



SET SUPPORTING
ECONOMIC
TRANSFORMATION

Supporting economic transformation

An approach paper

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Acronyms

AfDB	African Development Bank
AfT	Aid for Trade
AU	African Union
CAADP	Comprehensive Africa Agriculture Development Programme
CGE	Computable general equilibrium
DFI	Development Finance Institution
DFID	Department for International Development
DHS	Demographic and Health Surveys
ECOWAS	Economic Community of West African States
EPZ	Export Processing Zone
EPZDA	Export Processing Zones Development Authority
ERD	European Report on Development
FDI	Foreign direct investment
FLFP	Female labour force participation
FLFPR	Female labour force participation rate
GDP	Gross domestic product
GNI	Gross national income
GVC	Global value chain
HS	Harmonised System
ICT	Information and communications technology
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
IPA	Investment promotion agencies
JICA	Japan International Cooperation Agency
LGAF	Land Governance Assessment Framework
LIC	Low-income country
MFA	Multi-Fibre Arrangement
OECD	Organisation for Economic Co-operation and Development
PSF	Private Sector Federation
RER	Real exchange rate
RHS	Right hand side
SEZ	Special Economic Zone
SME	Small and medium enterprise
TFP	Total factor productivity
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa
UNIDO	United Nations Industrial Development Organization
WDI	World Development Indicators
WDR	World Development Report
WTO	World Trade Organization

Executive summary

The quality of economic growth matters. For the majority of today's developing countries, a change of gear from steady but low-quality growth to a process of economic transformation is the only secure route to sustained poverty reduction. Supporting economic transformation involves better understanding the determinants of productivity at the micro (firm) and macro levels and showing how, under the right conditions, resources can shift from low-productivity to high-productivity uses, diversifying a country's productive capabilities, generating new sources of export competitiveness and expanding formal-sector employment. This paper explains the main concepts and methods underpinning policy discussion on economic transformation and sets out an approach to analyse and tackle the challenges it poses.

After a brief introduction, Section 2 of the paper presents a simple definition of economic transformation rooted in the recent academic literature. Economic transformation is understood as **a continuous process of (a) moving labour and other resources from lower-to higher-productivity sectors (structural change) and (b) raising within-sector productivity growth.** Within-sector productivity growth entails the adoption of new technologies and management practices that increase the efficiency of production. It can be brought about by increasing the efficiency of existing firms or by reallocating resources away from less productive firms towards more productive firms. Enhanced productivity typically also involves trade and production diversification and increased value addition in export activities, especially those serving large and continuously expanding markets such as manufacturing.

Section 3 reviews **practical ways to measure economic transformation**, taking into account the quality of the available data. A framework is proposed that allows researchers to decompose labour productivity growth into a within-sector component and a between-sector component. Other measurement issues discussed deal with export diversification, value chains and value addition in exports. Using the above definition and a range of relevant measures, it has to be concluded that today, a large number of low-income countries suffer from **more or less severe transformation deficits**. That is, the recent pattern of economic growth involves little structural change and hardly any within-sector productivity growth.

As Section 4 argues, the economic transformation agenda makes greater demands on policy-making and implementation than simply sustaining growth. Therefore, it is important to take due account of the various factors that may hinder the necessary adjustments to the policy process, including the configuration of public and private interests and incentives in the **country's political economy**.

Prescribed policy options should be realistic about the disincentive effects on investment generated by typical patterns of politics and interest-representation. They should also be aware of the scope for stepwise, cumulative change and **politically-smart interventions to address particular blockages**.

Section 5 offers a typology of policy approaches to supporting economic transformation. The types of public actions proposed in the literature divide into those intended to accelerate the relative growth of higher value-added sectors in the economy – in other words, policies to support structural change – and those intended to accelerate the pace of within-sector productivity growth. Within each of these policy sets, the literature further distinguishes between 'horizontal' or enabling interventions and targeted interventions. This produces a two-by-two classification matrix. We argue that, while a combination of policy types is likely to be needed in most cases, **the choice should be influenced by a judgement about the feasibility of making headway in spite of the identified political-economy constraints**. Whilst domestic action is in the driving seat, the international community can contribute to economic transformation in several ways, including by influencing international policy (for example, trade agreements that lower costs, or more stable and efficient banking rules) and with well-designed aid programmes (for example, building skills).

Section 6 draws together the diagnosis of transformation deficits, the policy typology and our approach to political economy by examining **the experience of five countries**. The countries include two continental African countries – Nigeria and Rwanda – that continue to exhibit severe economic transformation deficits, although for different reasons, including contrasting initial endowments, policies and political-economic fundamentals. The three other countries – Mauritius, Bangladesh and Indonesia – have all experienced greater economic transformation but in different ways, illustrating the variety of policy approaches and political economies that can support progress in transformation. **Nigeria's** large transformation deficit is traced to policies and political-economic interest configurations that generated overreliance on the country's oil wealth. The post-genocide government in **Rwanda** has committed to an ambitious catch-up strategy, now firmly based in agricultural transformation and more tentatively the development of services and export manufacturing. In **Mauritius**, a well-designed combination of enabling and targeted policies was supported by a remarkable political consensus, enabling a successful transition from plantation agriculture to manufacturing and then to high-value services. **Bangladesh**, too, has experienced significant transformation. This is

based on somewhat lopsided advances in manufacturing, and has occurred in spite of a generally unfavourable political economy. **Indonesia**, with the smallest transformation deficit in our set, illustrates that large, oil-rich countries do not automatically experience the negative economic and political effects of the ‘resource curse’. These comparisons, taken together, illustrate that there are **different pathways to economic transformation**, which rely on varied policy combinations and ways of addressing political-economic obstacles.

Section 7 concludes by presenting a multi-disciplinary approach to identifying opportunities, diagnosing constraints and mapping out realistic policy options, which countries could use to put their growth paths onto a more transformational footing. It covers questions around four dimensions of a country’s experience in economic transformation:

- What is happening? (the achievements and limits of transformation to date)
- Why is it happening? (the political economy of past policy choices)
- What should be done? (the policies needed to facilitate transformation)
- How to make it happen? (technically sound, politically smart policy support)

This four-step guided enquiry can help countries (policy-makers, donors, experts) to analyse, identify and facilitate economic transformation.

1 Introduction

As continuous and sometimes remarkably fast economic growth has become more usual in much of the developing world over recent decades, attention has shifted to the pattern and quality of that growth. Issues of concern include the sectoral and social distributions associated with the aggregate increases in gross domestic product (GDP), the low growth elasticity of extreme poverty in many countries and the weak capacity of the most dynamic sectors to generate sustained increases in productive employment. Underlying these issues is that much of the recent growth, especially in sub-Saharan Africa, has been the result of high commodity prices generating higher incomes within an economic structure that retains many features established in colonial times. Other sources of recent growth include buoyant urbanisation and the expansion of a service economy serving new upper and middle classes, without any prior transformation of staple agriculture or the emergence of a sizeable manufacturing sector. The pattern of growth is highly skewed and non-inclusive.

One way to express this is to say that countries are achieving economic growth but not economic transformation, or growth with depth (ACET, 2014). Economic transformation is understood here as a process of moving labour and other resources from lower- to higher-productivity activities. This includes moving resources between sectors to higher-value activities (e.g. from agriculture to manufacturing) but also equivalent change within sectors e.g. from low-productivity subsistence farming to high-value crops within sophisticated value chains). At the level of the national economy, it involves diversification, creation of new subsectors of activity and increased domestic value addition in trade. At the level of firms and households, it implies the acquisition of new productive capabilities and the ability to compete in larger and more distant markets on a growing scale.

Unlike the current pattern of growth in many parts of the world, economic transformation (a) generates income broadly across the income distribution, because it is more employment intensive; (b) is robust against price shocks and price cycles, thanks to diversification; and (c) increases the opportunities for future economic growth, because it creates linkages and synergies.¹ While there continue to be strong reasons for emphasising productivity gains in agriculture, especially in the early stages of development (Breisinger and Diao, 2008; Henley, 2015), convergence in labour productivity between poorer and richer countries has been fastest when investment has moved into manufacturing, because of the exceptional scope for the acquisition of new technological capabilities that is found in manufacturing activities (Cimoli et al., 2009; Rodrik, 2013; Whitfield et al., 2015).

Economic transformation is not a new concept (see e.g. Lewis, 1955); however, there is renewed interest in the concept, both in development policy debates (e.g. ECA and AU, 2014) and among those inside the academic community who have begun to analyse an improved range of datasets. Such analysis has also led to new policy insights and revival of interest in ‘industrial policy’, conceived as active promotion of structural change and new economic activities of high potential in all sectors (e.g. Chang, 2015; Rodrik, 2007). Worrall et al. (2015) discuss the policy interest in economic transformation in developing countries. The analysis of economic transformation in Africa has received new academic impetus through the work of McMillan and Rodrik (2011), who used newly available comparable datasets at sector level, developed further by De Vries et al. (2013). There is increased attention to linking micro-level data on firms and households to economic transformation issues, and on learning for competitiveness at the level of firms and clusters of firms (Newman et al., 2016).

Focusing on economic transformation involves understanding the determinants of growth and productivity at the micro (firm) and macro levels, including how – under the right conditions – resources shift to higher-value uses, and diversification of a country’s productive capabilities, including its exports. It calls for careful appraisal of the degree to which a country’s economy has already experienced some transformation and what remains to be done, as judged by the gap between the current pattern and the equivalent measures for comparable countries, or those that faced similar initial conditions. We call this the country’s transformation deficit. Before prescribing policies and policy combinations that may be technically optimal in moving the economy forward, it is realistic to

Box 1. Limited economic transformation: country experiences

Despite obvious differences in scale, history and geography, Nigeria and Rwanda exemplify situations of severe economic transformation deficit. The three other countries – Mauritius, Bangladesh and Indonesia – have all experienced greater economic transformation. They illustrate the potential for transformation in continental Africa, and at the same time illuminate the variety of policy approaches and political economies that can support progress in transformation.

Source: This paper, Section 6.

consider the deep-seated political economy factors that help explain how such deficits have arisen and survived. Experience across the world suggests that agreeing and sustaining economic policies that work for transformation is challenging and dependent on progressive changes in the ways the incentives of political and economic actors are configured. It is easiest to make headway with policy packages that are both technically sound and politically smart.

This paper sets out an approach to the above issues. It elaborates the definition of economic transformation (Section 2) and then shows how transformation can be measured, with what type of results (Section 3). Section 4 identifies the principal political-economy factors likely

to constrain the choice of policies for transformation in any given case, and makes the argument for a stepwise approach in which politically smart interventions relax the major constraints over time. We then (Section 5) present a typology to assist thinking about technically suitable policy combinations and review the potential contribution of outside policies (e.g. on trade, finance and aid). Section 6 reviews a set of country examples, paying attention to both the policy combinations adapted and the political-economy factors that have facilitated or hindered their implementation. Section 7 brings the above aspects together and describes a three-step multidisciplinary approach to diagnostic economic and policy analysis for economic transformation.

2 Defining economic transformation

There seems to be a wide consensus that economic transformation is fundamentally about raising economy-wide labour productivity, but as there are different definitions in use, this section presents a definition. The process of economic transformation involves two related but distinct processes. One is the process of establishing the conditions for structural change (shifts across sectors) (see Section 2.1), whereby the share of the labour force employed in relatively high-productivity sectors increases. This process has often been associated with a declining share of the labour force in agriculture and an increasing share of employment in manufacturing and high-productivity services. The second is raising productivity *within* sectors (see Section 2.2). The focus is on transformative within-sector productivity growth that happens as a result of shifts amongst firms in a sector as well as shifts within firms and farms through enhanced technologies such as improved seed varieties and improved management practices such as ‘just in time’ inventory management. Section 2.3 concludes by presenting a working definition of economic transformation.

2.1 Structural change

Structural change across sectors is the first process of economic transformation we consider. The idea that development would entail a decline in agriculture’s share of employment and output while manufacturing’s importance would first rise and then fall in favour of services is a generalisation that was first made as long ago as the 17th century by Sir William Petty (Clark, 1957). Lewis (1955) recognised that this process of structural change out of agriculture would be integral to the ability of developing countries to pull themselves out of poverty. Since then, a sizeable literature on the topic has emerged including early contributions by Clark (1957), Chenery (1960), Kuznets (1966) and Syrquin (1988). Most of these authors wrote about the observed pattern of the reallocation of workers from traditional agriculture to ‘modern’ industry in Europe, North America and East Asia, and predicted that other regions would follow the same development process. Thus, structural change has historically played a key role.

Recent evidence indicates that structural change has indeed played a substantial role in the productivity catch-up of developing countries to the productivity of the United States (Duarte and Restuccia, 2010). The gains are particularly dramatic in sectors more exposed to international trade. Using a sample of 29 developed and developing countries for the period 1956–2004, they find that productivity differences in agriculture and industry between the rich countries and the developing countries narrowed substantially, while productivity in services

remained significantly lower in the developing countries relative to the rich countries. Thus, developing countries with the most rapid growth rates have typically reallocated the most labour into high-productivity manufacturing, helping aggregate productivity to catch up.² Duarte and Restuccia (2010) conclude that rising productivity in industry, combined with structural change out of agriculture and into industry, explains 50% of the catch-up in aggregate productivities among developing countries over their sample period. Their sample includes very few low-income countries (LICs) and does not include any African countries.

The process of moving labour out of low-productivity agriculture and into high-productivity manufacturing or structural change is crucial for structural change. Rodrik (2013a) underscores the importance of modern manufacturing for achieving structural change using a large panel of countries. He finds that since 1960, manufacturing industries have exhibited *unconditional* convergence in labour productivity regardless of country- or regional-level factors. This finding is important because it suggests that the destination sector in which less developed countries eventually catch up with the productivity levels of developed countries is manufacturing.

