



# Capital flows and financial sector development in low-income countries

Judith Tyson and Thorsten Beck

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## About DFID-ESRC Growth Research Programme

The DFID-ESRC Growth Research Programme (DEGRP) funds world-class scientific research on inclusive economic growth in low-income countries (LICs). The programme's principal aim is to generate policy-relevant research on four key areas: financial sector development and growth; agriculture and growth; innovation and growth; and China's engagement in sub-Saharan African countries.

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Cover photo details: Gambia Street in downtown Addis Ababa, Ethiopia, bustles with traffic. November 2013. David Stanley.

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## About the authors

Judith Tyson is Research Fellow in the Overseas Development Institute's International Economic Development Group.

Thorsten Beck is Professor of Banking and Finance in the Faculty of Finance at Cass Business School, and Research Fellow at the Centre for Economic Policy Research (CEPR) and the Munich Society for the Promotion of Economic Research (CESifo).

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## Acronyms

<b>AfDB</b>	African Development Bank
<b>BIS</b>	Bank for International Settlements
<b>CAR</b>	Capital-account regulation
<b>DECPG</b>	(World Bank) Development Economics Prospects Group
<b>DEGRP</b>	DFID-ESRC Growth Research Programme
<b>DFI</b>	Development finance institution
<b>DFID</b>	Department for International Development
<b>DSTI</b>	Debt-service-to-income (ratio)
<b>EAC</b>	East African Community
<b>EPG</b>	Evidence and Policy Group
<b>ESRC</b>	Economic and Social Research Council
<b>FDI</b>	Foreign direct investment
<b>FSAP</b>	Financial Stability Assessment Programme
<b>FSD</b>	Financial sector development programme
<b>GDP</b>	Gross domestic product
<b>GIZ</b>	Deutsche Gesellschaft für Internationale Zusammenarbeit
<b>HIC</b>	High-income country
<b>IFI</b>	International Financial Institution
<b>IMF</b>	International Monetary Fund
<b>LDC</b>	Least developed country
<b>LIC</b>	Low-income country
<b>LMIC</b>	Lower-middle-income country
<b>LTV</b>	Loan-to-value (ratio)
<b>MIC</b>	Middle-income country
<b>NGO</b>	Non-governmental organisation
<b>ODI</b>	Overseas Development Institute
<b>SDG</b>	Sustainable Development Goal
<b>SME</b>	Small and medium-sized enterprise
<b>WAEMU</b>	West African Economic Monetary Union

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## Executive summary

A decade on from the global financial crisis of 2008, new research from the DFID-ESRC Growth Research Programme (DEGRP) shows that the **relationship between finance, economic growth and poverty is complex**. Although finance is needed for economic development, excessive or unstable finance can damage economic growth, impede poverty alleviation and exacerbate income inequality.

Against this backdrop, low-income countries (LICs) need to mobilise greater quantities of *and* better-quality finance. This means stable, long-term finance that goes to sectors crucial to inclusive economic growth. To date, however, LICs have not mobilised sufficient finance, and what *is* mobilised is going to **uses that do little to boost inclusive economic growth**, leaving sectors such as agriculture and manufacturing inadequately financed and therefore underdeveloped.

Ideally, **LICs should focus on developing domestic financial markets**, including local capital markets and domestic savings mobilisation including pension and insurance industries. This will help overcome reliance on international private capital and the problems that come with it, such as foreign-exchange risk and pro-cyclical investment flows.

However, this is a medium-term goal. In the immediate term, LICs need to seek high-quality international capital. The challenge is that **LICs continue to experience strong pro-cyclical swings in external financing in terms of availability, maturity and cost**, and they lack the financial safety net provided by swap arrangements among developed-country central banks to manage these cycles. Much of the recent surge in private capital flows has also been the result of international bond issuance by national governments, creating risks of debt unsustainability especially because the bonds have been exclusively in ‘hard’ currencies, bringing significant currency-related risks. Indeed, 40% of LICs are now in or at high risk of debt distress (IMF, 2018).

**Different types of capital flows also have different relationships with economic growth.**

There is generally a positive relationship between foreign direct investment (FDI) and economic growth, but a mixed relationship between economic growth and bank lending and portfolio flows. However, emerging evidence is that FDI can also be pro-cyclical, and there is mixed evidence on the relationship between FDI and productivity in different sectors. Foreign aid continues to be the dominant source of capital for many LICs, but the internal political environment and relationships with donors affect the cyclicity and volatility of aid flows and thus their effects on growth.

## Implications

These findings have important implications for mobilising private finance and regulating financial systems in LICs:

- Strengthening macroprudential regulations can help maintain financial stability. However, there are no clear advantages for LICs in fully adopting the Basel regulatory framework, which is costly, complex and does not address the sources of fragility in their financial systems. Consequently, LICs should be cautious in relation to Basel II and III and prioritise those components that address key risks in their banking sectors.
- LICs should recognise that there is a need for **stronger regulation of cross-border banks**, including closer cross-border supervisory cooperation, because of the rising importance of regional banks in Africa and Asia.
- There also needs to be a greater focus on **actively managing cross-border capital flows** in LICs and an assessment of what is effective in this context. Capital-account regulations (CARs) could be an important part of the macroprudential toolkit, but further research on optimal policy is needed. Avoiding excessive and pro-cyclical borrowing in the sovereign and private bond markets will help avoid unsustainable debt levels and the creation of unsustainable fiscal liabilities that could lead to problems with debt repayments.



- **Boosting finance to sectors key to structural transformation – such as manufacturing and agriculture – is essential.** However, policy-makers should be cautious about directed credit policy, as results have been mixed, with successes largely related to country-specific contexts. A better approach for most LICs may be to focus primarily on the general financial development – possibly supplemented by carefully targeted directed credit – and non-financial constraints to growth in these sectors.
- To support LICs, **international financial institutions (IFIs) could further concentrate their financing in LICs and reorient their mandates to focus on activities which add significant and unique value.** This includes accelerating the pipeline of bankable projects and exploring business models that would

attract investment into agriculture and manufacturing. They could also create more securities that are more attractive to pension and insurance funds and provide better hedging instruments for investors to mitigate currency and political risk.

Overall, stronger policy approaches are needed, and these need to be tailored to the risks and opportunities for LICs as they seek to attract international private finance and mobilise domestic resources to deliver the ‘billions to trillions’<sup>1</sup> needed for inclusive economic development and achievement of the Sustainable Development Goals (SDGs). Further research into what will be effective in tackling these problems and tailoring them to country-specific contexts is also required.



<sup>1</sup> To meet the investment needs of the SDGs, the global community needs to move the discussion from ‘billions’ in official development assistance to ‘trillions’ in investment of all kinds: public and private, national and global, in both capital and capacity (World Bank, 2015).



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# 1. Introduction

The global financial crisis of 2008 changed the world's financial, socio-economic and political landscape. It also prompted significant change to the research agenda and policy debate around domestic and international financial flows and the financial sector (Box 2).

This has been accompanied by the recognition that much more needs to be done to mobilise sufficient finance for development – an agenda colloquially termed ‘billions to trillions’ – and that this will require the galvanisation of large-scale private finance and a greater focus on low-income countries (LICs), whose difficulties in raising and intermediating private finance are greatest.

Consequently, policy-makers are recognising the central role of private investment and the potential of blended finance to generate incremental private finance (World Bank, 2015; UNECA, 2015; Attridge and Engen, forthcoming).

The most important aspect of this change in the research and policy agenda for development is the recognition that the relationship between finance and development is heterogeneous, non-linear and conditioned by a number of major factors – the most important being domestic and international institutional capacity – making finance a necessary, but not sufficient, condition for inclusive economic growth.

This is discussed further in section 2, which presents recent research from the DFID-ESRC Growth Research Programme (DEGRP) and other research on financial development, growth and stability in developing countries, and in section 3, which highlights recent research focused on financial development and poverty alleviation.

Moreover, there has been greater recognition that the quality of finance is as important as the quantity. There are several dimensions to quality in this regard, including stability, cost, liquidity and maturity, leading to a more nuanced research and policy debate in relation to the positives and negatives of cross-border capital flows for development. This is discussed in section 4.

An additional aspect of quality is the recognition that many developing countries are unable to attract sufficient finance in general, or to sectors that are positive for inclusive economic growth. LICs, in particular, are not only unable to mobilise sufficient finance relative to gross domestic product (GDP), but much of what is being mobilised is directed into sectors that do little to boost inclusive economic growth. This is leaving those sectors that are crucial to inclusive economic growth – such as agriculture and manufacturing – inadequately financed and, therefore, underdeveloped. These issues are discussed in more detail in sections 2 and 4.

Finally, there has been greater focus on which regulatory frameworks are proving effective in developing countries' financial systems and a recognition that shoehorning frameworks from advanced financial systems into developing countries may be not only ineffective, but counterproductive for financial development and stability. Section 5 discusses recent policy approaches and critiques the adoption of international regulatory frameworks by developing countries as they seek to balance financing for development and financial instability risks.

These shifts in the policy and research debate have serious policy implications for LICs and middle-income countries (MICs) as they seek to develop their financial systems to transform their economies and support inclusive economic growth. Such countries are faced with the dilemma of how to balance the mobilisation of sufficient, quality finance while avoiding damaging financial instability.

Policy tools include microprudential and macroprudential regulatory frameworks, as well as capital-account management and macroeconomic management, yet questions remain about how to design policy approaches to deliver positive outcomes. The most important of these policy questions – and those that have been examined as part of DEGRP – are as follows:

- How can policy-makers ensure quality as well as quantity of finance for inclusive economic development?
- What are the appropriate domestic regulatory and financial systems that can maximise and stabilise the contribution of international capital flows to inclusive economic development?
- How can policy-makers address the trade-off between deepening and stabilising the financial system, including the adoption and implementation of new international financial regulations in LICs and MICs, specifically Basel III?

These questions and possible policy solutions are discussed in section 6 of this report, founded on the academic evidence discussed in sections 2 to 5.

It is important to stress that this survey is not comprehensive, in that it focuses on macroeconomic aspects of financial-sector development and not on financial inclusion, another important, well-researched and analysed

dimension. It also does not address fintech (financial technology) or microfinance, both of which have been important for financial inclusion.

The focus of this survey is on low-income countries (LICs) and lower-middle-income countries (LMICs), which are concentrated in Africa and Asia. Though these countries differ enormously, there are common characteristics and challenges, including small scale (for most countries), high dependence on commodities (either as an exporter or an importer, resulting in high economic volatility) and a high incidence of informality and governance weakness in the public and private sectors. There are also marked outliers, such as Ethiopia, which has been persistently pursuing a developmentalist approach, relying heavily on government intervention and isolating itself to a certain extent from the rest of the world (especially in the financial sector), but also relying on autocratic methods internally.

### **Box 1 The contribution of DEGRP to cutting-edge research and policy in financial development**

The DFID-ESRC Growth Research Programme (DEGRP) funds world-class scientific research on inclusive economic growth in low-income countries (LICs). The programme's principal aim is to generate policy-relevant, high-quality research and promote effective communication of that research to key policy decision-makers around the world. It is supported by the Evidence and Policy Group (EPG), based at the Overseas Development Institute (ODI), whose goal is to maximise the profile, uptake and impact of DEGRP research.

This box summarises the specific contributions DEGRP-funded projects have made to the body of analysis on capital flows and financial-sector development in LICs.

Individual research programmes and published papers have been its primary outputs. They have shown great diversity of method and topic, with a wide range of theoretical, quantitative, qualitative, cross-border and case-study analyses and topics spanning high-level macroeconomic research to in-depth examination of particular issues.

The contributions of these projects can be summarised in relation to the main sections of this report:

**Section 2** examines the relationship between financial development and real sector outcomes. DEGRP research has complemented and strengthened the existing literature with detailed country studies that give a greater understanding of the constraints faced by financial-sector deepening, particularly in the context of LICs (Griffith-Jones and Gottschalk, 2016). It has also provided evidence on the mechanisms through which financial-sector deepening can help reduce poverty (Ayyagari et al., 2013) and the constraints faced by African banks (Andrianova et al., 2015; 2017).

