Has international borrowing or lending driven Australia's net capital inflow?

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ABSTRACT

Over the recent decades the most significant global imbalances have been between Asia-Pacific economies, with most attention directed to the imbalances of the largest economies, China, Japan and the United States. In contrast, this paper examines how external account imbalances and real long term interest rates are determined in smaller open economies. It first derives the proposition that external imbalances and long term interest rates move together whenever saving-investment shocks are predominantly domestically sourced, but move oppositely when saving-investment shocks mainly emanate abroad. It then shows that in the case of Australia, an Asia-Pacific economy that has borrowed heavily from abroad since the mid 1980's, rising net capital inflow has had a statistically significant negative impact on domestic real interest rates. This suggests that over that time net international lending rather than net foreign borrowing was mainly responsible for the variation in its external imbalance and real interest rates.

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1. Introduction

Since the 1990s the current account imbalances of many advanced and emerging economies have risen sharply as a proportion of GDP. Financial liberalisation has enhanced international capital mobility and facilitated a global de-linking of national saving and investment rates. Since the turn of the century, the most significant external account imbalances in the world have been in the Asia-Pacific economies. Within Asia, China, Japan and other East Asian economies have experienced large current account surpluses, while in the Pacific, the United States, Australia and New Zealand have experienced long-running external deficits.

China's large current account surplus and the current account deficit of the United States have been extensively analysed in recent literature (see for example Blanchard, Giavazzi, & Sa, 2005, Goldstein & Lardy, 2006, Makin, 2007, Truman, 2005, Ventura, 2001 and Xafa, 2007). However, little attention has been paid to smaller economies in the Asia-Pacific region with persistently large external imbalances. Moreover, studies aimed at identifying the likely determinants of external surpluses and deficits have focused more on the domestic factors giving rise to higher borrowing, such as saving rates and fiscal settings, than on foreign factors.

Relative to the size of its economy, Australia's current account deficit has been one of the largest in the Asia-Pacific region, averaging 4.5 per cent of its GDP since international capital inflows and outflows were liberalised and its exchange rate floated in the mid 1980's. Australia's persistent borrowing has resulted in a net foreign debt level that stands at over 60 per cent of GDP, also making it one of the world's biggest international debtors for its size.

Hitherto, the expansive literature on the theory of international borrowing and lending (see for instance Frenkel & Razin, 1987, Obstfeld & Rogoff, 1995, Obstfeld & Rogoff, 1996, Makin, 1998, Razin, 1995, Sachs, 1981, Kraay & Ventura, 2000) relies heavily on

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intertemporal precepts and usually assumes that the supply of foreign funds is infinitely elastic at a given real world interest rate. This approach, also termed the present value model of the current account, usually assumes that the current account balance reflects optimising forward-looking decision-making by agents' about consumption. If agents' expect the national cash flow in the future to rise, increased current consumption (or lower saving) will be reflected in a larger current account deficit, in the spirit of Friedman's (1957) permanent income hypothesis. In other words, it suggests that an economy's net foreign borrowing reflects intertemporal consumption smoothing by domestic residents.

Building on Sheffrin and Woo (1990), empirical adaptations of this approach by Cashin and McDermott (2002) and Otto (2003) help explain the significance and sustainability of Australia's current account deficits over the recent decades; Kim, Hall, and Buckle (2006) similarly explain New Zealand's current account deficit experience. They provide evidence that conditions for intertemporal solvency have generally been met in these economies and that their sizeable external deficits have hitherto not been a cause for major policy concern.

Yet previous present value studies of Australia's current account, though useful, have sought to explain current account variation with reference to domestic residents' consumption behaviour only and have assumed a constant real, risk free, foreign interest rate over the data sample period. What has not been sufficiently recognised in models linking saving, investment and international capital flows is that an economy's net foreign borrowing may be predominantly influenced not by altered saving and investment behaviour at home, but by changed saving and investment abroad, as implied by Bernanke (2005). Identifying whether most of the variation in net capital inflow matching the external deficit is sourced at home or abroad has important implications for fiscal policy and domestic real interest rates.

Using Australia as a case study of a relatively small open economy facing an exogenous real world interest, this paper provides a new perspective on whether foreign borrowing or lending primarily influences the external imbalance, or net capital inflow, and real domestic interest rate. It is structured as follows. Section 2 introduces a novel flow of funds framework for interpreting links between saving, investment, international borrowing, lending and real interest rates by considering the case of a small borrower economy facing an interest risk premia. Section 3 outlines the econometric approach used to test whether domestic or foreign factors have accounted for most of the variation in Australia's external imbalance and real interest rate. The final section concludes with a summary of results and discussion of policy implications.

2. Saving, investment and the external imbalance

In light of the limitations with previous present value studies of Australia's current account imbalance, the alternative model developed in what follows is based on a flow of funds approach to the current account which, unlike earlier studies, allows for period to period variation in real interest rates (inclusive of a risk premium), domestic saving, domestic investment, and in saving and investment in the rest of the world. In this way, for the first time we focus on whether domestic or external factors are predominantly responsible for the variation in Australia's current account imbalance.

2.1. An international borrowing and lending framework

The following flow of funds relationships provide the foundations for linking saving, investment and the current account imbalance for Australia (the home country) with international borrowing and lending from the rest of the world. In principle, a current account deficit is equal to a capital account surplus, or external surplus; hence, these terms are used interchangeably throughout. It is possible to elaborate these relations with micro-foundations, but these would detract from the international flow of funds focus and have no bearing on the theoretical and empirical results to follow.

$$S_p = Y - T - C_p \tag{1}$$

$$S_g = T - C_g \tag{2}$$

$$S = S_p + S_g = S\left(\overset{+}{r};\ \overset{-}{C_p},\ \overset{-}{C_g}\right) \tag{3}$$

$$I = I_p + I_g = I\left(\overset{-}{r};\ \overset{+}{q},\ \overset{+}{I_g}\right) \tag{4}$$

$$I - S = KAS = B^*\left(\overset{-}{r};\overset{+}{C_p},\overset{+}{q},\overset{+}{I_g},\overset{+}{C_g}\right) \tag{5}$$

where

S_p	is private saving.
r	is the real domestic interest rate.
Y	is national income, net of income paid abroad.
T	is government tax revenue.
C_p	is household consumption.