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# Private Enterprise Development in Low-Income Countries

**A CEPR / DFID Research Initiative**

**RESEARCH STRATEGY 2017-2020**

## Research Strategy 2017-20

It is impossible for large numbers of people to be lifted out of poverty without sustained growth, and impossible for a country to experience sustained growth without a vibrant private sector. Each underdeveloped private sector is underdeveloped in its own way. Some dysfunctional domestic private sectors coexist with dynamic export sectors. Some are in countries which are conflict ridden or prone to natural disasters. Some lack small and medium-sized enterprises, while others have dynamic small firms which fail to grow into larger firms. A research programme which can inform policies for private sector development must therefore address a variety of issues and incorporate a variety of approaches.

These approaches must, however, reflect one key aspect of growth dynamics: sustained growth which leads to rising income and creation of jobs is impossible to achieve without growth in productivity. Innovation is a key to productivity improvement, and innovation can take many forms. Sometimes new industries can be traced to a single, significant leap. Klepper and Mostafa (2016, forthcoming) trace the success of the garment sector in Bangladesh to the entry of Desh and its partnership with Daewoo in 1978. Atkin et al (2016a, PEDL) conduct an experiment among carpet producers in Egypt which provides randomly selected producers with access to export markets. They find that the firms experience rapid increases in productivity through “learning by exporting.” These are examples of discrete changes in circumstances that produce discrete changes in productivity. Hendel and Spiegel (2014) instead show the power of small innovations accumulated over many years. Using data from a large scrap steel mill, they document steady productivity increases of two per cent annually without any single substantive change. Growth in their steel mill comes from continuous learning by employees. Atkin et al (2016b, PEDL), however, show that the details of labour relations can affect incentives to adopt new innovation. Piece rate contracts in the ‘soccer ball’ sector in Pakistan give production workers incentives to resist technological changes that involve even short periods of learning.

Several recent and influential papers show that productivity varies substantially across countries and industries, and even within industries across firms (Hsieh and Klenow 2008). While productivity is lower in low-income countries, the substantial variance within countries implies that firms and even sectors which are highly productive coexist alongside firms and sectors which are much less productive. Understanding why this is the case, and why productivity does not “percolate up” is an overarching goal of PEDL. Bloom and Van Reenen (2010) show there is substantially more dispersion in management practices in India and China than in the United States and northern Europe, and Bloom et al (2013 and PEDL) demonstrate a very high correlation between management practices and income per capita at the country level. In particular, they show that management practices lag by some distance in sub-Saharan Africa. Hsieh and Klenow (2009) present evidence showing more dispersion in total factor productivity in India and China, compared with the United States. Measured either by management practices or productivity, we see a much thicker left-hand tail of low-productivity firms surviving in China and India. Available data suggest that productivity dispersion is also very high, and management practices weak, in sub-Saharan Africa and other LICs.

The evidence on management practices and productivity suggests that not all markets exert pressure on firms to improve productivity. Why should this be so? A well-established literature shows the role of underdeveloped financial markets and regulatory barriers in suppressing entry. (See, for example, Djankov et al 2002, Beck et al 2008.) But differences between markets in high-income and low-income countries are much broader and more fundamental than finance and entry costs. There is a greater reluctance in low-income countries to switch trading partners, even for standardised products. (See, for example, Johnson, McMillan and Woodruff 2002.) Information about reliability of firms and products is poor and closely held. Formal legal remedies for contractual non-compliance are slow, expensive and unreliable. Decision-making is more centralised because owners are unwilling or unable to delegate responsibility outside a narrow circle, often limited to family members. Finally, macroeconomic instability and high levels of uncertainty more generally magnify these failings, increasing the perceived costs of establishing new trading relationships (McMillan and Woodruff 2002). Extreme instability is a feature of many low-income countries, especially in conflict ridden areas where the state is unable to maintain basic order. In dysfunctional states, public governance of private sector trading gives way to creation of non-state institutions, which are often imperfect substitutes (McMillan and Woodruff, 2000).