**Section 3** examines the relationship between financial development and poverty alleviation. DEGRP research builds on the finding that there is a positive, but heterogeneous, relationship in LICs, and explores the channels that determine this heterogeneity, including country-specific issues and financial liberalisation. It also examines the distributional implications of financial instability – another important finding in the post-crisis period.

**Section 4** examines the relationship between cross-border capital flows and economic growth. The DEGRP programme has again delivered new findings of importance to LICs, with empirical analysis and multiple country case studies. This includes an empirical analysis of the nature of cross-border flows to LICs, including through FDI and regional banking in Africa, with comment on the challenges this has brought for LIC policy-makers (Ocampo and Griffith-Jones, 2018b). It also highlights the heterogeneous results of FDI and its lack of alignment to the need for structural change in LICs (Massa, 2014; Bastiano et al., forthcoming). It also shows how aid, a form of cross-border finance, can have negative effects on growth, including education (Agénor, 2016).

The DEGRP research discussed in **Section 5** focuses on the adoption and implementation of Basel II and III in developing countries, drawing on the Jones, Woods and Beck (2018) research project. The results of this research are particularly important in light of the wide-reaching financial reforms sparked by the global financial crisis, and how they can and should be applied in LICs. Building on Gottschalk (2016) cross-country analyses and case studies undertaken for this project show the variety of reasons for adopting or not adopting international financial standards and the important political-economic considerations when it comes to understanding this process in LICs. It is the first broad-based attempt to understand the reasons why developing countries adopt international financial standards differently and to examine the rationale for and effectiveness of doing so.

As well as these primary outputs in relation to research-led knowledge and policy, the DEGRP has organised or participated in a number of dissemination events. These include an EPG-hosted roundtable to discuss the emerging findings and policy implications of this synthesis report, held in September 2018. Further dissemination is planned, including in-country events with LIC stakeholders and global regulators. There have also been a number of research briefs and series of papers to communicate the findings and implications to a broader group of stakeholders.

Overall, the programmes sponsored by the DEGRP have yielded ground-breaking findings on cross-border flows and financial development in the previously under-researched context of LICs. This has taken on particular relevance in light of the current policy debate on the need to mobilise private finance and ensure financial stability in the context of post-crisis changes in the structure and regulation of finance for development.

The DEGRP programme has provided a unique evidence base on which LICs can base their policy-making. Coupled with its dissemination, DEGRP has thus strengthened the representation of LICs in the post-crisis regulatory and financial-market reform process in an effort to ensure that inclusive economic growth is supported in some of the world's poorest countries.

## Box 2 Cycles of economic thought on financial sector policy

Views on the role of markets and government in the financial sector – and, consequently, the design of financial sector policy – have varied considerably over the past 50 years. The 1960s and 1970s saw governments in developing countries trying to plug financial-market gaps using government-owned financial institutions and heavy regulatory intervention, something we now identify as financial repression (Fry, 1988; McKinnon, 1973). The 1980s was a period of financial liberalisation, fuelled by the belief that government intervention had done more bad than good and that sound, effective institutions (including contractual, information and regulatory frameworks) were sufficient to deepen financial systems. This market-based approach was closely linked to what was termed the ‘Washington Consensus’ on developing-country economies.

The late 1990s and 2000s saw a rethink of the role of government, based on the observation that a sound institutional framework and macroeconomic stability was a necessary, but not sufficient, condition for financial-sector deepening. Termed the ‘helping’ or ‘visible hand of government’, targeted and time-limited government interventions to jump-start markets and overcome the failure to coordinate of market players have been deemed beneficial, as has the cautious harnessing of international capital flows.

These cycles of economic thought have also had repercussions for financial-sector policy. In what Honohan and Beck (2007) have characterised as a struggle between modernist and activist methodology, one current policy approach aims to build market-based financial systems by adopting international regulatory standards, building public capital markets and underpinning institutional infrastructure for arms-length financial transactions, including credit and collateral registries, efficient bankruptcy systems and contract enforcement mechanisms, and best-practice accounting and auditing professions. The activist approach starts from the observation that the above-mentioned challenges – scale, volatility, informality and governance – require more decisive government intervention, including through credit guarantees, subsidies for expanding access to finance and a more heavy-handed approach to regulation. The role of development finance institutions (DFIs) and direct(ed) lending varies substantially in these two approaches. The modernist approach starts from the observation that these institutions and other attempts at direct(ed) lending have failed, both financially and in their socio-economic objectives. This is also reflected in the shift of international and regional development banks away from project to programmatic lending. The activist approach sees these institutions as potential sources of support for government intervention in the financial system, even if not necessarily through direct lending.

One conundrum in the role of government in the financial sector is that of where government is needed most: in low-income, low-institution, often post-conflict economies, governance challenges loom largest. Multinational institutions and non-governmental organisations (NGOs) may have a stronger role to play in these settings than in more (institutionally) developed economies.

The past decade has seen a further development, with the rise of digital finance and the multiple possibilities it opens up for financial inclusion and deepening. It comes with a broadening of financial-sector players, from telecommunications companies offering mobile money services and online platforms to ‘big tech’ companies, such as Alibaba, moving into banking services. This creates both new opportunities for financial deepening and new challenges for regulators. It also raises basic questions as to the definition and boundaries of the financial system, the importance of competition and the role of government. Similarly, the increasing shift in capital flows from predominantly North–South to South–South, including the growing importance of China, poses questions as to the best macroeconomic and macroprudential framework for



harnessing these flows. These new challenges have also implications for policy formulation, placing a stronger emphasis on macroprudential regulation and macroeconomic management and public–private partnerships.

These cycles of economic thought in financial-sector policy have been in part driven by research, but have also informed it. The recent trends not only point to new questions, but also to the need for additional data for research. This goes hand in hand with the rise in cooperation between academic researchers, central banks, regulatory authorities and financial institutions. Central banks, regulatory authorities and financial institutions are able not only to provide critical data for researchers, but also pose the critical questions that require a response. Researchers, in turn, can use such cooperation to see their research findings channelled into financial practice and policy change.



WORKERS MAINTAIN THE THERMAL POWER STATION AT TAKORADI, GHANA, 21 JUNE 2006. PHOTO: JONATHAN ERNST/WORLD BANK

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## 2. Financial development and inclusive and stable economic growth in LICs

There is extensive literature documenting the positive relationship between financial development and economic growth (for a survey, see Levine, 2005). However, recent years have seen a debate evolve around this relationship, both on methodological grounds and because of the global financial crisis.

The methodological concerns refer to the importance of non-linearities in the finance-growth relationship and the measurement of financial development. The financial crisis, meanwhile, has cast serious doubts on the premise that greater financial development will always enhance growth; indeed, it has spawned the suggestion that excessive or inappropriate finance might, under certain circumstances, undermine economic growth.

This is an important academic and policy-relevant debate, as it relates to priority of financial-sector policies over other policies in developing countries, as well as the relative importance of different financial-sector policies.

Take, first, the global financial crisis,<sup>2</sup> sparked by consumer credit booms in several European countries and the United States, fuelled by a combination of regulatory neglect, the mistaken belief that ‘this time is different’ and the liquidity glut arising from global macroeconomic imbalances (see, among many others, Brunnermeier, 2009; Stiglitz, 2010; Rajan, 2010; FSA, 2009). International links through global financial markets helped propagate the shock initially, though trade links ultimately promulgated the real-sector slump.

This sequence is consistent with theoretical models, which clearly show that the bright (growth-enhancing) and dark (instability) sides of financial development go hand in hand. Specifically, the maturity transformation from

short-term savings and deposit facilities to long-term investments is at the core of the positive impact of a financial system on the real economy, yet also renders the system susceptible to shocks (Diamond and Dybvig, 1983; Minsky, 2008). The role of finance as a lubricant for the real economy similarly exacerbates the effect of financial fragility on the real economy (for example, Rajan and Zingales, 1998; Dell’Ariccia et al., 2008).

Beyond the specific lessons of the financial crisis, several recent papers have established non-linearities in the relationship between finance and growth. Rousseau and Wachtel (2011) show that the relationship between financial and economic development has weakened in recent decades, in contrast to previous findings. Most prominently, Arcand et al. (2015) show that the relationship between financial development and economic growth in a broad cross-section of countries becomes insignificant at higher levels of financial development and negative and significant at very high levels of financial development.

Rioja and Valev (2004a and 2004b) show that the effect of finance on growth is strongest for middle-income countries. These findings are consistent with those of Rousseau and D’Onofrio (2013), who show that it is monetisation, rather than financial intermediation, that seems to matter for growth across sub-Saharan Africa.

Aghion et al. (2005) argue that the impact of finance on growth is strongest among LICs and MICs that are closing in on the productivity levels of high-income countries (HICs), before fading away as countries approach the global productivity frontier. For HICs, Kneer (2013a; 2013b) and Cecchetti and Kharroubi (2015) show that recent growth in financial-sector activity has been associated with lower productivity growth, especially in industries more reliant on skilled

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2 Some people object to the notion that the 2007–2008 crisis was global, as it started in and primarily affected North America, Europe and developed markets in Asia. However, the repercussions of the crisis for financial systems and economies around the globe – including in most LICs and LMICS – in terms of capital flows, trade flows and regulatory reforms have been such that the effect of this crisis has been truly global.



labour, which has been drawn into the financial sector, away from the real sector.

In this context, it is important to note the challenge of measuring financial development (Box 3). An important caveat to the finance and growth literature – often ignored – is that we have only very crude indicators of the development of financial institutions and markets, and the efficiency with which financial services are provided to households, enterprises and governments. Specifically, there is no clear mapping of the functions of finance as explained by theory and the empirical gauges of financial-sector development, which mostly capture the size, activity or efficiency of financial institutions or markets.<sup>3</sup>

However, when variables are identified as entering a growth regression positively and significantly, the temptation is to turn them into

a policy target. Yet, we know from Goodhart's Law that 'when a measure becomes a target, it ceases to be a good measure' (Goodhart, 1975). When interpreting regression results using this indicator, utmost caution must be applied to distinguish the efficiency of the intermediation process from other phenomena represented by the indicator. Yes, there can be too much finance, as many countries have found out the hard way in recent crises, but this is not the same as saying that financial systems can become too developed or too efficient. While the latter can be true, using aggregate indicators (such as private credit-to-GDP) will not serve to test this hypothesis. It is rather an in-depth assessment of the channels through which the financial system affects the real economy, building on an array of microdata and different methodologies that can move us closer to this answer (Box 3).

### Box 3 Recent advances in measuring financial development

The finance and growth literature has focused on private credit-to-GDP as a proxy variable for financial development, even though it is not clear that there is a linear mapping from higher levels of private credit-to-GDP to more efficient and developed financial markets.

More recent attempts to quantify financial development have relied on a combination of factors, including those measuring depth (measured by the size and liquidity of markets), access (the ability of individuals and companies to access financial services) and efficiency (the ability of institutions to provide financial services at low cost and with sustainable revenues, and the level of activity of capital markets). While an array of different indicators is now available, efforts to construct summary indices are to be regarded with scepticism, as all these indicators come with measurement errors, which are exacerbated in the compilation of a composite indicator.

Financial deepening can also be observed in the increasing prevalence, scale and diversity of financial institutions, including banks, insurance companies, mutual funds and pension funds. It can also be seen in the establishment and increasing scale and liquidity of public financial markets – such as foreign-exchange, stock and bond markets, but also derivative markets – as indicated by the increase in turnover and number of market makers.

A complementary source is user-based microdata, such as enterprise and household data, which capture access to and use of financial services, as well as barriers to financial inclusion. Using both supply- and demand-side indicators allows for complementary approaches. For example, one can gauge the provision of long-term finance by assessing the existence and efficiency of different providers. Alternatively, one can start with the funding needs of enterprises, households and governments for investment, housing and infrastructure, then gauge the different funding sources and bottlenecks in the financial landscape.