The importance of structural change for economic transformation is based on the existence of productivity differentials between sectors.³ Many studies have examined the gap between labour productivity in agriculture and the rest of the economy in the past, see Herrendorf et al. (2009). For example, using cross-section data from 1996 for several countries, Caselli (2005) comes to the conclusion that three characteristics differentiate poor countries from rich countries: First, poor countries have much lower labour productivity in agriculture than rich countries. Second, they also have lower labour productivity than rich countries in manufacturing and services, though the magnitude of these gaps is not as large as those in agriculture. And finally, a larger share of the workforce in poor countries is concentrated in agriculture – the least-productive sector. Arriving at a similar conclusion – albeit for a much smaller sample of only 29 countries that notably does not include any countries from Africa – Duarte and Restuccia (2010) use a calibrated general equilibrium model to show that sectoral differences in labour productivity levels and growth explain broad patterns of structural transformation across countries.

The recent literature is also a stark reminder of the *potential* for structural change to contribute to productivity growth in countries with large gaps in productivity across sectors. For example, after carefully taking into account measurement issues, Gollin, Lagakos and Waugh (2014) report for a large sample of developing countries that

agricultural labour productivity is roughly 28% of non-agricultural labour productivity. And McMillan, Rodrik and Verduzco-Gallo (2014) find that structural change accounted for half of Africa's labour productivity growth between 2000 and 2010. However, McMillan and Harttgen (2014) note that the declines in the employment share in agriculture in Africa have not been matched by large-scale expansions in modern manufacturing.

Kuznets (1971) listed structural change or transformation as one of the six main features of modern economic growth. Kuznets (1971) and many others including Timmer and Akkus (2008) have also noted other aspects of structural transformation such as the movement of population from rural to urban areas that typically accompanies the decline in the agricultural share of employment. Timmer and Akkus (2008) go as far as to suggest that structural transformation has four defining characteristics: (a) a declining share of agriculture in GDP and employment, (b) rural-to-urban migration that stimulates the process of urbanisation, (c) the rise of a modern industrial and service economy, and (iv) a demographic transition from high rates of births and deaths (common in backward rural areas) to low rates of births and deaths (associated with better health standards in urban areas). However, while such other changes may frequently accompany economic transformation, for the purposes of this paper we will define the process of structural change as the decline in the share of resources in low-productivity sectors and the subsequent rise in resources in high-productivity sectors, as surveyed above.⁴

2.2 Within-sector productivity growth

In addition to structural change, within-sector productivity growth is the second process of economic transformation. It can happen in one of two ways. The first way is through the reallocation of resources from low- to high-productivity firms and farms within a given sector. The second way is through productivity improvements within existing firms or farms. Thus, studying within-sector productivity growth requires firm-level data. An advantage to using firm-level data is that researchers are often able to compute both labour productivity and total factor productivity, thus eliminating biases in the measurement of labour productivity that can arise as a result of differences in capital intensity. A large body of literature has been devoted to studying both types of productivity growth, and in this section we briefly review the most salient results from this literature. For the purposes of brevity, we focus here on productivity in the manufacturing sector. However, most of these results can be generalised to agriculture and services.

Roberts and Tybout (1997) have argued that very little is known about the nature of *intra*-sectoral resource reallocations that occur through producer entry, exit and market share changes. Yet, as Kuznets (1979) and Syrquin (1984) have noted, if these processes reallocate resources from less efficient to more efficient firms within the same sector, substantial productivity gains may accrue, but their source will be impossible to identify with aggregate data. Using plant-level data for Colombia, Chile and Morocco, Roberts and Tybout (1997) document a significant degree of heterogeneity in productivity across firms within the same industry. They also find that, on average, between 25% and 30% of manufacturing employment positions are churned every year through the opening and expansion

of one group of producers and the contraction and exit of another. They find that the short-run contribution of this activity to economy-wide productivity is modest because both the firms that exit and the firms that enter tend to be small. However, they also find significant productivity gains in the long run from the continual movement of resources from less productive to more productive firms.

More recently, Hsieh and Klenow (2009) use plant-level data from China, India and the US to explore differences in marginal products of labour and capital across plants within narrowly defined industry. They find much bigger gaps in China and India than in the US and interpret this as a misallocation of capital and labour. To estimate the impact of this misallocation on aggregate total factor productivity (TFP) in China and India, they perform a counterfactual exercise in which China and India are assigned the US dispersion of marginal products. They find that this reallocation would boost TFP by 30-50% in China and 40-60% in India. This means that there can be significant productivity change and economic transformation through moving resources from low to high productivity firms.

Apart from the productivity gains that come via the reallocation of resources from less to more efficient firms, there are efficiency gains associated with firm upgrading. Bartelsman et al. (2009) find that in a sample of industrial and emerging economies, productivity growth is largely driven by within-firm performance at least in the short run (roughly three years). A good deal of research has focused on the reasons for upgrading. Some of the earlier work is summarised in Tybout (2000) and World Bank (2004); this work emphasises the importance of infrastructure, informality, regulations, trade policies and human capital that reduce the productivity of firms in developing countries.

In Bangladesh, Woodruff (2014) is working with firms in the garment industry to identify sources of inefficiency within garment firms. He finds a significant degree of variance in the efficiency of production lines *within the same factory*; these differences are non-trivial as the most efficient production lines are two thirds more productive than the least efficient production lines. The reasons for this are unclear, but he and his colleagues are working with these firms to better understand the sources of inefficiency. Importantly, the presence of significant differences in productivity within firms suggests this is a key dimension of within-sector productivity change and the wider process of economic transformation.

2.3 A working definition of economic transformation

By combining the literature in Sections 2.1 and 2.2, we define economic transformation as the continuous process of (a) moving labour and other resources from lower- to higher-productivity sectors (structural change) and (b) raising within-sector productivity growth. Within-sector productivity growth entails the adoption of new technologies and management practices that increase the efficiency of production. It can come about as a result of the increased efficiency of existing firms or as a result of the reallocation of resources away from the least productive firms towards more productive firms. Our definition is in

line with Ocampo et al. (2009); see Worrall et al. (2016) for more definitions.

Changes in technology also offer an opportunity that was not available to earlier generations of countries going through the process of structural transformation. When the economic statistics currently used were drawn up in the 1950s, there was little confusion over what industry meant. At the broadest level it encompassed mining, manufacturing, utilities and construction. Of these, manufacturing, the ‘smokestack industry’, was the subject of central interest. Falling transport and communications costs, however, have created economic activities in agriculture and services that have high output per worker

and are globally traded. Some agricultural value chains and tradable services share a broad range of characteristics with manufacturing (Baumol, 1985; Bhagwati, 1984). Like manufacturing, they benefit from technological change and productivity growth. Some exhibit tendencies for scale and agglomeration economies (Ebling and Janz, 1999; Ghani and Kharas, 2010). These are ‘industries without smokestacks’, and they are an increasingly important part of global exports. This is why our definition of economic transformation also emphasises the movement from low- to high-productivity activities within and across all sectors (which can be tasks or activities that are combinations of agriculture, manufacturing and services).

3 Measuring economic transformation

In this section we discuss a framework for measuring economic transformation combining both production and trade based measures. Section 3.1 examines economy-wide changes in labour productivity, highlighting within and between sector productivity changes. Section 3.2 examines within-sector labour productivity using firm-level data. These sections also contain applications of this framework using both national accounts data and micro surveys and include a brief discussion on the use of data for these analyses. Section 3.3 discusses export diversification, value chains and value addition in exports as further components of the measuring framework. Section 3.4 concludes by proposing and assessing a simple framework for measuring economic transformation and comments on the state of economic transformation in developing countries using this framework

3.1 Economy-wide changes in labour productivity

Our measure of labour productivity growth is based on Haltiwanger (1997), and Foster, Haltiwanger and Krizan (2001), who use this decomposition to explore the relationship and dynamics between firm-level and aggregate productivity growth using firm-level panel data with high sample entry and attrition rates. Assuming that total labour productivity is given by:

$$P_t = \sum_{i=1}^n \theta_{i,t} p_{i,t} \dots \quad (1)$$

where P_t is total labour productivity in year t , $\theta_{i,t}$ denotes the proportion of total labour employed in sector i at time t , and $p_{i,t}$ denotes labour productivity in sector i at time t ; where $i=1, \dots, 9$. Then, the change in total labour productivity between t and $t-k$ (ΔP_t) can be written as:

$$\Delta P_t = \sum_{i=1}^n \theta_{i,t-k} \Delta p_{i,t} + \sum_{i=1}^n p_{i,t} \Delta \theta_{i,t} \quad (2)$$

where the first term on the right hand side (RHS) captures *within*-sector productivity changes; the second term on the RHS captures *between*-sector productivity changes; and the third term on the RHS captures cross-sector productivity changes. A negative cross term would indicate either that labour (employment shares) is moving to sectors where productivity fell, or that labour (employment shares) is moving out of sectors where productivity increased. A positive *cross* term would tell us that employment shares are growing in sectors where productivity increased, or that employment shares are falling in sectors with decreasing productivity. Productivity is expressed in real term, using real value addition data.

Combining the second and third terms in the second equation (above), we can express labour productivity growth using the following decomposition:

$$\Delta P_t = \sum_{i=1}^n \theta_{i,t-k} \Delta p_{i,t} + \sum_{i=1}^n p_{i,t} \Delta \theta_{i,t} \quad (3)$$

where P_t and $P_{i,t}$ refer to economy-wide and sectoral labour productivity levels, respectively, and $\theta_{i,t}$ is the share of employment in sector i . The Δ operator denotes the change in productivity or employment shares between $t-k$ and t . The first term in the decomposition is the weighted sum of productivity growth within individual sectors, where the weights are the employment share of each sector at the beginning of the time period. Following McMillan and Rodrik (2011), we call this the ‘within’ component of productivity growth. The second term captures the productivity effect of labour reallocations across different sectors. It is essentially the inner product of productivity levels (at the end of the time period) with the change in employment shares across sectors. When changes in employment shares are positively correlated with productivity levels, this term will be positive. Structural change will increase economy-wide productivity growth. Also following McMillan and Rodrik (2011), we call this second term the ‘structural change’ term.

This decomposition can be used to study broad patterns of structural change within a country and across countries. An example of this type of analysis can be found in McMillan and Rodrik (2011). Individual components of the decomposition, such as labour shares and within-sector changes in productivity, can also be used at the country level to dig deeper into where structural change is or is not taking place, and to gain a deeper understanding of the country-specific factors that drive structural change. For example, if we know that the expansion of manufacturing is a characteristic of structural change in a particular country, we could use more detailed data on manufacturing to pinpoint which specific industries expanded, how many people were employed, and whether or not specific events or policies contributed to the expansion or contraction of a particular sector.

It is also possible to use national accounts data to decompose structural change into its static and dynamic components, the second and third terms in equation (2). This was done by de Vries et al. (2013) for 11 countries in Africa. They argue that the movement of labour from agriculture to market services had a static benefit to the economies of Africa since productivity in market services is well above productivity in subsistence agriculture. But they also argue that this movement constitutes a dynamic loss since productivity growth in market services is below

average. The issue with the dynamic reallocation term is that it is often negative but difficult to interpret. For example, when agricultural productivity growth is positive and the employment share in agriculture is falling, the term is negative, meaning that agriculture's dynamic contribution to structural change is negative. Yet a declining employment share in agriculture combined with productivity growth in agriculture is exactly what we would like to happen, since it was initially the sector with the lowest labour productivity. Similarly, an increasing employment share is likely to be a drag on *labour* productivity at least in the short run as labour exits agriculture and resources for production remain constant.

This is not to say that it is not important to study trends in productivity growth at the sectoral level or to compare productivity growth across sectors. We have already argued that this is an important part of our definition of economic transformation. We will turn to measuring within-sector productivity growth – e.g. the first term in both equations (2) and (3) – in section 3.2 when we discuss measuring productivity growth using firm-level data.

Table 1 presents empirical estimates for productivity decomposition by main region, which shows how Africa has lagged behind in productivity growth. The methodology, data sources, country coverage and data period varies by study. However, some commonalities have become apparent. Asian labour productivity growth (4-6% annually) has been consistently higher than in Latin America (1-1.5% annually) and Africa (1-3% annually), and the structural change component has been an important difference. However, the structural change component is now a major positive contributor to labour

productivity change after 2000 in Africa (it was a negative contributor in the decade prior to 2000).

Figure 1 shows the challenge of economic transformation in a different way. Most employment in the Organisation for Economic Co-operation and Development (OECD) is in the manufacturing and services sectors and the labour productivity differentials between sectors are small. Sub-Saharan Africa on the other hand has most employment in agriculture, which has low productivity and productivity differentials with other sectors is large. East Asia already has a significant share of employment outside agriculture. The poorest countries (mostly in Africa) could benefit from significant structural change as a movement of resources from agriculture to other sectors has major productivity effects.