All of these factors result in higher levels of friction in markets in low-income countries, which make markets less competitive and so tempers the selection pressure exerted by well-functioning markets. The cost of switching trading partners is high, and, as a result, the demand faced by any individual firm is less elastic. Firms that increase productivity do not gain market share; firms that fail to increase productivity are not forced out of the market. Where reducing costs instead leads both to higher margins and greater market share, the incentive to reduce costs will be greater. Where reducing costs is required for survival, this incentive is even greater. Understanding market frictions is also key to understanding incentives firms face to undertake innovative activities to stay ahead of the competition. The pressure to innovate to stay ahead of the competition creates a dynamic of firm growth and job creation.

The overarching goal of more robust private sector development is to increase income and wellbeing of citizens of lower-income countries. This implies that we pay attention to more than simply growth. Private firms are the most important determinant of the demand for labour in an economy. Similar levels of firm growth may be associated with different levels of formal employment growth depending on choices of technology, costs of hiring permanent labour, and other related factors. We must also understand how and why private sector development leads to the creation of jobs that are fairly remunerated, and in which rights of workers are respected.

## **Four Research Themes**

Research can inform policy by illuminating the costs of continuing existing policies or the benefits of policy changes. Randomized control trials (RCTs) have been particularly effective in this regard. This proposal recognizes the value and contribution of RCTs, while also recognising their limitations. While RCTs are excellent tools for understanding individual decision-making, we believe an understanding of growth processes requires analysis at a more systemic level than is typically possible with RCTs. We will encourage work which incorporates a general equilibrium framework, and which explicitly accounts for the interactions of market participants. For example, recent empirical methods combining rigorous causal identification and structural techniques illuminate the employment spillovers and distributional consequences of policies. These theory-based approaches provide the possibility of understanding how constraints interact, and how particular sectors have been able to grow by overcoming those constraints.

We propose a research agenda focusing on private-sector development in LICs, organised around four specific themes. All of the research will be motivated by the need to develop a better understanding of what determines the strength of market forces driving efficiency in low-income countries and, importantly, how policies affect the efficiency of markets and the incentives faced by entrepreneurs. Because research tools and available data are constantly changing, we would expect the specific questions addressed to evolve over time.

The agenda builds on the research agenda from the first period of PEDL, recognising both the now-significant body of research on some questions and the remaining gaps in other areas. For example, there is now a significant and still growing body of research on microenterprises, but at the same time, only a limited literature on high-growth micro-entrepreneurship. For this reason, we have revised the third theme on microenterprises to narrow the focus to high-growth entrepreneurship. Similarly, in the first phase of PEDL, we received a robust number of proposals on the cross-cutting themes of fragile states and gender, but a more limited number on social and environmental compliance. As these are important topics, not least as they relate to the creation of high-quality jobs, we have therefore elevated social compliance and the environment to its own targeted theme. The result is an agenda which encompasses both continuity and change. The central issues of market frictions and international trade remain part of the core focus. Other areas evolve to incorporate a decreasing need to stimulate research on some topics but remaining gaps on other topics.

### **1. Market frictions, management and organizations**

Well-functioning markets provide discipline for entrepreneurs, managers and investors. Competition increases incentives for efficiency and for innovation. But markets in LICs often do not function well. Weak institutions, missing information, and concentrated markets limit competitive pressure. Firms are often unwilling or unable

to switch trading partners, undermining incentives. There are several key research issues embedded in this theme.

First, there is important work to be done on the microstructure of markets in LICs. This work will detail both inter-firm relationships and relationships between firms and consumers. The industrial organization and organizational economics literatures provide theoretical structures for understanding markets and cross-firm relationships. Models of imperfect contract enforcement and imperfect information are relevant for any economy, but especially so for LICs.

Within firms, recent research by Bloom, Van Reenen and collaborators (e.g., Bloom and Van Reenen 2010) highlights the importance of management in generating productivity increases. PEDL-funded work on management practices in Sub-Saharan African firms reveals very weak management practices there. (See Bloom et al 2013.) While the well-publicized consulting intervention (Bloom et al 2012) in India generated gains in productivity, the scalability of the intervention itself is a concern. While more work on management in LICs is needed, follow-up work needs to focus on how smaller-scale interventions can generate a dynamic of continuous improvement in management.