SOURCE: BECK ET AL. (2000); SATAY ET AL. (2015); SVIRYDZENKA (2016)

3 See Beck et al. (2000) for an extensive discussion of various indicators.

It is also important to distinguish between the concept of the financial system as a facilitator of the real economy and the concept of the financial system as a sector in and of itself. The former view emphasises the importance of the financial sector in mobilising funds for investment and contributing to an efficient allocation of resources across households and enterprises (i.e. the ‘traditional’ interest-generating business). The latter presents it as an export sector, i.e. one that seeks to build a nationally centred financial sector, based on relative comparative advantages, such as a skills base, favourable regulatory policies and/or subsidies. Economic benefits also include important spin-offs from professional services (legal, accounting, consulting) that tend to cluster around a financial centre.

As shown by Beck et al. (2014), however, it is only the intermediation concept that is positively associated with long-term growth in emerging

and developing markets. The financial-centre view seems to come with short-term growth, but also significantly higher volatility. This distinction is thus critical in policy discussions on strengthening the financial system in developing and emerging markets. It is also critical in the discussion on building regional financial centres in Africa. While the expansion of South African, Moroccan, Nigerian and Kenyan banks across the region – and the scale advantage that some of these markets have, which is critical in building public capital markets – speaks for the ‘natural’ development of some of these markets into regional financial hubs, this research points to the risks that come with using subsidies and regulatory policies to build large financial centres (Box 4).

Another important finding of this small, but rapidly expanding, body of literature involves the relative importance of enterprise versus

#### **Box 4 Financial services as an export strategy?**

Development of the financial sector is often seen in the context of the role of finance in economic growth in the real economy. However, the growth of the financial sector can also be an economic development strategy directed at export growth in financial services. This has become more relevant for developing countries, with the ever-increasing post-crisis shift from near-exclusive North-South cross-border banking to South-South cross-border banking and many African countries’ embrace of financial-service liberalisation.

There have been three different strategies in this regard. Some countries have developed regional financial hubs, including Kenya, Nigeria, South Africa, Hong Kong and Singapore. Others have developed processing financial hubs, such as India and Philippines, and specialist financial hubs, such as the offshore banking centres in Mauritius, the Caribbean and the Pacific Islands. Exports in financial services offer the potential for a significant contribution to GDP, high-wage employment and strong linkages to other sectors, making them an attractive option for developing countries. There might also be positive knock-on effects on domestic financial systems and governance structures.

However, there is significant global competition to establish leadership as a financial hub, and some types of hub – particularly regional financial hubs – are associated with cross-border capital flows that can result in financial instability, particularly domestic instability, in the race to develop large financial sectors relative to GDP.

The evidence, therefore, suggests that while the development of financial services as an export sector can create short-term growth, it can also lead to greater growth volatility. Although it may be possible to mitigate this with robust regulation, such regulation has limits, especially in relation to cross-border capital flows in the face of the capital-account liberalisation required for the development of financial hubs.

SOURCE: BECK ET AL. (2014); KHANNA ET AL. (2016)

household credit. While the theory of financial intermediation focuses on enterprise credit, there has been a seminal rise in household credit in the form of mortgage borrowing in HICs (Toporowski et al., 2013; Jordà et al., 2016) and shorter-term consumer credit in MICs (Müller, 2018). Cross-country regressions, however, suggest that the growth effect of financial development goes through enterprise credit rather than household borrowing (Beck et al., 2012) and that increases in household debt foretell lower GDP growth and higher unemployment (Mian et al., 2017). Similarly, evidence from the US shows that mortgage credit crowds out corporate credit (Chakraborty et al., 2014), thus worsening the financing constraints on SMEs.

The discussion so far does not necessarily cast doubt on the benefits of financial development to LIC growth and advancement. It is also important to stress that banking crises in LICs tend not to be associated with credit booms, but rather with governance issues.<sup>4</sup>

The greater integration of LIC financial markets, for example in sub-Saharan Africa, increases the risk of cross-border contagion in the event of financial stress. For instance, in Nigeria, DEGRP research showed that inflows of capital into the banking sector were a contributing factor in the Nigerian banking crisis of 2009 (Ajakaiye and Tella, 2014), as was the wave of consolidation among Nigerian banks in the early 2000s.

The limited link between credit booms and crises in LICs also implies that episodes of financial deepening or credit booms are less likely to end in crisis or economic underperformance. That said, it is important to carefully monitor the financial deepening process in LICs.

This implies the need for greater focus on sectoral rather than aggregate lending data. Recent crises in middle- and HICs have often been associated with consumer or mortgage credit booms. Emerging-market crises have often been characterised by high levels of foreign-currency debt becoming unsustainable after sharp



TRADERS WORK ON THE FLOOR OF THE GHANA STOCK EXCHANGE IN ACCRA, GHANA, 15 JUNE 2006. PHOTO: JONATHAN ERNST/WORLD BANK

exchange-rate movements. While there has been a stronger focus globally on sectoral lending data (e.g., Bastiano et al., forthcoming; Müller, 2018), data collection in LICs must be part of this trend.

One significant outcome of the global financial crisis has been the focus on strengthening financial safety nets, particularly bank resolution and crisis management. Regulators across the developing world have made substantial progress in this regard – and had done so even before the crisis – despite the fact that political and regulatory capture still loom large. As discussed by Beck et al. (2011), African banks are, on average, strongly capitalised, if not overcapitalised, and highly liquid. While there are ‘pockets of silent

4 Fielding and Rewilak (2015) point to an important interaction effect, as credit booms increase the probability of a crisis only in relatively fragile financial systems.

fragility' across the region, and the downturn in the commodity price cycle has led to additional fragility, the lack of stability does not seem to be an immediate concern in most African states.

The report returns to the topic of regulatory frameworks in section 5. This issue is also linked to the regulatory environment in which African banks operate, because their constrained lending and high capital and liquidity ratios are associated with a high probability of default. However, in the presence of stronger regulation, this risk is reduced, and incremental lending can be induced (Andrianova et al., 2015). Still, large government financing needs and the high cost to banks of lending to small private enterprises often prompt banks to invest more in government bonds and lend less to enterprises.

Alongside the literature on financial development and growth, related literature has explored the relationship between financial liberalisation (i.e. specific policy actions aimed at market-based financial deepening) and real-sector outcomes, exploring the non-linear effects of capital-account liberalisation. Kose et al. (2009) state that while there is evidence of the positive effect of equity-market liberalisation, the indirect effects on financial-sector development, institutions, governance and macroeconomic stability are likely to be far more important than any direct impact via capital accumulation or portfolio diversification. However, the growth benefits are conditional on a minimum level of financial-sector development, institutions, governance and macroeconomic stability.

One important element of the institutional infrastructure underpinning financial deepening and stability is credit information sharing, i.e. the sharing of positive (loan-level information for each borrower) and negative (loan-default) information among financial institutions. Several papers have shown the positive effects that successful systems of credit information sharing can have for financial deepening and access to finance (Brown et al., 2009; Djankov et al., 2007; Pagano and Jappelli, 1993), especially in developing and emerging markets. Guérineau and Léon (2016) assess the importance of credit information sharing for financial stability in a broad cross-section of

developed and developing countries during the post-2008 period. They find a negative relationship between the efficiency of credit information sharing and financial fragility in both developed and developing countries, with the direct effect (lower non-performing-loan ratios) stronger in less developed countries. More developed countries also experience an indirect effect, as credit booms are less likely to result in fragility.

The deficiencies of information-sharing institutions in LICs could also explain why African banks lend so little, according to theory and empirical evidence presented in DEGRP research by Andrianova et al. (2015). Specifically, they show that limited information sharing exacerbates the effect of high loan defaults on banks' reluctance to lend.

Andrianova et al. (2017) expand the analysis to consider variations in contract enforcement and ethnic fractionalisation, showing that institutional deficiencies and high fractionalisation (resulting in banking-market segmentation) can exacerbate the negative impact of loan defaults on bank lending. Anecdotal evidence suggests that this market segmentation is also reflected in the interbank market. While aggregate studies, such as that on Kenya by Murinde et al. (2018), provide insights into interbank positions and bank risk, more rigorous network analysis (linking various banks to each other according to their interbank exposure to each other) is needed over time to gauge the functioning of the interbank markets and to design policy measures that could help these measures to function better.

These findings of segmented and shallow banking markets align with the policy analysis of Honohan and Beck (2007) and Beck et al. (2011), which shows that most African countries offer a rather hostile environment for financial-sector deepening. They tend to be characterised by small scale (and thus diseconomies of scale), high informality (increasing cost), high volatility at both the individual and aggregate levels (related to informality and dependence on commodities) and governance challenges. While many of these challenges can be regarded as the result of path dependence, recent innovations – including



mobile-phone technology – can overcome such obstacles, as they help to lower costs and facilitate greater transparency, reducing the reliance on formality.

Finally, one important element to note in the discussion of financial-sector development is the political dimension for countries at all income levels, due to the crossover with policy execution. Box 5 presents two case studies from recent DEGRP research to illustrate this. Beyond the political dimension, the policy debate on how to develop stable, inclusive and efficient financial systems has changed over time, along with the economic-thought cycles of financial development

(discussed in Box 2). While institution building and macroeconomic stability are still seen as necessary conditions for financial deepening, it is understood that they are far from sufficient and that targeted and time-limited government interventions can be helpful. These include providing platforms for market exchanges (e.g. a factoring platform in Mexico), subsidising set-up costs for new financial institutions (such as microfinance institutions in Rwanda) or offering credit guarantee funds, as many national governments and/or donor institutions have done in many developing countries.

### **Box 5 Case studies of political economy and financial development: Nigeria and Cyprus**

Nigeria undertook a broad programme of financial liberalisation in the mid-1980s, including the liberalisation of interest rates and entry into the banking system. However, while ending direct rationing of foreign exchange for the real sector, the government maintained a multiple exchange-rate regime, thus sparking a new area of arbitrage and rent seeking for financial institutions that had privileged access to foreign-exchange auctions. The consequence was the quick entry of many new players into the banking system, especially merchant banks that specialised in foreign-exchange operations. In the years that followed, the number of banks tripled from 40 to nearly 120 and employment in the financial sector doubled. The contribution of the financial system to GDP almost tripled (Lewis and Stein, 2002; Beck et al., 2015). The financial-sector boom, however, was accompanied by financial disintermediation, with deposits in financial institutions and credit to the private sector, both relative to GDP, decreasing dramatically. The increase in the number of banks and human capital in the financial sector was thus channelled into arbitrage and rent-seeking activity rather than financial intermediation. By 1990, the bubble was bursting and a full-blown crisis ensued.

Politics matters in all countries at all income levels. Demetriades (2017) offers a fascinating eye-witness report on the causes, unfolding and resolution of the Cypriot crisis in 2013. Political influences loom large not only in the development of Cyprus as a financial centre – with its focus on attracting foreign, especially Russian, deposits – but also in the delayed response to fragility problems in the Cypriot banking system, after Greek sovereign debt restructuring left a large hole in the balance sheets of Cypriot banks.

The political economy of financial-sector policies and reforms is an active research field, though so far mostly limited to advanced and emerging markets. To translate the policy recommendations discussed later in this summary report into policy decisions, it is critical to understand the role of different interest groups and the decision process.

