: Objectives

1. **Debt Ratios**: Use of more equity, more prudent borrowing
2. **Debt Maturities**: Extending maturities of domestic and foreign borrowing and deposits
3. **FX Positions**: Strengthening FX positions of public and private sectors
4. **Risk management**: More effective management of all types of risks by all agents in the economy

Macroprudential Tools

- It may not always be possible to attain price stability and financial stability together, by means of policy rates alone.
- **Solution:** Use macroprudential tools in coordination with other public authorities.
- **Macroprudential tools:**
 1. *Reserve requirements*
 2. *Liquidity management*
 3. *Capital adequacy ratios*
 4. *Liquidity adequacy ratios*
 5. *Taxes*
 6. *Primary expenditures of government*

Tools (in the order of priority):

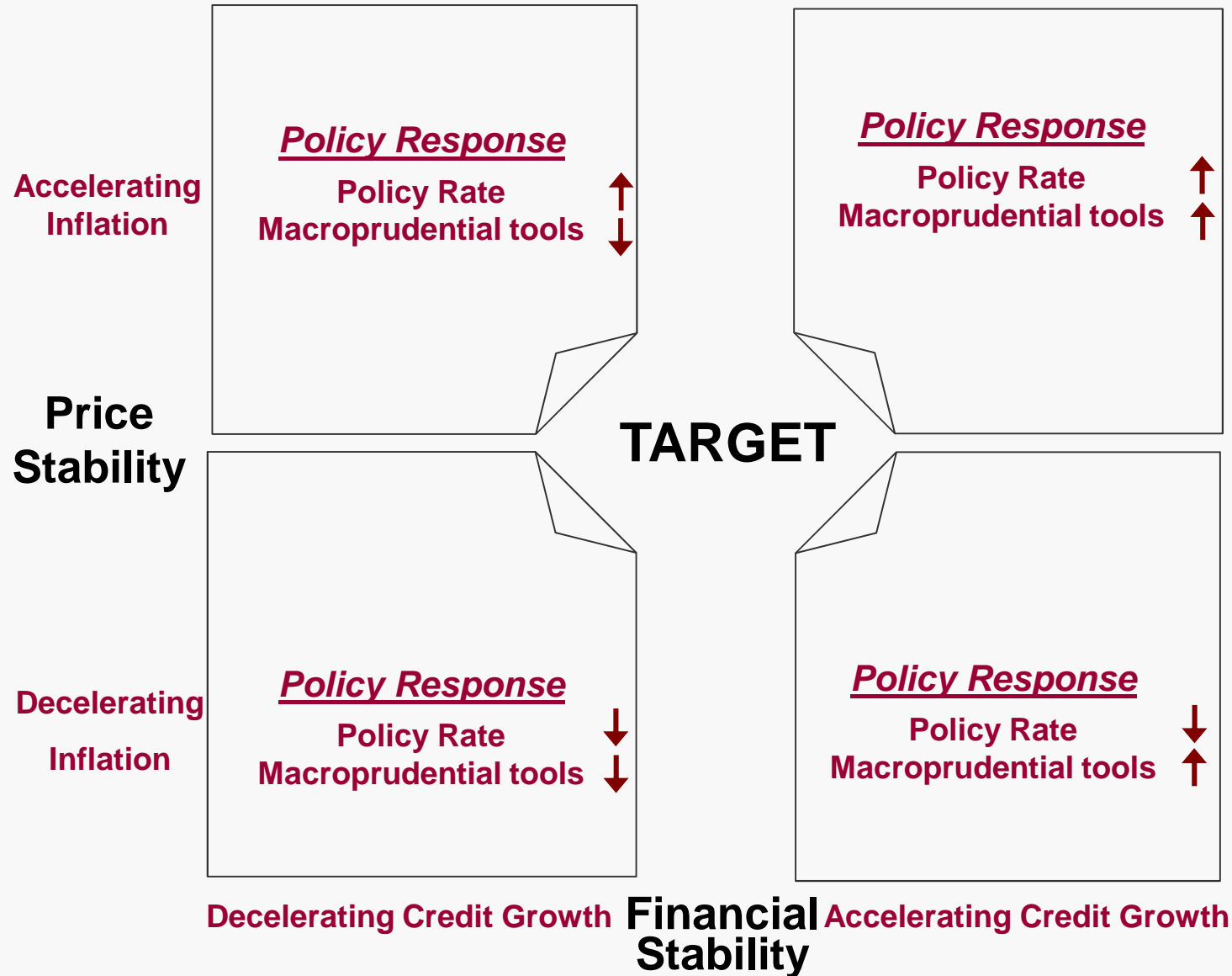
For Financial Stability:

1. Required Reserve Ratios
2. TRY Liquidity Management
3. Short Term Interest Rates

For Price Stability:

1. Short Term Interest Rates
2. TRY Liquidity Management
3. Required Reserve Ratios

Two Targets, Two Instruments



The New Policy Mix

A lower policy rate, a wider interest rate corridor and higher reserve requirements

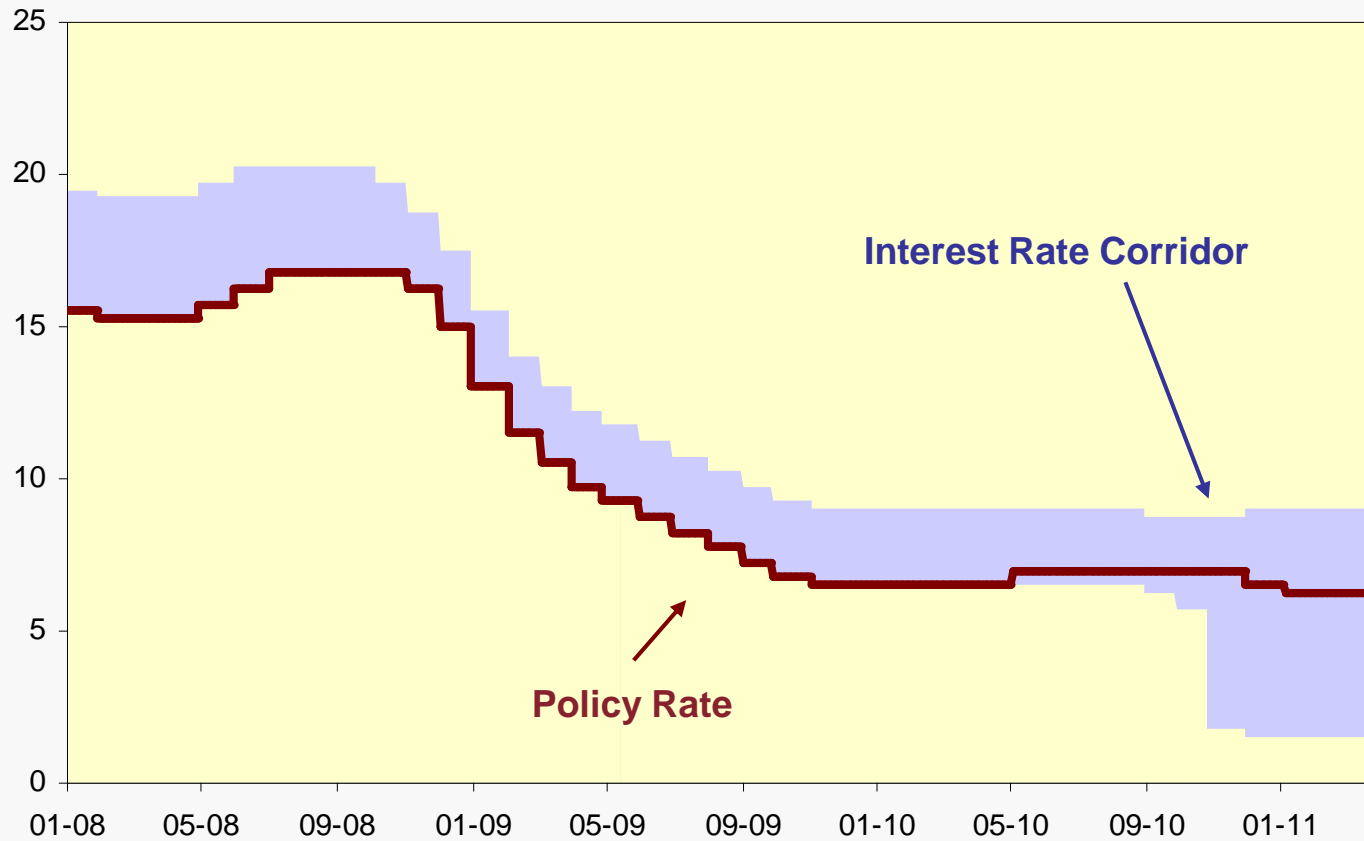
- The framework we adopt in spirit is not significantly different from the conventional inflation targeting framework.
- The only difference is that, previously our policy instrument was the one week repo rate, but now our instrument is a “policy mix”
- We seek to use these instruments in the right combination in order to cope with both inflation and macro-financial risks.
- The monetary policy stance in this framework is determined not by policy rates alone, but as a combination of all the policy instruments.