Work on both firms and markets is increasingly supported by the availability of detailed microeconomic data. Detailed data, such as transaction-level export/import data and Scantron data on purchases, are now more widely available in low-income countries. Combined with recently developed empirical methods which combine rigorous causal identification with structural estimation, these data have the potential to dramatically increase our understanding of the effect of specific policies on growth. Recent examples of this strategy is the work by Atkin et al (2016c) on the effect of large retailers in Mexico and the work by Faber and Gaubert (2016) examining the impact of tourism on growth in Mexico. Much of the work using these methods comes from high- or middle-income countries, where the necessary data were available earlier. But these data are increasingly available in low-income countries. These data dramatically expand our ability to examine markets at a very detailed level and to contribute to policy debates by shining a spotlight on both successful development policies and dysfunctional markets. The methods also allow researchers to measure the general equilibrium effects of specific reforms, including aggregate net job creation measures which take account of spillovers.

Examples of the questions that might be addressed in this theme are:

- How do market frictions affect the incentives of the owners and managers of firms to innovate and increase productivity?
- How do mechanisms which firms devise to govern their trading relations in fragile and conflict affected states (FCAS) affect market frictions and competitive environments?
- What are the effects of weak institutions? Do they limit the ability of firms to provide strong incentives to trading partners and employees? Do they encourage firms to make sub-optimal technology choices, and discourage firms from creating jobs?
- How can policymakers in LICs strengthen institutions important to the private sector, and what are the constraints to doing so?
- What are the general equilibrium effects of specific policies, particularly as they relate to job creation and distributional effects?

## **2. Trade and macro models - agglomeration and spatial location of firms**

The World Bank's Growth Commission report notes that no country has enjoyed long periods of sustained growth without an active foreign trade sector. Evidence suggests that exporters and MNCs play a role in aggregate growth which is disproportionate to their share in output. First, MNCs, and exporters more generally, are a conduit for knowledge transfers that may (to varying degrees) spill over to the rest of the economy. Because export markets are highly competitive they provide very strong incentives for productivity improvements;

because foreign consumers often have a higher willingness to pay for quality, exporters also face stronger incentives to upgrade both capital and labour used in production.

In spite of business environments which are hostile, there are many dynamic, growing sectors in LICs that are driven primarily by exporters - garments in Bangladesh, information services in India, and cut flowers in Kenya, to name a few. Ethiopia has had noted success in recent years in attracting foreign investment.

The focus on foreign trade overlaps in important ways with the first theme on market frictions, a point illuminated by recent work of Atkin and Donaldson (2015). They examine how the effects of trade reform vary across markets in Ethiopia and Uganda. Variance comes from distance from international entry points determines the effects of trade, but they account for differences in the competitiveness of local markets as well. Their analysis shows that domestic trade costs are roughly four times as high in Ethiopia and Uganda as they are in the United States (their benchmark case), providing an important input for understanding the value of infrastructure investments.

Examples of the questions which might be addressed in this theme are:

- What is the role of MNCs in the development of new export-orientated sectors, and how and when do domestically-owned firms enter these sectors?
- Does the need to produce higher quality goods for the export market have important spillovers for the domestic sectors, either through training of workers or demand for more efficient local partners?
- Which sectors of society benefit from export sectors, and what policies can help ensure that the benefits extend to households in the lowest income deciles?
- What is the relationship between export sectors and the overall business environment? Do exporters create pressure for better institutions?
- How effective are policies like Special Export Zones, credit programmes or tax incentives for exporters?
- Can export sectors survive in fragile and conflict affected states?

### **3. High growth entrepreneurship**

A majority of the labour force in LICs works in firms with fewer than five workers. But we know from both cross-country and time-series evidence that the process of development is associated with a decrease in the share of the labour force that is self-employed and an increase in average firm size. Most small scale entrepreneurs in LICs are motivated by subsistence, with little interest in or prospect for sustained growth. Microenterprises receive a substantial amount of attention from researchers, but only a small part of that research focuses on entrepreneurs with a greater potential for growth. We know from several recent experiments that neither small amounts of capital (grants or micro loans) nor training generate sustained growth, though capital grants appear to raise income levels (De Mel et al 2008; Banerjee et al 2015; McKenzie and Woodruff, 2012.) But there is also evidence that selection matters. We see larger effects where the pool of participants is skewed toward those with more ambition or ability (McKenzie 2015; Anderson-MacDonald et al 2014 and PEDL.) Quite plausibly, policies which help raise income of subsistence entrepreneurs will not be appropriate for more dynamic entrepreneurs. We need both tools for selecting entrepreneurs with more potential for growth and policies designed to help those entrepreneurs grow.