SOURCE: LEWIS AND STEIN (2002); BECK ET AL. (2005); DEMETRIADES (2017)

### 3. Finance's relationship to poverty and income inequality

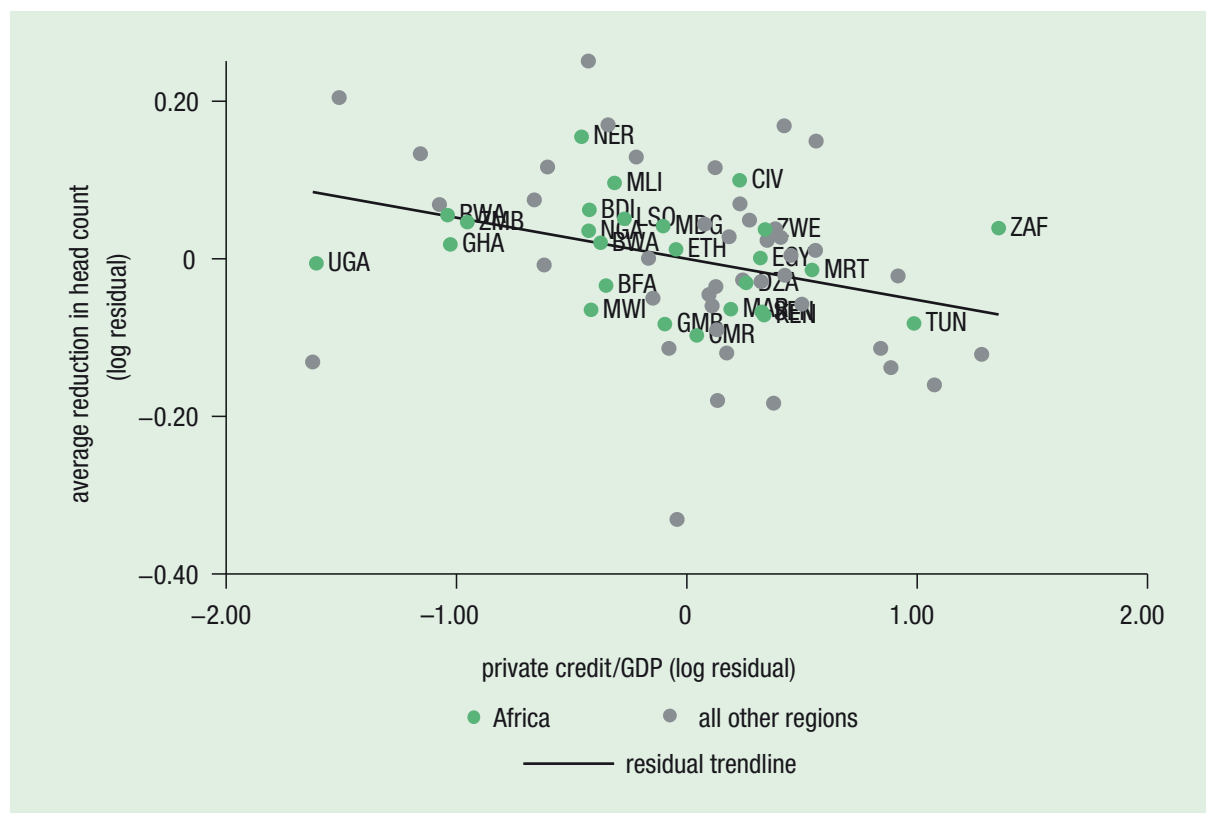
There is a growing body of literature on the relationship between financial-sector development and poverty and income inequality. This is of particular interest for inclusive growth and the Sustainable Development Goals (SDGs). Financial development can be positively associated with both income growth and declining income inequality in developing countries. Beck et al. (2007) show that countries with higher levels of financial development experience faster income growth for the lowest-income quintile, faster reductions in income inequality (as measured by the Gini coefficient) and faster reductions in the incidence of poverty (Figure 1).

However, there is also heterogeneity in the links between financial development, poverty and income inequality, which has been explored in recent work examining variations between regions

and countries. Rewilak's DEGRP research (2013) shows significant variation across regions of the developing world in the relationship between financial development and poverty alleviation.

This has led to a discussion of the channels through which financial development reduces poverty. Theory suggests that such an impact can come from giving direct access to previously unbanked poor households and micro-entrepreneurs, helping them to fund their businesses and educate their children. But theory also suggests a financial development impact by enabling structural change in the economy. For example, DEGRP evidence from Thailand shows that financial deepening in the last quarter of the 20th century helped reduce poverty by facilitating the migration of large parts of the population from subsistence agriculture into salaried jobs in manufacturing (Giné and Townsend, 2004).

**Figure 1**  
**Private credit-to-GDP ratios and reductions in poverty headcount for selected countries**



SOURCE: BECK ET AL. (2011)



Ayyagari et al. (2013) show that in India, financial deepening in the 1990s and 2000s helped reduce poverty in rural areas, both by increasing the incomes of entrepreneurs and facilitating migration from rural to urban areas, a trend that went hand in hand with the rise of credit to the tertiary sector. Gauging the relationship between different dimensions of financial development and poverty alleviation for a broad cross-section of countries, Rewilak (2017) finds evidence for both depth and access to finance as factors that explain the relationship between financial development and poverty alleviation.

Also, international financial liberalisation (often also referred to as capital-account liberalisation) causes income inequality. DEGRP research by Bumann and Lensink (2016) used two specific policy measures – lowering reserve requirements and reducing international capital controls – and found that capital-account liberalisation resulted in a decrease in income inequality in countries with already developed financial systems, while it increased income inequality in countries with low levels of financial development. The authors attribute this result to different elasticities of credit demand and supply across countries with varying levels of financial development. This relates to a broader body of literature

exploring the non-linear effects of capital-account liberalisation, as discussed in the previous section.

Finally, of great importance is the strong negative effect of financial-sector instability on poverty and income inequality. As much as financial deepening is associated with faster growth and poverty reduction, aggregate evidence has shown that crises imply a substantial output loss (Laeven and Valencia, 2013). While most countries eventually return to their previous growth path, they do so on a permanently lower level of GDP per capita; put differently, the output loss due to banking crises is almost never recovered. Beyond aggregate losses, however, there are also distributional implications of crises. Rewilak (2018) focuses on the impact of different types of crisis on the income of the poorest income quintile. He finds the strongest negative effect on the incomes of the poor is associated with currency crises, followed by banking crises, whereas sovereign debt crises seem to matter only for the poorest income quintile in richer countries. He also finds that the main channel through which crises negatively affect the income of the poor is macroeconomic instability. Hence reducing instability is key to poverty reduction and reducing inequality.



A WORKER AT THE TRISHAKTI SAWMILL IN NAWALPARASI DISTRICT, NEPAL. 2017.  
PHOTO: CHANDRA SHEKHAR Karki/CIFOR

## 4. Cross-border capital flows and inclusive economic growth

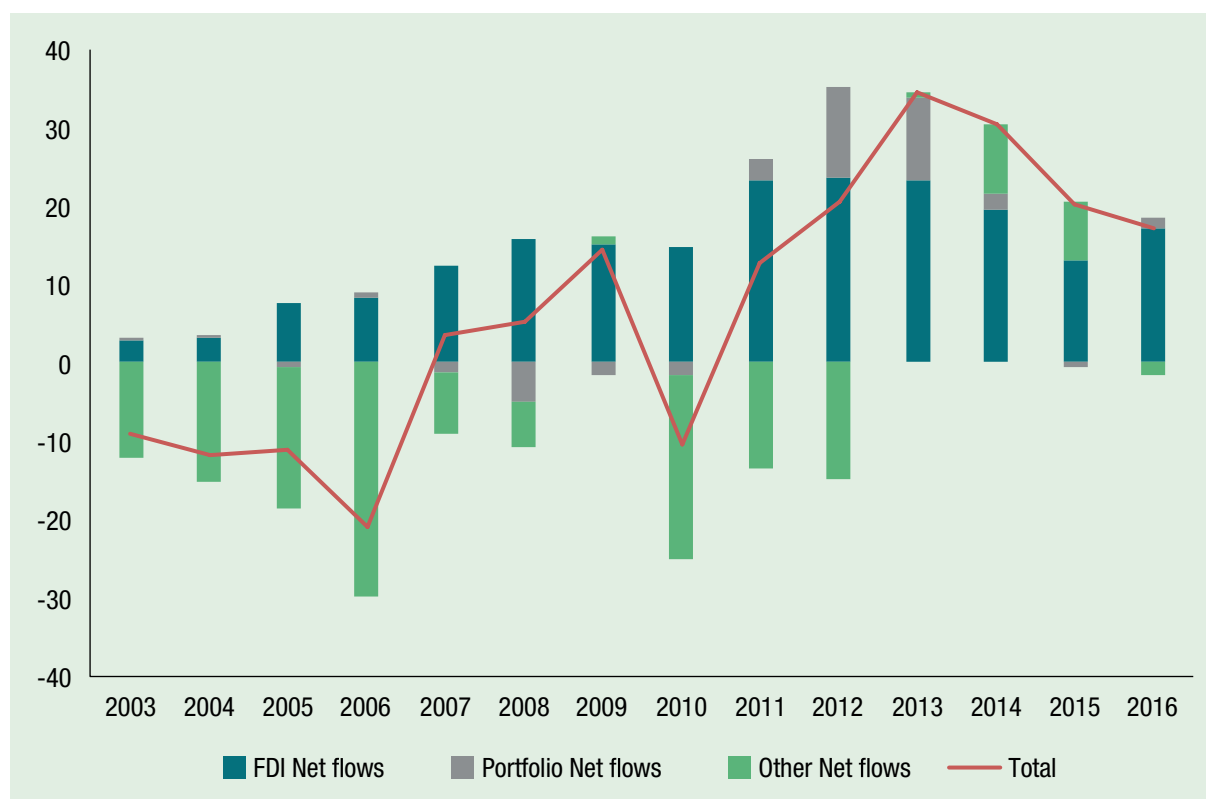
Cross-border capital flows offer the opportunity to accelerate growth by closing the domestic savings gap in many LICs.<sup>5</sup> The importance of understanding how to combine this with financial stability has been emphasised since 2008, because of a resurgence of peaks and troughs in capital inflows to developing countries and because of the need to mobilise private capital for development on a greater scale than policy-makers had previously envisaged.

Developing countries have undergone repeated cycles in capital flows since the mid-1970s. The 2003–2007 boom was part of the broader global financial expansion of 2003–2007. It started to weaken after the US subprime mortgage-market crisis in the summer of 2007 and ended with the bankruptcy of Lehman Brothers in September

2008. In contrast to the two previous downturns in financial flows, this one was much shorter, thanks to the strong expansion of global liquidity generated by the monetary policies of developed countries and the relative strength of emerging and developing countries. Capital flows to emerging economies started to recover less than a year after the collapse of Lehman Brothers and were followed by a new boom in 2010–2013. This weakened after the US Federal Reserve announced a ‘tapering’ of asset purchases in May 2013 and turned into a new downswing with the end of the ‘super-cycle’ of commodity prices in mid-2014 and the turbulence in Chinese financial markets in 2014–2016.

Furthermore, the volatility of portfolio and other net flows, including bank lending, has been more

**Figure 2**  
Net private capital flows to low-income economies, 2003–2016 (\$ billion, current)



SOURCE: OCAMPO AND GRIFFITH-JONES (2018B)

5 This is in contrast to the successful development experienced in countries in East Asia, which have very high domestic savings rates.

