# VAKIFBANK TURKISH ECONOMY WEEKLY

## Pass-Through Fellowship of Exchange Rate and Oil Prices

VakıfBank

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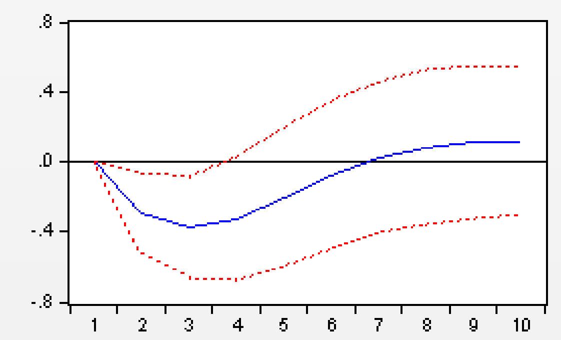
## *CBT's new monetary stance depends on the high levels of oil prices and the increase in USD/TL...*

- The ongoing high levels of the current account deficit and the increasing weight of short term capital inflows enforced CBT to take precautions in order to restrict domestic demand and depreciate TL.
- The latest January trade data indicated that imports and correspondingly the trade deficit were still rising. This broadly provoked the existing concerns in the markets.
- In addition to the precautions taken against the widening C/A deficit, the increase in global risk perceptions as a result of the political instability stemming from the public disturbances has also contributed to the recent depreciation of TL.
- Depreciation of TL is especially important due to its inflationary effects besides its impact on balance of payments.
- A surprise increase in inflation in the coming period is critical as regards to the longevity of CBT's current policy.
- In this study we are examining the pass through effects of the exchange rate and the significant increase in oil prices.

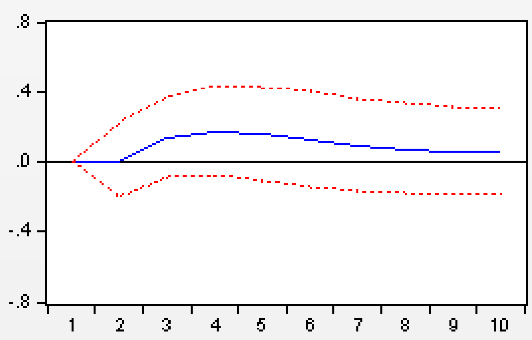
# *Exchange Rate Pass-Through: A Comparison of Pre and Post  Crisis Periods*

<u>**Pre-Crisis : 2004M01-2007**</u>

**Response of CPI to PPI-Based Real Effective Foreign Exchange  Rate Shock**

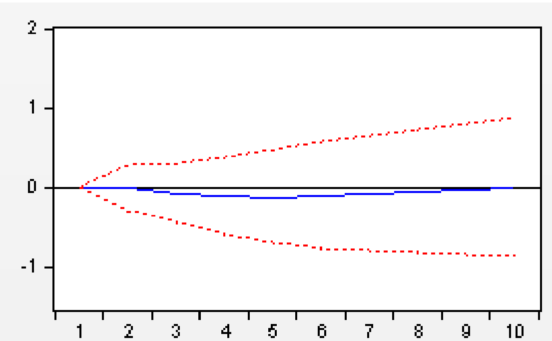



**Response of CPI to Oil Prices**

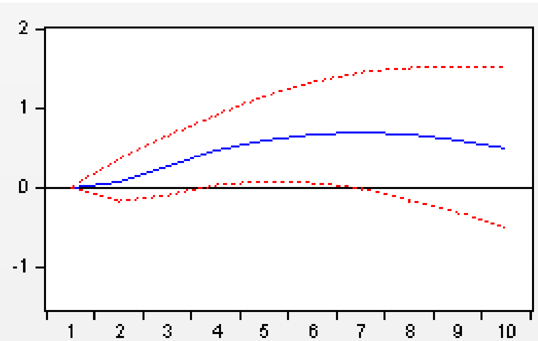



<u>**Post-Crisis : 2007M08-2011M01**</u>

**Response of CPI to PPI-Based Real Effective Exchange  Rate Shock**




**Response of CPI to Oil Prices**




- According to our analysis, inflation has a limited response exchange rate and oil price shocks after the crisis compared to the pre-crisis period.

