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International Financial Integration, Financial Volatility and Growth: Lessons from an ESRC-DFID Project ES/L012022/1

Integrated Policy Brief No 2¹

This policy brief draws together the main lessons that can be drawn from the contributions to the ESRC-DFID project ES/L012022/1, **Financial Volatility, Macroeprudential Regulation and Economic Growth in Low-Income Countries**, for understanding the links between **International Financial Integration, Financial Volatility and Growth**. These contributions include theoretical and empirical academic papers, policy briefs dwelling on each of these papers, and two case studies.²

I. Broad Aim and Objectives of the Project

The global financial crisis of 2007-09 highlighted how weaknesses in macroeconomic and regulatory policies, and institutional and market failures, can contribute to a buildup of systemic risks.³ In this context, a substantial number of proposals aimed at strengthening the financial system and at encouraging more prudent lending behavior in upturns. At the international level, these proposals led to the adoption in November 2010 of the Basel III banking standards, which

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²These contributions can be accessed at <http://www.socialsciences.manchester.ac.uk/cgbcr/research/esrc-dfid-project/>. Policy briefs are available in both English and French.

³The global crisis has also led to a debate about whether there may be “too much finance,” and more generally whether beyond a certain threshold financial development may have either a negligible effect, or even a negative impact, on growth. See Arcand et al. (2012), Law and Singh (2014), Ductor and Grechyna (2015), Cecchetti and Kharroubi (2015), and Samargandi et al. (2015). One reason for that is the possibility that financial development may divert capital and labor inputs (especially highly-skilled labor, with a potential to contribute significantly to innovation) from productive activity to speculation, or because it increases the risk of financial crises.

have been adopted, or are being implemented, in a number of countries around the world (see Basel Committee on Banking Supervision (2011, 2013)).

However, much of the debate focused initially on the implications of financial volatility for *short-term* economic stability, rather than its long-run effects. Yet, financial volatility and financial crises often have large adverse, long-term effects on financial development and economic growth. A key issue therefore is whether macroprudential rules designed to reduce the procyclicality of financial systems and financial instability can be detrimental to long-run growth, due to their effect on the supply of credit or the degree of risk taking by financial intermediaries. This issue is particularly important for the poorest countries, given the need for them to maintain high growth rates to reduce poverty and promote human development.

Accordingly, the purpose of the project was to study, both theoretically and empirically, interactions between financial volatility, prudential regulation, and economic growth, in the context of low-income developing countries and to draw broad policy lessons for the design of macroprudential rules in these countries. The project focused on francophone Sub-Saharan Africa—a region where formal financial systems remain insufficiently developed and the lack of access to credit (as documented in a number of studies) is one of the key constraints on firm performance. Promoting the development of the financial system in the countries of the region is thus important. At the same time, maintaining its stability is essential. Indeed, because inadequate access to credit often translates into a limited ability to borrow and smooth shocks, the real effects of financial volatility on firms and individuals can be not only large but also very persistent—thereby translating into adverse growth effects.

Specifically, the project had three main objectives:

1. Contribute to the existing analytical literature in areas related to the links between financial volatility (possibly induced by international capital flows, including foreign aid and remittances) and economic growth, and how the macroprudential regulatory rules embedded in Basel III (especially those deemed appropriate for the institutional context of developing countries, such as reserve or liquidity requirements) can help to mitigate the adverse effects of that volatility on growth.

2. Provide new evidence on the impact of financial volatility and its determinants (both domestic and external) on economic growth, with particular attention to the case of the low-income countries in Sub-Saharan Africa, while controlling for factors such as macroeconomic stability, the quality of the regulatory environment, the degree of trade and financial openness, and the degree of financial development.

3. Develop case studies for Francophone Sub-Saharan African countries focusing on the links between financial volatility (broadly defined to include volatility of foreign aid, remittances, and other types of capital flows), macroprudential regulation, and growth, to account for their specific monetary and financial regime.

This brief dwells on all the relevant contributions of the project (including case studies and paper-specific policy briefs) to summarize the broad policy lessons regarding how macroprudential regulation can ensure that low-income countries benefit from international financial integration, while at the same time mitigating the risks associated with financial openness.

II. The Project's Contributions to the Debate on International Financial Integration

During the last three decades, many developing countries lifted restrictions on cross-border financial transactions. The conventional view was that this would allow these countries to: i) receive capital inflows from advanced countries that would finance higher investment and growth; ii) insure against aggregate shocks and reduce consumption volatility; and iii) accelerate the development of domestic financial markets and achieve a more efficient domestic allocation of capital and better sharing of individual risks (see Agénor (2012)).

However, financial integration has also increased exposure to volatility and increased the risk of financial fragility. Thus, the potential costs associated with international financial integration can be significant. In particular, capital inflows to Sub-Saharan Africa and to low-income developing countries in general, tend to be procyclical (Araujo et al. (2017)); this is source of domestic real and financial instability, and raises important policy issues for managing capital flows (International Monetary Fund (2011)) and more generally for the process of capital account liberalization (Massa (2013) and Moore (2014)).