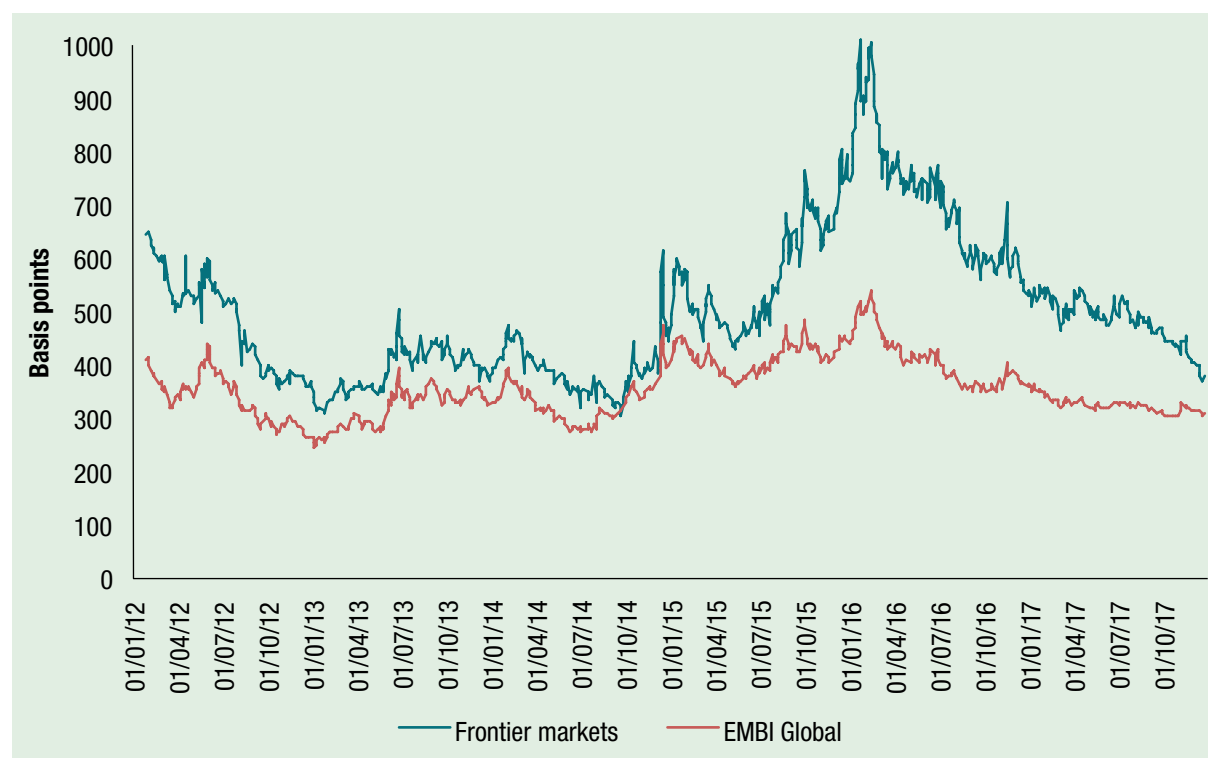
pronounced than that of FDI, confirming that FDI flows are more stable. Still, DEGRP research has found that this stability is becoming ever more relative, as FDI is also pro-cyclical, particularly for certain activities, such as investment in oil and mining, and that this pro-cyclical trend has been growing in developing economies (Dell-Erba and Reinhart, 2015; Bastiano et al., forthcoming; Ocampo and Griffith-Jones, 2018b) (Figure 2).

LICs have also experienced the cost-of-finance volatility that tends to accompany these cycles. Starting in mid-2014, frontier markets<sup>6</sup> experienced a surge in spreads and yields on sovereign bonds. The hike was particularly strong from mid-2015 to early 2016. This can be explained by the greater vulnerability of frontier markets, their high commodity dependency amid falling commodity prices, and the deterioration of LIC credit ratings in recent years (Tyson, 2015a; Ocampo and Griffith-Jones, 2018b) (Figure 3).

The empirical literature on the effects of private capital flows on economic growth is vast, yet it does not provide conclusive evidence of the impact of private capital flows on economic growth, with some research showing that they accelerate growth and others finding a negative relationship. There are also relatively few studies focusing specifically on LICs (see Massa, 2014, for a detailed review of the literature resulting from DEGRP research). Some studies have found a positive relationship between FDI and GDP growth, with countries having a lower dependency on extractive exports, and higher overall development, showing the strongest relationship (Massa, 2014).

Other types of flows, including bank lending and portfolio flows, have a neutral or negative relationship with growth (Massa, 2014). However, more recent DEGRP evidence outlines an emerging trend in sub-Saharan Africa – the rise in cross-border bank lending though regional

**Figure 3**  
**Sub-Saharan Africa and emerging-market spreads, 2012–2017 (basis points)**



NOTE: The frontier markets series includes the spreads of Senegal, Angola, Zambia, Tanzania, Côte d'Ivoire, Gabon, Kenya and Nigeria. Data is incomplete for some of these countries in some years.  
SOURCE: BLOOMBERG; OCAMPO AND GRIFFITH-JONES (2018B)

6 Frontier markets are capital markets that are more established than those of the least developed countries (LDCs), but less established than emerging markets.

banks in the post-crisis period (Beck et al., 2011). Kanga et al. (2018) examined the effects of regional banking in the West African Economic Monetary Union (WAEMU), where eight countries have one central bank with common regulation and a single currency. They found that cross-border bank ownership reduces credit risk and profitability in the banking sector, suggesting that it drives greater stability and competition.

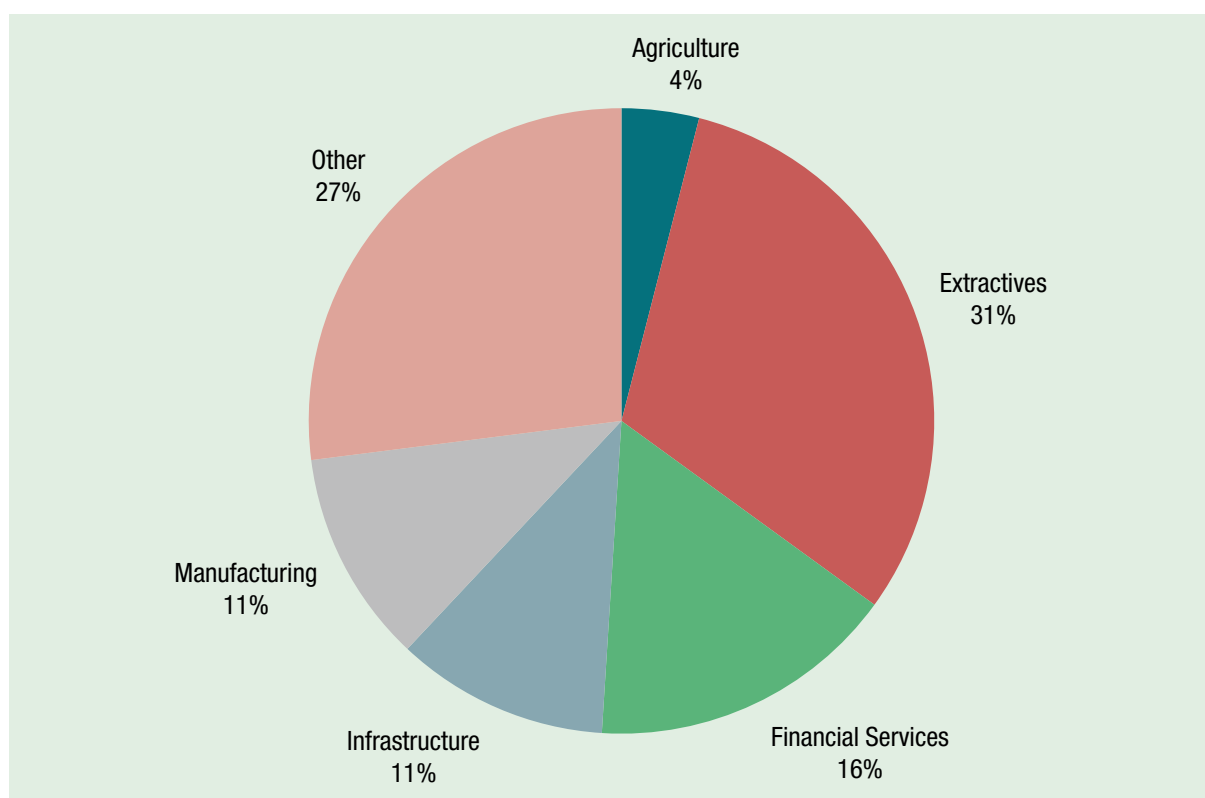
Other DEGRP evidence produces inconclusive results. Using a large sample of low- and middle-income countries from 1980 to 2012, Combes et al. (2017) found that the net effect of capital inflows is positive, even controlling for the adverse effects of a real appreciation in the exchange rate.

Bastiano et al. (forthcoming) identified a negative relationship between FDI and productivity. The paper examines the relationship of productivity and economic growth to the structural composition of capital flows for a sample of 18 countries from 2007 to 2016. The authors found

that the composition of FDI was concentrated by sector and that those sectors (such as extractives) were often not optimal for spurring transformational growth (Figure 4).

Bastiano et al. (forthcoming) found that the effects of capital flows on productivity and economic growth depend on the economic sector into which they are channelled, with a negative relationship between productivity and FDI in the infrastructure, trade and extractive sectors and only FDI in the construction sector having a positive relationship with productivity and economic growth. Other studies have confirmed that the relationship between FDI and productivity is interdependent. For example, Reinhart (2010) found that the relationship between FDI and productivity growth was negative in the agriculture, mining/utilities, construction and tourism sectors, but positive for manufacturing and services. The relationship between FDI, sectoral composition and productivity is under-researched, however, as we discuss in section 7.

**Figure 4**  
**FDI flows by sector to sub-Saharan Africa (2007–2016)**



SOURCE: BASTIANO ET AL. (FORTHCOMING)



This mixed evidence on FDI – including its effects on productivity, which is core to economic transformation – suggests that there should be a cautious approach to it and an examination of sector-specific effects. The effect of capital inflows on the real exchange rate can be compared to the ‘Dutch disease’ phenomenon<sup>7</sup> – a general problem with large capital inflows, be they due to commodity price increases or aid inflows. Beyond effects on the exchange rate, remittances might have negative effects on growth, for example, via brain drain and overconsumption of remitted funds.

Foreign aid offers an alternative course of cross-border capital flows and continues to be the dominant source of international capital for many LICs. While the discussion continues as to whether foreign aid is positive for economic development, another major concern has been whether aid is stabilising or destabilising (whether it increases or reduces the volatility of exports) and pro- or counter-cyclical (whether it moves with or against the business cycle).

In DEGRP research, Agénor (2016) shows theoretically that volatility of aid can have a negative effect on growth as, by increasing uncertainty on the return on education, it can reduce incentives to invest in human capital. Chauvet et al. (2016) find that economic volatility can exacerbate income inequality, but that aid can mitigate the effect, pointing to an important additional role of aid in countries that are exposed to high volatility.

Gabin et al. (2017) study four francophone LICs in sub-Saharan Africa (Benin, Burkina Faso, the Central African Republic and the Democratic Republic of the Congo) as examples of all four cases (stabilising and pro-cyclical, stabilising and counter-cyclical, destabilising and pro-cyclical, destabilising and counter-cyclical). They show

that the internal political environment and relationships with donors affect the cyclicity and volatility of aid. The effect of aid depends on the investment climate in the receiving country, the development of the local banking system and the absorption capacity of the economy. Cyclicity and volatility of aid have important repercussions for the fiscal and monetary policies of receiving countries. One final finding of interest is that foreign aid can support improved fiscal management. Bwire et al. (2017) found this to be the case in Uganda, where aid was associated with increased tax mobilisation, a better balance between public revenues and spending, and reduced domestic borrowing – factors consistent with a stable macroeconomic environment for financial-sector reforms.

The major problem faced by developing countries in capital-account management is the nature of strong pro-cyclical swings in external financing, which create macroeconomic risks, especially as they typically lack the financial safety net provided by swap arrangements among central banks, which essentially benefit only developed countries. These swings are reflected in variations in the availability of financing, maturities and costs. Different types of capital flow are also subject to different volatility patterns. In particular, the strong volatility of short-term capital indicates that reliance on such financing is highly risky, whereas the greater stability of FDI vis-à-vis financial flows is a source of strength.

The literature has also documented risks and downsides from capital flows, including macroeconomic and financial instability, with knock-on negative effects on inclusive growth. Recent instances of such issues have been highlighted in a number of DEGRP case-study countries, as well as different policy approaches, including in Ethiopia, Nigeria and Ghana.

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7 Dutch disease is the seemingly causal relationship between a rise in the economic development of one sector and a decline in others (<https://www.economist.com/the-economist-explains/2014/11/05/what-dutch-disease-is-and-why-its-bad>).

## Box 6 Case studies of policies in relation to capital flows: Ethiopia, Nigeria and Ghana

Ethiopia offers an interesting example of a case study of capital management and sectoral flows. The country has a highly restrictive framework for capital inflows. FDI is limited to selected sectors, mainly manufacturing. Public investment is closely coordinated with such inward investment flows, including, for example, the development of special industrial zones. FDI is prohibited in financial services and the banking sector is closed to foreign participation. This has resulted in FDI flowing predominantly to manufacturing, boosting growth in this important sector for employment.