What constrains growth of the most dynamic microenterprises, and what institutions and policies help to overcome those constraints? There is evidence that financial constraints have particularly strong effects on small firms. Finance also has also been shown to be particularly important for smaller firms, with not only banks but also angel investors and venture capitalists playing a potentially important role, at least in middle- and high-income countries where they are more active (Kerr et al 2014; Lerner et al 2016).

From an aggregate growth perspective, the most important issue is understanding where larger enterprises come from in LICs. Do they grow from micro and small enterprises, or start as larger firms? (See, for example,

the evidence from five African countries in John Sutton's Enterprise Maps project.) What are the policies that stimulate, and the constraints that limit, their creation? We focus on the subset of these enterprises with the potential for sustained growth because these enterprises are also an important source of job creation. Using data from the World Bank Enterprise Survey, Ayyagari et al (2014) show that firms with fewer than 100 employees contribute disproportionately to employment generation. This paper showcases both the promise and limitations of the available data. They use a sample of almost 50,000 establishments in 104 countries which is reasonably representative of formal private firms in each country. But the data are from cross-sectional surveys meaning that firm dynamics are constructed from recall and, crucially, that only surviving firms are included in the sample. These characteristics should raise concerns about conclusions related to firm dynamics.

Using much higher quality data from the U.S, Haltiwanger and collaborators (see, for example, Haltiwanger 2012) show that the effect of firm size disappear once they control for firm age. In other words, it is young firms rather than small firms that create jobs. Young firms are the source of most job growth in the United States because, in an "up-or-out" dynamic, these firms tend to either grow quickly or exit. Young firms are small and have very high exit rates, so the quality of the data matter here, particularly the ability to track firms that exit and the better tease out the effects of age and size independently, neither of which is possible using the WBES data. The U.S. evidence, at least, suggests that what is important for job creation from a policy perspective is identifying and releasing rapidly-growing young firms rather than supporting small firms per se.

A lack of data constrains research in this area. There are few panel data sets of firms in LICs or even in lower-middle-income countries. Ethiopia and India are partial exceptions, though the Ethiopian Manufacturing Census data cover only large formal enterprises and the Indian Annual Survey of Industries covers only firms with more than 10 employees. The Global Entrepreneurship Monitor (GEM) data provide survey data on entrepreneurs in a large number of countries. These data represent an opportunity for researchers, and through a collaboration between PEDL and IDRC, we expect to be able to make all of the GEM data available to researchers for PEDL-funded projects. Going forward, perhaps the data constraints can be overcome by unlocking administrative data currently inaccessible to researchers. Alternatively, we will look for projects which involve clever, cost-effective, ways to obtain the data needed to answer interesting questions in this area. Sutton's Enterprise Maps, creating life histories of large firms in selected countries, is an example of such an approach.

Questions that might be addressed in this theme are:

- Where do large firms come from? Are they born large, or do they grow from micro or small enterprises?
- Can Angel and Venture financial markets function in LICs, in spite of more limited exit options for early stage investors?
- How can entrepreneurs with high growth potential be identified, and what policies best support their growth?
- Are incubators and other programmes designed to develop innovative small enterprises effective?

#### **4. Social compliance and the environment**

Creation of wage jobs is an important outcome of a healthy private sector. But while creation of wage jobs is desirable, creation of desirable wage jobs should be the goal: jobs that are fairly remunerated with safe working conditions. There is evidence that export-oriented firms pay a wage premium in many countries. But by itself, the wage premium may not make factory jobs desirable. Turnover rates are often very high, especially among new factory workers. Initial results from an on-going project by Blattman and Dercon (2016), for example, indicate that low-skilled workers in Ethiopian factories are unlikely to remain in jobs for even a few months. More worryingly, Blattman and Dercon provide some evidence of negative health effects from even the fairly limited exposure to factory work.