There are severe problems with the use of data on value addition (in real terms) and employment in a poor-country setting.⁵ An indication of the unreliability of national accounts data (both value addition and price deflators) can be seen from the large changes introduced by rebasing the national accounts in a range of African countries in recent years. The rebasing in Nigeria involved a change in the base year from 1990 to 2010, now following System of National Accounts (SNA) 2008 and the use of industrial classification International Standard Industrial Classification Rev. 4 (from Rev 3.1). It led to a level shift in GDP of 59.5% in 2010 (and 89.2% in 2013). Different sectors were affected differently. The greatest increases in the level of value addition were in information and communication, trade, manufacturing, and real estate. Thus there is evidence of (faster) structural change than was reported under the old series, as there is a strong

Table 1. Productivity decompositions by region

Study	Period	Region	Labour productivity growth (annual %)		
			Total	Within sectors	Between sectors
McMillan and Rodrik (2011)	1990-2005	Africa	0.9	2.1	-1.3
		Latin America	1.4	2.2	-0.9
		Asia	3.9	3.3	0.6
		Developed	1.5	1.5	-0.1
McMillan and Harttgen (2014)	2000-2010	Africa (unweighted)	2.2	1.3	0.9
		Africa (weighted)	2.9	2.1	0.7
Timmer et al. (2014)	1990-2010	Africa	1.9	1.7	0.1
		Asia	3.6	3.1	0.6
		Latin America	0.9	1.1	-0.1
Kucera and Boncolato (2012)	1991-2008	Sub-Saharan Africa	3.0	2.4	0.5
		Asia	3.8	2.9	1.0
		Latin America	1.2	1.1	0.0
		Developed	1.1	1.2	0.0
Martins (2015)	2002-2013	Africa	1.9	1.1	0.8
		Asia	5.8	4.1	1.6
		Latin America	1.2	0.7	0.5
		Developed	0.9	0.7	0.2

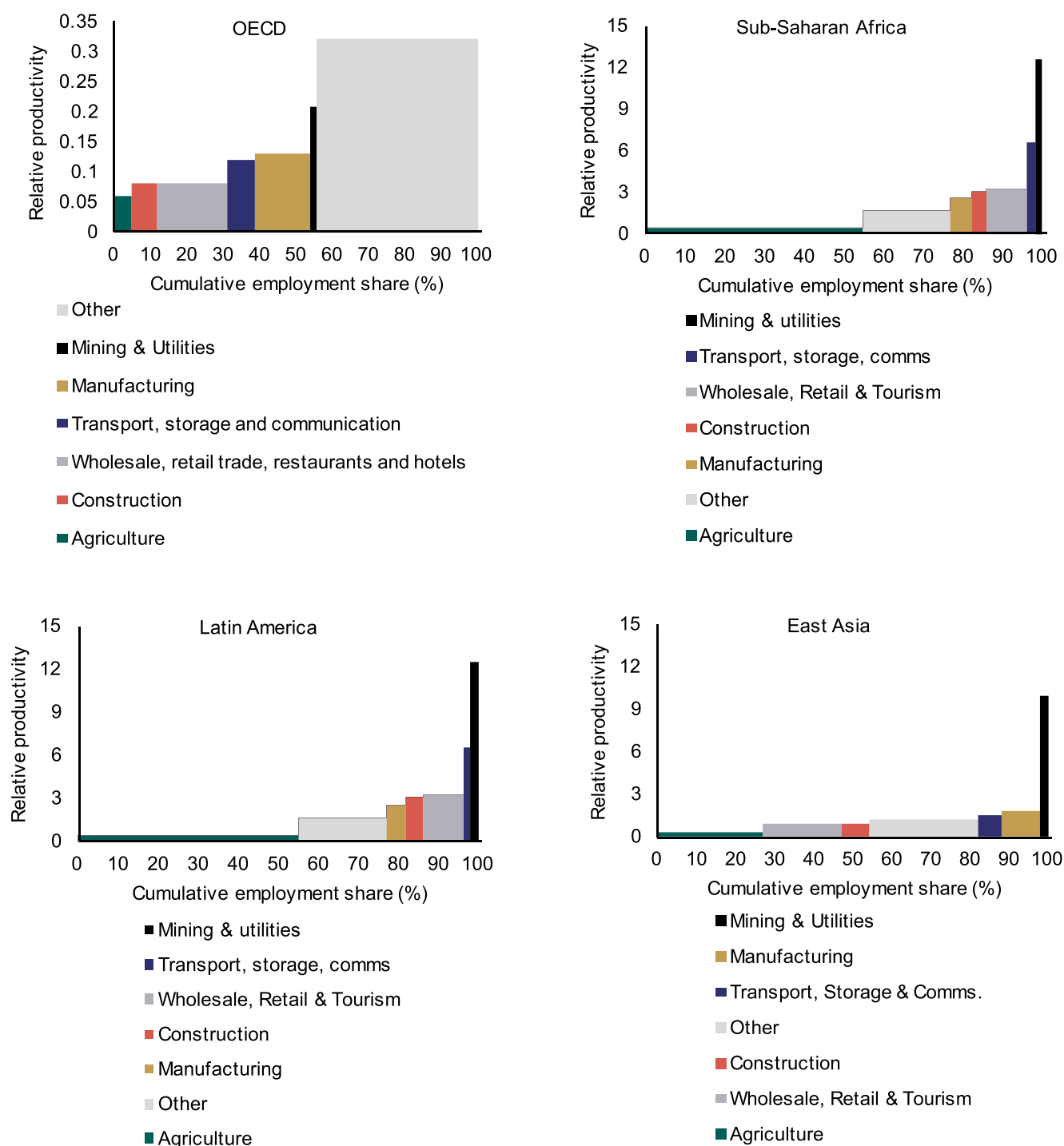
Note: See Martins (2015) for further details.

increase in share of services sector, and a strong decline in share of agriculture and also industry. Notably, the manufacturing share was higher and manufacturing growth was stronger than previously expected (according to the National Bureau of Statistics this was 1.9% in 2010 under the old series and 6.6% in 2010 under the new series). This reflects the inclusion of better and more survey data (e.g. expanded business registers) and a reclassification between sectors (e.g. firms processing farm produce reclassified from 'agriculture' to 'manufacturing').⁶ A further data

problem is that not always easy to separate what is an agricultural, manufacturing or services activity as many of these activities come together as part of value chains. The definitions change which may lead to further uncertainty around assessments of sectoral transformation.

The SET data portal⁷ compares the quality and consistency several international databases that contain information relevant for national measures for economic transformation. Worrall (2015) describes a number of pros and cons of selected databases; see Table 2.

Figure 1. Relative labour productivity gap



Source: ILO (2015); UN (2015). Data and country composition available from <http://set.odi.org/>

Table 2. Pros and cons of selected international databases relevant for transformation

Data source	Pros	Cons	Uses
Groningen 10 sector database	10 sectors; employment includes informal sector, split by gender (for Africa); Much attention to consistency (internal, intertemporal and international)	Few LDCs included; Not on regular update schedule	Sector shares in value added and employment; labour productivity by sector
WB World Development Indicators	Many countries included; wide variable coverage	Limited background documentation, limited checks on consistency Three broad sectors	Sector shares in value added and employment; labour productivity by sector etc.
UN National account statistics	7 sectors; GDP by economic activity and expenditure; Many countries included	No employment data; Includes imputed household rents	Sector shares in value added
ILO laborsta (/KILM)	Many countries included; wide coverage of employment variables	Mix of surveys and census information	Sector shares in employment
UNIDO Manufacturing database	Level of detail for manufacturing sub-sectors; wide country coverage	Manufacturing only; formal sector only; limited data points	Sector shares in value added and employment; labour productivity by sector
Demographic and Health surveys	Micro data; wide variable coverage	Nationally representative? Purpose of surveys; Limited years	Employment/occupation by sector, gender, age

Source: based on De Vries (2015) cited in Worrall (2015), for more info see <http://set.odi.org/data-portal/>

3.2 Firm-level measures of productivity

A further set of measures of economic transformation, and particularly the within-sector component, is based on firm level productivity measures. Most work on firm productivity is focused on measuring a firm's total factor productivity. However, in practice, in a developing country context, it is often difficult to obtain all the data required to estimate plant-level TFP efficiently and consistently. An alternative is to measure labour productivity as value added per worker and where possible include controls for capital intensity. One convenient thing about using value added is that there are alternative ways to measure it. For example, value added may be measured as the value of output less the cost of all intermediate inputs. If intermediate input expenditures are not available, then value added may be measured as gross profits plus wages plus depreciation. However, for comparison across time and/or comparisons across countries, all values must be appropriately deflated.

Using a decomposition methodology, Pavcnik (2002) finds that two thirds of the productivity gains in a sample of Chilean firms were driven by reallocation of resources and market share from less to more efficient plants and that growth in unweighted productivity was limited to the food manufacturing and textiles sectors. While Pavcnik (2002) measures the *actual* gains from reallocation, Hsieh and Klenow (2009) measure the *potential* gains from reallocation. Hsieh and Klenow (2009) first measure plant-level TFP following Foster, Haltiwanger and Syverson (2008), discussed in the previous section. They show significant heterogeneity in plant-level productivity in China, India and the US by plotting density functions of TFP. Using these measures of plant-level TFP, they then estimate the gaps in the marginal revenue productivities of labour and capital across plants in each of the three

countries. They find sizeable gaps in marginal products of labour across narrowly defined industries in China and India compared with the US. Finally, using a counterfactual simulation, they show that if labour and capital in China and India were reallocated according to the dispersion found in the US, TFP would rise by 30-50% in China and by 40-60% in India. Kennan and te Velde (2015) examine TFP dispersion in more than 20 developing countries using the World Bank enterprise surveys (which can only provide an approximation given the low representation of small firms in the sample). Again they find significant scope for improving overall TFP by bringing the least productive firms up to the level of the most productive firm.

In theory, the objective of productivity measurement is to identify firm-level output differences that cannot be explained by differences in firm-level input use. Thus, it is possible to use firm-level data on outputs and inputs to measure productivity. However, the process is complicated by a number of issues. First, inputs and outputs are simultaneously chosen, so a simple regression is likely to lead to biased estimates. Second, any difference in the firm's ability to charge higher prices due to market power will show up as productivity differentials. And third, entry and exit can lead to sample selection bias. Van Biesebroeck (2008) describes the strengths and weaknesses of the various methodologies used to deal with these issues. Using a firm-level dataset for Colombia he compares five widely used techniques: (a) index numbers, (b) data envelopment analysis, (c) instrumental variables estimation, (d) stochastic frontiers, and (e) semi-parametric estimation. He finds that the five methodologies generate surprisingly similar results.

3.3 Export diversification, value chains and value addition

A third set of measures are based on trade-related measures. Economic transformation is normally associated with export diversification, increased domestic value addition in exports, and upgrading in value chains. A number of tools for trade analysis have emerged to explain and measure these components of economic transformation.

Grossman and Rossi-Hansberg (2006, 2008) argue that whilst trade used to involve an exchange of goods, it increasingly involves bits of value being added in many different locations, or what might be called trade in tasks. Advances in transportation and communications technology have weakened the link between labour specialisation and geographic concentration, making it increasingly viable to separate tasks in time and space, resulting in increased ‘offshoring’ of manufacturing tasks and other business functions. This unbundling has shifted attention away from sectors and towards stages of production, or activities within a value chain. Our definition of economic transformation includes not just structural change between sectors but also upgrading of activities towards higher productivity.

Global value chain analysis argues that it is important to consider not only *what* is exported but also *how* and *where* in the value chain a firm is located. In the handbook developed by Kaplinsky and Morris (2001), a value chain was defined as the full range of activities required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use. Upgrading through global value chains can occur in four ways (see Table 3).

The possibilities for a firm/country to specialise in certain parts of production exist as long as it is well connected to the neighbouring links of the chain. Calculations of trade in value added are now possible

given the development of input-output models and supply-use tables (e.g. the Eora Multi-Region Input-Output Database available for nearly 200 countries). This shifts attention once again to the domestic value added contained in exports, not just gross exports. Table 4 examines the domestic value addition (as a percentage of gross exports) by sector for the average of 24 countries (mostly developing countries of interest to the Department for International Development, DFID). It shows how the percentage varies by sector, and also how it has declined over time. Moreover, with the exception of the food and beverages sector, all sectors have experienced greater variation in the percentage. Thus countries and sectors have become increasingly diverse in their experiences with value addition.

It is not just the amount of domestic value added in exports that matters, but also the productivity and complexity embodied by it, and this can also be measured. Evidence suggests the more complex a country’s production and export structure, the faster its growth rate. The Hidalgo, Hausmann et al. (2007) product space analysis can provide new insights into a country’s complexity, and the type of products a country can move into next, given the country’s current production and trade structure (see e.g. Hausmann and Chauvin, 2015 for a recent example in the case of Rwanda). Figure 2 provides an example of the type of products Tanzania exports (indicated by dots). It shows that Tanzania has moved slowly from specialising in peripheral products, which have very few other products close by to which it can easily diversify, towards specialising into products that are have more links to other products (i.e. are more in the middle dense area of the products space related to machinery/electronics/garments). This suggests a better way of specialisation (into products with more linkages/opportunity gain), albeit slowly. Bangladesh’s specialisation in garment products has not changed in two decades. The product space in Korea and Indonesia has changed more fundamentally than that in Bangladesh or Tanzania.

