



Capital flows and current account dynamics in Turkey: A nonlinear time series analysis [☆]



Aydin Cecen ^{a,*}, Linlan Xiao ^{b,1}

^a Center for International Trade & Economic Research – CITER, Department of Economics, Sloan 307, CMU, Mt. Pleasant MI 48859, USA

^b Department of Economics, Sloan 315, CMU, Mt Pleasant, MI 48859, USA

ARTICLE INFO

Article history:

Accepted 7 March 2014

Available online 31 March 2014

JEL classification:

C22

F32

Keywords:

Current account

Europe

Turkey

Nonlinearity

Unit root

ABSTRACT

The paper offers an analysis of current account dynamics and its sustainability in Turkey using quarterly data. The focus is on the nonlinear characterization of the long run intertemporal budget constraint and the stationarity tests. Several well-known tests are applied to identify nonlinearity in the current account time series. The analysis reveals that while the classical unit root tests based on linear specification give rise to conflicting results as to the nonstationarity of the current account deficit series, a threshold unit root test due to Caner and Hansen (2001) fails to reject the null of nonstationarity, implying that the intertemporal budget constraint would not be satisfied in the long run.

© 2014 Elsevier B.V. All rights reserved.

1. Introduction

Its remarkable growth performance notwithstanding, the Turkish economy has displayed increasing current account deficits for the last decade. In an attempt to gage the risk of overheating in a number of economies, *The Economist* has ranked Turkey as the 6th economy after Argentina, Brazil, Hong Kong, India and Indonesia, on the basis of an emerging – market overheating index – see, Economics focus, *The Economist*, July 2nd 2011. While the onset of the Great Recession in 2008 reduced the deficit considerably over the next three quarters, the current account deficit appeared to have resumed its momentum within a year. By the end of 2011, Turkey's current account deficit reached a record high of 10.3% of its GDP. Publicly recognizing the risks associated with such high external deficits, Turkish government authorities have recently introduced several expenditure switching policies. The Central Bank, on the other hand, let the Turkish Lira depreciate by almost 20% within a short period of three months in 2011.

This study is aimed at shedding light on the long run dynamics of the current accounts in the Turkish economy. More specifically, we propose to analyze the long run sustainability of the current account deficits. The policy implications of this empirical investigation are obvious. For nearly three decades, increasing current account deficits have often resulted in deep financial crises in Turkey: the 1994 and 2001 financial crises have all been preceded by increasing current account deficits, and the last five years have witnessed record deficits, exacerbated by rising demand for imported energy. Thus the crucial question is: are these current account deficits sustainable in the long run?

Indeed, overvalued exchange rates, skyrocketing oil prices, and high domestic real interest rates accompanied by a rapid inflow of hot money have all been associated with this steep rise in current account deficit. In a period of just one year, before the onset of the international financial meltdown in November 2008, net foreign capital inflow into the Turkish economy increased from US\$ 48.1 billion to US\$ 52 billion. Consequently the current account deficit reached an unprecedented average growth rate of nearly 42% per annum.

In light of the above, this study investigates empirically the sustainability of the current account deficits in Turkey by carefully considering nonlinear time series properties of the underlying data. While the empirical findings based on linear unit root tests turn out to be ambiguous, nonlinear unit root tests appear to point to nonstationarity in the current account deficit series based on the time series analysis of the quarterly data for the period Q1 1987 to Q3 2011. The time series

[☆] A previous version of this paper was presented at the 8th International Conference of the Middle East Economic Association, Nice, France. We are grateful to the comments provided by the conference participants. We also thank the editor and the referees for their constructive criticisms. The remaining errors are ours. A. Cecen acknowledges the research assistance of Ping Ang, and Guanlin Gao.

* Corresponding author. Tel.: +1 989 774 3870; fax: +1 989 774 2040.

E-mail addresses: a.cecen@cmich.edu (A. Cecen), xiao11@cmich.edu (L. Xiao).

¹ Tel.: +1 989 774 2579; fax: +1 989 774 2040.

analysis offered in this paper demonstrates that the current account deficits in Turkey were unsustainable.

This does not, in any way, imply insolvency or an imminent financial crisis: it points to the fact that macroeconomic policies followed by the governments for the last decade or so have become unsustainable. The steep depreciation of the Turkish Lira during the last three years (approximately 1.49 TL/US\$ in September 2010 to 2.05 TL/US\$ in September 2013) appears to vindicate the empirical findings of the paper.

Balance of payments statistics summarize the transactions of a country with the rest of the world; as such, the mere existence of large current account deficits in an open growing economy does not necessarily imply macroeconomic instability as long as international borrowing is used for productive investment. A historical comparison may be helpful in this context. Canada and Australia, for instance, since the late nineteenth century have run persistent current account deficits, at times exceeding 10% of their GDPs. Post-war current account data also reveal that both of these countries have continued to grow with substantial deficits. Nevertheless, the creditworthiness of these countries in international capital markets did not suffer; external borrowing, unlike in Latin American economies in the early 1980s, went smoothly without seriously destabilizing macroeconomic equilibria. Indeed, Canada's trade surpluses, and Australia's policy reforms *pari passu* with their sound institutional infrastructures appear to have contributed to the sustainability of their current account deficits. Does this imply, therefore, that there is some evolutionary process in economic development, whereby the balance of payments of growing economies pass through various stages? If so, what are the characteristics of these stages in terms of the current/trade accounts and net foreign investment positions of these economies?