In export sectors, we need to understand how demands for social compliance are reflected through brands to

local producers in LICs. Labels like Fair Trade are one means through which consumers can be informed about treatment of suppliers and their workers. There is little credible evidence on the effectiveness of labelling.

A key question is how social compliance interacts with productivity. The answer is not obvious. A simple view would hold that compliance standards constrain the behaviour of producers. Constraints are generally associated with higher production costs. But recent work by Distelhorst et al (2016, forthcoming) finds that lean production techniques lowers rates of labour complaints by workers while apparently also increasing productivity. (The researchers do not study efficiency themselves, but rely on company reports.) However, they find that lean production has no effect of health and safety standards.

Certain types of workers often face more hostile work environments. Women and minorities, for example, may face discrimination with regard to career advancement. This may result in lower firm productivity, but there are issues of fairness and justice even when this is not the case. Women may also be subject to sexual harassment and other issues related to safety. These are important aspects of social compliance which need to be better understood.

Another aspect of social compliance is adherence to acceptable environmental standards. Weak institutions mean that government environmental regulation is often lacking (Duflo et al, 2013, for example). Environmental compliance may be enforced through buyers. But some “green” programmes may actually be productivity enhancing. For example, Adhvaryu et al (2016, PEDL-funded) find that the majority of the benefits arising from replacement of fluorescent lights with LEDs in an Indian garment factory come not from reduced electricity bills, but from increased production. The LEDs produce less heat, lowering the temperature in factories. This is particularly important in hotter months, and presumably improves worker wellbeing at the same time.

Examples of questions relevant to this theme are:

- How are preferences of consumers in destination countries transmitted to firms in lower-income countries?
- What is the relationship between social compliance and firm productivity? Does treating workers better improve their productivity?
- Women, minorities and youth are often subject to abuse and discrimination in work situations. How can the quality of work be improved and monitored for these groups?
- Are labels like Fair Trade and social compliance certification schemes like WRAP effective in protecting worker rights?
- How can environmental protections be ensured even in countries with weak enforcement institutions?

## Cross-cutting themes

We propose three cross-cutting themes: **Gender; Fragile and Conflict-Affected States; and Unlocking Data for Understanding Markets and Firms.** Applicants will be particularly encouraged to consider these three issues in their projects, and proposals addressing these themes have an increased chance of receiving funding.

### *Gender*

In Africa and south Asia, women are more likely to own businesses than to be wage workers, while the opposite is true for men. (See Figure 1 in Hallward-Driemeier, 2011.) At a global level, gender employment and wage gaps have closed somewhat over the past several decades. But reviewing evidence from Sub-Saharan Africa, Hallward-Driemeier (2011) notes that female entrepreneurs are “disproportionately found in smaller firms, in the informal sector, and in lower-value-added industries (page 67).” The explanations for this are both numerous and varied. Differences in human capital, disproportionate shares of household responsibilities, access to

capital, land rights, and access to formal institutions such as courts all play a role in some settings, but some part of the gap appears to come from differences in policies related to access to formal institutions.

While gender differences are sometimes the outcome of interest, they are almost always relevant even when they are not. Making gender a cross-cutting theme recognizes this fact. We seek to encourage researchers to take gender into account in every project. In this regard, the first phase of PEDL was successful in generating a large number of high-quality proposals in which gender was a serious consideration.

#### *Fragile and conflict-affected states*

An increasing share of the world's poor are found in fragile or conflict-affected states. Many of the largest low-income but stable countries have experienced rapid growth in the past two decades, lifting them to lower-middle income status. But private sector development is particularly challenging where the state is fragile or conflict is common. Trust between potential trading partners is particularly difficult to maintain, as formal enforcement of agreements is undermined by the weak state, and the ability to honour agreements is compromised by unpredictable outbreaks of violence. Existing literature suggests that there is a complex relationship between growth and conflict in fragile states. (See, for example, Dube and Vargas (2010), which shows that increases in coffee (oil) prices led to decreases (increases) in the intensity of civil conflicts in Colombia.) Given the increasing relevance of conflict-affected areas as home to the world's poorest, we seek to encourage work in fragile states.