However, Ethiopia's financial-services sector remains shallow, with financial access and savings mobilisation constrained. Because of this, as Ethiopia has reached higher levels of development, finance is becoming an ever greater constraint on growth. The authorities have tried to ease these limitations. For example, the National Bank of Ethiopia has sought to encourage remittances from the diaspora and there has been a deliberate policy of nominal exchange-rate depreciation. Nevertheless, the policy of preventing capital flows into the financial sector, while maintaining stability and directing flows to key sectors for inclusive growth, has now become a barrier to higher levels of development, as the financial sector is relatively underdeveloped (Zwedu, 2014).

Nigeria is an interesting example, because it is a large economy and has seen significant growth in its banking sector against a backdrop of capital-account openness. However, the risks of such a policy have been highlighted by the banking crisis of 2009. The country saw short-term inflows of capital, in the form of wholesale funding for banking-sector growth and portfolio flows into its stock markets, among other things. In 2008, these reversed rapidly, contributing to a deepening crisis in the banking sector that had originated from poor institutional management and a concentration of bank lending in the extractive sector.

In 2015, Nigeria experienced further problems, as the national currency, the naira, depreciated rapidly as the oil price collapsed. Nigerian exports are heavily concentrated in oil and, because of the industry's importance, the banking sector is highly focused on commodity-related lending. As the oil price plummeted, non-performing loans increased, as companies in the oil sector had difficulty servicing their debt. This led to a sharp contraction in credit relative to GDP, as banks sought to restore their capital bases. This 'credit crunch' added to Nigeria's recessionary pressures. The policy response was to try to defend the currency using foreign-currency reserves and restrictions on the use of foreign currency. However – as had happened in other financial crises – the reserves rapidly became depleted. The government subsequently had to allow the currency to float freely and it suffered further depreciation. Nigeria's history in relation to capital-flow management illustrates the dilemma that developing countries face in trying to balance the trade-off between encouraging sufficient capital inflows to stimulate growth and managing the risks associated with financial stability (Ajakaiye and Tella, 2014; Tyson, 2015a).

Ghana, too, has suffered problems, including a severe decline in the value of its currency in 2013. This was predominantly in response to the drop in the price of commodities, which account for most of its exports. However, these problems were deepened by the sovereign bonds Ghana had issued in international capital markets, which were used for fiscal spending in 2012 and 2014, and which significantly increased the country's debt-to-GDP ratio (Achak and Asiamah, 2014; Tyson, 2015a).

SOURCE: TYSON (2015A); ACHAK AND ASIAMAH (2014); AJAKAIYE AND TELLA (2014); ZWEDU (2014)





These examples illustrate an important consideration for LICs. Much of the recent surge in private capital flows has been the result of international bond issuance by national governments, which makes them subject to volatility in international markets when credit fundamentals deteriorate, causing difficulties in refinancing government deficits. The question,

therefore, is how to curb excessive international borrowing by governments in periods of boom. To this end, a case could be made for placing limits on such borrowing in hard currencies to encourage governments to fund a higher proportion of their debt from domestic resources and avoid currency mismatches and excessive indebtedness.

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## 5. Microprudential and macroprudential regulation for developing countries

The challenges developing-country policy-makers face when it comes to balancing financial-sector deepening with stability and harnessing international capital flows while reducing and mitigating the effects of capital-flow volatility raise the issue of regulatory frameworks. More broadly, the question is whether developing-country regulators should follow in the footsteps of regulators in advanced countries, or whether they should go their own way in designing the regulatory frameworks they need.

Over the past two decades, several international regulatory standards and accords have been agreed in relation to different segments of the financial system.<sup>8</sup> Most prominent among them are the Basel accords on bank regulation. Only shortly after the Basel II capital standards were agreed in the mid-2000s, the global financial crisis triggered substantial regulatory reforms at global level. Specifically, led by the Financial Stability Board in Basel, the large advanced and emerging markets have agreed to a substantial tightening of capital requirements (increasing both quantity and quality), the introduction of liquidity and macroprudential capital requirements to bolster the buffers of the systemically more important financial institutions, and counter-cyclical buffers to damp credit cycles.

As these reforms have been a direct consequence of the global financial crisis in advanced countries, the obvious question is whether they are appropriate for developing countries. Furthermore, even though different elements (capital and liquidity requirements and

macroprudential policies) can be mapped directly to fragility risks in the banking sector (Beck et al., 2015), questions on calibration remain, as well as on whether additional tools are needed. It is critical that these standards are as appropriate for developing countries as they are for the countries for which they were originally designed.

In DEGRP research, Jones and Zeitz (2017) show that some components of Basel II have been implemented in the majority of non-members of the Basel Committee on Banking Supervision of the Bank for International Settlements (BIS) (Figure 1). However, regulators are more likely to adopt the simpler Basel II standard approaches to credit, market and operational risk rather than the much-disputed advanced approaches that rely on internal risk models by banks. A similar trend can be found for the adoption of Basel III. This suggests that developing-country regulators take a ‘proportional’ approach, focusing on models that are implementable in their countries in the context of data availability and technical capacity<sup>9</sup> (Figure 5).

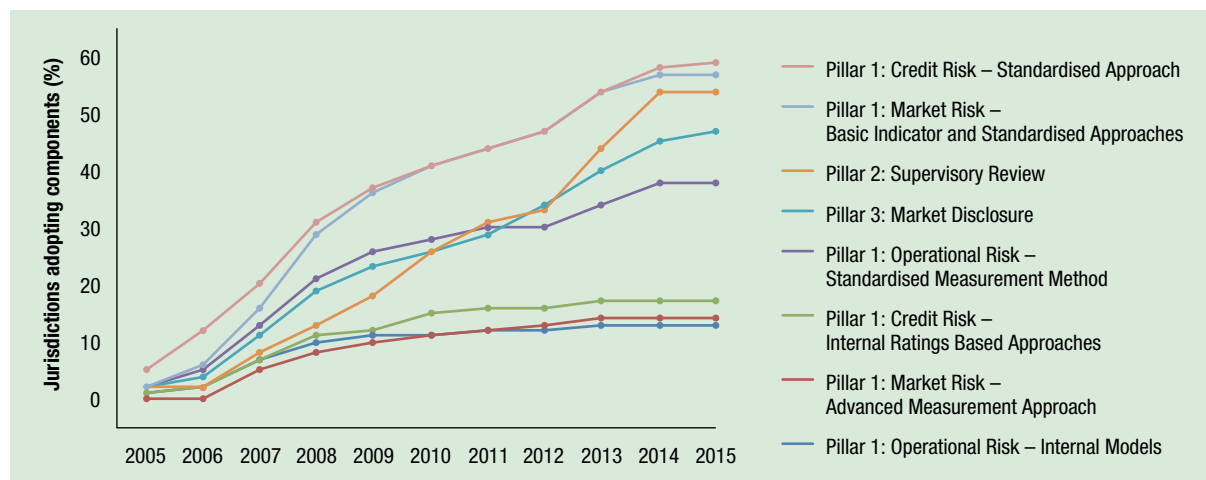
As it is not obvious that the Basel II and III standards are suitable for many developing and emerging markets, it is surprising that so many of these countries have adopted them. A recent project co-led by Jones, Woods and Beck (2018) as part of the World Bank Development Economics Prospects Group (DECPG) reveals the different factors driving the adoption of Basel standards in LICs and MICs (Box 7).

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8 An interesting and important outlier has been China, in spite of its participation in the G20 process (Box 7).

9 This chimes with previous evidence that most developing countries had problems transitioning from Basel I to Basel II and then to Basel III. In particular, many African countries have remained at the crossroads for a long time, as noted by Murinde (2011).

**Figure 5**  
**Basel II adoption by non-BIS member countries**



SOURCE: JONES AND ZEITZ (2017)

### Box 7 The factors driving the adoption of Basel standards in low- and middle-income countries

- **Signalling to international investors.** Incumbent politicians may adopt Basel standards to signal sophistication to foreign investors. For example, in Ghana, Rwanda and Kenya, politicians have advocated the implementation of Basel II and III, as well as other international financial standards, as part of a drive to establish financial hubs in their countries.
- **Reassuring host regulators.** Banks headquartered in low- and middle-income countries may endorse Basel II or III as part of an international expansion strategy, as they seek to reassure potential host regulators that they are well regulated at home. This is clearly at work in Nigeria, where large domestic banks have championed the adoption of Basel II and III at national level as they seek to expand abroad. This can result in additional costs and, ultimately, in the crowding out of smaller domestic banks.
- **Facilitating home-host supervision.** Adopting international standards can facilitate cross-border coordination between supervisors. In Vietnam, for example, regulators were keen to adopt Basel standards as their country opened up to foreign banks, to ensure they had a ‘common language’ to facilitate the supervision of the foreign banks operating in their jurisdiction.
- **Peer learning and peer pressure.** Even while acknowledging the shortcomings of Basel II and III, low- and middle-income country regulators often describe them as international ‘best practices’ or ‘the gold standard’, and there is considerable peer pressure in international policy circles to adopt them. In the West African Economic Monetary Union (WAEMU), for example, regulators at the supranational Banking Commission are planning an ambitious adoption of Basel II and III with the support and encouragement of technocratic peer networks and the International Monetary Fund (IMF).
- **Technical advice from the IMF and the World Bank** plays an important role in shaping the incentives for politicians and regulators in developing countries. While the Financial Stability Assessment Programmes (FSAPs) are merely designed to evaluate the regulatory environment of client countries against a much more basic set of Basel ‘Core Principles’, there is evidence that the IMF and the World Bank encourage regulators in low- and middle-income countries to engage in Basel II and III adoption, in some cases with explicit recommendations.

SOURCE: DECPG PROJECT CO-LED BY JONES, WOODS AND BECK (2018)



Notwithstanding the possible stability benefits of the new regulatory standards, DEGRP research has pointed to unintended consequences of Basel III for emerging and developing countries in three respects (Beck and Rojas Suarez, forthcoming): (a) the effects on the volume, composition and stability of capital flows arising from the implementation of Basel III in advanced economies; (b) financial-stability and level-playing-field effects from the adoption of the Basel framework by subsidiaries of foreign banks operating in developing countries; and (c) potential unanticipated effects on financial stability, financial inclusion and the deepening of local financial systems from the implementation of Basel III in developing markets.

There are a number of concerns relating to the adoption and implementation of Basel III in developing markets:<sup>10</sup>

- **The excessive complexity of Basel III in relation to the capacity available** (both human and technical infrastructure) in many developing countries makes the implementation of and compliance with Basel III standards very costly and could divert resources away from other priorities, such as financial inclusion or the development of non-bank financial institutions.
- **Tightening regulatory requirements under Basel III can have repercussions for the composition of banks' loan portfolios**, with riskier sectors, such as infrastructure and SMEs, seeing a reduction in lending.
- **Higher costs in terms of margin and capital requirements** might make domestic and global banks more reluctant to engage in derivative markets, which could not only reduce the provision of hedging and risk-management services for clients, but also impede the development of local capital markets in emerging markets, which heavily rely on the participation of banks.
- **The lack of necessary data to compute risk weights** reduces the applicability of more data-intensive risk-weighting schemes and could result in conflicts between large global banks

and host-country supervisors in emerging and developing markets. Similarly, the lack of sufficient high-quality liquid assets may give the wrong impression as to available liquidity in developing countries in times of stress.

- As banks face more stringent regulation, there has been a trend for intermediation businesses to move outside the regulatory perimeter into **shadow banking, creating new sources of fragility and additional regulatory costs**. While present in advanced countries for decades, it has become more prominent in developing countries in recent years.
- There are **additional sources of fragility in emerging and developing markets** not considered under Basel III. These include foreign-exchange lending and deposit-taking, heavy reliance on international capital flows, bank-to-bank lending, the large common credit exposures of banking systems in economies that are not sectorally well diversified (especially in commodity-based economies) and high macroeconomic volatility in many emerging and developing countries, again often related to commodity price cycles.

The shortcomings of the Basel II and III standards in relation to the needs of developing countries have resulted in calls to adapt the standards to circumstances in these markets, but also to more radical suggestions of alternative standards and/or alternative signalling tools vis-à-vis international investors, such as the Basel Core Principles of Effective Bank Supervision.