Effectiveness of Required Reserves

- 1. Liquidity Channel (wider corridor)**
- 2. Cost Channel (no remuneration)**

The Policy Rate and the Interest Rate Corridor

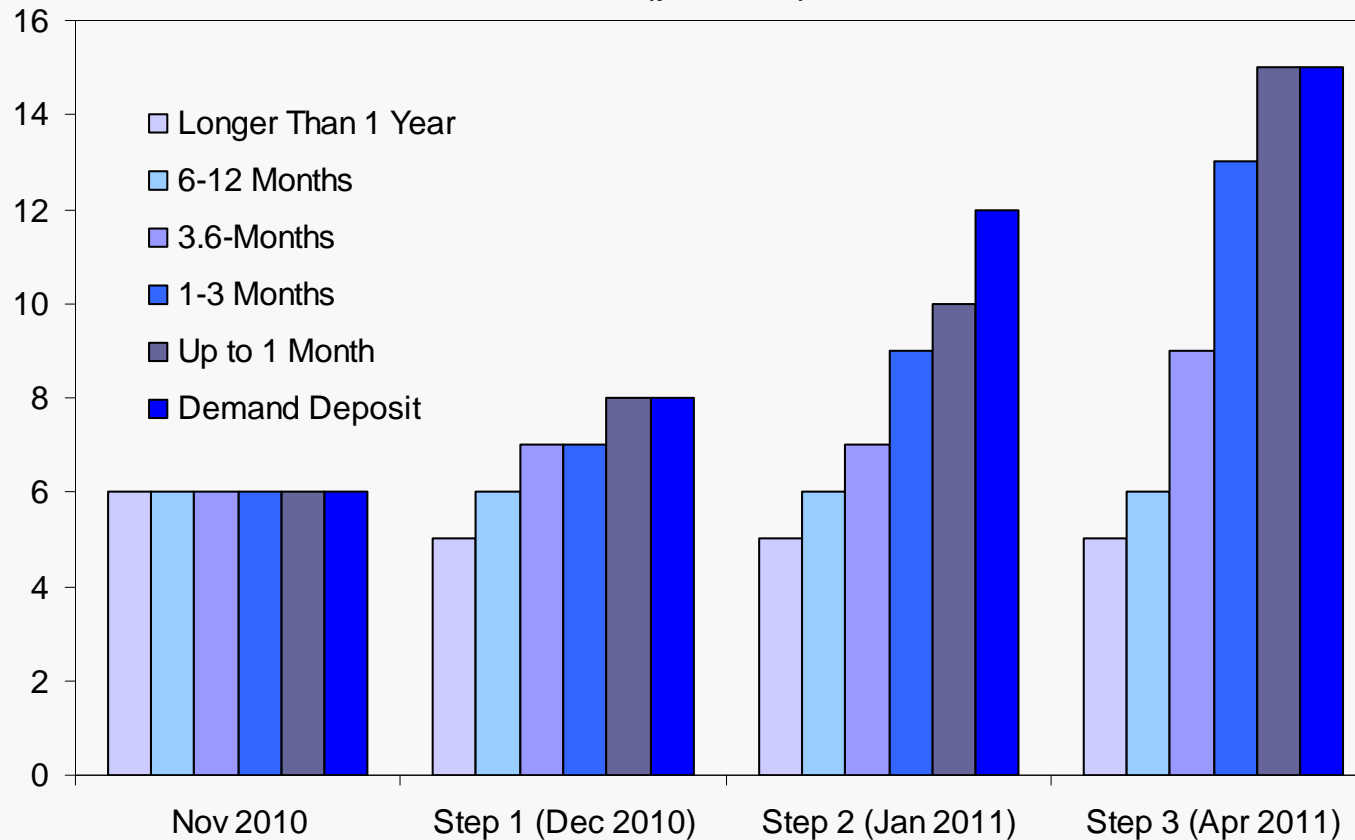
Policy Rate and Interest Rate Corridor
(percent)



Source: CBRT

Reserve Requirements as a Macroprudential Tool

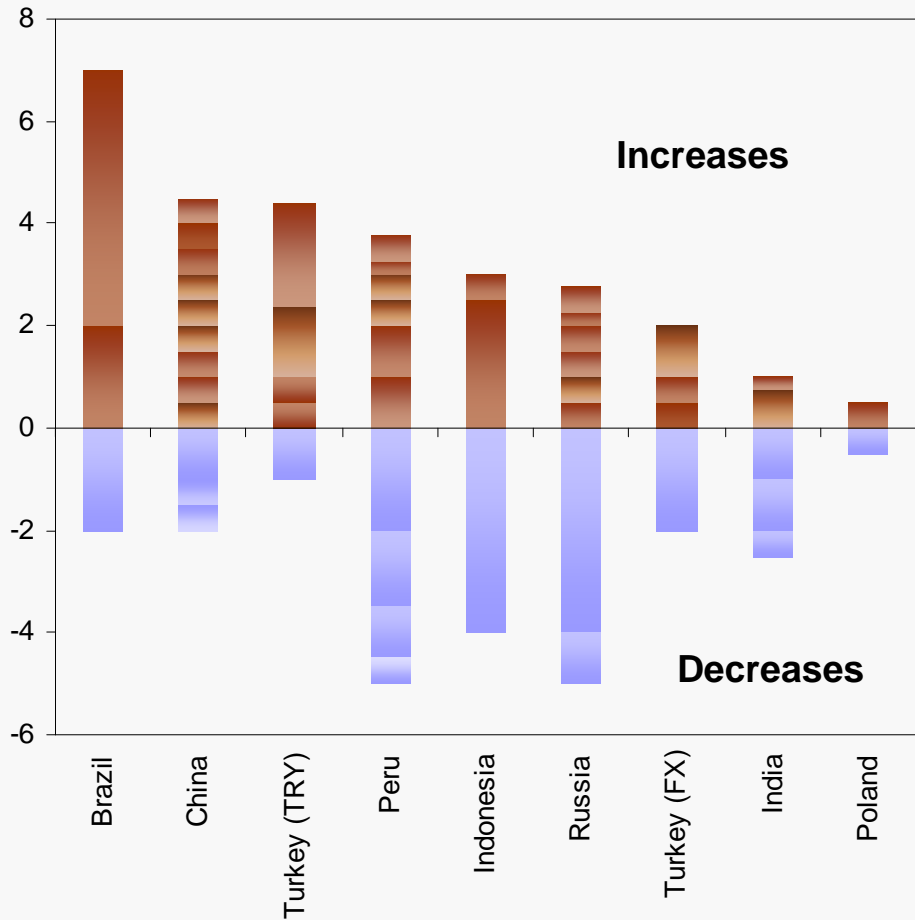
Reserve Requirement Ratios
(percent)



