Chapter 2
Revisiting the Link between Consumer Sentiment and Economic Activity: Consumer Confidence and Economic Growth

Sadullah Çelik
Marmara University, Turkey

ABSTRACT
This chapter revisits the relationship between consumer confidence (sentiment) and economic and financial variables for the emerging market of Turkey using the recently developed and superior frequency domain causality and wavelet comovement analysis. The main theme is to assess the information content and the relationship of consumer confidence indices (which are advocated to be leading economic indicators) with important economic and financial variables in Turkey. This will help to understand the dynamics of interaction between households, firms, and the public sector in Turkey. There are two basic contributions of this study to the existing literature: first, as far as we know, this study is the first of its kind concentrating on the consumer confidence and several other financial parameters for an emerging market by adopting a frequency domain and wavelet comovement analyses. Second, the use of frequency analysis enables us to examine the test results over different frequencies rather than limiting ourselves in time domain and a linear world.

1. INTRODUCTION
The consumer sentiment index has been widely used as a leading economic indicator. Due to the close link between the consumer attitudes and macroeconomic variables, consumer confidence indices (CCI) are used not only to have a snapshot of the latest consumer behavior but also to forecast the future path of the economy. Therefore, the consumer confidence should have a direct link not with only the consumer expenditures but also other macroeconomic and financial variables.

DOI: 10.4018/978-1-4666-8729-5.ch002
The recent global economic and financial crisis has laid great stress on our macroeconomic thinking. In this setting, there has been considerable attention towards the leading economic indicators like CCI (Johnson and Atsuyuki, 2014; Debes et al., 2014; Tang, 2015). However, there is no consensus on the notion that these tendency surveys were pointing in the direction of such a severe crisis (Howrey, 2001; Doms and Morin, 2004; Lemmon and Portniaguina, 2006; Malgarinina and Margania, 2007).

One of the problems that arise is due to the comparison of a group of countries in several studies through panel data analysis. Given that an economy is populated with heterogeneous economic agents, survey responses constitute a challenging dilemma for researchers in extracting the extra information that could not be measured through other economic and financial variables (Chen et al., 2013; Hsu et al., 2014). Employing data from a single country should eliminate such shortcomings although the outcomes could be valid with many restrictions in place (Curtin, 2007). Nonetheless, analyzing an emerging market with a new methodology should be a step in providing alternative directions for future research.

Recent research like Stock and Watson (2010) point to the importance of nowcasting as a decent methodology compared to forecasting. They argue that the data we use for forecasting purposes could lead to misleading estimates due to its incomplete or backward looking nature. Hence, information that reflects the current stance of an economy should be useful in providing estimates that outline the possible future paths of the economy. In this sense, consumer confidence index stands out as a significant leading indicator and a candidate to provide information on the current stance of the households’ expectations as well as their future perceptions. Hence, consumer sentiment should help us in understanding whether the households are on the same page in terms of observing the prevailing economic circumstances as the firms and public sector.

Furthermore, most of the methodology used in the previous literature (summarized above) ignores a very crucial characteristic of consumer confidence index. Consumer sentiment is derived from the expectations and perceptions of households which are continuous through time and follow a dynamic pattern that is hardly linear. Hence, using well-known methods like VARs, unit root tests, cointegration and panel data analysis would fall short of extracting the information that the consumer confidence indices include.

This chapter uses two recently developed and theoretically strong methods to examine the relationship between consumer confidence and the economic and financial variables in the emerging market of Turkey. These are the causality tests in frequency domain developed by Breitung and Candelon (2006) and the wavelet comovement analysis developed by Rua (2010).

Frequency domain causality analysis measures the causality relationship in both low and high frequencies while checking the type of causality without relying on a selection of maximum lag. Hence, over the whole interval of the causality analysis, we observe whether one variable causes the other or there is bi-directional causality. This is a significant improvement over the time domain Granger causality method which relies on a set of restrictions to obtain causality results in only time domain.¹

On the other hand, the wavelet transform is a tool that cuts up data or functions (or operators) into different frequency components, and then studies each component with a resolution matched to its scale (Chui, 1992 and Percival and Walden, 2000). Wavelet analysis merges two approaches, in the sense that both time and frequency domains are taken into account. Through wavelet analysis one can assess simultaneously how variables are related at different frequencies and how such relationship has evolved over time, obtaining non-stationary features. This is a distinct and noteworthy aspect as both time and frequency varying behavior cannot be captured using other methods (Gençay et al., 2001).
Related Content

Mapping the Rural Retail of India
www.igi-global.com/chapter/mapping-the-rural-retail-of-india/132388?camid=4v1a

Trends and Prospects of the Moroccan Health System: 2010-2030
Nada Zouag and Ahmed Driouchi (2014). Labor and Health Economics in the Mediterranean Region: Migration and Mobility of Medical Doctors (pp. 314-336).
www.igi-global.com/chapter/trends-and-prospects-of-the-moroccan-health-system/88075?camid=4v1a

Exploring Landscapes in Regional Convergence: Environment and Sustainable Development in South Asia
www.igi-global.com/chapter/exploring-landscapes-in-regional-convergence/161200?camid=4v1a

The Impact of Infrastructure on Growth and Development: The Case of Ghana, 1986-2016
www.igi-global.com/chapter/the-impact-of-infrastructure-on-growth-and-development/181134?camid=4v1a