#### *Unlocking data*

A key to drawing new researchers into topics of private sector development in LICs is making relevant data more widely available. Of course, the data generated by any project must be made available to other researchers to the extent allowed by confidentiality or purchase agreements. But data generated by projects are not all equal in this regard. Where researchers can make a case that the data generated by their project is likely to be of particular interest to other researchers, we will consider providing additional funding to allow the researchers to make the data more accessible to the research community.

The past few decades have seen a much steeper fall in the cost of collecting data than the cost of analysing data. Those circumstances provide an opportunity for researchers. Governments and private firms may be willing to share data in return for providing analysis which is useful to the government agency or firm. A key is making these data more widely available. This may be accomplished by anonymising in a straightforward way or through creation of secure data centres where the capability exists and the circumstances merit. Examples include administrative data from government agencies, industry associations, or private firms. Making these data available leverages the effort or connections of the initial research team to generate additional research by scholars who would otherwise be unable to access the data. We view this as having potential to increase the size of the research community engaged in work on private sector development.

## **Maximising policy impact**

The value of the research generated by PEDL must be measured foremost through the influence the research has on policies in the target countries. There is a wide range of relevant policymakers, and the most important policymakers will be different for different projects. Researchers will be encouraged to think in terms of policy leverage: who are the relevant policymakers and what are the most effective levers for inserting research into the policy discussion? For example, on topics of social compliance, foreign buyers, consumer groups in importing countries, and aid agencies (both bilateral and multilateral) are likely to be more important policymakers than are local actors. Leverage in the target countries is likely to flow from consumer groups through buyers to local producers. But for research related to competition policy, government agencies in the target countries are likely to be the most important decision makers.

The “policies” goal of the research programme is to influence policy outcomes as they relate to the private sector in LICs. Regardless of which policymakers are most relevant for a given project, policy impact requires dialogue between researchers and policymakers during all phases of the project, beginning with initial design.



While not all PEDL research will be explicitly demand driven, it must be policy relevant. Applicants will be required to identify the set of policymakers relevant to their project and to demonstrate how they will interact with those policymakers before, during and after the research. The interaction may be through individual meetings, conferences and workshops, or through written documents. But communication must start at the beginning of the research project and continue until the final results of the research are available. PEDL and CEPR will play a role in supporting the researchers through the production and dissemination of research notes, the organisation of conferences and workshops spanning multiple projects, and VoxDev. We will look for both a direct impact, on policy in the country where the research takes place, and an indirect impact, on policy in the broader set of LICs.

Researchers will be responsible for communicating their impact strategy through a Policy Impact Plan (PIP). This must be included as part of the research proposal, and the quality and feasibility of the PIP will be one of the evaluation criteria. The PIP will define a plan for outreach to the members of the policy community and private sector most directly interested in the research (which will depend on the country and the thematic focus). Involvement of locally-based researchers - who are highly likely to have established relationships with key members of the policy community and the private sector in the LIC - is one way of increasing the likelihood of policy impact, and we will encourage proposals which integrate researchers based in LICs. While the PI will take lead responsibility for policy outreach within the country where the research takes place, CEPR will advise and assist in the process where and as needed.

Funded researchers will be expected to have regular briefings with local stakeholders, which will be scheduled to take advantage of visits by the research team to the country. We are happy to note that the experience from the first phase of PEDL indicates that engagement between researchers and policymakers was both widespread and frequent. According to grantee surveys conducted in October 2015 and 2016, 79 of the PEDL-funded research teams reported regular interactions with policymakers, ranging from informal discussions to formally-organized roundtables and presentations to discuss research processes and findings. In total, there were 180 reported events with policymakers, including at least 50 in LICs. Thanks to these repeated interactions with policymakers, PEDL projects are having a visible impact on their target research and policy environments, despite the relative youth of the PEDL initiative. While it is not always easy to trace back the source of a policy, we find at least 13 policies, programmes and practices have been strongly affected by PEDL research.