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Exchange Rate and Balance of Payment Crisis Risks in the Global Development Finance Architecture

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Alfredo Schclarek and Jiajun Xu*

I. The Renaissance of On-Lending from MDBs to NDBs: Implications for balance of payment crisis risks in host countries

In the past six decades, the collaboration between multilateral development banks (MDBs) and national development banks (NDBs) has experienced the rise, decline and renaissance. In the wake of the World War II, the World Bank assisted developing country governments to establish NDBs and then used NDBs as a conduit for on-lending to developing countries. Yet the momentum stalled since the 1980s when NDBs were criticized for their poor governance and mismanagement. Recently, especially after climate change and the Sustainable Development Goals top the agenda in international development, MDBs have renewed their interest in deploying NDBs to finance green energy projects or other development projects.

This new impulse, however, is given in a new international context with a world that is not only more commercially integrated but also more financially integrated in comparison with the past. On the one hand, collaboration between MDBs and NDBs, through on-lending arrangements, can help enhance the complementarity of international resources and local market knowledge. On the other hand, there are risks that may jeopardize that collaboration. Among the main risks, the access to hard currency by NDBs through MDBs loans not only generates exchange rate and balance of payment crisis risks for the particular financial actors involved, but also for the financial system as a whole. MDBs are usually reluctant to lend in local currency to NDBs because they, in turn, finances themselves in the international bond market that is USD dominated and they are unwilling to risk downgrades due to currency mismatches in their balance sheets by credit rating agencies.

The objective of this research paper is to analyze the exchange rate and balance of payment crisis risks that arise when an MDB finances itself in the international bond market to lend USD to an NDB for it to do on-lending to investment projects (IPs) in the NDB's country (host country). Investment projects maybe "export-enhancing" (EXIPs), which generate hard currency (for example, building a port or developing export agriculture), or "domestic-oriented" (DOIPs), which do not generate hard currency (for example, a solar farm or a sewage system).

The main argument is that when the financing goes to export-enhancing investment projects in line with the comparative advantage of the host country, which improve the future current account balance, the exchange rate and balance of payment crisis risks are reduced for the different financial actors involved, but also for the financial system as a whole. By contrast, if the investment projects that are financed are domestic-oriented, the exchange rate and balance of payment crisis risks increase because DOIPs generate local currency proceeds and do not help increasing the supply of foreign exchange in the host country.

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Alfredo Schclarek is from Department of Economics, Universidad Nacional de Cordoba and National Scientific and Technical Research Council, and Jiajun Xu is from the Institute of New Structural Economics, National School of Development, Peking University.

**Corresponding author: Jiajun Xu
Affiliation: Institute of New Structural Economics, National School of Development, Peking University
Address: Langrun Garden 165, Yiheyuan Road No. 5, Peking University, Beijing, P.R. China, 100871
E-mail: jiajunxu@nsd.pku.edu.cn.*

II. USD Liquidity Matters: Exploring its impact upon the portfolio choice of NDBs

Given the exchange rate and balance of payment crisis risks, NDBs need to optimally choose the proportion of onlending that goes to EXIPs and DOIPs. In the initial period, the MDB lends a fixed USD amount to the NDB at a fixed and given interest rate, with the loan maturing in the final period. In the initial period, the NDB needs to decide its portfolio choice, i.e., the proportion of onlending from the MDB to EXIPs versus DOIPs. We analyze three different scenarios depending on the availability of USD liquidity in the foreign exchange market of the host country: the first case with abundant USD liquidity, the second case with normal USD liquidity, and the third case with scarce USD liquidity.

In the case with abundant USD liquidity, the NDB may freely choose the proportion of lending between the two types of investment projects, without any need to consider how this decision affects the foreign exchange market. This case represents a situation where the foreign exchange dealer has abundant access to USD liquidity in the final period 1 and is willing to expand its exposure to the local currency Loc$, without demanding a higher exchange rate for this increased exposure.

In the scenario with normal USD liquidity, the NDB needs to consider how its decision affects the foreign exchange market, but does not need to worry about balance of payment problems. The NDB can lend a certain proportion to DOIPs, but has to lend a certain proportion to EXIPs, so as to increase in the future the supply of USD in the local foreign exchange market and avoid a large depreciation of the local currency. This case represents a situation where the dealer has normal access to USD liquidity in the final period 1 and is willing to expand its exposure to the local currency Loc$, but demanding a higher exchange rate for this increased exposure.