Source: CBRT

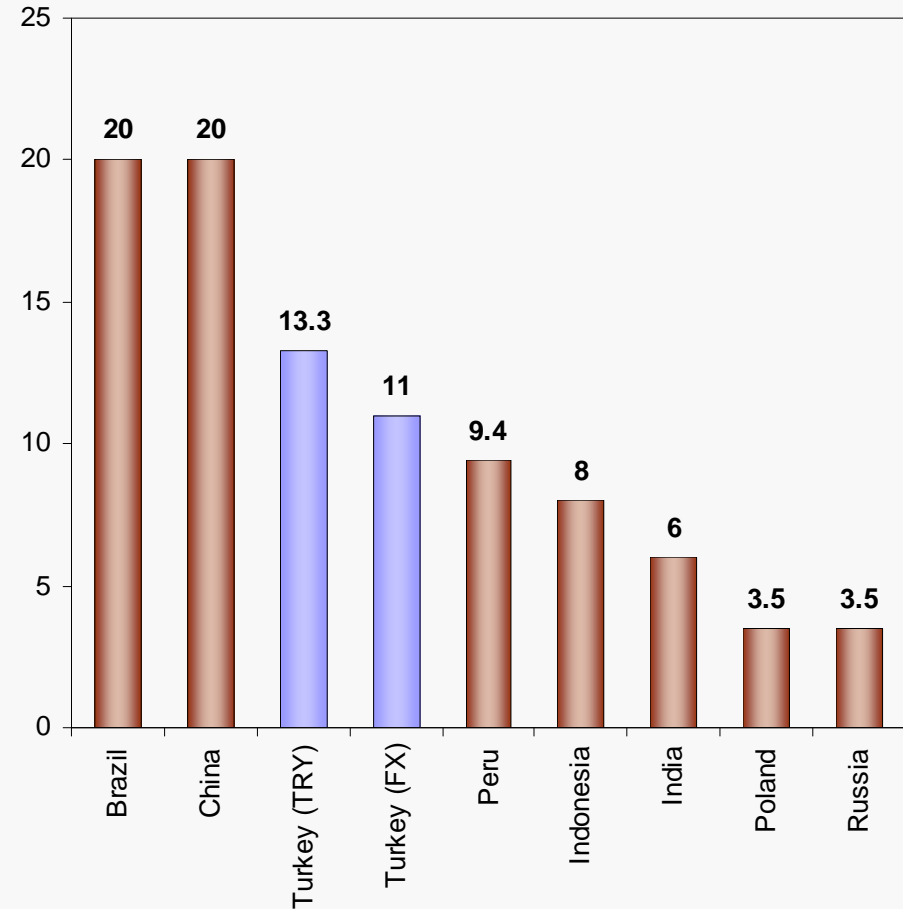
Reserve Requirements as a Macprudential Tool

Change Since the Start of the Crisis
(percentage point)



Source: Central Banks, CBRT

Current Rates
(percent)



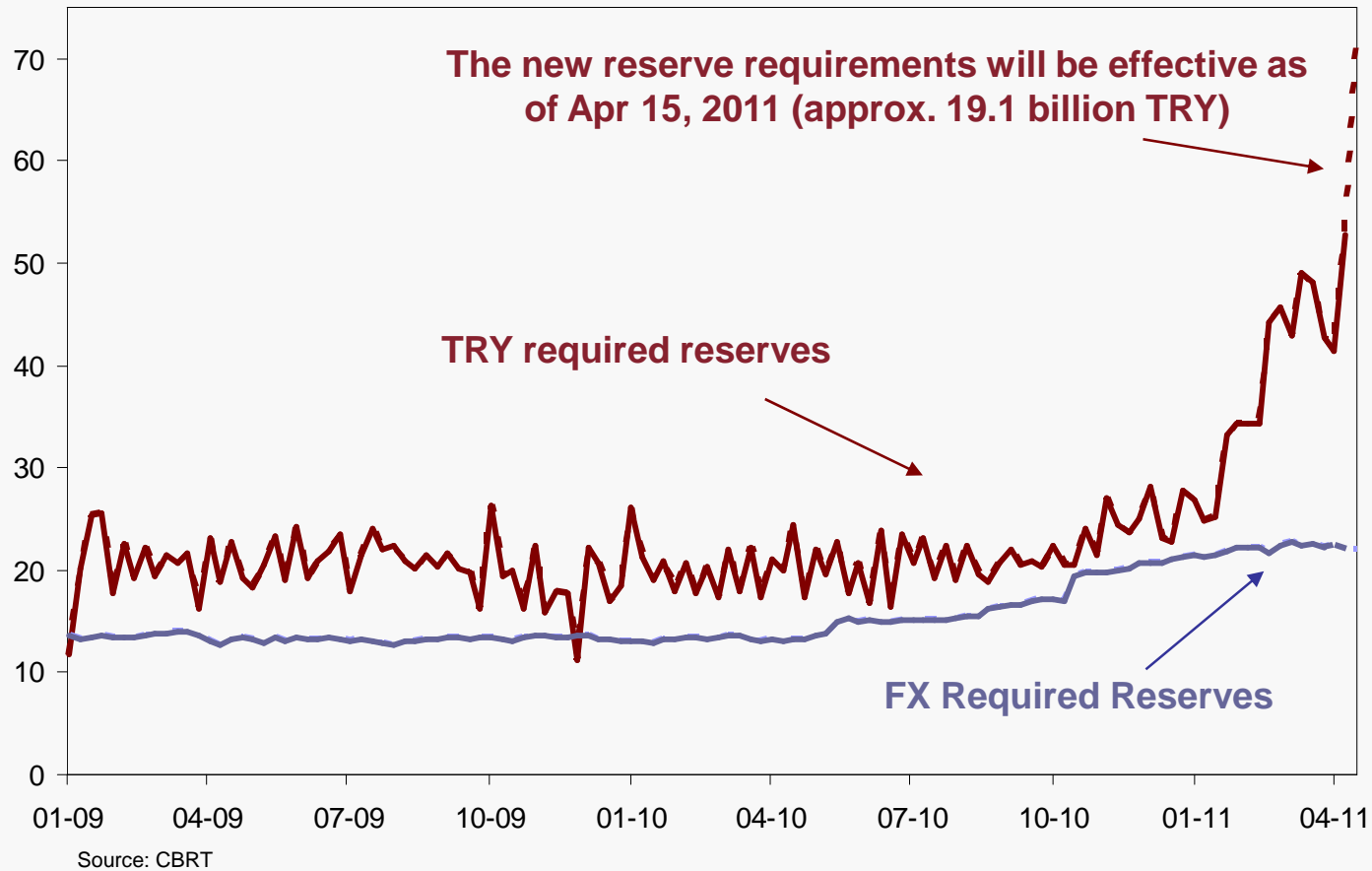
Source: Central Banks, CBRT

Measures Taken by Other Authorities

1. Fiscal discipline
2. Ban on FX loans to households
3. Domestic currency bond market
4. Loan/value restrictions
5. Tax hikes on certain consumer loans
6. Restrictions on credit card borrowing