**Response of CPI to PPI-Based Real Effective Exchange  Rate Shock**

**+%1 std deviation**

Pre-Crisis → -%0.4 SD Response

Post- Crisis → ≤%0.1 SD Response

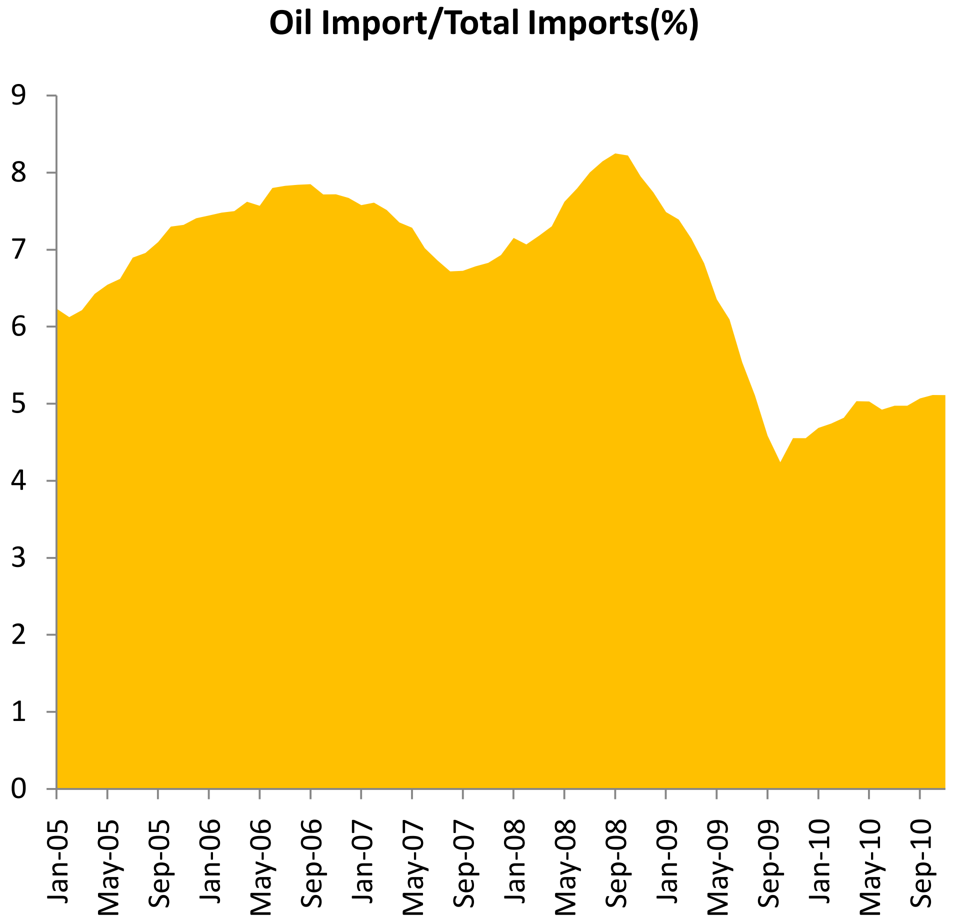
**Response of CPI to Oil Prices**

**+%1 std deviation**

Pre-Crisis → ≤ %0.2 SD Response

Post-Crisis → ≥%0.5 SD Response

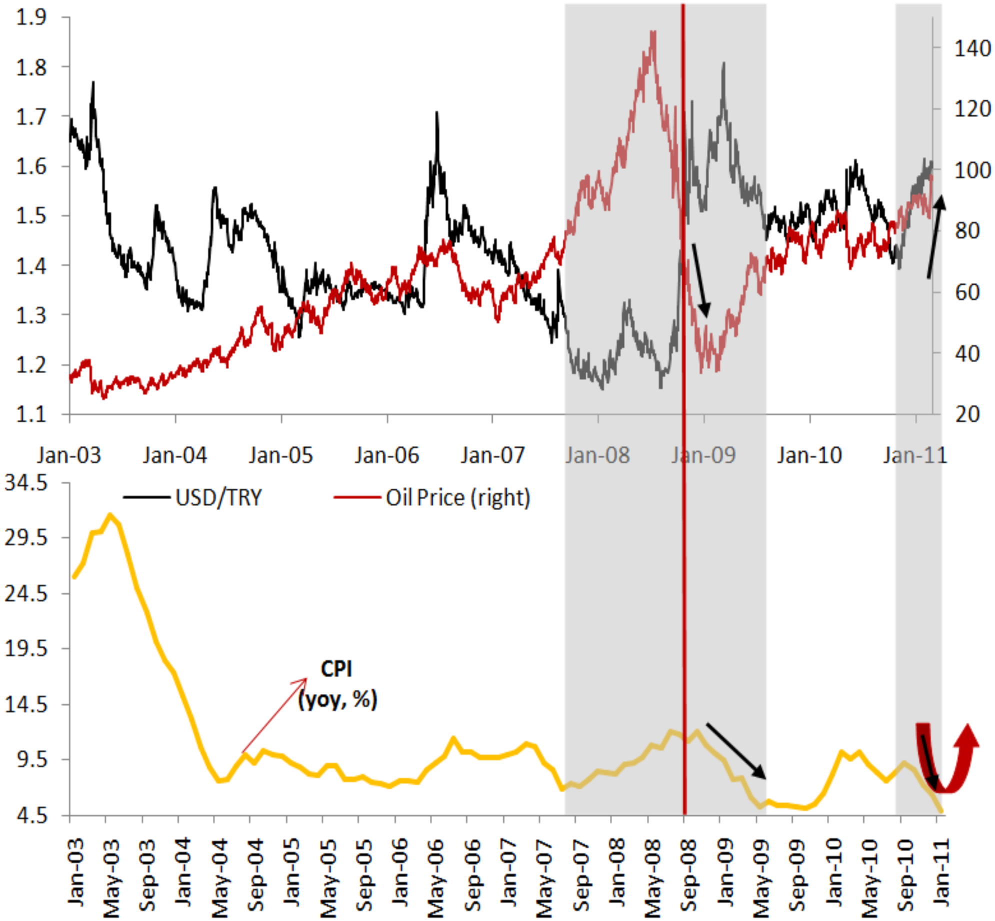
# *Oil Price and Exchange Rate Pass-Through*




Source: Bloomberg, CBRT, TURKSTAT

- Because of high oil import levels in Turkey, oil prices determine the relationship between inflation and exchange rates, prominently.
- On the other hand, export to import ratio (reflecting the role of oil in the country's economy) declines and this situation leads to different reflections of exchange rate developments.
- During the pre-crisis period, oil prices remained quiet stable. Oil share in total imports decreased rapidly with the outbreak of crisis. But the aforementioned share has started rising again and approached pre-crisis levels with the recovery.

# *Rising oil prices leads to an increase in CPI...*




Source: CBRT, Reuters, Eurostat

- As well as the rebellions in Tunisia and Egypt which have caused fluctuations in global markets and more severe civil rebellions in Libya, who has a significant share in global petroleum reserves, has caused a rigid increase in oil prices.
- The negative impact of rising oil prices on global markets has caused high imputed costs in oil-importing economies such as Turkey. Hence, this has induced concerns on inflation especially in emerging markets.
- Historical impacts of rapid increase and decreases in oil prices on inflation can be seen in the graph. Especially between September 2007 and November 2008, spikes in oil prices have led to an upward movement in CPI.

# *Relationship between oil prices and CPI…*

- Regarding the possible consequences of the relationship between oil prices and CPI, we can say that oil price spikes may trigger an increase in export prices and consequently cause upward pressures on CPI.
- Continuation of the political tensions in the Middle East could increase upward risks regarding the global and domestic inflation.
- How long the exchange rate preserves its high levels would be an important component  for the exchange rate pass-through to CPI.
- In 2006, the increase in exchange rate was rapid but temporary.
- Therefore, economic actors didn't reflect the increase in exchange rate to their pricing behaviors and the inflationary impact of exchange rates were subdued.
- The fact that the recent rise in exchange rate is long lasting or not, will be very important for the relationship between exchange rate and inflation.