Table 3. Four ways to upgrade through global value chains

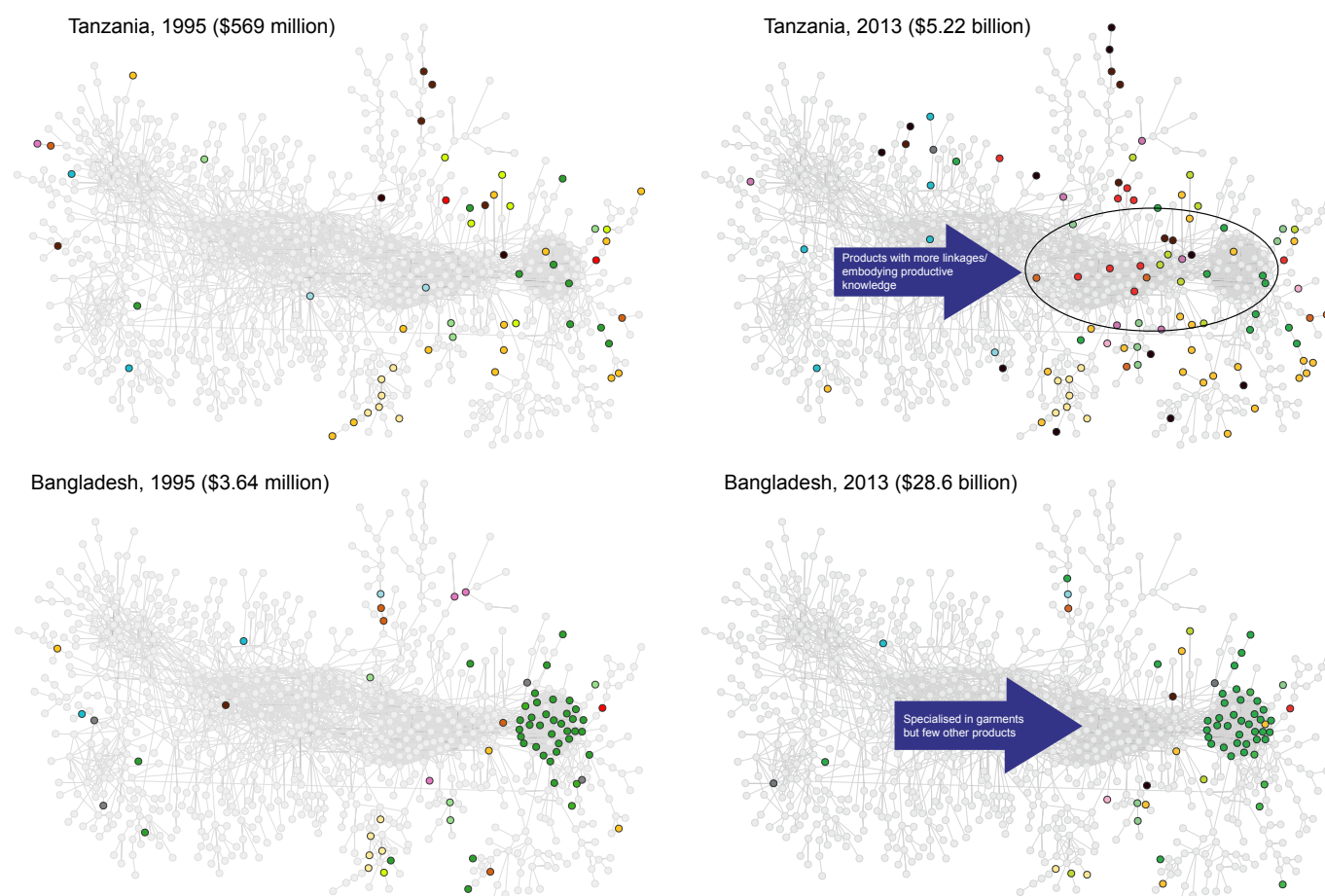
Data source	Pros
Process upgrading	Transforming inputs into outputs more efficiently through process innovation such as improved technology (mechanisation, irrigation, using pesticides, or improved management).
Product upgrading	Moving into more sophisticated product lines (which can be defined as increased export quality and unit values). This may include introducing better quality seed supply, or minimising crop contamination or disease.
Functional upgrading	Acquiring new functions in the chain (or abandoning existing functions) to increase the overall level of productivity of tasks. E.g. from original equipment manufacturer to own brand manufacturer (including R&D functions).
Inter-sectoral upgrading	Using the knowledge acquired through value chain engagement to move into different sectors.

Source: Based on Humphrey and Schmitz (2004).

Table 4. Domestic value addition content as a ratio of gross exports by sector

Sector	Mean		Standard deviation	
	1996	2011	1996	2011
Financial Intermediation and Business	0.87	0.86	0.08	0.11
Post and Telecommunications	0.86	0.84	0.07	0.09
Agriculture	0.82	0.82	0.10	0.11
Hotels and Restaurants	0.77	0.76	0.12	0.15
Food and Beverages	0.75	0.73	0.16	0.14
Wood and Paper	0.75	0.69	0.14	0.17
Petroleum, Chemical and Non-Metallic Minerals	0.73	0.67	0.13	0.16
Electrical and Machinery	0.73	0.66	0.10	0.14
Metal Products	0.74	0.66	0.12	0.16
Textiles and Wearing Apparel	0.74	0.66	0.15	0.2
Fishing	0.69	0.65	0.22	0.24
Other Manufacturing	0.74	0.65	0.12	0.18
Transport	0.66	0.64	0.16	0.17
Transport Equipment	0.69	0.61	0.12	0.16
Mining and Quarrying	0.60	0.60	0.22	0.23

Source: Data analysis based on Eora data for 24 countries, see Kennan and te Velde (2015).

Figure 2. Application of Hausmann product space to Tanzania and Bangladesh, 1995 and 2013

Source: http://atlas.cid.harvard.edu/explore/product_space/export/tza/all/show/2013/

3.4 Conclusion: A framework for measuring transformation in developing countries

This section focused on operationalising and measuring the definition of economic transformation in Section 2. A framework to examine the record and prospects of economic transformation can use production/value-added measures (Sections 3.1 and 3.2) and trade-based measures (Section 3.3).

The production-based analytical measures include:

- **Sectoral value added and employment data** comparing national data sources and internationally comparable sector databases, including gender dimensions.
- **Sector labour productivity levels and trends** – this can show productivity gaps between sectors in a country and examine the extent to which productivity change owes to structural change between sectors or innovation within sectors (see McMillan and Rodrik, 2011).
- **Firm-level productivity analysis** using firm-level surveys in a comparative context – this can be used to examine average productivity levels and changes of a number of firms in the same industry in different countries (see e.g. Saliola and Seker, 2011).

Extensions include prospective or descriptive techniques. For example, we can calculate **employment/value added multipliers** of different sectors using input-output models (on the basis of national sources, or e.g. Eora) to understand how sector shifts can affect output and subsequently employment and other factors of production.⁸

Trade-based measures include (see Kennan and te Velde, 2015):

- Compute **revealed comparative advantage** at six-digit Harmonised System (HS) level – this can show the level of specialisation of a country in certain exports compared to the world average.
- Examine the **Hausmann-Hidalgo product space** – this can be used to examine promising products/sectors for diversification that are increasing a country's complexity and which are also close to a country's existing production structure (the analysis is based on trade data). An extension is to examine the determinants of economic complexity.
- Examine **trade in value added** using the Eora database – this can be used to separate domestic and foreign value added in exports, with a sector breakdown; see SET data portal for an application to 20 countries. This can be used to examine determinants of value chain participation and domestic value addition.
- Use **IMF's export diversification measures**, which include an export diversification index (with an extensive and intensive margin – extensive export diversification reflects an increase in the number of export products or trading partners, intensive export diversification considers the shares of export volumes across active products or trading partners) and export quality measures. Data at country level can be downloaded from the SET data portal.

The above analyses are often hampered by the availability of good data. For example, it is difficult to obtain good

firm-level data that are representative of the whole country, including informal enterprises. Also, African national accounts data are of questionable quality (as discussed in Section 3.1), but with careful interpretation, progress can be made. However, rather than always achieving the optimal transformation template for each country, there are likely to be data records that are good enough. The different data presentation techniques yield different insights into different aspects of economic transformation, and these need to be considered together. No single data technique discussed above provides the ultimate presentation of economic transformation in a country; however, by putting together a range of available data analyses, our proposed framework is more likely to come to a more acceptable conclusion of the economic transformation record so far, even though there might be gaps or problems in the data in some measures.⁹ It is very important to look at past data to inform the challenges, but at the same time we should realise that there are wide confidence margins around - and potentially misleading implications from - using one data source or one productivity estimate alone.

Putting applications of these measures together clearly reveals the severity of the transformation challenges in practice, particularly in the case of sub-Saharan Africa. We discussed production and trade-based measures with different analytical and empirical background, but they paint the same picture in general terms. There are significant transformation deficits in developing countries, especially in African countries. Labour productivity has grown much slower in Africa than in Asia since the 1980s, although some improvements are visible since 2010. Employment in sub-Saharan Africa is still concentrated in agriculture, which has relatively low productivity (compared to other sector in SSA, and compared to agriculture in developed countries). Progress to shift labour into other sectors has been slow. This is a major challenge, as modest relocations to other sectors in poor countries would yield major productivity gains (esp. moving into manufacturing as explained by Rodrik, 2015). Furthermore, firm-level productivity dispersion is higher in developing than in developed countries, suggesting further transformation deficits. Finally, the product space shows how African countries and other poorer countries have hardly changed the complexity of what they produce. Whilst these macro-level tell a coherent story, there are also limitations to using the data. For example, we have no detail on the specific sub-sectors.

4 The political economy of transformation

As we saw in Section 3, the economies of many developing countries are characterised by more or less severe transformation deficits. Their production structures are less diversified and complex than those of comparable countries. The pattern of recent economic growth has brought little change in this respect. It has led to limited productivity-enhancing structural change and modest within-sector productivity growth. As a consequence, the growth has been ‘jobless’ and impacts on poverty rates have remained weak. It is important to put this basic observation in context before prescribing policy options and suggesting ways of operationalising the options that are selected. This section outlines a broad political-economy diagnostic, which highlights the powerful disincentive effects on investment generated by typical patterns of politics, while also emphasising the scope for politically smart measures to address particular blockages.

4.1 Entry points for political economy

The conditions that favour economic transformation overlap substantially with those required to sustain economic growth, but include some additional elements. In both cases, outcomes are better where there is a conducive investment climate (stable rules concerning property rights, ease of doing business), where key public goods (including energy and transport) are well provided and government, or a public–private partnership, provides a necessary minimum of investment coordination (to harness upstream and downstream complementarities in production). In each of these areas, typical political incentives and patterns of economic interest representation – the core of what we call political economy (Corduneanu-Huci et al., 2013; Weingast and Wittman, 2006) – tend to work against the conditions sustaining growth. The conditions needed to facilitate economic transformation are more demanding and are even harder to reconcile with typical patterns of political economy, since they include a larger element of state intervention in markets.

Conditions for growth ...

Sen (2013, 2015) has usefully distinguished three channels through which politics typically influences growth. Putting this together with Rodrik’s (2007) description of industrial policy for the 21st century, we get at least four fields in which political economy factors can – and usually do – impinge negatively on the feasibility of economic transformation. This takes us a few steps towards an understanding of why many developing countries find

economic transformation difficult, and why efforts to change this state of affairs need, as a minimum, to be able to navigate political-economic obstacles in an informed and astute way.

Sen’s first channel is the willingness and ability of the state to make *credible commitments* to potential investors that their assets and profits will not be expropriated, by one means or another, at some point in the future. This need – the most fundamental dimension of the investment climate – may be met through formal protection of property rights and other legally binding rules, including on taxation. As the experiences of China and Vietnam illustrate, however, it may also be met more informally, by agreements between political patrons and public or private entrepreneurs about the future distribution of the profits and rents arising from a venture (Coase and Wang, 2012; Steer and Sen, 2010; Xu, 2011). In either case, the political commitment needs to cover a sufficiently extended period and to remain credible over the intervening years. This applies more to the fixed capital investments that are required for economic transformation than to the fast-turnover commercial activities that may be enough to sustain growth.

The second channel is about the *public goods* needed to make private enterprise profitable. This includes the investments in public health and education required for the development of an employable labour force as well as the provision of sufficient transport and power infrastructure. By definition, public goods cannot be sufficiently provided by the private sector acting alone. According to international experience, a well-motivated and competent public service, at least in relevant pockets of effectiveness, is necessary for the supply of public goods to reach the necessary standard. It may indeed be considered a critical public good in its own right. Again, the politicians’ time horizons are important, particularly where large-scale, slow-gestating infrastructure investments are concerned (Kelsall, 2013; Whitfield et al., 2015).

The ability to correct *coordination failures* is the third channel singled out by Sen. The productivity and profitability of new economic activities are often highly dependent on other investments taking place simultaneously. Poor timing of the processing or input supply investments needed to ensure the profitability of a new industry can be fatal. Consistently supportive, or at least stable, trade, tax and credit policies are also essential. If these conditions are unlikely to be met, wise investors will not invest.

The necessary minimum of investment and policy coordination is more likely to be provided if the economic

bureaucracy has a detailed knowledge and understanding of the economic sectors and cross-sectoral issues it is dealing with. Therefore, much hinges on the ability of the political authorities to empower and protect public agencies with the right combination of professionalism and connectedness to, or ‘embeddedness in’, particular groups of entrepreneurs. Embedded autonomy of the officials responsible for steering processes of economic transformation is a familiar theme in the literature on East Asia’s industrial pioneers, especially Korea (Evans, 1995, 1998). It is also emphasised in recent comparative work on economic subsectors in Africa, but found to be the exception rather than the rule (Whitfield et al., 2015).

... and transformation

Where the challenge is economic transformation and not just sustaining growth,¹⁰ a key entry-point for political economy is the degree to which *information externalities and learning costs* are able to be accommodated in a dynamic setting. According to Rodrik (2007) and other researchers of industrial policy for transformation (Altenburg and Lütkenhorst, 2015; Noman and Stiglitz, 2012; te Velde, 2013), a key role for policy is the facilitation of ‘learning’ – about new technologies, new ways of doing business, new ways of managing the economy and new ways of dealing with new opportunities. Industrial success is about discovering which new activities can be undertaken at low enough cost to be profitable. However, such learning is a public good, with spill-over effects for the sector or economy as a whole, not just for the firms doing the bulk of the learning. Therefore, an element of public subsidy, delivered selectively and for a limited time to firms trying out new activities, is likely to be fully justified (assuming implementation can be effective).

The literature proposes numerous safeguards to prevent such policies recreating the permanently protected monopoly positions and economic inefficiencies that were a feature of old-style ‘industrialisation by import-substitution’; Rodrik offers ‘10 design principles’ for modern industrial policy. However, selective subsidy to activities and firms judged to be promising by the government and its advisors is an essential feature of the approach. Whether or not it can be delivered without degenerating into cronyism and corruption obviously depends on the context, including implementation arrangements and political drivers.

4.2 Political-economic fundamentals

Each one of the four entry points for political economy into the economics of growth and transformation is problematic for the typical poor developing country. The reasons are numerous and interconnected. In summary, political stability is often bought in ways that prevent the state from making fully credible commitments to investors; political time horizons work against adequate provision of public goods; bureaucrats are not normally empowered or motivated to play a role in private investment coordination; and the apparatus of consultation and mutual performance monitoring recommended by industrial policy specialists does not exist. In each particular respect, political incentives interact in a perverse way with the incentives conveyed to officials, firms and households.

The foundations of clientelism

As recent world history harshly reminds us, the conditions affecting economic progress are not independent of the determinants of social cohesion, civil peace and internal war. An important foundation stone of the political economy of development is the way societies have dealt with the problem of violence. Development starts with political and social systems that are not only very unequal but also fragmented on regional, religious or ethnic lines. Urbanisation and, more particularly, large-scale capitalist production eventually generate new sources of socioeconomic identity and cleavage. However, until capitalism takes hold and economies begin to be transformed, political order and civil peace depend on a tacit agreement or bargain of some sort governing the distribution of economic rents. The resources to which state power gives access have to be distributed, through the allocation of powerful or lucrative positions, in a way that is acceptable to the elites of the different ethno-regional communities, particularly those with the greatest potential to mount a rebellion (North et al., 2009; Khan, 2010; Hough and Grier, 2015; Khan, 2010).

