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# External Performance in Low Income Countries

By L. Christiansen, A. Prati, L. A. Ricci, S. Tokarick, and T. Tressel

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**Comment by Nicolas Coeurdacier (London Business School and CEPR)**

NBER International Seminar on Macroeconomics (ISOM) 2009, University of Chicago Press, edited by R. H. Clarida and F. Giavazzi,

## **What is it about?**

The paper investigates empirically the medium-term determinants of Current Accounts, Net Foreign Asset Positions and Real Exchange Rates in Low Income Countries (LICs). The authors build a new dataset for 54 LICs over the period 1981-2005. They control for the standard determinants of external balance (demography, fiscal stance, Net foreign assets, levels of development; see for instance Chinn and Prasad (2003)) among others and add some new potentially important variables for LICs 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 LICs, we definitely need to understand better how these variables are determined in the first place to be able to better prevent such events. One can draw from such results important policy implications for foreign aid policies, capital account and trade restrictions.

## **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 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 (resp. improvement) of the current account should go with an appreciation (resp. depreciation) of the RER. This is what the authors 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 LICs 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, the authors 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.
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 in line with standard consumption smoothing theory: LICs 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.

## Possible theoretical interpretations

### *The role of Foreign Aid*

The authors find that Foreign Aid worsens the current account of LICs 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 towards the country which the most needs it. In particular, in periods of large current account deficits, LICs should receive more aid; this can bias their estimates downwards, even though the authors control for various key variables (such as levels of development, domestic financial development...).

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 figure 1).

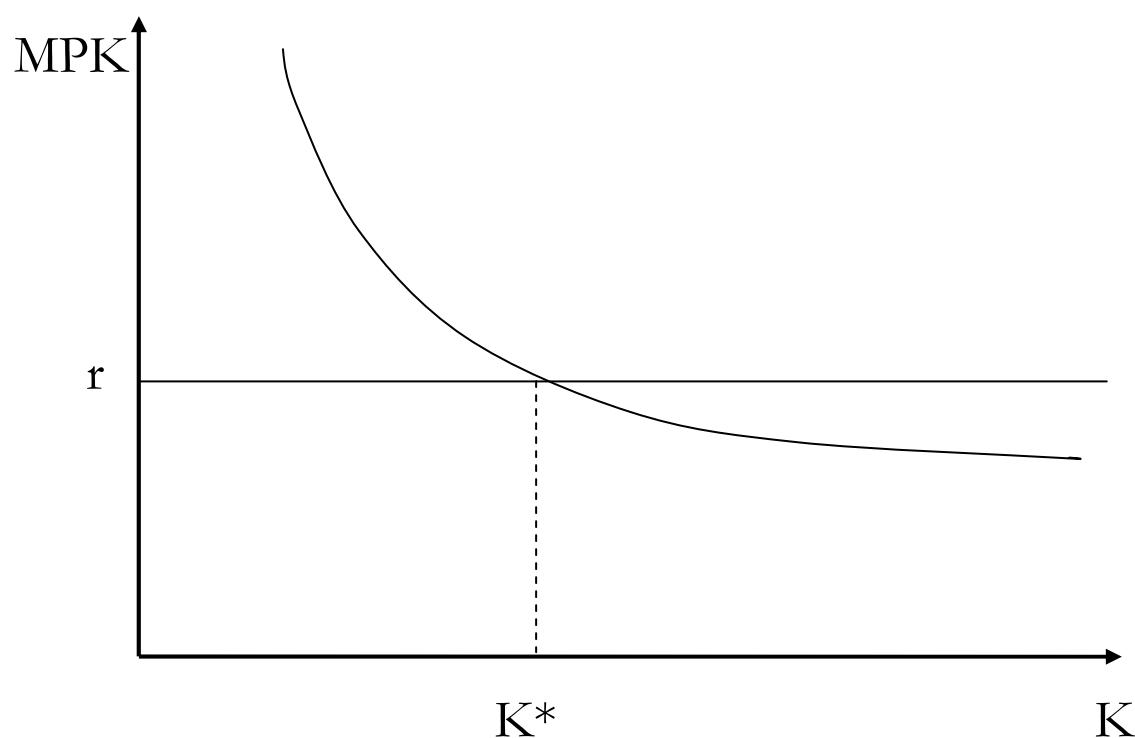


Figure 1: The neoclassical model of a small open economy

If the country is well integrated to financial markets and the MPK equalizes the world interest rate, the standard Intertemporal Approach of the current account would predict an improvement in the current account as the aid proceeds should be saved (at least partly) abroad rather than invested domestically. The authors get the opposite. While this is not that surprising that the standard neoclassical model does not fit the LICs, what are the possible alternatives?