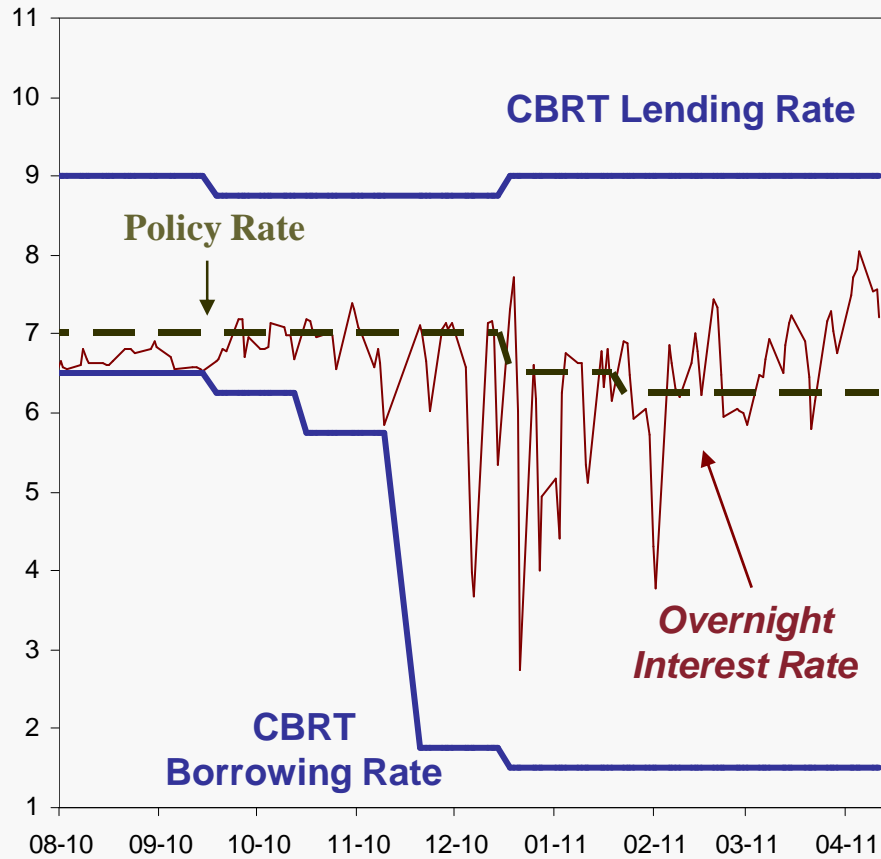
Tightening the Liquidity

Reserve Requirements Balances
(billion TRY)



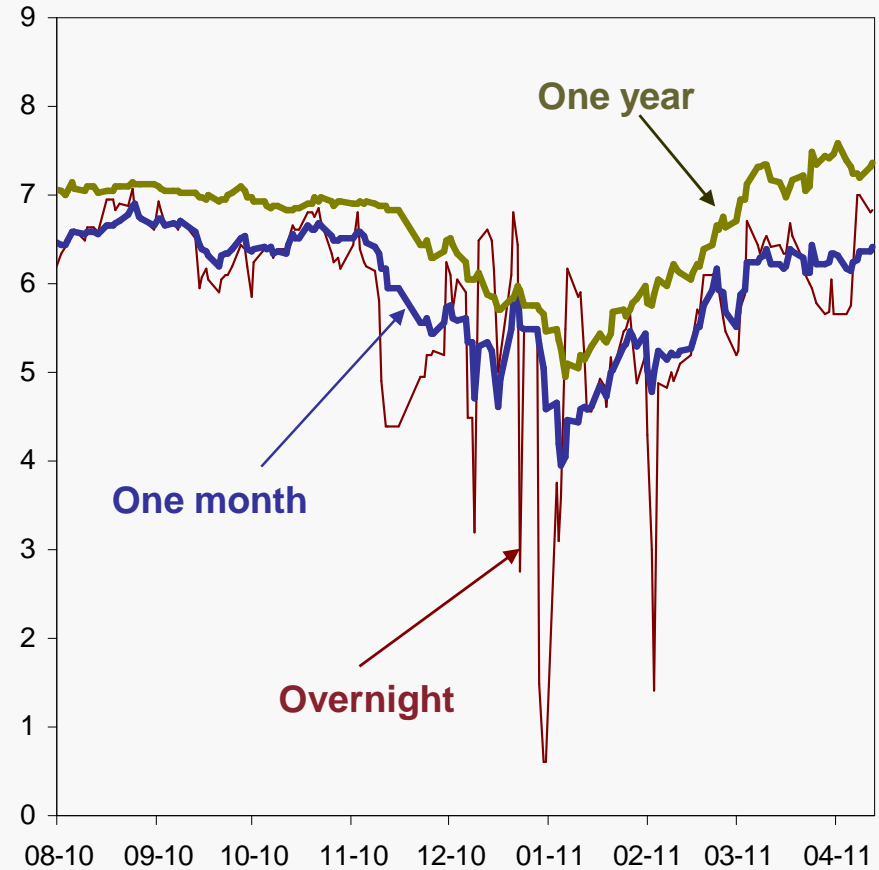
Flexibility and Volatility in Money Markets

Overnight Interest Rates (percent)