This mode of distribution may well be an essential first step in addressing what today we call ‘state fragility’, and for that reason a precondition for any kind of social and economic progress (Kaplan, 2008). However, it will not usually correspond to any concept of the general or public interest from economic or political theory, let alone the ideal conditions for economic transformation. This may seem relevant chiefly to states recently recovering from or still threatened by civil war. However, the basic observation about likely interdependence between the stability of the state and certain forms of ethno-regional patronage, clientelism and corruption is relevant to all countries whose socioeconomic structures are not yet fully capitalist. It is relevant, for example, to all of the current members of the East African Community, as argued in a recent update (Booth et al., 2014).

Thus, even after minimally coherent states are established (or ‘fragility’ is significantly reduced), political leaders will typically acquire power by distributing jobs and services to their followers and clients. Presidents distribute ministries and other public offices to key members of a governing coalition as ‘prebends’ – that is, offices permitting capture of the rents associated with natural resources or administrative monopolies. The discretionary allocation of import licenses, tax concessions, public contracts and the like work both to enrich elements of the political class and establish relations of mutual interest and support between politicians and business sectors – or between the political and business wings of the same dominant families (Joseph, 1987; van de Walle, 2001, 2005).

In the decade after independence in Africa, a number of ‘fathers of the nation’ managed to combine careful ethno-regional balancing with support to core bureaucratic functions, to the benefit of development outcomes. However, few of the successors were able to sustain this ‘developmental patrimonialism’ (Kelsall, 2013). Except in a few remaining islands of effectiveness (Leonard, 2010; Roll, 2014), state bureaucracies have been worn down by the political logic of clientelism (Kelsall, 2013). The coming of multiparty politics has helped less than many

hoped. Politics has become more competitive remains ‘neopatrimonial’ (Cheeseman, 2015; Crawford and Lynch, 2012).

Economic effects

Underpinned by their largely untransformed economies and social structures, the political systems of many developing countries in Africa and other world regions transmit the ‘wrong’ incentives to individuals and organisations in each of the areas we have singled out as important for economic progress. This happens in at least six ways:

- The imperatives of ethno-regional political settlements commonly undermine the confidence of investors that they will be treated fairly.
- The need to reward regional political barons for their support works against the provision of pure public goods and inhibits the tackling of institutional blockages created by ethno-regional vested interests (Kimenyi, 1997; Poulton, 2014; Singh and vom Hau, 2015).
- The short time horizons generated by competitive clientelism weaken politicians’ incentives to tackle civil service effectiveness (Geddes, 1994; Grindle, 2012) or set up durable arrangements for investment and policy coordination, not to mention sophisticated industrial policies (Kelsall, 2013; Whitfield et al., 2015).
- Voters do not trust candidates who promise elaborate reforms to address complex institutional problems, partly because there is no precedent for such things succeeding (Keefer, 2007; Posner, 2005).
- Large business interests – or political-cum-economic power holders such as the Kenyatta dynasty in Kenya – find themselves comfortably ensconced in protected import-export, real-estate, transport or industrial activities. The state’s vested interests in this political-economic status quo hinder the adoption or prevent the coherent pursuit of policies oriented to economic transformation (Booth et al., 2014; Poulton, 2014; Whitfield et al., 2015).
- Business people find it more effective to cultivate relations with individual politicians, especially incumbents (Arriola, 2013), than to support to the kinds of formal deliberation councils, and other mechanisms of interest representation, that contributed to early industrial policy in Asia (Campos and Root, 1996; MacIntyre, 1994).

The combined effect – simplifying and ignoring the many partial exceptions – is that action to stimulate investor confidence, alleviate critical infrastructural constraints and build organisations to coordinate structural change in the economy is at best postponed indefinitely. Neither politicians nor public bureaucracies have incentives to address these issues in a serious way. The politically linked ‘private sector’ is typically uninterested in changing the current economic model. It may resist investments or changes in licensing or tax regimes that weaken its current profitability. Uncertainties about the long-term future encourage local and international businesses to continue in rapid-turnover commercial and service activities rather than to undertake fixed capital investments or provide large-scale productive employment. Investments in new products and technologies where there is an important element of ‘discovery’, with significant positive spill-overs for the rest

of the economy, will not take place because there are no arrangements for spreading the costs and risks.

This does not mean nothing can be done to promote economic progress under pre-capitalist conditions. If that were the case, no country would ever have developed. However, being realistic about political economy has serious implications for the *kinds* of policies and institutional arrangements likely to work for economic transformation in the poorer developing countries. As we argue below, efforts to promote ‘better governance’ across the board are likely to be less successful than more targeted and pragmatic measures aimed at creating small breakthroughs that release economic potential. The cumulative effects of a series of small steps of this kind over a number of years are the best bet for improving the politics in the medium and long term.

4.3 Governance reform?

It has been customary for the past few decades to view the problems we have been discussing as ‘weak governance’, to be addressed with comprehensive reforms to improve political accountability and bureaucratic effectiveness. If countries can make political leaders more accountable, enforce limits on corruption and increase the efficiency of their public services – it is argued – this will lead to coherent ‘country-owned’ policies for development, improve the business climate and usher in higher-quality growth.

Is good governance good for development?

The mantra of good governance, understood in these broad and ambitious terms, is far from just a donor invention. It is seen as so self-evidently true that it is now integral to the belief system of intellectuals and many ordinary citizens in developing countries. Donors, indeed, are often reproached for not being serious enough about combating bad governance in countries where they work. But comprehensive governance reform is open to serious objections. Political research has become progressively more critical of it, influenced in part by spectacular development successes in Asia under regimes scoring low on conventional rankings for governance quality.

As of today, the literature is consistently supportive of professional public administration as a factor in improved development results, but ambivalent at best about the standard panoply of democracy support, accountability, anti-corruption and citizen empowerment devices (Grindle, 2004; Meisel and Aoudia, 2008; Andrews, 2010; Sundaram and Chowdhury, 2012; Noman et al., 2012). The likely contribution of democracy, on any relevant definition, to the pace and quality of economic growth continues to be hotly disputed (Kelsall, 2014; Masaki and van de Walle, 2014; Rothstein and Tannenbergh, 2015). Advocacy for multiparty politics and elections must rely chiefly on the intrinsic value of basic political freedoms.

Lately, advocates of comprehensive governance reform have been obliged to lean less on the balance of the evidence on institutions and poverty-reducing growth (Evans and Ferguson, 2013a) and more on the research (2005) and best-selling book (2012) by Acemoglu and Robinson (Evans and Ferguson, 2013b). Although this works on an extremely broad historical canvas, it can be read as prescribing early adoption of ‘inclusive’ power

arrangements and institutions by today's developing countries.

The good governance and inclusive institutions agenda suffer equally, however, from two fundamental flaws. First, as emphasised by Acemoglu and Robinson themselves, political systems change slowly unless subjected to a major external shock. They change most slowly when economic dynamism is lacking, so that there is little change in the social class and power structures that are the nutrient broth for patronage politics and predatory rent-seeking. Donor-led reform efforts based on the illusion that these structural underpinnings are unimportant, or can be wished away, tend to produce a particular kind of change. After absorbing substantial amounts of reformist effort, they lead to an impressive façade of transparency and accountability arrangements, behind which politics and business continue to be conducted as before (Andrews, 2013).

Second, it is not in fact necessary for institutions and power structures to change comprehensively for transformative economic change to take place. Acemoglu and Robinson's distinction between 'extractive' and inclusive regimes may serve well enough their particular 'compression of history' (Jerven, 2015: 68-73). But most political regimes since the 19th century that have presided over major economic breakthroughs for their country have simultaneously had *both* extractive and inclusive features.

Encouragement from history

Depending on the particular way the extractive and inclusive elements are combined – what Khan (1995, 2010) calls the 'political settlement' – selective improvements can stimulate changes leading to transformational outcomes. Even highly neopatrimonial political regimes can host substantial progress in either social or economic spheres or both, as illustrated by the cases of Bangladesh (Levy and Fukuyama, 2010; Levy, 2014), Indonesia under Suharto (Henley, 2015), the Philippines since the fall of Marcos (The Asia Foundation, 2011) and some past periods in the post-colonial history of Africa (Bates, 1989, 2014; Kelsall,

2013). In these and other cases, particular public agencies with the right level of political protection for professional management can have significant benefits even in the absence of general improvements in governance (Leonard, 2010; Roll, 2014).

In short, systemic changes in governance are unlikely in the short and medium terms, but they may not be necessary from the perspective of getting economic development started. And improving economic performance is one of the keys to getting intrinsically desirable improvements in political governance in the slightly longer term.

There is certainly a need for headway to be made, step by step, in all four of the channels through which political economy can influence growth and transformation. For that reason, institutions of governance do matter. But, as Chang (2007) and Rodrik (2007) have most forcefully put it, the channels signal institutional *functions* that need to be fulfilled. The institutional *forms* that will perform them best or well enough in the context cannot be prescribed in general. Typically, too, a period of thoughtful experimentation is required before finding the optimal solution – the one that is feasible and effective in the context (Rodrik, 2010, 2014).

The literature on 'developmental states' in Asia offers three insights into the features of country politics and governance that are important preconditions for institutional arrangements that support economic transformation and those that are not. Together, these observations help offset the rather bleak perspective on possible change that we have offered so far in this section.

First, the countries that achieved the fastest industrial progress and/or agricultural transformation were not initially democracies. During their take-off phase, they lacked many of the qualities today associated with 'good governance'. On the other hand, they benefited from a political leadership that effectively promoted an inclusive form of economic transformation as a national project. In most cases (Taiwan and Singapore seem to be partial exceptions) these were regimes with highly elaborated systems for ensuring accountability and building consensus.

Box 2. Country variations in political economy

Nigeria: Inward-looking policy orientations have been bound up with a political economy that, since at least the end of the Biafra war in 1970, has reduced both politics and business to a struggle for control of oil rents.

Rwanda: The political settlement removes or substantially weakens two of the features that, in most contemporary African political systems, work to undermine policy making in the national interest: winner-takes-all electoral competition and the use of economic rents and political appointments to reward members and supporters of a winning coalition.

Mauritius: The island state was not obviously well placed to emerge as a high performing economy but shared with continental members of the Africa region several structural features that have often been seen as predestining countries to irregular economic growth and limited structural change.

Bangladesh: In conventional terms, it is a paradox that the country has experienced substantial success in export manufacturing and a number of other fields of economic and social development despite scoring poorly on most indicators of quality of governance.

Indonesia: The reasons for Indonesia's success in economic transformation need to be looked for in areas other than those emphasised in theories about the institutional drivers and inhibitors of development progress that remain influential in international quarters, especially in relation to Africa.

Source: This paper, Section 6.

The conventional distinction between democracy and authoritarianism fails to capture some of their most relevant features (Campos and Root, 1996; Woo-Cumings, 1999).

Second, the Asian experience shows that it is not necessary for the bureaucracy of the state as a *whole* to become an effective coordinator of policy and driver of private-sector investment and productivity growth. Most success stories start in a single sector, with a single politically empowered public agency. This was a theme of Johnson (1982)'s study of the Ministry of Trade and Investment in Japan. It is part of the story about agricultural transformation in Indonesia (Henley, 2015). The issue, and its relevance to contemporary Africa, is discussed at more length in ACET (2014) and Ansu et al. (2016a).

Third, in the context of an empowered sectoral agency, the presence or absence of politically supported policy ideas based on sound economics is a critical variable. Policy assumptions and priorities on their own explain a good deal of the outcome differences between Southeast Asian countries and closely comparable countries in sub-Saharan Africa; see Henley (2015). As Rodrik (2014) has argued, taking political economy constraints seriously should not mean denying a role to the well-placed and well-communicated policy idea – or to its obverse, the dead weight of economic ideologies whose time has passed.

4.4 Getting politically smart about economic transformation

To summarise the argument so far, there are good grounds for attributing the transformation deficits of many developing countries to fundamental features of their political economy. There is little evidence to suggest it is realistic to sweep away these constraints with comprehensive governance reforms, as has been attempted in sub-Saharan Africa over the last quarter-century. On the other hand, there is much historical experience to support a more pragmatic reformism, ideally but not necessarily coordinated from the centre of government, that tackles specific institutional blockages, a few at a time, learning in the process how to do this effectively. By this route, economic outcomes can be made to improve in ways that cumulatively, in due time, make possible further social and political progress.

This is the broad perspective within which we now focus more narrowly on the more immediate challenges facing countries where economic transformation now figures prominently in the policy agenda. As highlighted in the Introduction, there are increasingly strong reasons for governments to be shifting their attention from merely sustaining growth to facilitating transformation. In Africa, there are also reasons for thinking that the current period is presenting a window of opportunity as wage rises in China impel Chinese manufacturers to move the more labour-intensive parts of some global value chains to other world regions (Lin, 2013; Stiglitz et al., 2013). In view of what we have said about political economy, what are the prospects of the constraints being eased and the opportunities seized? And what approaches stand the best chance of success?

Institutions for industrial policy

Recent literature has brought together in a helpful way the latest research-based views on the set of conditions that are most crucial for effective industrial policy leading to economic transformation. According to the contributions in te Velde (2013), they are:

- mechanisms that enable transparency, ensure the likelihood of reciprocity, increase credibility of the state among the capitalists and establish high levels of trust between public and private agents (te Velde);
- mutual interests, pockets of efficiency and learning for productivity (Buur and Whitfield);
- embeddedness, discipline and accountability (McMillan and Rodrik); and
- commitment, focus, experimentation and feedback (Page).

