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Net foreign assets and macroeconomic volatility☆

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ABSTRACT

This study analyses the co-movements of net foreign asset accumulation, consumption, real exchange rate, and real interest rate in a cross section of countries. Our sample covers both industrial and developing economies, spanning 1981–2010 period. We find that the accumulation of net foreign assets is associated with increasing consumption and real exchange rate appreciation. In a cross section of countries, when a country increases its net foreign assets to GDP ratio by a one-standard deviation, consumption to GDP increases by 0.02% per year and real exchange rate appreciates by 2% per year. Consumption to GDP responds more positively to net foreign asset accumulation in G7 countries, +0.1 to +0.2% per year, while the response is smaller and negative in developing countries reporting a −0.02% per year. The real exchange rate appreciation, however, is about +3% per year in developing countries and only about +0.2% per year in OECD countries.

1. Introduction

Manifested by the concern over current account deficits in the U.S. as well as the issue of global imbalances in recent years, the accumulation of net foreign assets[1] (NFA) in developing countries, particularly in emerging Asia, has received much renewed attention from policymakers and academics. The debate over current account sustainability and global imbalances has further intensified when the world witnessed the so-called great moderation in macroeconomic adjustments with strong economic growth, low financial market volatility and more integrated global economy. Then, triggered by the subprime mortgage crisis in the U.S. during 2008–09, the global economy fell into the period of a sharp decline in growth and markedly higher financial volatility. While the global economy has recovered since 2010 and the financial volatility has

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[1] As a measure of a country's national wealth, net foreign asset is identified as the difference in the value of assets that a country owns abroad and the value of domestic assets owned by foreigners. The net foreign asset position at any given point in time can be measured by its initial position plus cumulative current account balances and cumulative net capital gains on cross-border positions in subsequent periods. See Lane and Milesi-Ferretti (2007) for a detailed discussion on the measures of net foreign assets.

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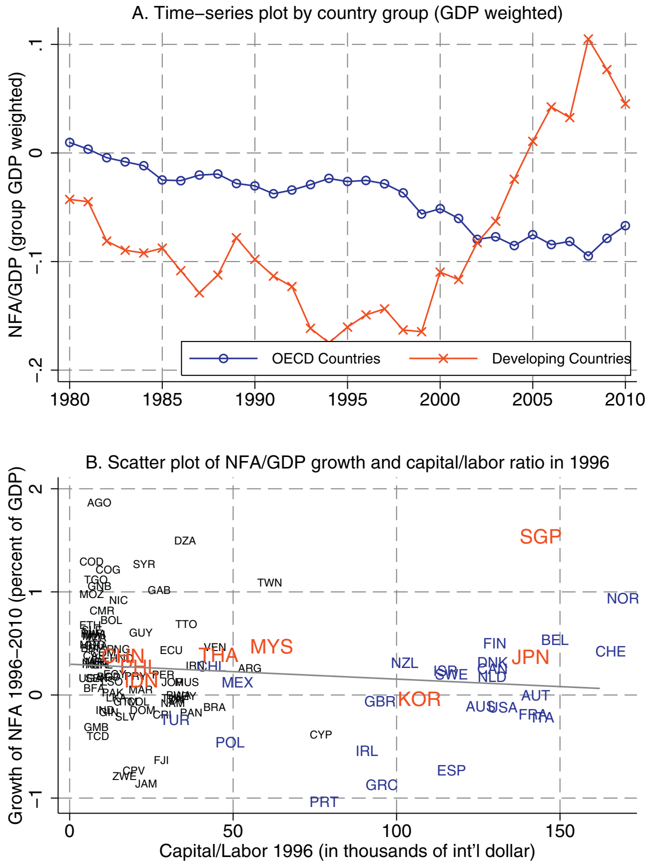

Fig. 1. Trend of net foreign assets/GDP over time, and its association with capital/labor ratios (in thousands of international dollar).
Source: WDI, IIP, WEO, EWN, and Authors' calculation.

fallen significant since the immediate post-crisis years, a significant amount of resources has been committed in solving the liquidity problem in the public and private sectors in some troubled countries, as well as to create appropriate policy tools as a preemptive measure. At present, there is still no consensus in the literature on how current account and asset accumulation actually contributed to the problem in the first place (see, for instance, Chinn, Eichengreen, & Ito, 2011). The question on how countries should manage their current accounts, stock of foreign exchange reserves and net foreign assets has therefore become an ever more challenging task to tackle in both the developed and emerging countries.

By and large, the recent discussions on net foreign assets are framed into the context of 'global imbalances,' 'sovereign wealth funds,' and 'global saving glut.'[2] Yet, against these important discussions is a state of current understanding on any macroeconomic implications of net foreign asset accumulation, which remains a challenge in both the theoretical and empirical literature. Past studies examined the role of net foreign asset accumulation, taking it either as given with respect to other macroeconomic variables [for cross-country empirical evidence, see Lane and Milesi-Ferretti (2002) and Lane and Milesi-Ferretti (2004)], or as an endogenous variable among several others [see for theoretical models and evidence of industrial countries in Masson, Kremers, and Horne (1994), Cavallo and Ghironi (2002), Ghironi, Iscan, and Rebucci (2008)]. Related strands of the literature focus on the accumulation of foreign exchange reserves [see Aizenman and Riera-Crichton (2008) and Rodrik (2006) on the determinants and consequences of holding reserves] and current account adjustment [see Faruqee and Lee (2008) and Debelle and Galati (2007) on the global distribution and relationship with trade and financial integration].

Fig. 1A compares the size of net foreign asset relative to GDP between OECD group and developing countries.[3] While there is a large cross-country variation in the size of net foreign assets to GDP ratio, one distinct pattern is the significant growth of net foreign assets to GDP ratio of the developing countries in recent years. For instance, China's net foreign assets to GDP ratio increased from −6.9% in 1999 to +24.3% in 2010, with most of the net foreign assets accumulated in the form of foreign exchange reserves and new portfolio investment abroad.[4] The rise of net foreign assets/GDP is clearly evident in the case of

[2] See for example Bernanke (2005) and Jen (2007).
[3] To take into account the country size, the net foreign assets/GDP series are weighted by each country's GDP in the group.
[4] As of 2006, the position is about 20 percent of GDP. See also Dollar and Kraay (2006) where it is argued that a long-run forecast of China's NFA position is around 3–9 percent of its total wealth.