Source: ISE, CBRT

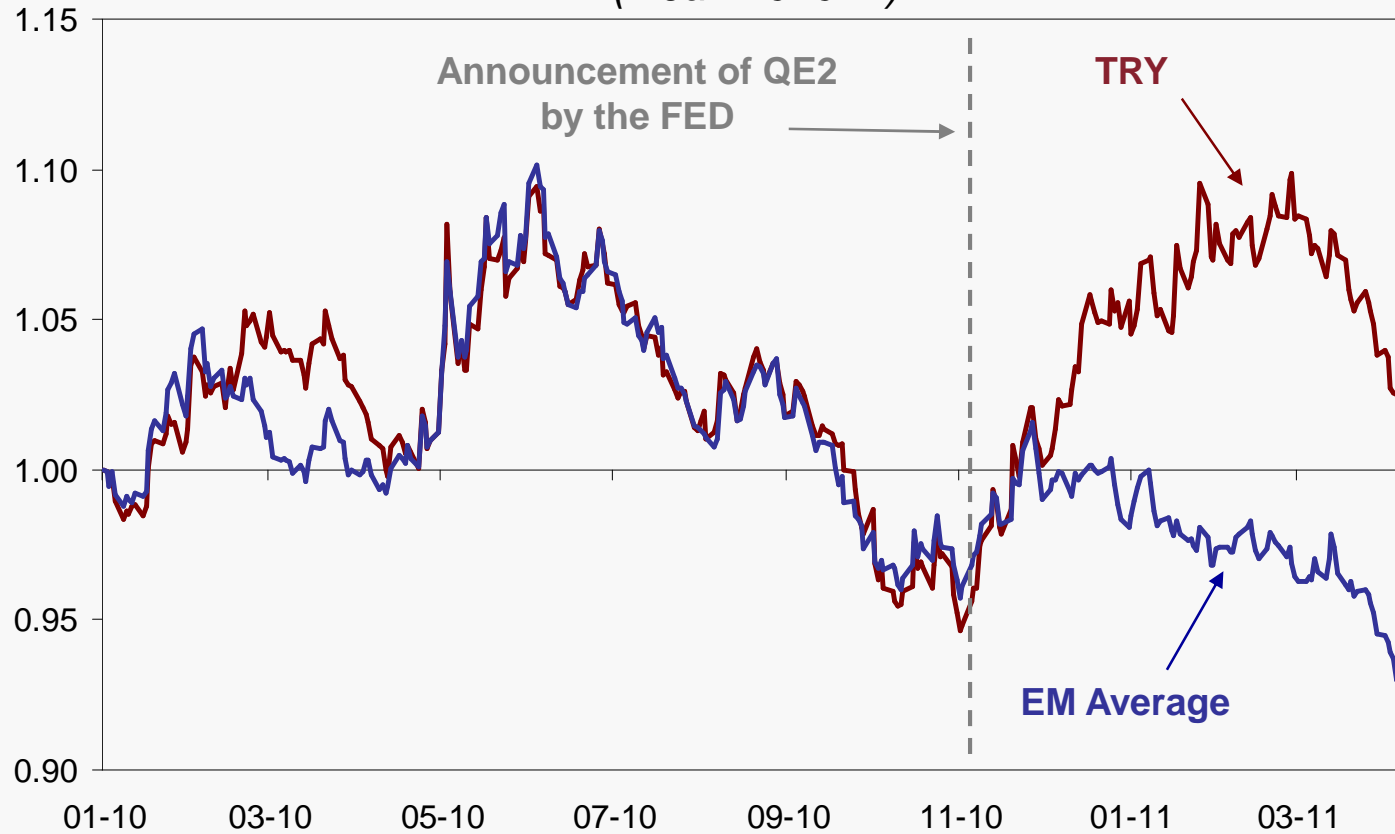
Swap Rates (percent)



Source: Reuters, CBRT

Impact on Currency

TRY and other EM currencies against USD*
(4 Jan 2010=1)

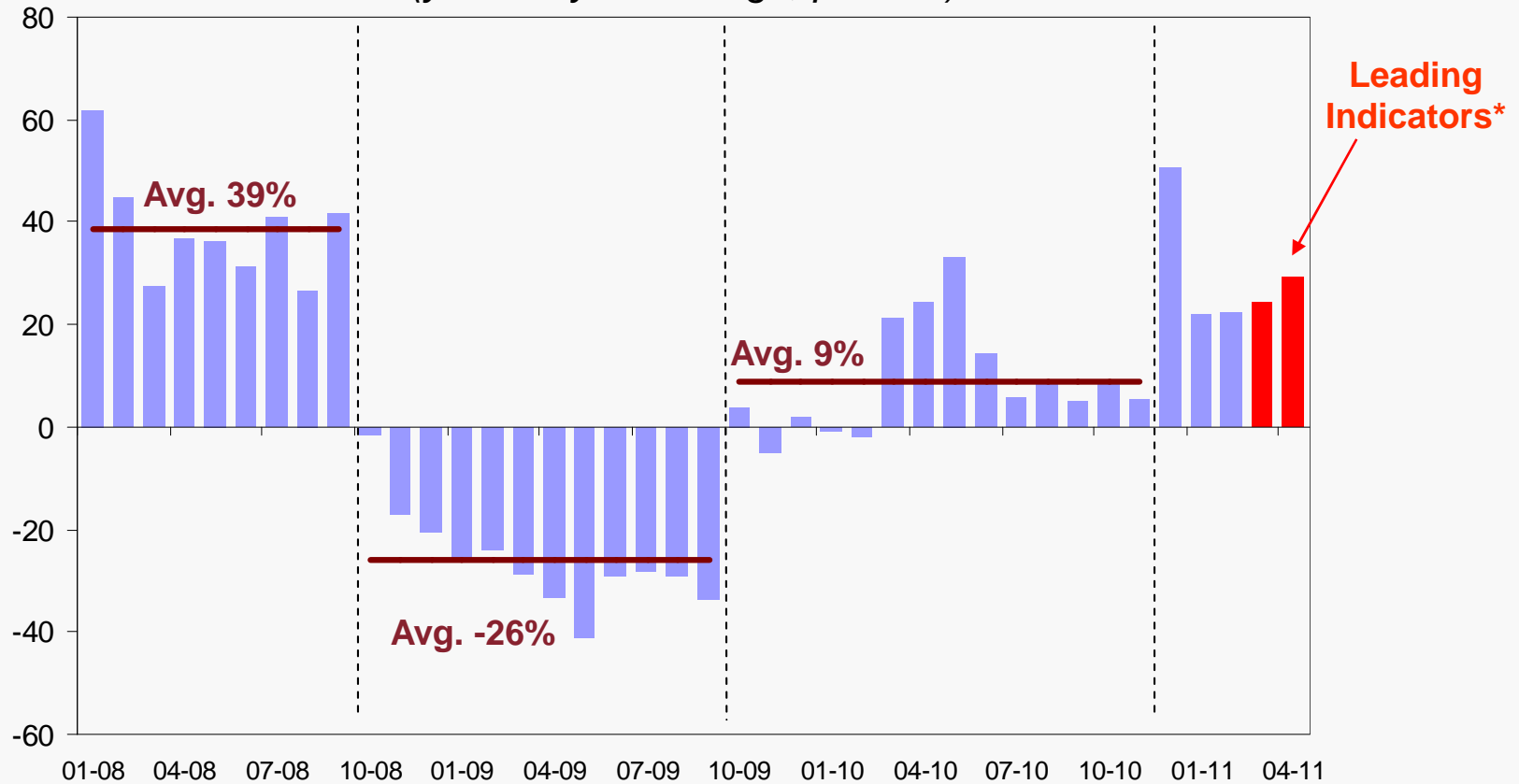


*Average of emerging market currencies, including Brazil, Chile, Czech Republic, Hungary, Mexico, Poland, South Africa, Indonesia, South Korea and Colombia.