Ansu et al. (2016a) distinguish four requirements that appear universally relevant to effective policy for economic transformation:

- constructing a consensus among key actors that establishes *economic transformation as a nation-building project*, with shared commitments extending well beyond a single electoral term;
- giving at least *one public agency sufficient autonomy, budgetary control and political authorisation* to override interdepartmental coordination problems and engage in a practical way with *credible private sector organisations*;
- creating institutional arrangements that can coordinate a sufficient set of powerful public and private actors so as to ensure (1) an appropriate level of technically justified public support to promising sectors or firms; and (2) that this support is conditioned on *mutually enforceable performance standards*; and
- enabling discovery of approaches that work for transformation in the particular country context by means of *explicit experimentation, good feedback and timely correction*.

While several Asian and a few Latin American countries have embraced arrangements of these kinds, examples of their adoption have been quite rare in other developing regions, especially Africa. A handful of exceptionally favoured agricultural subsectors (cocoa in Ghana, dairy in Uganda, etc.) provide the principal documented exceptions (Whitfield et al., 2015). It is therefore important to examine the political feasibility and the institutional framing of economic transformation policies in addition to their technical suitability and efficiency (e.g. Booth and te Velde, 2009). This naturally needs to be done country by country. However, two broad principles seem likely to be generally applicable.

First, reforms and change initiatives need to have modest objectives and be pursued in a politically smart way that takes into account the interests and incentives faced by different economic actors. Second, policy priorities and initial investment decisions should take into account not just the economic merits of the case but also the potential to make a difference to the overall political economy and climate of opinion by means of demonstration effects.

Politically smart, adaptive reform

On being politically smart, there is evidence from countries like Nigeria, Nepal and the Philippines (Booth, 2014, 2016) that regulatory reforms that improve the long-run conditions for economic transformation can be successful in politically quite unfavourable contexts if their promoters are sufficiently clever about navigating the political-economic obstacles and learn along the way. While the fundamentals may remain profoundly unfavourable to economic transformation in most places most of the time, it is a mistake to treat the typical mutuality between the political and economic underpinnings of the status quo as a fully determined system. The potential for a politically smart approach to make a difference is linked to the importance of three distinct kinds of uncertainty.

First, it may not yet be clear which ways of enabling more inclusive growth are likely to work best in the context (the form versus function issue). Humility is needed in thinking about the likely way forward. Unthinking advocacy of international ‘best practices’ should be a thing of the past (Levy, 2014; Rodrik, 2010).

Second, there may be considerable uncertainty about the ‘everyday politics’ (Hudson et al., 2015) – that is, the question of which powerful stakeholders – in politics or business – may be prepared, under which conditions, to support or oppose, formally or informally, a given change in policy or procedures. This calls for a flexible approach, leaving room to respond in an agile way to unanticipated opportunities – for example, arising from external events that trigger changes in interest-perception within the system – and close down any expensive initiatives if and when the course of events makes the initial stakeholder ‘map’ over-optimistic.

Third, the objective is to achieve a change within a complex system – that is, the type of network of relationships where the sheer number of interacting elements and likely feedback loops, including learning by human agents, makes it impossible to predict in advance what the consequences of a given initiative will be (Harford, 2011; Ramalingam, 2013; Boulton et al., 2015). The implication is that a realistic reform approach will be highly adaptive. It will proceed by problem-driven iterative adaptation (Andrews et al., 2013), or by trial and error, or again entrepreneurially, on the basis of ‘small bets’ and rapid adjustments (Faustino, 2012; Faustino and Booth, 2014), until a workable solution is found.

The value of demonstration

On demonstration effects, it is often the case that the barriers to effective policies and institutions for economic transformation are a combination of vested interests and old-fashioned economic theories. Under such circumstances, there is a useful role for initiatives designed specifically to demonstrate what policy economic transformation looks like. This entails concentrating on one or two promising sectors where the economic benefits and potential profitability of new, high-productivity activities can be revealed in such a striking way that purely intellectual objections begin to fall away. The vested interests then become easier to tackle and/or bring on board as partners in a new economic model.

In the next section, we proceed to consider the technical merits of different types and combinations or clusters of policies for economic transformation. Then we illustrate the ways some of these have been applied, under different political-economic conditions, in a set of African and Asian countries.

We carry forward from this section three principal messages. First, the policy design must be backed by a pragmatic reformism that is realistic about the strength of the political-economic fundamentals working against economic transformation, but smart about navigating the obstacles. Second, in view of the high stakes currently attached to the initiation of transformation, particular attention should be given to the small set of institutional conditions that have been identified as critical to applying modern industrial policy principles, such as leadership, state–business relations, coordinating capacity and the presence of collaborative projects. Third, there may be an important place for collaborative demonstration projects that have the prime objective of allowing an engagement with policy-makers on the potential gains from economic transformation policy on a broader front.

5 Choosing and combining policies

Section 5.1 categorises the range of policies that are important for economic transformation into a framework table of enabling and targeted policies for within and between sector productivity. Section 5.2 suggests that in some cases it is better to think of economic transformation policies in terms of clusters of both enabling and targeted interventions. Section 5.3 discusses the role of outside (international) policies.

5.1 Policies for economic transformation

There is a growing policy literature that parallels the recent advances in defining and measuring economic transformation. Fundamentally, the policy approaches suggested in the literature are directed at one or both of the areas of economic transformation identified in our definition in Section 2. They are policies or sets of policies intended to promote the following:

- *Structural change*: Public actions to accelerate the movement of resources from lower-productivity to higher-productivity sectors by reducing the economic costs of resource flows into modern economic activities and/or by increasing the rate of growth of modern activities relative to the rest of the economy.
- *Within-sector productivity growth*: Public actions to generate sustained productivity growth across the economy, by increasing the productivity of firms in modern economic activities and/or by promoting productivity growth across the entire range of economic activities, including agriculture and services.

This way of framing the policy literature is useful because it helps clarify the idea that economic transformation cannot take place without both structural change and within-sector productivity growth. McMillan, Rodrik and Sepulveda (2015) make the important point that structural transformation can fuel rapid growth on its own, but if it is not backed up by sustained within-sector productivity change, growth peters out and remains episodic. Ultimately, they argue, sustained growth and convergence require both processes. In fact, as we have seen in Asia (Section 3), it is precisely when rapid within-sector productivity change combines with rapid structural change that growth accelerates, jobs are created and poverty falls.

In an effort to provide some further structure, we distinguish within each of these policy sets

- policies that are ‘horizontal’ or enabling interventions and
- policies that display some measure of selectivity, e.g. are aimed at specific economic activities, or targeted policies.

As with any typology, these categories are not airtight. Public actions to improve fundamentals, which are generally thought to be sector or firm neutral, will inevitably involve a degree of selectivity, unless they can be undertaken everywhere at the same time. Infrastructure investments in poor countries for example are likely to be limited by fiscal constraints and donor preferences. Thus, if they are first undertaken in rural areas, they are selectively improving the productivity of rural households. Investments in trade-related infrastructure will mainly benefit firms engaged in international transactions. For this reason the classification reflects our assessment of the degree of selectivity embodied in the public actions discussed. Similarly, some public actions that we classify as primarily intended to promote the shift of resources from one sector to another can also have impacts on within-sector productivity change. We attempt to note where the ambiguities in the classification are greatest.

Thus we have four categories for which we will discuss policies: enabling policies to promote structural change, targeted policies to promote structural change, enabling policies for sector productivity, and targeted policies for sector productivity.

Enabling policies to promote structural change

As academic and policy interest in economic transformation has increased, one strand of the policy literature has focused on largely horizontal interventions intended to promote the movement of resources from lower-productivity to higher-productivity employment. These interventions reflect the view that rapid growth of the modern sector of the economy is constrained by a lack of investment.

Investment climate reform

The policy focus on constraints to investment finds its clearest expression in the ‘Investment Climate Reform’ agenda of the World Bank. Around the turn of the 21st century the World Bank began to focus on the ‘investment climate’ – the policy, institutional and physical environment within which firms operate – in LICs. As defined by Nicholas Stern, the World Bank’s Chief Economist in the early 2000s, the investment climate included:

(a) macroeconomic stability and openness; (b) good governance and strong institutions including the rule of law, control of corruption and crime, regulatory quality, and the effectiveness of public services; and (c) the quality of the labour force and infrastructure (Stern, 2001; 2002). Seen through the lens of policies to promote structural transformation, the investment climate reform agenda is largely a non-selective set of interventions designed to increase the rate of growth of the modern sectors of the economy and reduce the constraints to movements across sectors by getting prices right.

The International Monetary Fund (IMF, 2014) argues for example that cross-country empirical evidence points to a range of general policy and reform measures that have proven effective in promoting diversification and structural transformation in LICs. These include improving infrastructure and trade networks, investing in human capital, encouraging financial deepening, and reducing barriers to entry for new products. It also notes that reduced labour market and business regulations are associated with higher manufacturing employment shares. Country studies highlight the productivity penalty that firms pay as a result of poor infrastructure and skills (Escribano et al., 2010; World Bank, 2007). Better and more reliable electrical power, lower costs of transport, and workers who are better able to perform their jobs raise the potential productivity of all firms. Regulatory burdens and poorly functioning institutions in many countries inhibit competition. For a review of the literature see the World Bank (2014) *Doing Business* report.

Financial sector development

There is a growing body of evidence that well-functioning financial systems promote long-run economic growth (Levine, 2005). Cross-country evidence suggests that economies with better-developed financial systems tend to grow faster over long periods of time, and that this effect is causal (Demirgüç-Kunt and Levine, 2008). Recent IMF evidence suggests that too much finance can be harmful. The evidence also suggests that the financial system influences growth primarily by affecting the allocation of an economy's savings, not because it has an impact on the savings rate (World Bank, 2013). It is not surprising, then, that a recent strand in the financial sector development literature has begun to deal with the role of financial sector development in structural transformation. Te Velde and Griffith-Jones (2013) discuss the size and nature of the financial sector as well as issues such as interest rate spreads in promoting structural transformation.

The IMF (2014) argues that deeper financial systems (measured by the private credit to GDP ratio) are associated with higher export diversification in developing countries, and that easing access to credit is associated with higher manufacturing employment shares. Of course, this needs deeper analysis as private sector credit can be an outcome indicator associated with different good policies and institutions (e.g. availability of collateral and clear ownership titling, presence of legal dispute resolution and small claims, credit ratings and project assessment/management). The financial sector development literature also suggests that financial systems foster within-sector productivity growth – by encouraging the entry of new, promising firms – and force the exit of less efficient enterprises. The IMF finds that domestic financial sector

reforms and capital account liberalisation increase manufacturing productivity (IMF, 2014).

State-business relations

One strand of literature focuses on the institutions that define relations between the public and private sectors. Harrison and Rodriguez-Claire (2010), in their review of trade and industrial policies, suggest that close coordination between the public and private sectors is needed to improve policy formulation, monitor implementation, and provide feedback on the efficacy of policies designed to remove the constraints to the growth of firms in the modern sector. Rodrik (2008) suggests that because many of the constraints to the growth of the modern sector are industry or firm specific, close coordination between public and private agents is essential to the design of appropriate policies. Effective state–business relations can address market and coordination failures and government failures, and can reduce policy uncertainty (te Velde, 2010). Of course, as we have seen in Section 4, there can also be too close associations between state and business and such political disincentives would hamper competition and transformation.

Business associations have been shown to be an important institutional mechanism to address collective action problems. Doner and Schneider (2000) discuss a number of market-friendly functions of business associations as key agents in the conduct of organised state–business relations: macroeconomic stabilisation, horizontal and vertical coordination, lowering costs of information, standard setting and quality upgrading. Econometric work based on a large survey of firms in a number of sub-Saharan African countries (Qureshi and te Velde, 2012) suggests that firms derive growth benefits from being members of business associations. Business associations lobby on their behalf (in addition to direct lobbying) and provide relevant information to their members.

The forms of state–business relations vary significantly, ranging from formal, regular coordination arrangements to informal, ad hoc interactions. They can cover the whole economy or they can target specific sectors, types of firms or policy processes (te Velde, 2013). Clearly, this is an area where our taxonomy is not airtight, but we take the view that the principles governing effective state–business relations are relatively neutral across types of economic activities, even if they are applied in a specific sector or industry. Page (2012a) draws on an earlier literature on the use of coordination mechanisms in East Asia to outline some of the critical success factors in state–business relations.

Targeted interventions to promote structural change

Some of the new policy literature supports a more selective approach to increasing the rate of investment in modern activities. This is generally based on the view that some high value added activities offer an added ‘bonus’ either in terms of their growth potential or in terms of their potential role in sustaining economy-wide productivity change and growth. Rodrik's (2013b) research on unconditional convergence for example carries with it the policy implication that the size and rate of growth of

the manufacturing sector is a key determinant of long-run growth. The debate over selective industrial policy has continued unabated for more than 50 years, and we certainly do not wish to revisit the well-worn arguments over the desirability and efficacy of ‘picking winners’ versus ‘levelling the playing field’ here. The Commission on Growth and Development (2008) attempts to provide a balanced assessment of the relevant literature and offers a carefully worded judgement. Rather, we choose to review some new elements of the policy literature that feature a measure of selectivity and that seek to promote the growth of modern activities without offering any assessment of their merits.

Export push policies

The association between superior industrial export performance and rapid growth in East Asia has been known since the 1960s, but economists continue to differ on the question of whether that growth is (at least partly) a consequence of Asia’s export-led growth strategy. One group has attributed Asia’s high-speed growth partly to learning by exporting, which includes productivity gains to firms that result from the process of exporting itself (see Pack and Page, 1993; World Bank, 1993). Others have argued that openness to trade rather than exports per se was central to Asia’s success. International trade, in their view, generated competitive pressures on exporters and domestic producers alike, forcing both to improve their productivity.

Interestingly, the role of exports in raising firm-level productivity appears to vary with the level of income and the degree of sophistication of the industrial exports produced. There is an empirical regularity linking exports to higher firm-level productivity, but there is a long-standing academic debate concerning whether the most productive firms in an economy select into exporting or the act of exporting raises productivity in the firm through learning. Harrison and Rodriguez-Clare (2010) in a

survey of the literature for the *Handbook of Development Economics* conclude the following:

- The most productive firms in an economy or a sector are most likely to become exporters.
- While there is selection into exporting, there is also learning through exporting. Productivity in exporting firms rises faster than that in non-exporters, at least in some contexts.
- Learning by exporting is most likely to take place in lower-income countries and among less productive firms.

