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Credit booms, banking crises, and the current account ☆

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ABSTRACT

A number of papers have shown that rapid growth in private sector credit is a strong predictor of a banking crisis. This paper will ask if credit growth is itself the cause of a crisis, or is it the combination of credit growth and external deficits? This paper estimates a probabilistic model to find the marginal effect of private sector credit growth on the probability of a banking crisis. The model contains an interaction term between credit growth and the level of the current account, so the marginal effect of private sector credit growth may itself be a function of the level of the current account. We find that the marginal effect of rising private sector debt levels depends on an economy's external position. When the current account is in balance, the marginal effect of an increase in debt is rather small. However, when the economy is running a sizable current account deficit, implying that any increase in the debt ratio is financed through foreign borrowing, this marginal effect is large.

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1. Introduction

The experience of a number of countries during the recent Global Financial Crisis highlights the fact that rapid credit growth supported by external borrowing is a recipe for a banking or financial crisis. This same combination of factors was at work during the East Asian crisis in the late 1990s and the Latin American crises of the 1980s. With these episodes in mind, McKinnon and Pill (1996), Magud et al. (2011), Kaminsky and Reinhart (1999), Barrell et al. (2010), Reinhart and Reinhart (2009), Reinhart and Rogoff (2011) discuss how capital inflow "bonanzas" can lead to a rapid expansion of credit which can then lead to a banking crisis.

A number of papers have shown that the root cause of a banking crisis is rapid credit growth.[1] This raises an interesting question: is credit growth itself the cause of a crisis, or is it the combination of credit growth and external deficits? In other words, does the source of credit matter?

To answer this question, this paper estimates the marginal effect of private sector credit growth on the probability of a banking crisis and estimates whether this marginal effect is itself a function of the level of the current account. If a country is experiencing high credit growth and a current account deficit, that credit growth is being fueled by foreign borrowing. When a country is experiencing credit growth and a current account surplus, that credit growth is being fueled by domestic savings. If the marginal effect of credit growth on the probability of a crisis is a downward sloping function of the current account, meaning that the marginal effect is higher when the current account is negative, then the source of credit does matter. A credit boom financed from foreign borrowing is more dangerous than one financed from domestic savings.

Using a dataset that includes private sector credit growth for 14 advanced economies from 1870 to 2008, Schularick and Taylor (2012) estimate the marginal effect of credit growth on the probability of a banking crisis. They show that the marginal effect is around 0.3. That is to say, a 1 percentage point increase in the credit-to-GDP ratio raises the probability of a banking crisis by 0.3 percentage point.

The role that large external imbalances and foreign borrowing play as precursors to banking crises is less understood. As mentioned earlier a number of papers discuss how capital inflow "bonanzas" can lead to a rapid expansion of credit which can then lead to a banking crisis, and Demirgüç-Kunt and Detragiache (1998, 2005) argue that the vulnerability to sudden capital outflows is a robust predictor of crises. Eichengreen and Rose (2004) argue that increases in interest rates in industrialized countries is a major factor driving banking crises in emerging market economies, but country-specific factors like external debt burdens and the current account are less important. In contrast, Ferretti and Razin (2000) argue that the size of the current account deficit is a robust predictor of a future crisis. Edwards (2002) reviews the way in which economists' views on the current account have evolved. He argues that economists' views have varied from "deficits matter" to "deficits are irrelevant" to the current dominant view that "current deficits may matter – in particular if the deficit is financed with short-term debt."

During the recent global financial crisis, Rose and Spiegel (2011) find that countries with current account surpluses were better insulated from slowdowns. Lane and Milesi-Ferretti (2011, 2012) argue that countries whose pre-crisis current account balances were in excess of what could be explained by standard economic fundamentals experienced the largest contractions in their external balance, and the external adjustment in deficit countries was achieved primarily through demand compression rather than expenditure switching. Frankel and Saravelos (2012) argue that countries with a higher pool of national savings and less need to borrow from the rest of the world suffered comparatively less during the current crisis. On the other hand Obstfeld (2012b) argues that deficits do not matter as much as imbalances in stock of external assets and liabilities, and Obstfeld (2012a) argues that the

[1] See e.g. Aizenman and Noy (2013), Borio and Lowe (2002), Demirgüç-Kunt and Detragiache (1998), Demirgüç-Kunt and Detragiache (2005), Hume and Sentance (2009), Jordà et al. (2011b), Jordà et al. (2013), Kaminsky and Reinhart (1999), King (1994), Loayza and Ranciere (2005), Mendoza and Terrones (2008), Mendoza and Terrones (2012), Mian and Sufi (2009), Reinhart and Reinhart (2009), Jordà et al. (2011a), McKinnon and Pill (1996), Arteta and Eichengreen (2002), Gourinchas and Obstfeld (2012).