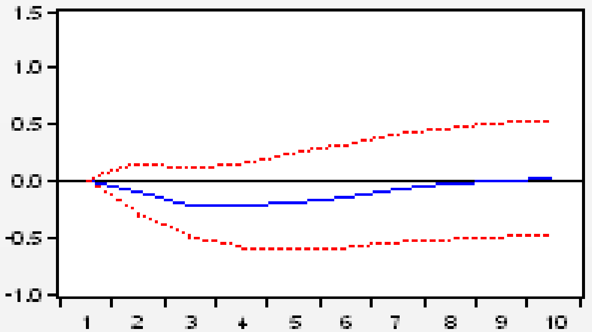
# *Exchange Rate Pass-Through: Impact of Oil Prices*

- The exchange rate pass-through has declined during the crisis but the recent rise in the exchange rate together with the sharp increase in oil prices might have increased the pass-through effect.
- Within the scope of the econometric models which we designed to analyze this view, we investigate the response of CPI to the shocks in oil and exchange rate for all periods and for the periods in which oil prices and exchange rate have increased simultaneously.
- The main difference between the two analysis is the persistence of the response of CPI to real effective exchange rate in the case of simultaneous increases in exchange rate and oil prices.
- The response of CPI to oil prices is one month lagged in simultaneous increases case and two month lagged in other cases.
- This observation indicates that the pass-through might be higher in recent days in which exchange rate and oil prices are rising simultaneously.

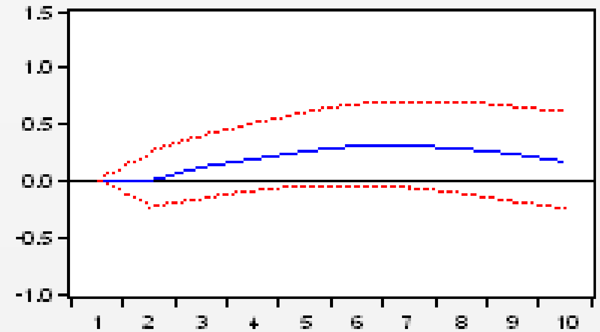
# *Results of the Impulse-Response Analysis*

## All Periods

**Response of CPI to a Shock on PPI Based Real Effective Exchange Rate**

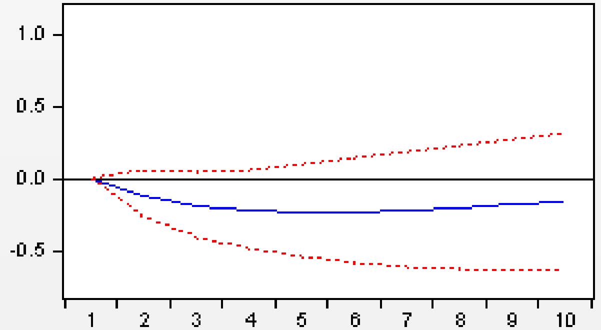



**Response of CPI to a Shock on Oil Prices**

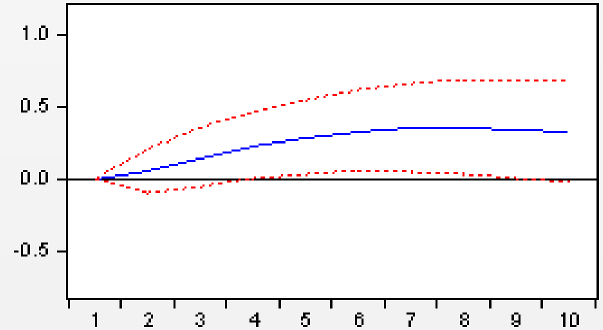



## Periods of Simultaneous Increases in Oil Prices and Exchange Rate

**Response of CPI to a Shock on PPI Based Real Effective Exchange Rate**




**Response of CPI to a Shock on Oil Prices**



## *Conclusion…*

- Due to the recent sharp increases in the commodity prices (especially oil and food commodities), inflationary pressures might increase in the coming period.
- The decline of the unemployment rate and the accelerating industrial production strengthen growth profile and hence signal increasing pressures of demand-pull inflation.
- The net effect of CBT’s monetary precautions is expected to be contractionary.
- Thus, CBT’s new monetary policy might restrain inflationary pressures.
- Nevertheless, it is probable that a potential supply shock might exacerbate cost inflation in the coming period.
- The major determinants of cost inflation would be commodity prices and exchange rate.
- Intermediate goods imports have an important stake in Turkey’s production.
- Hence, commodity and other import price increases imply inflationary pressures for the coming period.

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