



## **Empirical Analysis of the Relationship between Consumer Confidence Index and Exchange Rate in Turkey**

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### **Extensive Summary**

#### **1. Introduction**

Considering history of economics, especially after the last half of 20<sup>th</sup> century, it is seen that expectations in the economy have been highly emphasized. It would be appropriate to say that paradigm shift occurred in scientific approach lies behind it. Newton type of paradigm searching for mechanical relations between parameters gave its place to the quantum paradigm which bases on the fact that relations between parameters are not linear but more complex and that there is no single truth. Social sciences especially economics have extremely influenced of the quantum paradigm. In this context, especially policy makers started to determine policies by taking expectations of figures (agents) within the economy into consideration. Even it is stated that they strive to manage expectations with policy produced and language used. Countries started to take polls in order to measure consumers' expectations regarding future of the economy. Even, especially in financial markets, figures of confidence index to be disclosed in countries such as USA are closely followed up. The thought appeared that consumers' expectations regarding future of the economy and many parameters in the economy are interrelated and academic researches started to be made on this matter. Upon examination of the academic literature, it is seen that part of studies carried out focuses on examination of the relation between consumer confidence index and value of money.

The fact of consumer confidence has been handled in terms of psychological economy discipline. This discipline represents that in terms of the related concept, household behaviors depend on purchasing power as well as willingness for purchasing (Katona, 1968). While purchasing power relates to objective factors, willingness for purchasing relates to subjective factors (Roos, 2008). Return level obtained by consumer is not enough alone to explain changes occurred in consumer behaviors. Consumer confidence index, concerning measurement of purchasing power and

willingness for purchasing, signifies a great importance since it reflects details about consumer attitudes (Celik, Aslanoglu and Deniz, 2010).

Economists indicate that confidence is among the most important factors lying behind financial crisis. Therefore, confidence level of economic units taking part in the market has been handled as an important study item in terms of economy literature (Gormus and Gunes, 2009). According to Fukuyama (1998), economic units may be considered as a reliable social capital and it is deemed that increase rate occurred in confidence level affects macroeconomic factors positively. In this direction, while increase (decrease) in confidence level increases (decreases) investment and demand level, it can also cause decrease (increase) of unemployment level.

Senses of consumers have an important role regarding consumption expenditures real return level and level of economic activities. Thus, senses of consumers may have an influence on the market. For example, when investors have a sense of anxiety about the economy getting worse, they are also anxious of that stock market will be affected negatively and they will lose money. Hence, they will take action according to this anxiety, sell share certificates they have and as the result of it, market may tend to drop down (Chen, 2011).

Consumer confidence is affected by a few factors. First and the most important factor is the real economy including unemployment, economic growth and stock market. Media factor appears as the second important factor. Upon examination of studies carried out regarding influence of the media; while in studies of Blood and Philips (1995) as well as Wu and et al. (2002), findings were obtained asserting that recession news broadcasted in the media affect consumer confidence level; in the study carried out by Wu, McCracken and Saito (2004), any relation was established between the media factor and consumer confidence level.

Although consumer confidence indexes are a measurement necessary to take into account, it is also an index which shouldn't be relied on. Because in some cases, an opposite relation may appear between consumers' senses and expenditures spent by consumers contrary to expectations. In year 2002, according to the research made by the company Deloitte in USA, it is founded that although a negative impact occurred on consumers' senses after the attack on 11<sup>th</sup> September 2001, consumer expenditures increased excessively in the following quarter (Sergeant, 2011).

## **2. Methodology**

In the study, analysis was implemented by using two variables. One of the variables is consumer confidence index and bases on the index prepared by Turkish Statistical Institute (TSI) and Republic of Turkey Central Bank (RTCB). The other variable is exchange rate. Monthly average value of American Dollar's selling rate is used as a basis with respect to exchange rate. Data related to both variables pertains to the period 2003:12-2011:12 and consists of 95 observations in monthly frequency. Data related to both variables were obtained from CBRT's electronic data distribution system ([www.tcmb.gov.tr](http://www.tcmb.gov.tr)).

In the study, analysis was implemented through the method VAR. In this context, unit root test was carried out firstly in order to determine whether variables are equally stationary or not. Then, analysis was initiated by calculating default duration used in analysis. In order to see whether there is a relation between variables in long term,

Johansen (1988) cointegration method was applied and to research existence of short term causality relation, Granger (1969) causality analysis was applied. Finally, impulse-response analysis was applied to see the reaction given by either party when a shock occurred in the other. All analysis was implemented by using Eviews 6 software.

### **3. Findings and Conclusions**

As the result of analysis applied, it is found that there is a relation between both variables either in long term or in short term. As the result of unit root test, it is found that first difference is that constant as well as constant and trend models are both stationary, in other words, variables examined are integrated I(1) of first degree. Upon cointegration analysis implemented, existence of cointegration has been determined in long term between exchange rate and consumer confidence index. Upon Granger (1969) causality analysis, existence of a unidirectional causality relation has been determined in direction from exchange rate to consumer confidence index. Upon impulse response test, the finding has been obtained that confidence index gives response decreasingly to a standard deviation shock coming from exchange rate.

Upon examination of value of Turkish Lira (TRY) pertaining to the recent past, it would be realized that its value towards foreign currencies is very low as well as it is very unstable. Within this period, together with constant decrease of TRY in value towards foreign currencies, devaluations made by the public authority are also a known fact. Since TRY lost its value preservation function which is one of fundamental functions of money, it won't be quite easy to erase dollarization years encountered from public memory. The fact of increase in number of enterprises described as exchange offices may be considered as one of main reflections of this period on the market. Considering based on these facts, it wouldn't be wrong to mention that high exchange rate has no positive place in public memory of Turkey. Briefly stated, the fact of exchange rate in Turkey is in close relation with the concept confidence due to the mentioned public memory. In this context, findings obtained in this study fully comply with expectations. In other words, findings obtained as the result of analysis, may be interpreted as one of significant factors giving shape to expectations of consumers for future of the economy in Turkey.