Source: Bloomberg, CBRT

Exports

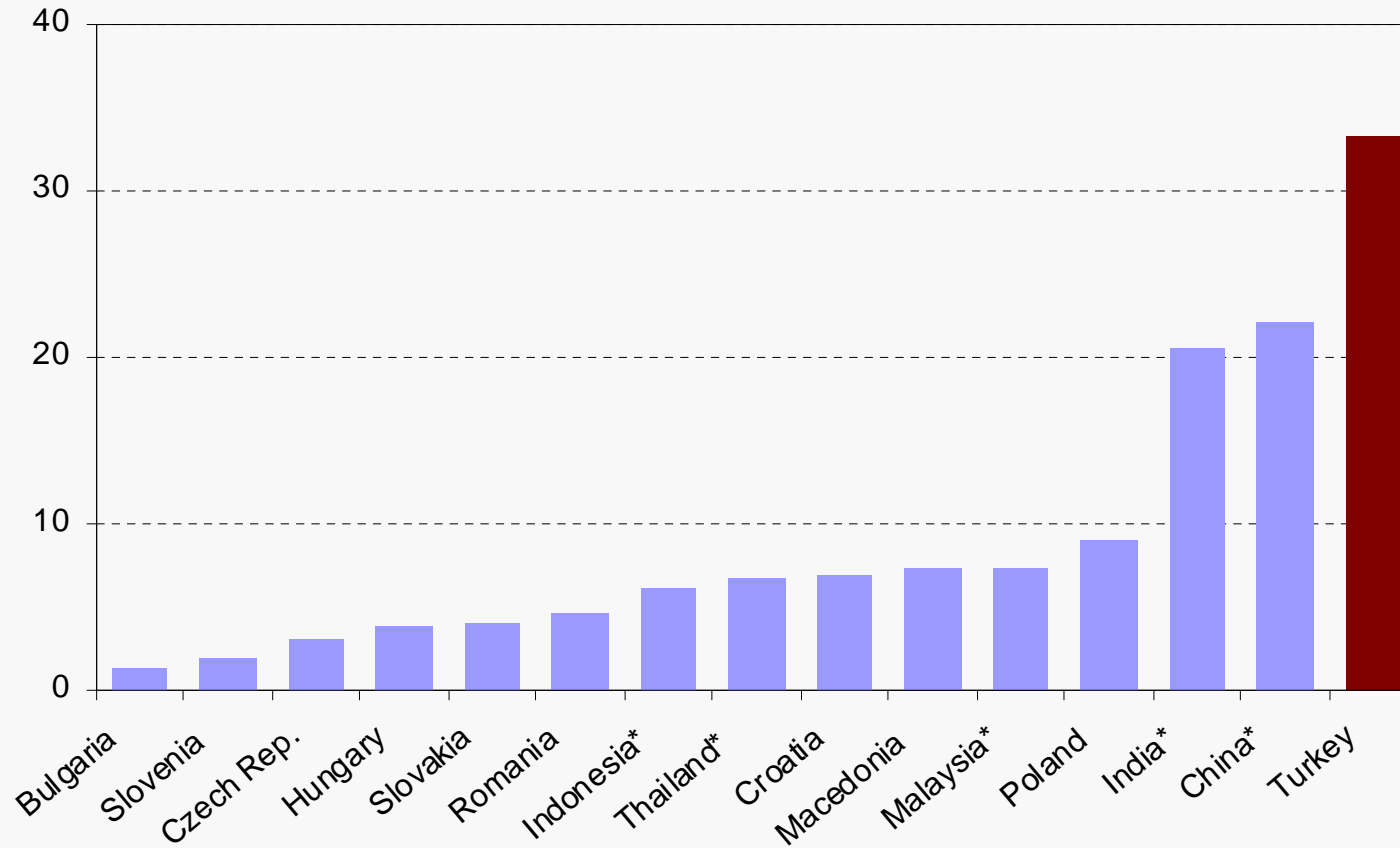
Goods Exports
(year-on-year change, percent)



*April data as of 11 April 2011
Source: TURKSTAT, Turkish Exporters Assembly, CBRT

Bank Credit

Change in Bank Credit
(year-on-year, percent, 2010)

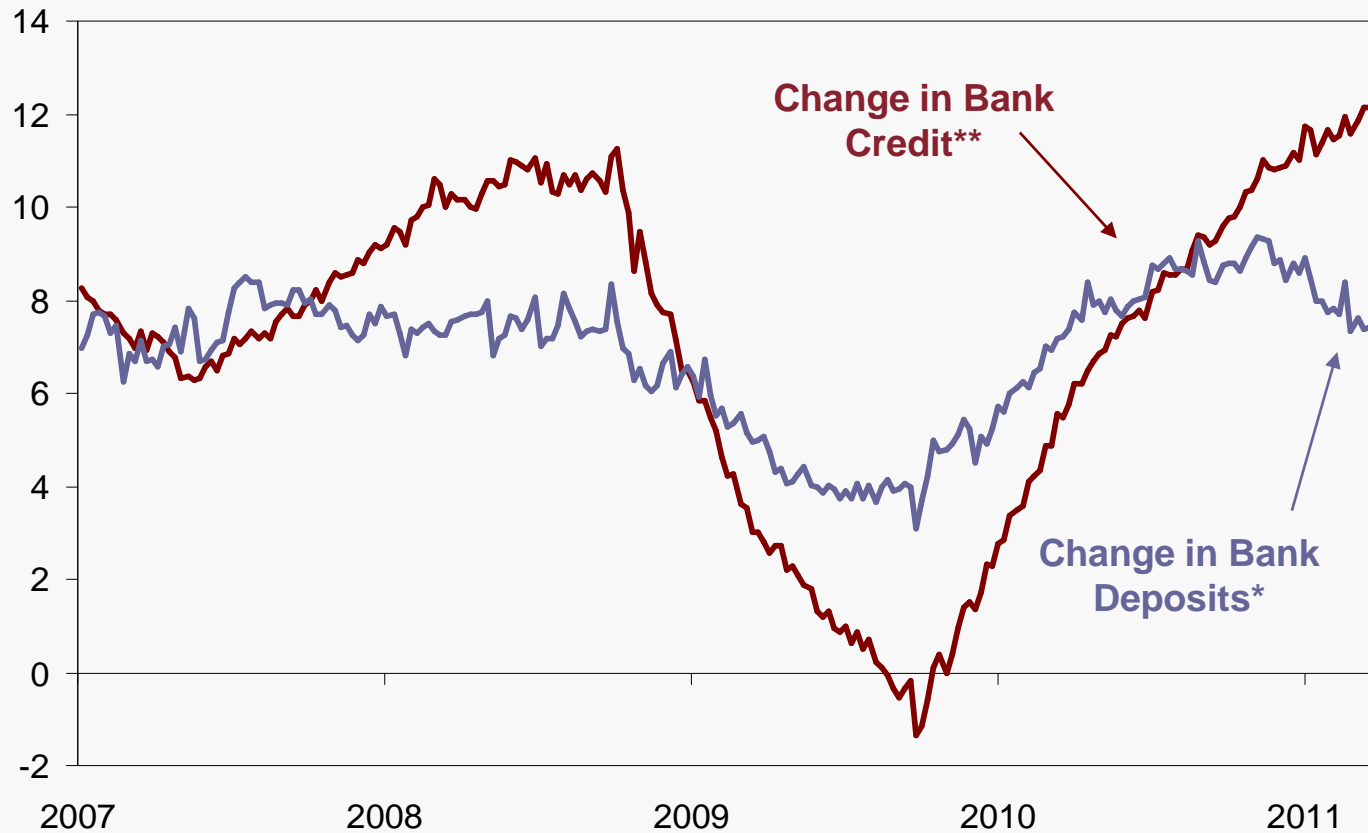


*Annual change to June 2010

Source: BIS, IMF, CBRT

Credit Growth

Change in Credit and Deposit-to-GDP Ratio
(year-on-year, percentage points)

