

This PDF is a selection from a published volume from the National Bureau of Economic Research

Volume Title: NBER International Seminar on Macroeconomics 2009

Volume Author/Editor: Lucrezia Reichlin and Kenneth West, organizers

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-70750-4 (paper)

Volume URL: <http://www.nber.org/books/reic09-1>

Conference Dates: June 12-13, 2009

Publication Date: June 2010

Chapter Title: Comment on "External Balance in Low-Income Countries"

Chapter Author: Nicolas Coeurdacier

Chapter URL: <http://www.nber.org/chapters/c11922>

Chapter pages in book: 323 - 328

---

## *Comment*

*Nicolas Coeurdacier, London Business School and CEPR*

### **I. What Is It About?**

The paper “External Performance in Low-Income Countries” by Lone Christiansen, Alessandro Prati, Luca Antonio Ricci, and Thierry Tresselt investigates empirically the medium-term determinants of current accounts, net foreign asset positions, and real exchange rates in low-income countries. The authors build a new data set for 54 low-income countries over the period 1981–2005. They control for the standard determinants of external balance (demography, fiscal stance, net foreign assets, and levels of development; see, e.g., Chinn and Prasad 2003) among others and add some new potentially important variables for low-income countries such as external financing (foreign aid), policy distortions (quality of institutions, capital account restrictions, and domestic financial reforms), and the role of external shocks.

Since exchange rate and current account adjustments can be very disruptive in low-income countries, we definitely need to understand better how these variables are determined in the first place to be able to prevent such events. One can draw from such results important policy implications for foreign aid policies, capital account, and trade restrictions.

### **II. What Are the Main Results?**

I will put the emphasis of my discussion on the results regarding the determinants of current accounts. I will not comment on the results on the determination of real exchange rate or net foreign asset positions. Indeed, real exchange rates and current accounts are simultaneously determined. Any worsening (respectively, improvement) of the current account should go with an appreciation (respectively, depreciation) of the real exchange rate. This is what Christiansen et al. are finding for most variables

when significant. Similarly, the results regarding net foreign asset positions are globally consistent with the results on current accounts. Variables that affect positively the current account also affect positively the net foreign asset position.

I will focus on variables that are more specific to low-income countries and have not been explored in previous literature since the authors mostly confirm previous studies for standard control variables (demography, fiscal stance, levels of development).

In particular, Christiansen et al. find that

1. higher levels of foreign aid/concessional loans worsen the current account,
2. domestic financial liberalization and capital account liberalization improve the current account, and
3. natural disasters lead to a current account deficit if the capital account is opened.

These effects are quantitatively significant. The third result is not very surprising and is in line with standard consumption smoothing theory: low-income countries borrow in international markets when facing an adverse shock. I will focus on the first two, which are more challenging theoretically. Let us start with their first result.

### III. Possible Theoretical Interpretations

#### A. *The Role of Foreign Aid*

Christiansen et al. find that foreign aid worsens the current account of low-income countries, and this is mostly driven by concessional loans. Before tackling the issue from a theoretical perspective, I want to raise some empirical issues: there are some endogeneity issues that are hard to deal with. Indeed, foreign aid is not randomly assigned and targeted toward countries that most need it. In particular, in periods of large current account deficits, low-income countries should receive more aid; this can bias their estimates downward, even though the authors control for various key variables (such as levels of development, domestic financial development, etc.).

To better make sense of their result, suppose a small open economy with decreasing marginal productivity of capital (MPK) and an exogenous world real interest rate  $r$  (see fig. 1). If the country is well integrated to financial markets and the MPK equalizes the world interest rate, the

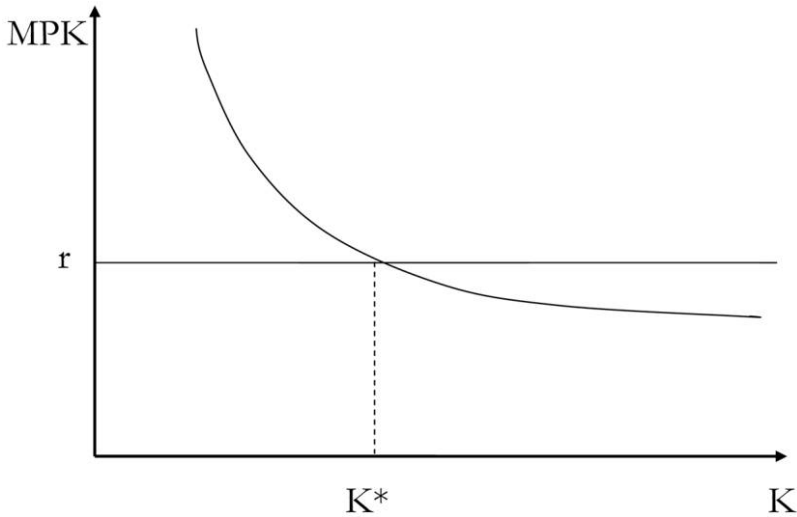


Fig. 1. The neoclassical model of a small open economy

standard intertemporal approach of the current account would predict an improvement in the current account since the aid proceeds should be saved (at least partly) abroad rather than invested domestically. The authors get the opposite. While it is not that surprising that the standard neoclassical model does not fit the low-income countries, what are the possible alternatives?

I believe that Christiansen et al. should have tried to investigate the following interpretations of their result. In the presence of financial repression and capital movement restrictions in low-income countries, it is likely that a wedge exists between the domestic MPK and the world interest rate since capital is scarce in low-income countries. In such a case, a \$1.00 increase in foreign aid would be invested domestically as it relaxes the constraint on capital. The current account deteriorates today (and in the future because of the interest payments). This seems more in line with the authors' findings, and it would have been nice to test whether the current account of low-income countries that are more financially repressed reacts differently to aid proceeds.