This result is of more than academic interest. If learning by exporting raises firm-level productivity, success in exporting has the potential to increase within-sector productivity in non-traditional export industries; and because export growth is not limited by the scale of the domestic market, there is the potential for rapid growth of the non-traditional sector. This has led some observers to advocate the use of the ‘export push’ type of policies common to a range of East Asian economies from Japan to Vietnam in a wider range of countries at early stages of economic transformation (Page, 2012a; Newman and others, 2015).

Various policies push exports and promote export diversification. Beyond general policies to build productivity in exporting sectors through good quality education and infrastructure, targeted export push policies include: export missions; special economic zones; targeted financial incentives conditional on exporting; standards, certification and value chain development; negotiating foreign market access; and others. Rose (2007) finds that additional consulates are associated higher exports in large exporters. Kingombe and te Velde (2015) review SEZs and find that they raise inward FDI, employment and exports, and productivity in a limited number of cases. Korea used targeted incentives for its producers conditional on exporting in order for them to focus on competitiveness (Leipziger, 2015). Exporters in one country may face barriers (tariffs or non-tariff barriers) to its exports in

Box 3. Policy choice: country options

Nigeria: There is no shortage, in strictly economic terms, of good entry points for upgrading the quality of economic growth. A range of sectors and products appear economically promising on the basis of one or more type of rigorous assessment.

Rwanda: Until recently targeted initiatives have not paid serious attention to export manufacturing or processing. The Kigali Special Economic Zone, a strong step in the right direction, has been operational for a relatively short time, with a number of pilot investments showing promise.

Mauritius: From the 1970s onward Mauritians built a consensus view across the public and private sectors around a strategic direction for the economy, which was based on structural transformation away from sugar and towards garments, tourism, financial services and finally an integrated services platform.

Bangladesh: Whilst there has been economic transformation, much still needs to be done. Political uncertainty, weak institutions, lack of skilled workers, unreliable energy supply, the availability of suitable land, and a cumbersome and opaque regulatory framework have held back investment.

Indonesia: During the oil-price slump of 1980-86, income per head continued to grow in Indonesia while in Nigeria it fell sharply. The immediate reason for the difference was that in Indonesia the collapse in foreign exchange earnings prompted an economic liberalisation and opening to foreign investment which paved the way for the rapid growth of export-oriented manufacturing, whereas in Nigeria similar moves were rejected.

Source: This paper, Section 6.

another country and these could be negotiated away in bilateral, regional or multilateral trade negotiations. Preferential access abroad can also help; see Collier and Venables (2007). A further export policy is export devaluation (see next sub-section).

Tariff reduction can also help exporting through its effect on value chain participation. The increase in global value chains increases the cost of protection (Organisation for Economic Co-operation and Development (OECD) et al., 2014), given their cumulative effect, as intermediates are traded multiple times across borders. Trade liberalisation implies more competition for the domestic firm inputs. This implies lower prices for inputs but also the construction of links with more efficient firms abroad. Thus, part of the increase in productivity is associated to the engagement in value chains with more productive providers of inputs. Thus, tariff liberalisation can help to diversify exports by decreasing the costs of inputs and making the exports in new products profitable. Melitz (2003) suggests that as export activities carry a fixed cost, and under a protectionist regime only a limited number of firms can afford them, leading to export concentration. The removal of barriers had important diversification effects in Vietnam, Rwanda and Tanzania (International Monetary Fund (IMF), 2014).

Exchange rate protection

Rodrik (2008) has revived interest in ‘exchange rate protection’, the policy of deliberately maintaining an undervalued real exchange rate originally associated with the industrialisation of the East Asian Tigers (World Bank, 1993). Rodrik (2008) uncovers a strong empirical correlation between real exchange rate (RER) undervaluation and growth in developing countries. One interpretation of this result is that exchange rate protection can spur the growth of modern activities by reducing the risk associated with investment in new sectors, including those serving foreign markets (Razmi, 2013). There is, not surprisingly, considerable discussion concerning whether the relationship is causal. Aguirre and Calderon (2005) show that significant RER over- and undervaluation are both associated with inferior growth outcomes. The IMF (2014) concludes that despite active study, the question remains unsettled due to difficulties in establishing causality and pinning down the exact channels of transmission.

A complementary argument takes the view that although an undervalued exchange rate will promote the production of all tradeables, the limited size of the domestic market in most LICs implies that it is primarily a tool of manufactured export promotion and hence structural change.¹¹ The relative size of industry is strongly and positively correlated with the degree of undervaluation (Rodrik, 2008; McMillan and Rodrik, 2011). Sustained real exchange rate depreciations can act as a second-best, WTO-friendly policy to offset the distortions (such as productivity constraints and lack of factor mobility across sectors) that constrain industrial export growth. Recent cross-country empirical work finds that countries with greater real exchange rate undervaluation have higher export product and partner diversification, while those with higher overvaluation have lower diversification (Wang, 2014). The IMF (2014) concludes, however, that while efforts to maintain an undervalued exchange rate over time has intuitive appeal as a tool of export promotion, pursuit

of such an approach typically entails either accepting elevated and unstable inflation levels (with ensuing costs from reduced macroeconomic stability) or consistent accumulation of high levels of foreign reserves, implying a misallocation of scarce national savings to acquire foreign financial assets with very low rates of return.

Selective industrial policies

Promoting industrialisation directly, by subsidising industry in diverse ways or removing specific obstacles to it, is often used to promote structural change. Drawing on the East Asian experience, Lin, Monga et al. (2011) have proposed a selective approach to identifying sectors of industries in LICs with the potential for rapid growth and structural change. They argue that government policies to facilitate industrial development must be anchored in industries with latent comparative advantage so that once the new industries are established they can quickly become competitive domestically and internationally. To identify those activities, they propose a benchmarking of the economy’s current industrial structure against the tradable goods and services that have been produced for about 20 years in dynamically growing countries with similar endowment structures. They suggest that, among the industries on that list, the government give priority to those in which some domestic private firms have already entered, and try to identify obstacles that are preventing firms from upgrading quality and/or barriers that limit entry by other firms. For industries that are wholly new to the economy, Lin and Monga propose that governments use strategies to attract foreign direct investment (FDI).

A complement to the Lin-Monga type of strategy, and one that also draws on the East Asian experience, might be called ‘backing the winners’. Hausmann and Rodrik (2003) argue that growth in the modern sector is largely a process of ‘self-discovery’ by firms. They therefore suggest that, rather than try to identify ex ante which types of modern sector investments will succeed, government reduce the constraints to firms that have demonstrated the capacity to succeed. Dinh and others (2013), reflecting on China’s industrialisation experience, offer a similar formulation of interventions to back the winners. They suggest that much of the success of selective industrial policies at the provincial and local level in China came from identifying and removing the constraints to growth that were affecting enterprises that had already demonstrated success, rather than ex ante policies to identify and support new activities.

National development banks

There has been a revival of interest in national development banks in recent years. New development banks have been formed in such low- and middle-income countries as India, Malawi, Mexico, Mozambique and Thailand. Historically, development banks have been used to fill market gaps in long-term credit and agriculture finance and to promote access to finance for small and medium enterprises (SMEs). In East Asia they have traditionally occupied an additional prominent role: providing ‘policy-based’ finance – sometimes termed ‘directed credit’ – to high-productivity sectors and firms. In this role they are clearly selective interventions to promote structural change.

The debate on the efficacy of national development banks as policy instruments in many ways closely parallels

the long-standing debate on selective industrial policies. Advocates of ‘policy-based’ lending, mainly from East Asia, tend to point to successful case studies of the growth of new manufacturing and services sectors in such countries as Brazil, Korea and Taiwan, while opponents question the absence of a counterfactual and cite the poor financial performance of development banks as evidence of their lack of success in ‘picking winners’. While there have been some exceptional performers among national development banks, others have been burdened by large non-performing portfolios, poor financial viability, and strong political interference in their lending decisions (World Bank, 2013).

It is likely that both advocates and critics are partially right. Development banks should add the most value in financially underdeveloped countries where there are significant market failures, by redirecting savings from low-productive to high-productive sectors, and hence promote structural change. But it is precisely in those environments that the design and governance of such institutions can go badly wrong (World Bank, 2013). A global survey of 90 development banks from 61 countries finds that the performance of most development banks needs substantial improvement. Many are far from adopting best practices in governance and risk management, and they remain vulnerable to political interference and capture by interest groups. About 75% of national development banks do not have independent members on their boards (De Luna-Martínez and Vicente, 2012). The question is how one can design an effective national development bank.

Spatial industrial policies

The New Economic Geography has raised our awareness of the importance of agglomeration economies as a source of firm-level productivity (Fujita, Krugman and Venables, 2001). While there has been a substantial amount of quantitative research into the nature and extent of agglomeration economies in middle- and high-income countries, virtually all of what we know about agglomeration in LICs comes from case studies (United Nations Industrial Development Organization (UNIDO), 2009; Sonobe and Otsuka, 2006). Recent econometric research finds that, as in higher income countries, agglomerations raise firm-level productivity (Newman and others, 2015). The productivity boost that agglomerations provide sets up a collective action problem. Because a critical mass of firms is needed in a new industrial location before any will realise productivity gains, no single firm has the incentive to locate in a new area in the absence of others. This opens up another channel of selective interventions to promote the growth of the modern sector – spatial industrial policy.

Governments can foster industrial clusters by concentrating investments in high-quality institutions, social services, and infrastructure in a limited geographical area, such as a Special Economic Zone (SEZ); see UNIDO (2009) and Farole (2011). Where domestic markets are not well integrated, however, the price–productivity trade-off is likely to reduce the incentives for agglomeration, suggesting that countries at early stages of development may want to use spatial policies as a complement to the export push (Page, 2012a). Outward-oriented SEZs have been an important policy element in the structural transformation of a range of East Asian economies, most notably China (Dinh and others, 2013).

Kingombe and te Velde (2015) discuss how SEZs could play a role in addressing Africa’s twin challenge of structural transformation and employment-creation. Effective SEZs are those that (a) respond to the latest global developments (for example increased demand for natural-resource-rich products, off-shored services, etc); (b) are regarded as tools in a wider growth strategy which incorporate good quality policies and support for institutions; and (c) follow a set of best-practices such as emphasising the clustering properties of SEZs. All of this requires significant state capacity with a consistent and coherent approach. The evidence on SEZ development suggests that some zones (especially in Asia) have worked whilst many others (especially in Africa) have failed. Nonetheless, some zones in sub-Saharan Africa have attracted significant employment (for example in Madagascar, Mauritius, Ghana, Kenya, Lesotho), although the transformational aspects have been largely absent (with exceptions such as Mauritius). SEZs that have emphasised clustering tend to be more successful. Significant and sustained employment generation only occurs when there is a strategy for the zone to contribute to innovation and structural transformation, because zones without such a strategy will not succeed in the long run and are vulnerable. A sustainable SEZ strategy needs to ensure that zones are not established and managed as enclaves, but involve significant linkages between zone firms and local firms, and use economic and social standards that are similar to the rest of the economy.

Enabling policies for within-sector productivity change

Public actions to increase firm- (farm-) level productivity are central to efforts to accelerate within-sector productivity change. These interventions can attempt either to shift the entire distribution of firms (farms) towards higher productivity levels, ‘bathtub interventions’, or to promote churning, through, for example, reducing the barriers to entry and exit of firms.

The fundamentals challenge

Rodrik (2013) refers to the policy implications of the neoclassical perspective as the ‘*fundamentals challenge*’. It is primarily one of accumulating the infrastructure, skills and broad institutional capabilities needed to generate sustained productivity growth across the economy. The ‘fundamentals challenge’ is clearly closely related to the investment climate. We regard it, however, as primarily a set of non-selective policies to promote within-sector productivity change, rather than policies intended to facilitate the growth of higher-productivity sectors, which is the principal focus of the investment climate literature. There is considerable debate – arising from the cross-country literature on conditional convergence – on whether it is primarily the quality of institutions (governance, rules of law, and the business environment) or the level of human capital (education, skills and training) that drives long-run levels of income (Acemoglu et al., 2001; Glaeser et al., 2004). Rodrik stresses that in meeting the fundamentals challenge, investments on a broad front are required for any of them to pay off.

Management knowledge as a public good

Managers are to a large extent responsible for productivity differences among firms, either as a consequence of innate differences in their abilities or as a result of differences in management practices (Syverson, 2011). While managerial inputs are hard to define and measure, recent work at the intersection of management studies and economics helps to take us some way towards understanding the importance of management practices to productivity. Bloom and Van Reenen (2007) use interviews to score managerial practices from best to worst practice across a wide range of day-to-day operational management activities. They find that higher-quality management practices are strongly correlated with several measures of productivity and firm performance, including survival.¹²

The finding that management matters has led to recent discussion of the feasibility and design of public actions to support improved management practice. Firms will underinvest in improving management capabilities if they are not able fully to appropriate their benefits. This has led to the recommendation to establish an institutional framework – perhaps in the form of a public–private partnership – within which domestic companies can have access to information on international best practice (Newman et al., 2015). One approach that has shown promise is supporting the formation of knowledge networks among firms. These networks ‘import’ global best practices in a sector and make them available as public goods to their members. In India the Confederation of Indian Industries, which is almost wholly funded by the private sector, provides services of this kind (Sutton, 2004). The Fundacion Chile is another example of a public–private partnership. Its success in helping to establish Chile’s world class wine and salmon export industries has been widely documented (UNIDO, 2009).

Promoting competition

Competition acts primarily through inter-firm reallocations of market shares by entry and exit, often called ‘churning’ (Syverson, 2011). If low-productivity firms are driven from the market and higher-productivity firms capture their market share, average productivity increases. In the US, for example, more than 1 in 10 jobs is created in a given year through reallocation between firms, and more than 1 in 10 jobs is destroyed, see Haltiwanger (1997). Firm dynamics are hard to trace in LICs. To understand the patterns of entry, exit and growth of firms fully requires a panel of data that follows the birth, death and growth of the same firms across a number of years.