One important tool, used extensively in developing and emerging markets even before it became popular in advanced countries after the global financial crisis, is macroprudential policy. An extensive recent body of literature, which includes DEGRP research, has documented the use of such instruments (for example, pro-cyclical capital buffers, additional capital buffers for systemically important institutions, loan-to-value (LTV) and debt-to-income ratios) around the globe and assessed its effectiveness in terms of financial stability.

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10 See also Gottschalk (2016)

Cerutti et al. (2015) documented the use of various macroprudential policies in 119 countries from 2000 to 2013 and found that such policies were associated with lower aggregate (country-level) growth in credit. Claessens et al. (2013) used the balance-sheet data of individual banks in 48 countries for 2000–2010 to show that borrower-based measures (such as LTV ratios and debt-service-to-income (DSTI) caps) along with credit growth and foreign-currency lending limits were effective in reducing growth in banks' leverage, asset and non-core-to-core liability ratios.

Akinci and Olmstead-Rumsey (2018) recorded the quarterly tightening and easing of macroprudential policies in 57 countries from 2000 and showed that these policies were used in tandem with bank reserve requirements, capital-flow management measures and monetary policy. Lim et al. (2011) studied a smaller subset of 49 countries and found that macroprudential policies were associated with reductions in the pro-cyclicality of credit and leverage. Ayyagari et al. (forthcoming) showed

that macroprudential policies were associated with lower funding growth among smaller and younger firms, especially real estate-related macroprudential tools; however, it is the financially less healthy firms that tend to experience such a reduction in funding growth.

Some recent papers have also assessed the effectiveness of macroprudential policies on economic volatility and growth. Agénor (2018) models the trade-off between stability and private-sector lending (and, hence, growth) using reserve requirements as a macroprudential tool. In a model with endogenous monitoring costs incurred by banks, higher reserve requirements not only increase stability, but can also increase lending if they imply lower monitoring costs.

However, higher reserve requirements could also result in disintermediation, or intermediation moving out of the regulated banking sector. Neanidis (2015) looks at prudential policies more broadly and shows empirically that they can damp the negative impact of capital-flow volatility on growth.

## **Box 8 China's role in global financial regulation**

While the Basel capital accords have been mostly designed by advanced and (more recently) large emerging markets, the question of China's role in the design of future global agreements – and global financial governance more broadly – is an important one.

Gruin et al. (2018) determine that China has been focusing on tailoring global standards to its own developmental needs and expects to have a greater influence on the global governance reform process in future. So, even if China has not yet used its G20 membership and its rising geopolitical position to heavily influence global regulatory standards, there appear to be several trends that make this likely to change: (1) the increasing hostility of the US government towards international standard-setting bodies, leaving scope for other countries, and (2) because of the expansion of Chinese banks outside their home country, there will be pressure on those banks to comply with these standards, thus increasing China's interest in influencing them.

This is ultimately critical for many developing countries, given the increasing importance of China as an investor in many commodity-exporting countries in Africa, as well as through its Belt and Road Initiative across Asia (Wignaraja et al., 2018).

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## 6. Implications for the policy debate

This report has taken stock of recent research in the areas of financial-sector development and capital flows in developing countries. Rather than summarise our findings, we offer some policy conclusions from our research based on the three key themes set out in the introduction to this report.

Framing this discussion – and all three key themes – is the focus on the financial sector as a facilitator of growth in the real economy, balancing this against the fragility risks that need to be watched carefully as financial systems deepen and change in structure. Institutional frameworks also need to be developed, which facilitate the role of the financial sector in growth and allow space for time-limited government interventions to overcome coordination failures.

It should also be noted that there is a general need for more disaggregated data on the banking sector and other segments of the financial systems in LICs, to better monitor the financial-deepening process and potential sources of fragility. This has important implications for future analysis and for future data collection by regulatory authorities and central banks in both LICs and MICs.

### How can policy-makers ensure quality as well as quantity of finance for inclusive economic development?

As discussed in sections 2 and 3, recent research has highlighted that the quality of finance is as important as the quantity. The role of finance and development is intermediated by institutional capacity, as well as certain aspects of market development, including credit information and other pricing transparency mechanisms.

It is important in this regard to ensure that finance<sup>11</sup> is sufficient – but not excessive – in relation to the stage of a country's economic development and that finance is allocated efficiently to promote inclusive economic growth.

In this context, the key policy concern is how to increase private finance, particularly for LICs. On a positive note, the volumes of private finance mobilised are growing year on year, though they are heavily concentrated in MICs and certain sectors and remain well below what is needed to achieve the SDGs. For example, only \$720 million, or 3.6%, of the global private finance mobilised per annum flowed to LICs between 2012 and 2015. (Attridge and Engen, 2018).

A key medium-term goal should be the development of domestic financial markets, with a focus on local capital markets and the increased deployment of domestic savings, including the development of pension and insurance industries. This is key to overcoming the reliance on international private capital and, to an extent, the unavoidable risks that such a reliance entails, including foreign-exchange risk and the pro-cyclical nature of investment flows.

Domestic savings mobilisation is subject to structural constraints including per capita income dependency ratios, which are important in LICs (Loayza et al., 2000). Policy is also an important influence in the mobilisation of domestic savings. Key aspects that encourage savings mobilisation include a strong regulatory framework for pension funds and insurance funds, formal collateral arrangements and credit bureaus, and pension reforms including broadening of investment categories and mandatory saving programmes (ERD, 2015; Tyson, 2015a).

Key to the development of domestic capital markets is macroeconomic stability. Maintaining this includes attention to macroprudential policies, which is discussed in more detail below. Other aspects of policy are also important, including strong regulation and financial infrastructure, as well as aspects of markets, such as liquidity and price transparency (ERD, 2015; Tyson, 2018).

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11 As discussed, measuring sufficient, but not excessive, finance is difficult, because of methodological and empirical weaknesses in current methodology. Nevertheless, broad measures of financial-sector development, as well as empirical assessments of whether finance is a 'binding constraint' on economic growth, provide guidance.



The immediate goal is to mobilise international capital while balancing financing needs against financial stability. One of the most important policy approaches by international finance institutions of late has been to ‘blend’ finance, so as to crowd more private finance into developing countries through co-investment. To date, however, these approaches have had limited success, with mobilisation ratios of donor finance to private finance remaining well below that required for inclusive economic development and achievement of the SDGs (Tyson, 2018; Attridge and Engen, 2018).

There is a reasonable consensus about the problems that are causing this: a lack of bankable projects, the difficulty for private investors of managing political and macroeconomic risk, and a significant mismatch between the instruments being offered by DFIs and the needs of investors<sup>12</sup> (Tyson, 2018; Attridge and Engen, 2018).

This suggests the following possibilities for strengthening policy:

- **International financial institutions (IFIs) need to reorient their mandates to focus on those activities where they bring significant and unique value**, such as early-stage project planning and development; partnering with private investors to help them navigate complex governance and regulatory frameworks; making a positive contribution to the broader investment environment; the provision of financing; and partnering with private firms and governments to bring projects to the operational phase. They also need to concentrate their financing in LICs and reduce their financing in areas where financial additionality is questionable, for example, in MICs and in sectors that are attractive to private investors, such as financial services and telecoms.
- **There needs to be an acceleration in the pipeline of ‘bankable’ projects.** Successful project preparation facilities need to increase in scale, especially those that bring together a broad group of skills from IFIs, private financial institutions, and construction and legal experts. There is also a need for greater funding of demonstration projects and ‘accelerator impact funds’, especially in LICs, to explore and establish successful business models that will attract investors to those sectors that are key to inclusive economic growth, including agriculture and manufacturing.
- **Co-finance needs to more closely meet the investment requirements of institutional investors.** Institutional investors, including pension funds and insurance funds, offer a potentially huge pool of private investment in developing countries. However, they require relatively low-risk investments that meet their fiduciary responsibilities. IFIs could be more proactive in creating securities that more closely match their needs, such as greater syndication and securitisation to structure assets that meet credit and liquidity requirements.
- **Providing better hedging instruments for investors to mitigate foreign-exchange and political risk.** IFIs have successfully seed-funded specialist providers of such hedging, increasing the liquidity and availability of instruments.<sup>13</sup> However, the instruments need to be cheaper, more flexible and longer in tenure. We would suggest that the innovative policy approaches be scaled up and that consideration be given to whether this area might warrant public subsidy to increase investor uptake.

We discuss the issue of policy when finance is excessive and threatens financial stability in relation to macroeconomic policy below.

<sup>12</sup> Particularly institutional investors, which have large pools of capital, but whose investments are subject to fiduciary constraints.

<sup>13</sup> The best example is, arguably, TCX (<https://www.tcxfund.com>)

## What are the appropriate domestic regulatory and financial systems that can maximise and stabilise the contribution of international capital flows to inclusive economic development?

As discussed in section 4, international capital flows can be an important source of investment and bridge the savings gap in developing economies. However, they are also associated with financial fragility.

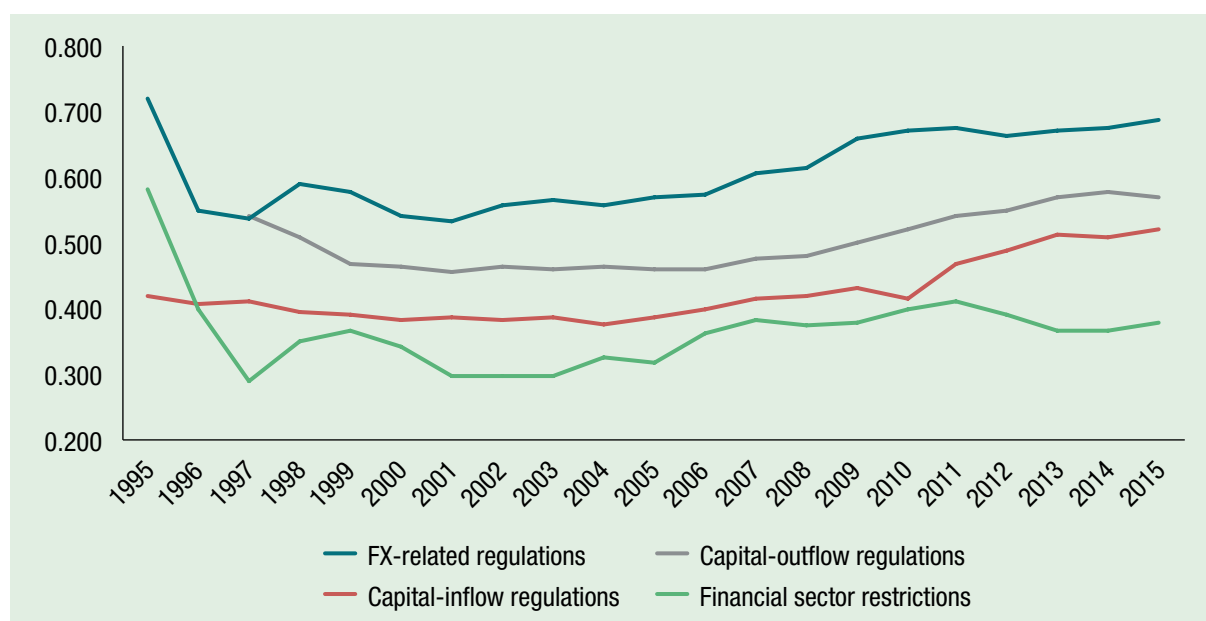
Historically, these financial-fragility risks have been managed by way of capital-account regulations (CARs) in both advanced and developing countries. There are four different types of CAR: capital-inflow regulations, capital-outflow regulations, financial-sector restrictions and regulations on the domestic use of foreign exchange (foreign exchange-related regulations). The most frequently used CAR are foreign exchange-related regulations, followed by capital-outflow restrictions. Financial-sector regulations are least used, indicating limited desire to discriminate between residents and non-residents. Inflow regulations fit somewhere in between (see Massa, 2014, and Ocampo and Griffith-Jones, 2018b, for a comprehensive

discussion). The new research highlights additional considerations for policy-makers to consider alongside these traditional capital-management policy instruments (Figure 6).