Several contributions of the project are relevant to address the issue of the links between international financial integration, financial volatility and growth. These contributions include Agénor (2016), Chauvet et al. (2016), Combes et al. (2017), Gabin et al. (2017), and Neanidis (2015).

1. The focus in Agénor (2016) is specifically on the volatility of aid flows and its implications for human capital accumulation and growth. Aid volatility creates significant macroeconomic management challenges for recipient governments in low-income countries, whose ability to raise resources through domestic taxation and to borrow on domestic and international capital markets is limited. When the amount of aid disbursed differs widely from the amounts expected, a low-income recipient is usually faced with difficult choices in terms of spending allocation. The attempt to smooth public expenditure often leads to disproportionate cuts in productive spending. Thus, when promised aid is not provided or when additional aid is disbursed unexpectedly, productive public spending may need to be adjusted abruptly with potentially large social and economic costs. More specifically, Agénor (2016) argued that by creating uncertainty about the net return to skills—through its impact on public subsidies to education—a high degree of aid volatility may mitigate agents' incentives to invest in skills. If savings and growth depend on the composition of the labor force, and if more skilled workers are more productive, aid volatility may therefore have an adverse effect on the mean growth rates of investment and output.

Given these adverse effects, how can aid predictability, especially for project aid and budget support, be improved? The empirical evidence suggests that aid shortfalls and windfalls are primarily due to the inability—or unwillingness—of donors to make long-term commitments to recipients. Two approaches have been advocated.

The first has been to urge recipients to protect themselves from fickle donors by saving (at least a fraction of) aid windfalls in a reserve or stabilization fund. In principle, saving aid windfalls would allow building up space for future aid shortfalls and could be part of a strategy to

manage unpredictable aid. However, can a contingency fund, financed partly through aid proceeds but also partly through domestic taxation, mitigate the adverse effects of aid volatility? Agénor and Aizenman (2010) have argued that a contingency fund can create a moral hazard effect. If in response to high aid volatility countries opt to allocate a fraction of aid flows to a contingency fund, donors may misinterpret this policy adjustment as a signal of absorption problems. As a result, they may effectively reduce aid commitments—making the initial concerns about lower assistance self-fulfilling. If indeed future aid depends on the size of the fund, precautionary public savings may not be able to mitigate the adverse effects of fluctuations in foreign aid on government spending and eventually on economic growth. The same issue would arise if the fund is built for the specific purpose of stabilizing spending on education, in line with the foregoing discussion.

The second approach is to promote more stable donor-recipient relationships, that is, to encourage donors to move away from fragmented, conditionality-based funding and make multi-year pre-commitments, with appropriate safeguards, to ensure a longer time horizon (Eifert and Gelb (2006)). By lengthening aid allocation periods and by tying them to slower-moving country indicators rather than reconsidering fast-disbursing aid volumes annually within annual conditionality frameworks, discretion over aid disbursements would be removed. Yet, it would still allow donors to rapidly cut aid if policies and/or governance in a country deteriorate sharply. This would mean significant changes for the international aid architecture. Currently, many aid budgets are set annually, and multilateral institutions need to replenish their resources for low-income countries every three years. Longer-term commitments to budget aid—say, over a 10-year horizon—would imply that aid funding mechanisms, including for multilateral institutions, would have to be reconsidered. Unfortunately, there has been very little progress in that direction in recent years, and there is very little to suggest (given the dire situation of public finances in many donor countries) that this situation will improve any time soon.

2. The focus in Chauvet et al. (2016) is on the adverse impact of macroeconomic volatility on inequality and the role that aid and remittances could play in mitigating this effect. They found that volatility has a robust and positive impact on inequality and that aid tends to reduce volatility and simultaneously dampen its positive impact on inequality (or negative impact on the poor). The effect of remittances is more uncertain as their mitigating action seems to occur only when volatility is high. These results imply that in order to reduce poverty foreign aid should be allocated preferentially to the countries, which are more vulnerable to external shocks. It is at the opposite of the practice of the Development Banks (notably the World Bank) whose "performance based allocation formula" gives priority to good governance. Taking vulnerability to external shocks into account would be in accordance with the will of the international community to help mainly the Least Developed Countries (LDCs) as economic vulnerability is one of the three criteria of inclusion of a country in the category, beside a low income per capita and a low level of human capital.

3. The focus in Combes et al. (2017) is on the growth effects of capital inflows. They begin by pointing out that capital inflows can directly support economic growth by relaxing constraints on domestic resources, but can also indirectly weaken growth by hampering competitiveness through a real appreciation of the exchange rate. They use for their analysis a large sample of low-income countries (LICs) and middle-income countries (MICs). They found that capital inflows significantly influence real effective exchange rate (REER) dynamics, with a more pronounced effect for LICs. Total capital inflows have a strong positive impact on GDP growth, in line with the expected contribution of these external resources to fill the

saving/investment gap. On average, doubling net capital inflows would have resulted in a net increase of average growth of about 2 percentage points over the whole sample and period 1980-2012. Excluding the negative impact caused by real exchange rate appreciation would imply an even larger impact of about 3.7 percentage points. While the direct impact on growth does not differ across income levels, the indirect impact is significantly higher for LICs. The elasticity of the real exchange rate to total capital inflows is about 1 for LICs but less than 0.4 for MICs. Within the sample, the instability of the total net capital inflows and their components does not affect in a statistically significant manner the REER or the GDP growth rate. Although the influence of Official Development Assistance (ODA) does not seem to explain GDP growth, including in LICs, it is likely to affect the long-term well-being of populations through different indirect channels. The impact of foreign direct investment (FDI) on growth is much more direct, stronger in LICs than in MICs, most likely reflecting higher returns in these economies. This conflicts to some extent with some views that the attractiveness of a country is conditional on the quality of its institutions, the availability of a high level of human capital or the quality of financial markets.