I believe the authors should have tried to investigate the following interpretations of their result. In presence of financial repression and capital movement restrictions in LICs, it is likely that a wedge exists between the domestic MPK and the world interest rates as capital is scarce in LICs. In such a case, a one dollar increase in Foreign Aid **would be invested domestically** as it relaxes the constraint on capital. The current account deteriorates today (and in the future due to the interest payments). This seems more in line with the author's findings and it would have been nice to test whether the current account of LICs that are more financially repressed react differently to aid proceeds.

Another interpretation of their results rely on the work of Kraay and Ventura (2000): in 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 LICs should run larger current account deficits following a positive transitory income shocks.

### *Policy distortions*

The authors find that capital account liberalization and domestic financial reforms improves the current account of LICs. 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 counter-intuitive result regarding capital account liberalization. Indeed, in line with previous arguments, one should expect LICs 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. LICs 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 figure 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 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 argues that LICs are exporting capital.

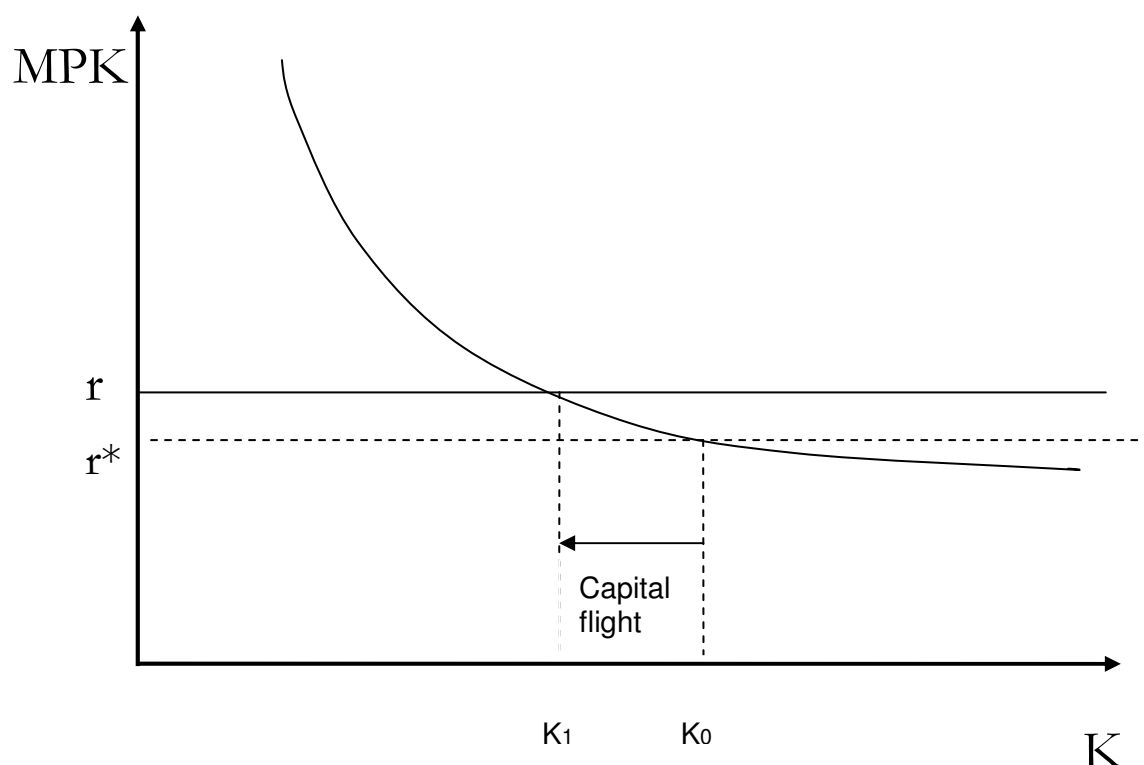


Figure 2: Capital account liberalization in a small open economy with a domestic real interest ( $r^*$ ) below the world interest rate ( $r$ ).

Martin and Rey (2006) also have such predictions: capital account liberalization in very poor countries lead 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 as they do not provide enough assets locally. Interestingly the authors find opposite effects for higher income countries and Martin and Rey (2006) would predict such a threshold.

An alternative story that could be tested empirically is provided by Jin (2009): in a two good/two factors Heckscher-Ohlin type of model, poorer countries should specialize in labour intensive sectors. Capital account liberalization induces two effects: capital inflows towards the poorer country [*neoclassical effect*] as well as capital outflows [*composition effect driven by specialization*] as capital demanding industries are in the North. Potentially the *composition effect* can dominate, especially for countries like LICs that are far apart in terms of factor endowments from industrialized countries.

The surprising impact of capital account liberalization is confirmed when comparing LICs to high income countries: while capital account liberalization generates capital outflows from LICs, it generates capital inflows towards 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-Feretti (2002) shows that among developing countries, the high incomes 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 LICs and developed markets but capital inflows towards middle-income countries. Such a hypothesis could be tested in future work.

## **Conclusion**

The paper offers interesting insights on the main determinants of external variables (current account, net foreign asset position and real exchange rate) for LICs. 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.

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