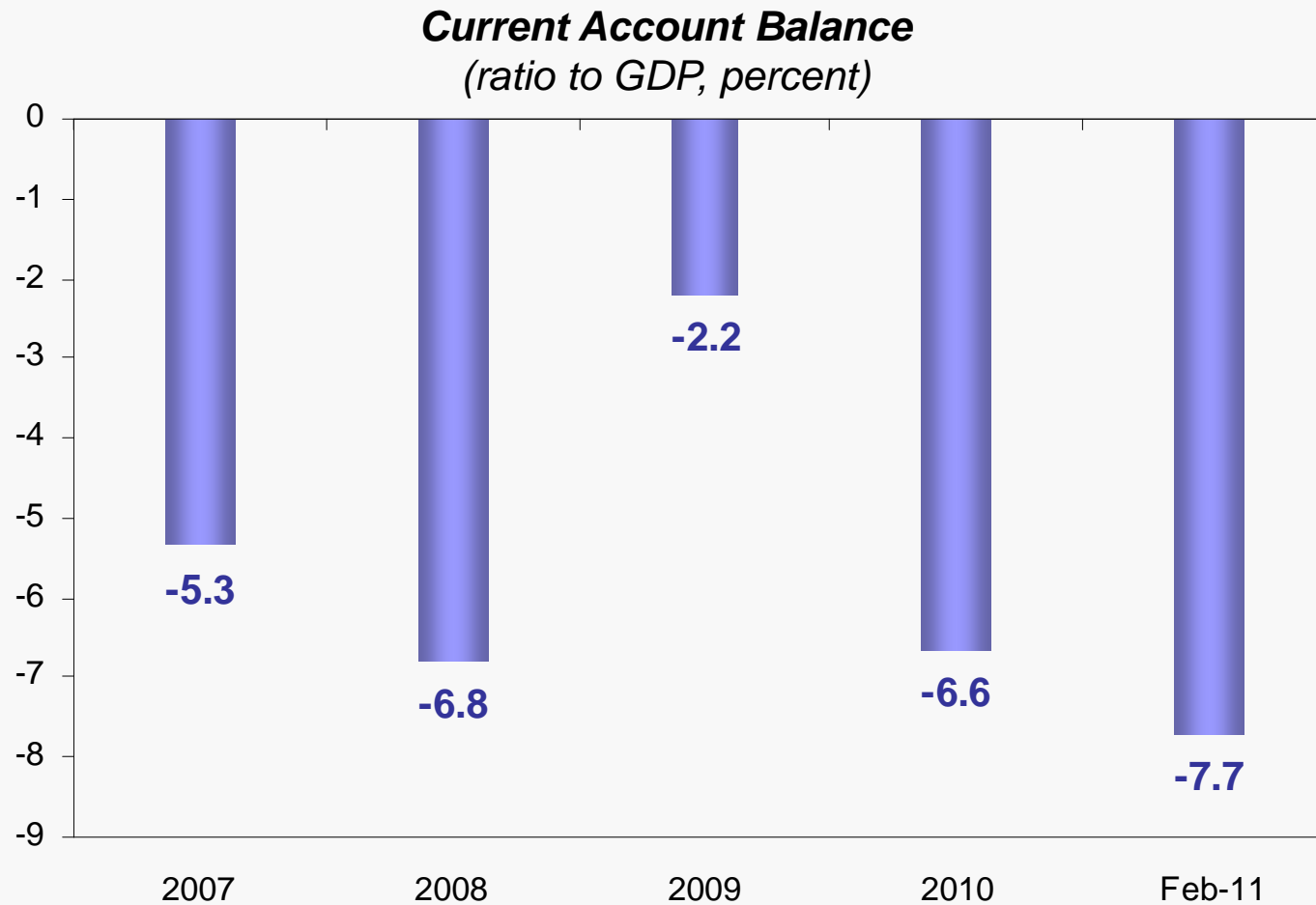


* Adjusted for the exchange rate effect using a basket of 70% Euro, %30 percent USD

**Adjusted for the exchange rate using a basket of 30% Euro, %70 percent USD

Source: CBRT

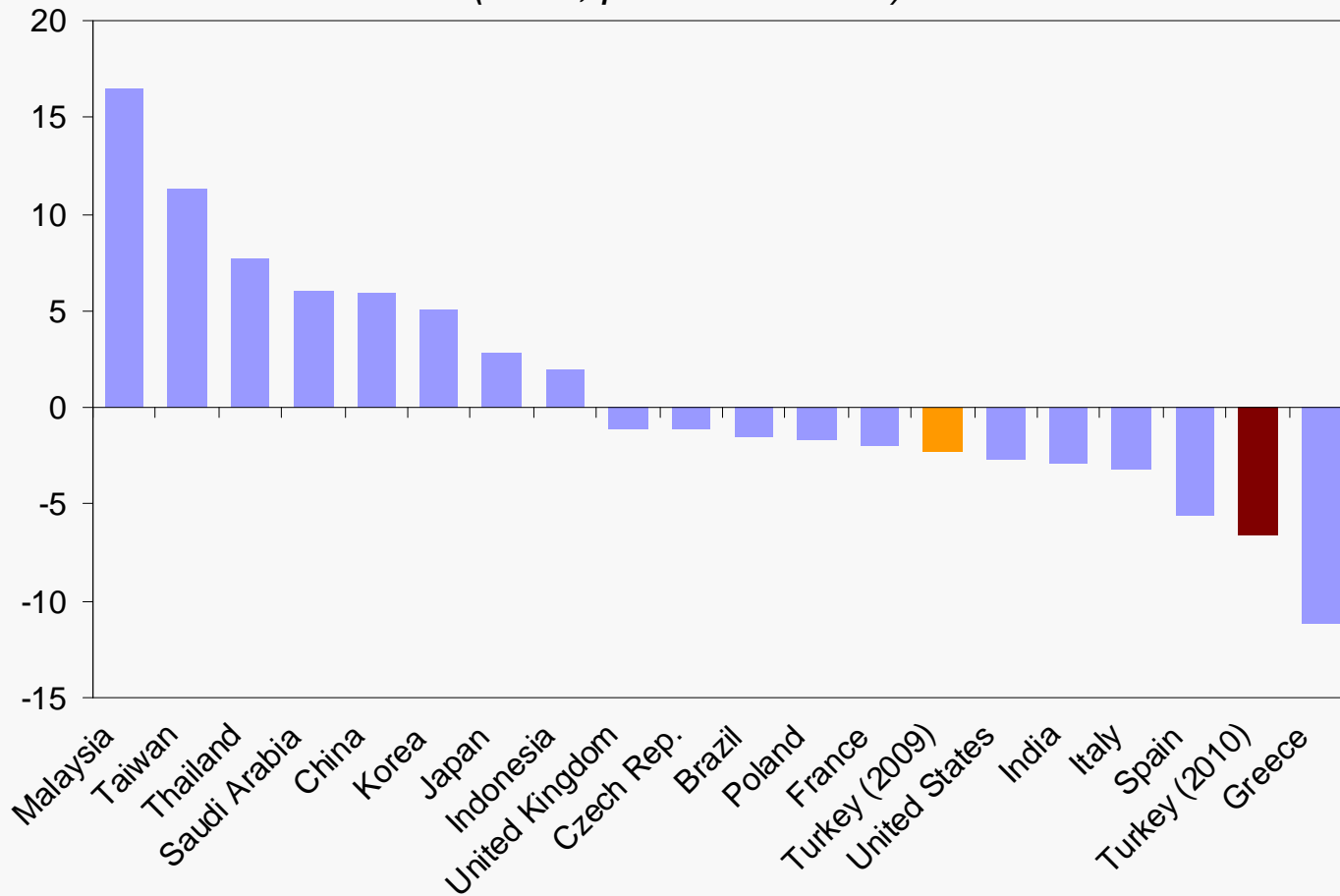
Current Account Deficit



Source: TURKSTAT, CBRT

Current Account Deficit: A Comparison

Current Account Balance
(2009, percent of GDP)