In the scenario with scarce USD liquidity, the NDB is bound by the foreign exchange market and balance of payment constraints. The NDB has to choose a higher proportion of EXIPs, and a lower proportion of DOIPs, than the cases with abundant and normal USD liquidity. This extreme case represents a situation where the dealer has hit position limits in the final period 1, beyond which it is not prepared, or able, to expand further its exposure to the local currency Loc$. If the supply of USD provided by the EXIPs cannot meet the demand for the USD by the NDB to make the repayment for the MDB (i.e., the net demand for USD in the final period 1 is greater than zero), then the dealer stops making markets, the foreign exchange market starts breaking down, and a balance of payment crisis ensues.

Then we take a step further to explore the specific determinants of the NDB's portfolio choice. We find that if MDBs want to increase the proportion of onlending that goes to DOIPs, they need to reduce the interest rate that they charge NDBs. In addition, high return EXIPs need to be financed to increase the supply of hard currency. Moreover, they need to increase their refinancing to NDBs, and give NDBs more time to pay back their loans. In addition, the proportion of onlending that goes to DOIPs can also be increased, and the proportion to EXIPs be reduced, if the investment projects require a higher proportion of locally-produced supplies and a lower proportion of imported supplies.

III. Determinants of the USD Liquidity: Global financial cycle matters

Regarding the availability of USD liquidity, which determines the behavior of the foreign exchange dealer, it is dependent on both domestic monetary and financial conditions and global factors, such as the Global Financial Cycle and the Global Trade and Commodity Cycle. According to Miranda-Agrippino and Rey (2021), the Global Financial Cycle and the Global Trade and Commodity Cycle are mostly explained by the monetary policy of the US Federal Reserve, and, to a less extent, by the monetary policy of the European Central Bank. Although the People's Bank of China (PBOC) still has an insignificant role in the Global Financial Cycle, it already has an important role in determining the Global Trade and Commodity Cycle. Furthermore, there is evidence that the Renminbi already influences exchange rate and monetary policy strongly in Asia (Fratzscher and Mehl, 2014, McCauley and Shu, 2019). In the coming years, and through the internationalization of the Renminbi and the setup of bilateral currency swap lines by the PBOC, it is probable that the influence of the PBOC will increase in the Global Financial Cycle (Ito, 2017, Liao and McDowell, 2015).

A natural question that arises is whether such an enhanced influence of China will be a factor that reduces the variance of the Global Financial Cycle, and thus helps to increase the stability of the cycle. It is reasonable to expect that a more stable Global Financial Cycle implies that the foreign exchange dealer has a higher availability of USD liquidity, and has less risk of suffering from a contraction in the USD liquidity, saddling himself or herself with a shift from a situation with abundant or normal USD liquidity to a situation with scarce USD liquidity. In addition, to foster the increase in the use of RMB-denominated loans, if the foreign exchange dealer is a local branch of a Chinese state-owned bank, it might be more willing to exchange local currency for RMB, especially when the industrial structure of host countries is complementary to that of China so that China can use local currency to purchase local intermediate goods.

IV. Conclusion

In this paper we theoretically analyze the exchange rate and balance of payments constraints prevalent when MDBs lend USD funds to NDBs for them to do onlending to real investment projects, which may be EXIPs and DOIPs.

The COVID-19 pandemic and the war in Ukraine correspond to situations where the USD liquidity scenario passes from an abundant or normal scenario to one of scarce USD liquidity. Thus, in order to minimize the adverse effects of the pandemic, it is necessary that MDBs reduce the interest rate that they charge NDBs. Further, it is necessary that MDBs refinances NDBs and give them more time to pay back loans.

As shown in our analysis, the situations with abundant and normal USD liquidity in the domestic foreign exchange market allow a more flexible strategy in terms of choosing the proportions of DOIPs and EXIPs. In order to increase the chances that the host economy would not suffer from the scarce USD liquidity, it is important that domestic policies are enacted so that the domestic monetary and financial conditions are more stable. From an international perspective, it is also important that the Global Finan-

cial Cycle and the Global Trade and Commodity Cycle are more stable. If the accelerating RMB internationalization fosters more stable cycles, this may be a positive feature for the host country in making a more flexible decision about the proportion of DOIPs and EXIPs when receiving on-lending from MDBs.

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Contact of Development Financing Research Program:
nsedfi@nsd.pku.edu.cn

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