Another interpretation of their results relies on the work of Kraay and Ventura (2000). In the presence of uncertainty and weak diminishing returns to capital, the intertemporal approach must be modified: positive income shocks (such as aid flows) should be invested at the margin in the same proportion as overall wealth. In other words, debtor countries such as low-income countries should run larger current account deficits following a positive transitory income shock.

### B. Policy Distortions

Christiansen et al. find that capital account liberalization and domestic financial reforms improve the current account of low-income countries. Their interpretation is that better-functioning capital markets boost savings more than investment. This might be true for domestic financial reforms, but this seems a very counterintuitive result regarding capital account liberalization. Indeed, in line with previous arguments, one should expect low-income countries to be credit constrained. Alleviating these constraints by opening up to capital markets should boost domestic investment until the domestic MPK equalizes the world interest rate. Low-income countries should then finance investment by foreign borrowing, and one should observe a deterioration of the current account.

Obviously, the opposite can occur if the domestic interest rate is below the world interest rate before capital market integration (see fig. 2). The authors provide some evidence that this is indeed the case for half of the countries for which they have data on real deposit rates (see their table A3). In that case, one could indeed expect capital flight once the country opens up to capital flows (from  $K_0$  to  $K_1$ ). This result would echo the findings of Gourinchas and Jeanne (2009), who argue that low-income countries are exporting capital.

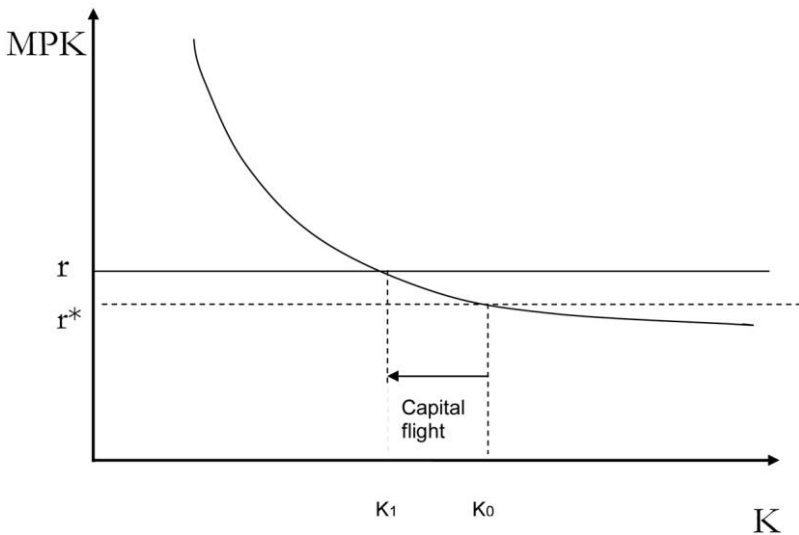


Fig. 2. Capital account liberalization in a small open economy with a domestic real interest ( $r^*$ ) below the world interest rate ( $r$ ).

Martin and Rey (2006) also have such predictions. Capital account liberalization in very poor countries leads to capital flight due to market size effects: when poor countries open up to capital markets, they seek for a diversified set of assets in the rest of the world since they do not provide enough assets locally. Interestingly, the authors find opposite effects for higher-income countries, and Martin and Rey would predict such a threshold.

An alternative story that could be tested empirically is provided by Jin (2009): in a two-good/two-factor Heckscher-Ohlin type of model, poorer countries should specialize in labor-intensive sectors. Capital account liberalization induces two effects: capital inflows toward the poorer country ("neoclassical effect") and capital outflows ("composition effect driven by specialization") since capital-demanding industries are in the North. Potentially the composition effect can dominate, especially for countries such as low-income countries that are far apart in terms of factor endowments from industrialized countries.

The surprising impact of capital account liberalization is confirmed when comparing low-income countries to high-income countries: while capital account liberalization generates capital outflows from low-income countries, it generates capital inflows toward high-income countries and emerging markets. This is worse than the "Lucas puzzle"! However, I would argue that this result is partly driven by sample selection. Lane and Milesi-Ferretti (2002) show that among developing countries, the high-income ones tend to receive more capital inflows, but among developed markets (OECD), the high-income ones export more capital. This would suggest that capital account liberalization leads to capital outflows in low-income countries and developed markets but capital inflows toward middle-income countries. Such a hypothesis could be tested in future work.

#### **IV. Conclusion**

The paper offers interesting insights into the main determinants of external variables (current account, net foreign asset position, and real exchange rate) for low-income countries. Some of their results go against conventional wisdom. In particular, the results regarding the impact of foreign aid and policy distortions (financial repression and capital account restrictions) on the external balance are the most puzzling, and further work would be needed to discriminate among the different possible channels that can explain those results.

## References

- Chinn, M., and E. Prasad. 2003. "Medium Determinants of Current Accounts in Industrial and Developing Countries: An Empirical Exploration." *Journal of International Economics* 59, no. 1:47–76.
- Gourinchas, P.-O., and O. Jeanne. 2009. "Capital Flows to Developing Countries: The Allocation Puzzle." Unpublished manuscript, University of California, Berkeley.
- Jin, K. 2009. "Industrial Structure and Financial Capital Flows." Unpublished manuscript, Harvard University.
- Kraay, J., and J. Ventura. 2000. "Current Account in Debtor and Creditor Countries." *Quarterly Journal of Economics* 115:1137–66.
- Lane, Philip R., and Gian Maria Milesi-Ferretti. 2002. "Long-Term Capital Movements." *NBER Macroeconomics Annual* 16:73–116.
- Martin, P., and H. Rey 2006. "Globalization and Emerging Markets: With or without a Crash." *American Economic Review* 96, no. 5:1631–51.