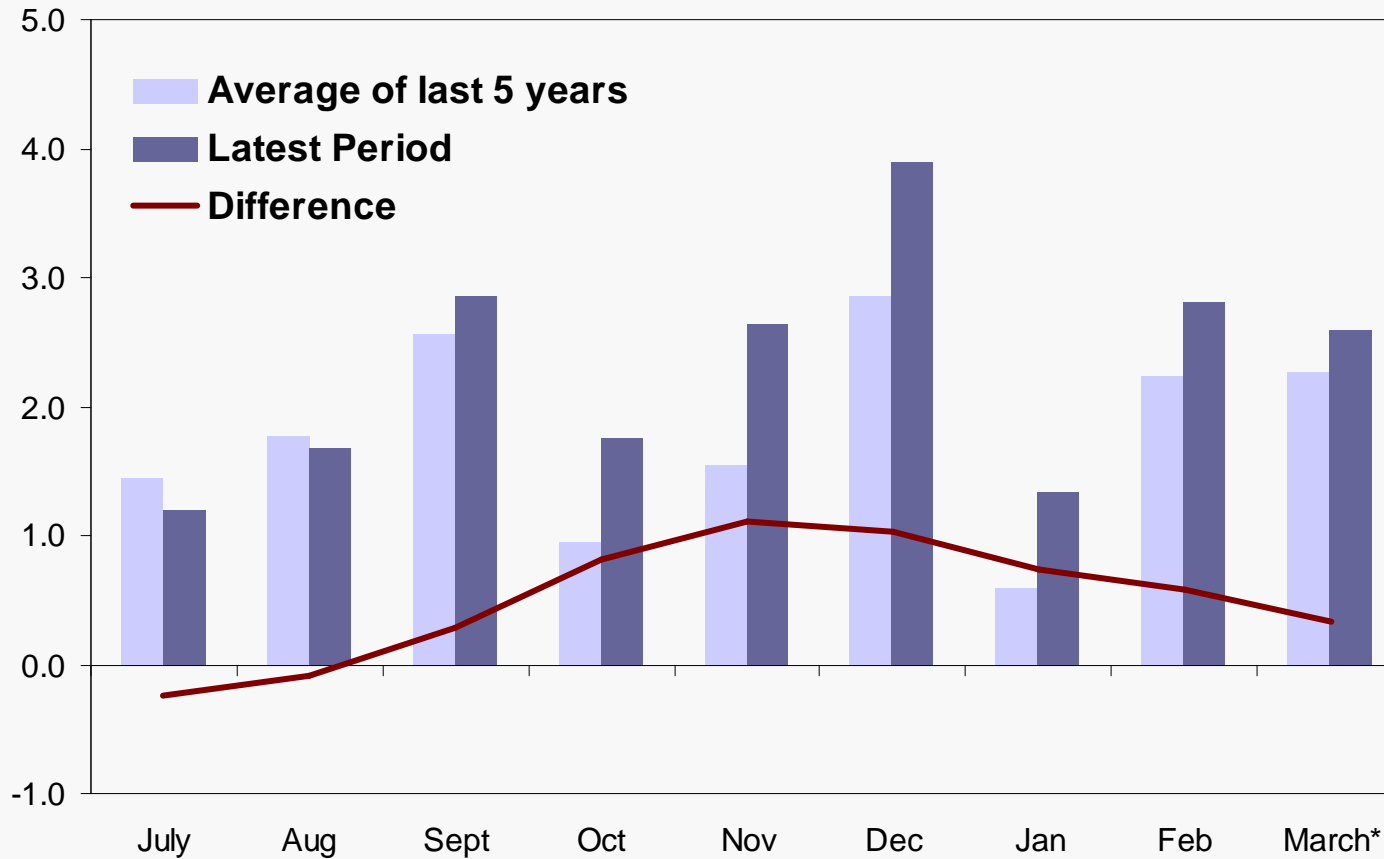


Source: IMF, CBRT

Credit Growth

Total Loans

(monthly change, percent)

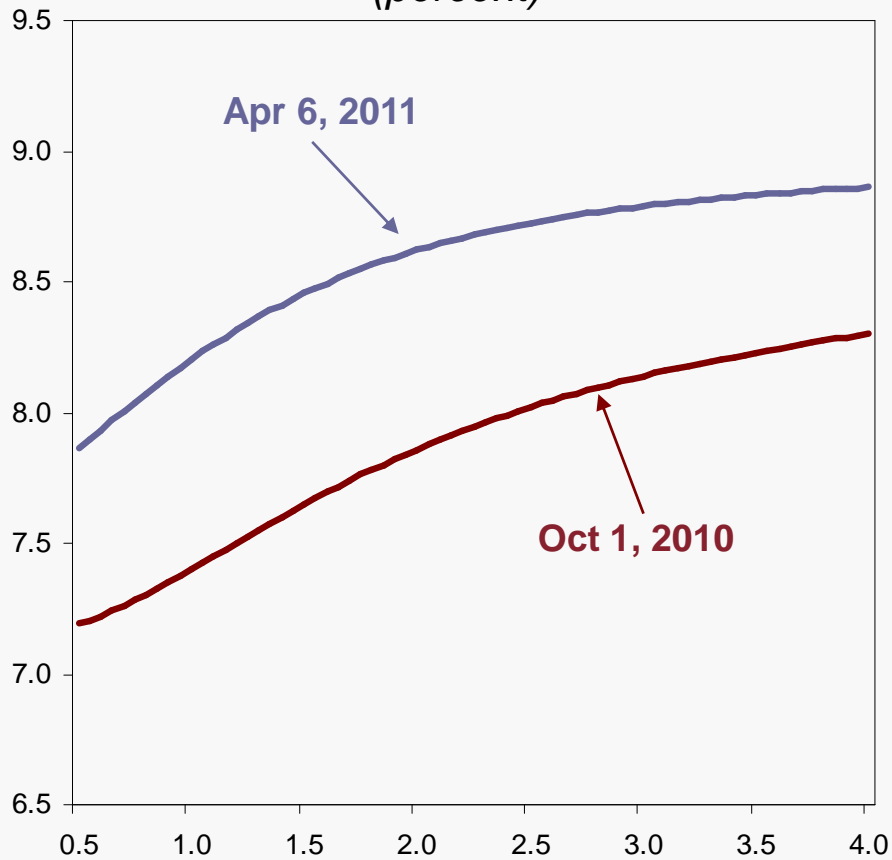


* Including the first week of April

Source: CBRT

QT and Inflation Expectations

Yield Curve* (percent)



* Based on the ENS method.
Source: ISE, CBRT

Inflation Expectations* (percent)



* CBRT Expectations Survey results from the second survey period.
Source: ISE, CBRT

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