Nevertheless, LICs generally benefit from FDI oriented to the exploitation of natural resources, even with few backward and forward spillover effects, whereas FDI in MICs are likely to have stronger horizontal and vertical influences within the domestic economy. Therefore, the challenge for LICs is to use FDI as a lever to promote both raw material processing and a larger participation in global value chains. More generally, developing countries should fully take into account the fact that capital inflows while critical to finance development needs and spur economic growth, can hamper competitiveness. Together, the complex nature of interrelations between variables calls for an active role for the State in maintaining an efficient balance between excessive regulation and unbridled liberalization of capital inflows.

4. The focus in Gabin et al. (2017) is the cyclical and the stabilizing profile of aid inflows, to assess the consequences of aid volatility. They draw on four country case studies (Benin, Burkina Faso, BFA, Central African Republic, CAR, and the Democratic Republic of Congo, DRC) to explore government priorities when it comes to deal with aid volatility and tries to assess whether countries' capacity to deal with an increasing volatility of aid inflows are effective. The four countries in their analysis have experienced different aid shocks. As post-conflict states, CAR and DRC received more contracyclical aid, whereas aid flows to Benin and BFA were procyclical. However, the capacity of aid inflows to stabilize the economy does not structurally depend on the cyclical of aid inflows. This capacity appears to be more influenced by government capacities constraints and policies choices. Based on these case studies, Gabin et al. (2017) drew the following conclusions and policy recommendations: (i) The internal political environment and the relationship with international partners affect the composition and cyclical of aid inflows; (ii) Aid volatility affects government revenue and expenditures. Stronger reliance on domestic bank financing, lower investment rates and unstable taxes are the most likely costs associated with volatile aid inflows; (iii) By increasing the absorptive capacity of the economy, private sector investment is associated with a more stabilizing effect; and (iv) The level of international reserves accumulation seems to be associated with the stabilizing effect. Central banks in all four countries protected themselves from aid volatility by adapting their level of international reserves; and (vi) Administrative and absorptive capacity constraints need to be addressed to increase the stabilizing effect of foreign aid inflows.

5. The focus in Neanidis (2015) is on the long-term growth effects of financial regulation and whether macroprudential regulation can promote economic growth by mitigating the adverse effects of financial volatility. The results indicate that (i) the levels of total capital flows and FDI flows are not statistically significant whereas equity flows enhance growth and debt flows diminish growth, (ii) more variable capital flows, of any type, reduce economic growth, and (iii) although macroprudential regulation by itself has an unclear growth effect, ranging from positive to negative, it does mitigate the negative growth effect induced by more volatile capital flows. This means that macroprudential policies, by encouraging a greater buildup of buffers, attenuate the adverse growth effects of unstable capital flows and, by so doing, are effective in limiting financial system vulnerabilities. More formally, increasing the volatility of total capital flows by one standard deviation decreases the growth rate of GDP per capita by 3.1 percent, while increasing the interaction term by one standard deviation increases growth by 1.3 percent. This means that macroprudential regulation has the capacity to reduce substantially, by about 40 percent, the negative impact of total capital flows volatility on growth.

From a policy perspective, these results support the decisions in many countries, developed and developing alike, to put in place macroprudential policies aimed at strengthening the safeguards against financial instability and financial crises. Such regulatory frameworks, however, need to be judged for their effectiveness not only against the objective of short-term economic stability, but also with reference to their long-run growth implications. His analysis takes this consideration into account and investigates the role of macroprudential rules in the long-run growth process by focusing on the way financial regulation influences financial volatility. Moreover, his empirical results indicate that macroprudential policies succeed in mitigating the negative growth effects of unstable capital flows and, by so doing, become effective in limiting financial system vulnerabilities. Further results qualify that these outcomes are mainly restricted in the sample of middle-income countries, while countries that are relatively open, with deep financial systems and exposed to macroeconomic volatility experience lower marginal gains—although they still benefit. At the same time, Sub-Saharan Africa (and within it its Francophone countries) gain enormously from the imposition of macro-prudential regulation, over and above the average gains in our country sample. This implies that the marginal benefits in these regions have the potential to continue with the spread of pan-African banking groups so long as financial regulation is not outpaced. In contrast, the group of WAEMU/BCEAO countries, by applying uniform bank regulations and supervisory practices, may have reached their maximum benefit from utilizing macroprudential rules given the current size of the financial sector and the inflows of capital.

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