First and foremost, there needs to be significantly greater management of cross-border capital flows as part of the overall development of macroprudential regulation for developing countries. As the volatility of international capital flows – as well as aid volatility – can place additional strain on macroeconomic management in LICs, CARs can be an important part of their macroprudential toolkit.

Second, financial flows should not only be defined via the traditional approach of examining FDI in the context of bank lending and portfolios. Rather, this differentiated approach to the quantity and quality of flows should be deepened, not least due to the differential effects determined by the sectoral composition of capital flows, as highlighted in this report. This suggests a need for policy to boost finance to those sectors that are key to structural transformation, such as manufacturing, agriculture and SMEs. However, policy-makers should be cautious about directed credit policy, as results have been mixed, with success largely down to

**Figure 6**  
Capital-account regulations, 1995–2015



SOURCE: OCAMPO AND GRIFFITH-JONES (2018B)

country-specific contexts.<sup>14</sup> A better approach for most LICs would be to focus on the broad business and macroeconomic environment and the demonstration of profitable business models – as noted earlier in relation to demonstration projects and ‘impact accelerator’ funds – to create incentives for private finance to invest. However, what would be effective in this regard remains an area for further research.

Third, the lack of domestic savings is not the only constraint on growth in these economies, as implicitly assumed in the benchmark neoclassical framework, but also a lack of governance and the necessary institutional framework (Prasad and Rajan, 2008). As discussed, for capital inflows to have a beneficial effect on economic growth, there need to be intermediation and allocation channels in the form of effective financial institutions and markets, as well as effective governance structures more generally (Kose et al., 2009).

It is also important to highlight those policies that should *not* be implemented in relation to international capital flows. In particular, there needs to be a prudent approach to sovereign borrowing from the international capital markets and a further deepening of institutional capacity in government institutions where debt management and assessing debt sustainability are concerned. The consequences of failure to implement such preventative policies has been seen over the past five years in certain sub-Saharan African countries, which borrowed excessively through eurobonds, leading to potentially unsustainable debt levels relative to GDP and, in some cases, debt repayment problems.<sup>15</sup>

Avoiding such excessive and pro-cyclical borrowing in the first place, in both the sovereign and private bond markets, is important, especially as there is a growing amount of finance coming

from the private sector. International private investors, in the event of payment problems, are less likely to embrace debt forgiveness and more likely to seek other forms of redress. For example, in the past two years, developing countries that have defaulted on international private debt have seen creditors seeking to seize national assets or establish claims on future revenue streams from natural resources.<sup>16</sup> Such problems threaten inclusive economic growth by creating long-term fiscal liabilities that will need to be financed before fiscal revenues can be applied to the SDGs in the affected countries. This potentially creates a new version of the ‘debt trap’ for developing countries.

### How can policy-makers address the trade-off between deepening and stabilising the financial system, including the adoption and implementation of new international financial regulations in low- and middle-income countries, specifically Basel III?

As discussed in section 5, there is some ambiguity about the advantages for developing countries of fully adopting the Basel regulatory framework. Overall, developing countries should pursue the adoption of Basel II or III with caution and implement only those components that address key risks in their banking sector. Adoption should tally with countries’ supervisory capacity and involve a tailoring and rewriting of standards, rather than a ‘copy-and-paste’ approach, so that standards are carefully adapted to local circumstances.

One argument for international standards, including for their adoption in developing countries, is the increasing role of and need to regulate cross-border banks, supervised by both home- (parent bank) and host-country

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14 Historically, such policies have been successful, for example, in Ethiopia and East Asia during early-stage industrialisation. However, these countries have specific political and economic contexts that are, arguably, unlikely to be replicated (see for example, Vittas and Cho, 1995; 1996; Hagos and Asfaw, 2014).

15 Examples of this are evident in Ghana, Nigeria, Mozambique and Zambia. All are experiencing surges in their debt-to-GDP ratios, as they issued eurobonds denominated in US dollars, often deemed the ‘original sin’ of debt sustainability. Sharp depreciation in these countries increased the cost of interest and principal repayments in local-currency terms, raising concerns about debt sustainability and the high level of public revenues going to finance debt rather than other public expenditure (Financial Times, 2018b).

16 This has been the case in Sri Lanka and Mozambique. In Sri Lanka, overdue payments on loans from private Chinese firms (as part of China’s Belt and Road Initiative) for infrastructure development have been repaid by grants of 99-year leases on the national port and airport. Mozambique has been asked to secure future revenues streams from the development of national gas reserves to repay international private creditors following default (Financial Times, 2017; 2018a).





(subsidiaries) regulators. Such standards would create a foundation on which to exchange information, coordinate action and, more generally, create trust among supervisors. Developing-country regulators, in their role as host supervisors, face additional challenges – for example, when they are host to systemically important subsidiaries of multinational banks. Such subsidiaries are a tiny part of the overall operation of the parent bank, leading to asymmetries in information and interests between home- and host-country supervisors.

The increasing need for home-host regulatory and supervisory cooperation has repercussions for regulators in developing markets beyond any decision whether to adopt Basel II and III. While the externalities of the failure of a cross-border bank and other cross-border linkages between financial sectors clearly make a case for closer cross-border supervisory cooperation, collaboration may involve other costs, especially if the costs of bank failures vary from country to country, or nations use different legal and regulatory frameworks (Beck and Wagner, 2016).

There may thus be a trade-off between the economic benefits and costs of closer cross-border supervisory cooperation. In recent DECPG research, Beck et al. (2018) collected data on bilateral and multilateral supervisory cooperation agreements to test this hypothesis. Specifically, for a sample of 95 countries across Europe, the Americas and Africa, they gathered data on the existence of Memoranda of Understanding, colleges of supervisors, joint crisis-management groups and supranational supervisors (as recently established in the Eurozone). They found that proxies for bilateral cooperation gains resulted in: (a) an increase in the likelihood of cooperation, (b) an acceleration of the adoption of cooperation and (c) an increase in the likelihood of intense forms of cooperation.

This is a significant issue in Africa, where regional banks are playing an increasing role and countries have found themselves in the role of both home and host supervisor (Beck et al., 2011; 2014). This has spurred closer cooperation, not only between African and European supervisors (still home to several large

cross-border banks in Africa), but also between African supervisors. At the regional level, the Community of African Bank Supervisors has been established as a mostly consultative group, while at the sub-regional level closer cooperation has developed, for example, in the East African Community (EAC).

While the focus of discussions on macroprudential regulation in advanced countries has been mostly on constraining domestic credit flows, and the focus on systemic capital buffers for large multinational banks has been mostly from the perspective of home supervisors, the emphasis in developing countries has been broader. As capital flows in many developing countries are often channelled through banking systems, macroprudential tools can play an important role in macroeconomic management. These should include broader categorisations of macroprudential instruments, including capital-account restrictions (Claessens et al., 2013).

In conclusion, the last post-crisis decade has yielded important lessons and insights, not only for advanced economies at the core of the financial fragility, but also emerging and developing countries.

The above-mentioned ‘economic-thought cycle’ has shifted to a careful balance of private and public funding, partnership between donors, receiving countries and private sector, but also to new policy tools. The discussion has moved beyond who performs better or fails less – the government or the market – to a more pragmatic, context-specific approach.

As such, more nuanced policy approaches are needed that are tailored to the risks and opportunities for developing countries, especially as they increasingly seek to attract international private finance and mobilise domestic resources to deliver the ‘billions to trillions’ necessary for inclusive economic development and achievement of the SDGs.



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## 7. From research findings to research gaps: next steps

The research findings cited in this report have significantly advanced the debate surrounding its key topics. However, they also highlight considerable research gaps and unanswered policy questions for future research.

In this section, we discuss three key questions that require attention to maximise the positive role of domestic financial systems and international capital flows for structural transformation, economic development and poverty alleviation. We also emphasise the urgent need for interdisciplinary work in two key areas.

### Which policy approaches will accelerate domestic non-banking financial development in low-income countries?

Most of the research on financial sector development in LICs has focused on banking, for two reasons: (1) banking dominates these financial systems, with public capital markets very shallow and non-bank financial institutions, such as pension and life insurance providers, underdeveloped, and (2) even where these non-bank segments of the financial sector exist, little data is available for analysis.

However, public capital markets and non-bank financial institutions offer an opportunity to mobilise and diversify the financial sector and intermediate the long-term finance needed for enterprise investment, infrastructure and housing, thus, ultimately, structural transformation (see Beck et al., 2011, for the case of Africa).

As noted in section 6, policy that supports such financial development is an important variable in the mobilisation of domestic resources and there has been research on these topics in recent years. It includes an exploration of nascent stock exchanges, many of them in LICs and the challenges they face (Albuquerque de Sousa et al., 2016), ongoing data-collection efforts on long-term finance in Africa, jointly funded by the African Development Bank (AfDB), Germany's Gesellschaft für Internationale

Zusammenarbeit (GIZ) and the DFID-funded FSD Africa programme, and an examination of the development of life insurance markets in sub-Saharan Africa (Tyson, 2015b).

We would recommend that this work be extended to include a closer examination of how domestic savings can be mobilised into financial assets through domestic capital markets and non-banking institutions, including the role of policy and regulation.

### How can LICs combine the mobilisation of international private capital with stability?

As discussed, there is an urgent need to mobilise large-scale international private capital for economic development, but this can also entail financial-stability risks. As also mentioned, the policy options are limited for LICs when it comes to capital-flow management. Further research is needed to compare different approaches to the regulation of cross-border capital flows, including drawing on historical comparatives on a cross-regional basis.

There also needs to be research on the policy effectiveness on macroeconomic financial stability of recent policy initiatives to provide risk mitigation in various forms, including through co-financing and specialist DFI seed-funded financial institutions.

The goal of this research should be to make the assessment of financial-stability risks a core part of policy execution in the mobilisation of international private finance.

### How does finance interact with structural economic transformation?

As highlighted in this report, the quality of finance is as important as the quantity. Quality includes the contribution of finance to structural change in an economy and, specifically, to productivity increases. The findings cited in this report suggest that the sectoral composition

of FDI matters in terms of its ability to boost productivity. This has important implications for policy, as it suggests that there should be active policy to direct FDI into selected sectors.

However, further research is needed in two areas. First, the nature and direction of the relationship between FDI and productivity growth needs to be clarified. Second, there needs to be an examination of what policy is effective in achieving sectoral differentiation of finance. What makes the latter particularly relevant is that, although development banks are a policy option, in reality they have often proved ineffective. Further research is needed to assess what factors determine the effectiveness of development banks and to compare them to recent innovative policy approaches that ‘nudge’, rather than direct, credit to key sectors for inclusive economic growth, especially in LICs.

We would recommend that further theoretical and policy-focused research be commissioned in relation to both of these issues.

## The potential for interdisciplinary collaboration

The analysis in this report highlights where work on financial-sector development intersects with our understanding of the real economy. Two areas stand out as requiring interdisciplinary collaboration.

First, an important topic is the role of China in many African (often, but not always, linked to commodity exports and infrastructure construction) and Asian countries (as part of China’s Belt and Road Initiative). China’s government and financial institutions have lent heavily to governments across these two continents. At the same time, Chinese financial institutions are not yet complying with many international financial and governance standards. This raises important questions on the resolution of any future corporate and sovereign debt crises in these countries. Further research is needed to bring this key issue to the fore, including quantitative analysis of the extent and cost of Chinese finance, as well as an assessment of its benefits and costs for economic development and environmental standards, also in relation to climate change, leading to policy recommendations.

Second, while the importance of finance for structural transformation has been recognised, researchers continue to work in ‘silos’, with limited connection to financial economists and macroeconomists and almost no connection to agricultural or manufacturing economists, for example. A more holistic approach that brings together experts from different areas is urgently needed.



BUSTLING KABALE, UGANDA: REAL TELECOM, HONEST DAIRY, SILVER GENERAL, TRADERS, MIAMI SALON & DRIVING SCHOOL. PHOTO: APRIL 2 2011, ADAM COHN.

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