By the second half of the nineteenth century, with the rise of the British Empire as the world hegemonic power, economists took interest in the analysis of the long run trends in balance of payments statistics. Cairnes (1874) is probably the first economist who hypothesized the existence of stages in the balance of payments while discussing the borrowing requirements of colonies. In its simplest version, the so-called "stages hypothesis" posits that a developing economy starts as a young borrower-debtor (with a trade deficit financed by foreign borrowing) and progresses gradually to a mature creditor (with a trade deficit financed by returns on accumulated international assets). Subsequently, other attempts to account for this alleged "stages phenomenon" came from Taussig (1928) and Crowther (1957), each one conjecturing different number of stages. Fischer and Frenkel (1972) showed that the balance of payments of a growing economy may generate cycles that are consistent with the stages hypothesis. Bazdarich (1978) was the first who provided a direct challenge to the stages hypothesis; he demonstrated that in the competitive world capital markets, the optimal growth of a small economy would reveal no tendency to pass through such stages and that a developing economy would always be a net borrower – with its external debt increasing monotonically to a steady state level. Neither various versions of the stages hypothesis, nor the "stylized facts" based on observations of several financial crises in the world economy during the last four decades, however, seem to provide clear-cut answers to the question of sustainability of current account deficits in the very long run. Indeed, it would be hard to rationalize the evolution of the balance of payments of Turkey within this "theory" of a life cycle of borrowing and repayment.

Widely regarded as a poster boy of the Washington Consensus during the 1980s, the Turkish economy has remained caught between the *Scylla* of high inflation and *Charybdis* of high interest rates for the following two decades – see Yeldan (1989) for a detailed analysis of alternative growth policies. Since the 2001 financial crisis, thanks to high real interest rates, fast privatization and fiscal discipline, Turkey has been a favorite destination of foreign capital inflows – both in the forms of portfolio and direct foreign investment – see, Voyvoda and Yeldan (2005). While it appears that parts of the credits have been used for investment purposes, there is also some evidence that large

volumes have been used for excessive consumption – see, Ogus and Sohrabji (2006). Hence, despite relatively high but erratic real growth rates, unemployment in Turkey has remained above 9% for nearly a decade. World Bank (WB) statistics reveal that while the saving rates (as percentage of GDP) in the middle-income countries for the 1990–2009 period show an upward trend from over 25% to 30%, savings in Turkey declined from 22% to below 15% – WB UNDP (2011).

That low domestic savings together with overvalued currency and relatively high inflation harm, in the long run, the competitiveness of export sectors in Turkey is well recognized. Yet a more fundamental factor that affects the value-added of export goods, hence the competitiveness of the Turkish economy in international markets, is the level and composition of human capital in Turkey. The paucity of high-tech, high value-added products in the lists of export items in Turkey unequivocally demonstrates that what is missing in the growth dynamics of the Turkish economy is a Human Development Index akin to those of the countries that rank, at least, among the top fifty world economies – see, UNDP (2011) Human Development Report.

The paper is organized as follows. Section 2 offers an overview of the relevant literature on current account sustainability. Section 3 develops a dynamic model of the current account and its intertemporal budget constraint. Section 4 reports the findings of nonlinearity tests. In Section 5 the stationarity issues are discussed in light of the Caner and Hansen (2001) unit root test. Section 6 discusses the systemic reasons behind increasing current account deficits in the Turkish economy and policy implications of the econometric results. Finally in Section 6, we provide some concluding remarks.

2. Current account dynamics and sustainability

Increasing US current account deficits during the last two decades have prompted a voluminous literature on the analysis of current account dynamics and its sustainability from various perspectives – see, among others, Wickens and Uctum (1993), Hakkio (1995), Milesi-Ferretti and Razin (1996), Coakley et al. (1998), Fountas and Wu (1999), Ventura (2001), Cooper (2001), Taylor (2002), Christopoulos and Leon-Ledesma (2010) and Obstfeld and Rogoff (2004). The study of increasing current account deficits in the US economy was, in fact, parts and parcels of a deeper theoretical puzzle in open economy macroeconomics: why does international capital flow more to capital-rich economies, instead of finding its ways into capital-poor countries, as predicted by standard theories of international trade – the so called Lucas Paradox. With rapid globalization of the financial markets, although dissenting views have been expressed as to the importance of national current account balances, a recent study by Obstfeld (2012) convincingly argues that the current account does still matter in a world of integrated financial markets.

The findings of the relevant literature as to the sustainability of the US external deficits have been mixed; and most of the econometric results have pointed to the dangers of maintaining large deficits for the US economy in the long run. The methods used in these studies vary from vector autoregressive VAR models to univariate time series regressions. Because the specification of the models used is mostly linear and depends on several assumptions and parametric conditions, the results obtained are often difficult to interpret in the face of strong nonlinearities in the current account series. In this context, Otto (1992) considers the US and the Canadian cases, Chortareas et al. (2004) analyze sustainability of the current account in some Latin American countries by using nonlinear unit root tests. Furthermore, instead of a univariate time series approach, some other studies have also relied on panel data analysis – see for instance, Wu (2000) and Wu et al. (2001).

In a similar vein, a number of recent studies have investigated the dynamics of current account deficits in Turkey. Togan and Ersel (2004), for instance, consider the Turkish current account in relation to the real exchange rate and the evolution exchange rate regimes in

Download English Version:

<https://daneshyari.com/en/article/5054253>

Download Persian Version:

<https://daneshyari.com/article/5054253>

[Daneshyari.com](https://daneshyari.com)