There is some recent evidence that the patterns of birth, death and growth of firms in LICs are not so different from those found in high-income countries. For example, on average, turnover through firm exit, entry and switching between sectors accounted for 40% of total manufacturing productivity growth in Vietnam (Newman et al., 2015). This strongly suggests that policies to enhance domestic competition can play an important role in increasing within-sector productivity. The focus on regulatory reform that characterises the investment climate reform agenda is primarily a consequence of the desire to promote a more competitive environment by reducing the barriers to entry and exit of firms (World Bank, 2014).

Targeted policies for within-sector productivity change

Selective policies to promote within-sector productivity change by definition focus on a subset of firms. The economic underpinnings for this type of selectivity originate from increased understanding of the role ‘firm capabilities’. Capabilities are the knowledge and practices possessed by the individuals who make up the firm, both managers and workers. They are the basic drivers of productivity and quality at the firm level (Sutton, 2012). Globally, firms are competing in capabilities, and some of the more novel economic policies aimed at promoting within-sector improvements in productivity are aimed at increasing the capabilities of firms. The development of capabilities is beset by market and coordination failures through e.g. management training or FDI promotion.

Management training

The surveys of management practices summarised above find that higher-quality management practices are strongly correlated with productivity, quality and firm capabilities (Bloom and van Reenen, 2007; 2010). This raises the question of whether management training can be an effective tool to increase within-sector and firm-level productivity. Bloom et al. (2013) have recently provided the first experimental evidence on the importance of management training in developing-country firms. They randomly assigned a sample of large, multi-plant Indian textile firms to treatment and control groups. The treated firms received intensive training in operational management from a large international consulting firm. Within the first year of training, productivity increased on average by 17% in treated firms. In addition to increasing productivity, the intensive training led to significant improvements in quality and inventory control. The better-managed firms grew faster and voluntarily spread the management improvements from their treated plants to other plants they owned.

Where firms do not adopt good management practices as a result of ignorance, training programmes in basic operations management, like inventory and quality control, offer a potentially substantial payoff in terms of increased productivity. Management training is not a panacea for capability building, however. Bloom and his associates found that unless the incentives are right, training may not achieve its full potential. A recent review of what we are learning from evaluations of the impact of micro, small and medium enterprises (MSMEs) training programmes found that because virtually all of the evaluations suffered from a combination of small changes in business practices and low statistical power, few studies found any significant impacts of training on sales, profitability or growth (McKenzie and Woodruff, 2012).

Attracting foreign direct investment

FDI is another means of introducing higher capability firms into a lower capability environment (te Velde, 2003; Sutton, 2004; 2012). The foreign investor brings the technology, managerial knowledge and working practices it has developed elsewhere. Firms with foreign equity participation in developing countries typically have higher output per worker or higher levels of TFP than similar

domestically owned firms, see te Velde and Morrissey (2003) and Harrison and Rodriguez-Clare (2010). There is also a growing body of evidence that some of the knowledge embodied in foreign firms spills over into domestic firms, especially those that act as suppliers or customers (Harrison and Rodriguez-Claire, 2010).

Policies and institutions for attracting FDI are therefore potentially a key tool in raising firm-level productivity, and there is some evidence to suggest that they are effective. A study using data from 124 countries examines the effects of investment promotion on inflows of US FDI (Harding and Javorcik, 2011). It tests whether sectors explicitly targeted by investment promotion agencies in their efforts to attract FDI received more investment relative to the period before targeting began and to non-targeted sectors. Controlling for other factors, the research finds that investment promotion leads to higher FDI flows to countries in which red tape is likely to be severe and where information asymmetries between potential investors and governments are large. Other research finds that FDI promotion policies work best when countries have consistently pursued active policies to build capabilities through FDI, such as in Singapore, Ireland or Costa Rica (te Velde, 2003).

Increasing export diversification and sophistication

Two stylised facts related to the structure of exports drive the policy literature on export diversification. First, as income per person rises, the range of export activities becomes more diverse until quite high levels of income (Imbs and Wacziarg, 2003; Cadot, Carrère and Strauss-Kahn, 2011). Second, countries that export more sophisticated products – those that are primarily manufactured by countries at higher income levels – tend to grow faster (Hausmann, Hwang and Rodrik, 2007). Differences in diversification and sophistication are strongly related to differences in long-run growth in developing countries (UNIDO, 2009). One reason may be that more diverse economies are better able to take advantage of opportunities in global markets. Diversification into more sophisticated products provides an additional advantage.

Because sophisticated products embody advanced-country productivity levels, the ability of firms in lower-income countries to export such goods indicates that they have mastered both the technology and the management practices required to be globally competitive in price and quality. These are ‘high capability’ firms in the sense that we discussed above, and economies with large numbers of high capability firms have a strong base for productivity change (Sutton, 2012).

While there is substantial consensus that there are correlations among diversity, sophistication and productivity, there is far less consensus on the policy implications of these stylised facts. It may be that economies endowed with more productive, and therefore more capable, firms select to export a wider range of more sophisticated products, rather than that diversity and sophistication drive enhanced productivity. This leads some observers to focus on economy-wide policies such as those discussed above under the investment climate and fundamentals. The IMF (2014) for example argues that higher levels of education and institutional quality, including better protection of property rights, are associated with higher export product diversification.

Advocates of export push type strategies advocate more selective policies, arguing that tilting incentives in the direction of exports in general provides a basis for broadening the range of exportable products and moving up in terms of sophistication (Page, 2012a). This ‘broad selectivity’ still puts the major role for ‘self-discovery’ on the private sector, but is clearly not neutral with respect to exports. Even the IMF (2014) puts a toe cautiously in that pool, arguing that there is some statistical evidence that real exchange rate undervaluation of the type advocated by Rodrik (2010) is associated with higher export diversification. At the most selective margin, UNIDO, drawing on the work of Lall (2004), has a long-established tradition of advocating selective policies to encourage the expansion of medium and high technology exports and uses measures of these exports as a key component of its index of industrial development (UNIDO, 2013).

Box 4. Pathways of political-economic change

Nigeria: The most promising ways forward for Nigeria may be investment initiatives focused on demonstrating the applicability to Nigeria of the best international thinking about economic transformation, including the benefits of an orientation to competitiveness in global markets.

Rwanda: The way forward is going to pass through the creation of more sophisticated means of addressing the country’s competitive disadvantages in terms of market size, infrastructure and location. And it will call for new capabilities for supporting and managing foreign and domestic investment, within and outside the planned multiplication of SEZs and industrial parks.

Mauritius: The heart of the matter was an agreement among the (predominantly Indian) political elite and the (predominantly non-Indian) economic elite to treat the sugar-export sector not as a cash cow but as a platform for a progressive diversification of the economy.

Bangladesh: The Bangladesh garments sector began before the competitive clientelism of civilian politics was fully established. It then experienced such explosive growth that its business associations gained sufficient clout to compel both of the dominant political parties to keep the policy framework in place.

Indonesia: In contrast with Nigeria, technocratic planning units staffed by economics graduates were afforded critical support by a political elite that maintained strong affinities with rural life and believed in inclusive development.

Source: This paper, Section 6.

Entering global value chains

We have seen above that in some manufacturing and service activities, a production process can be decomposed into a series of steps, or tasks. One of the more popular policy objectives to manufactured export development rests on efforts to enter global value chains (Cattaneo and Miroudot, 2013). Inevitably, the issue arises of which value chains should be supported and how. The African Economic Outlook 2014 for example takes as its first policy principle that interventions must be value-chain specific and involve providing the best environment for the value chains with the greatest identified potential or economic transformation.

Because end-stage task-based production depends on imported intermediate inputs, the institutions directly related to international trade (for example customs) and transport infrastructure are crucial to success (AfDB et al., 2014). These elements of ‘trade logistics’ must be efficient, in order to cut delivery times and avoid delays. Therefore, many of the specific policy interventions recommended to enter global value chains consist of accelerated investments in ‘fundamentals’: trade-related infrastructure, education and skills development and better functioning institutions (UNIDO, 2009). Collaboration between public and private actors (state–business relations as discussed above) has been flagged as crucial to success (AfDB et al., 2014). In Ethiopia for example the Ethiopian Textile and Garment Manufacturers Association is a key partner for government and for multinational lead firms such as HandM. In Africa in particular, deepening regional integration could create more opportunities both within value chains that focus on regional production for regional markets, and for regional value chains that supply global markets (Bamber and others, 2014).

Raising agricultural productivity

Economic transformation policies in poor economies should support the growth of agricultural productivity as labour productivity is far lower in agriculture than in non-agriculture, see above. In light of such stylised facts, the World Bank (2007) *World Development Report 2008: Agriculture for Development* for example makes

the case for the essential role of productivity change in agriculture in early stages of development and urges a much stronger public policy focus on agricultural productivity. Computable general equilibrium (CGE) models offer suggestive evidence that relatively large overall gains in economic output can be obtained from investing in agricultural productivity. McArthur and Sachs (2013) provide a recent example, using a CGE model for Uganda to argue for a boost to agricultural productivity as an engine of growth and development. Diao and others (2010) make a similar argument. A recurring finding of the CGE models of African economies is that agricultural productivity growth generates positive impacts on overall growth, and often generates positive poverty impacts as well (Dercon and Gollin, 2014). Dercon and Gollin sound a cautionary note, however: if growth in agriculture is especially difficult to achieve, then a development strategy concentrated on agricultural investments may lead only to wasteful expenditures of resources.

Summarising policies for economic transformation

Table 5 summarises the four different types of policies in the following 2 by 2 matrix. All of these policies relate to different aspects of economic transformation. This is not a prescriptive list, and the same policies are likely to have different effects on different countries.

A range of policy analysis tools help to underpin the above matrix using appropriate economic policy analysis at the country level. Analysis to underpin non-selective action for economic transformation includes the use of the HRV Growth Diagnostics (Hausmann et al., 2008) broadly discussing whether growth is constrained by a high cost of finance or by low appropriability of higher returns. Investment Climate Assessments and *Doing Business* assessments also generate non-selective policies suggestions for economic transformation. On the other hand, Lin and Monga’s 6-step analysis, the Hausmann’s product space analysis or global value chain analysis all generate ideas to think more selectively. We discuss this in more detail in Section 7.

Table 5. A typology of public actions to promote economic transformation

	General enabling interventions	Targeted interventions
Public actions to support structural change	Investment climate reforms Financial sector development Strengthening state–business relations	Export push policies Exchange rate protection Selective industrial policies Spatial industrial policies National development banks
Public actions to support within-sector productivity growth	Building fundamentals Investments in basic production knowledge <ul style="list-style-type: none"> Managerial good practices as public goods Agricultural innovations Promoting competition	Management training Attracting FDI Export diversification Developing global value chains Increasing agricultural productivity

5.2 Clusters of economic transformation policies

The above summary table gathers together a number of quite different ways of thinking about policies for economic transformation. However, there can be considerable merit in bringing several sets of public actions together into combinations or strategic clusters, because many of individual areas of public action set out in the table above are interdependent and mutually reinforcing, either as a result of the underlying economics of structural transformation and within-sector productivity change or from the perspective of political economy. Interestingly, this more strategic approach to policy-making cuts across those who favour only non-selective interventions and those for whom some targeted interventions are also deemed desirable.

One strand of this literature, focused mainly on non-selective interventions, calls for a rebalancing of the investment climate agenda. Page (2012b) for example makes the case that in Africa, at least, the donor community's excessive focus on regulatory reform – a policy intervention mainly targeted at reducing the barriers to entry and growth of firms in the modern sector – has come at the expense of attention to such basics (or in Rodrik's terminology, 'fundamentals') as investments in infrastructure and post-primary education. These basics are viewed as essential to within-sector productivity growth and are seen to be complementary with one another. One additional element of the approach is an emphasis on the importance of business government coordination to identify the binding constraints to growth of high value added activities, to design appropriate policies, and to monitor impact (Page, 2012b).

The IMF (2014) argues that evidence from cross-country analyses and case studies shows that 'horizontal' policies such as improving education, infrastructure and the institutional and regulatory environment, and enhancing access to new export markets, have proved successful in facilitating diversification, resource shifts across activities, and quality upgrading; particularly when these investments are taken in combination with structural reforms such liberalisation of trade, reduction of agricultural subsidies and price controls, and financial deepening through reforms in the banking sector. The Fund remains more sceptical of selective interventions, noting that the extent to which industry-focused and narrowly targeted measures have helped underpin diversification efforts remains an open

question (IMF, 2014). Table 6 below summarises their findings on clusters of policies.

Rodrik (2013) stresses the need for complementarity between policies to improve the 'fundamentals' – mainly non-selective investments in the neoclassical drivers of growth of output per worker – and policies to increase the pace of structural change which can be more selective. His argument is mainly centred on the political economy of policy reform. Rodrik and McMillan (2015) argue that investments in human capital and institutions produce moderate growth at best until they accumulate and reach a certain threshold. The downside of this approach to growth is that it can easily produce reform fatigue. Growth payoffs will appear as disappointing despite substantial efforts at reform. Hence, there is a need for complementarity between investments in fundamentals and policies to promote the more rapid growth of highly productive sectors. In promoting structural change, he argues, it may prove more effective to selectively promote industry than to do it indirectly by making broad investments in human capital and institutions and hoping that these will trickle down to investment incentives in industry (McMillan and Rodrik, 2015). East Asia is cited as the premier example of this strategy. In China, governance and human capital have lagged significantly behind the country's manufacturing prowess.

Newman et al. (2015), in a new study of African industrialisation, propose what might be termed an 'investment climate plus' combination of policies for economic transformation. While they note that investments in infrastructure, skills, and improvements in institutions are necessary for long-term growth of output per worker, they argue that these are not sufficient. This is because improvements in the investment climate fail to address the complementarity among the sources of within-sector productivity change. Newman et al. (2015) argue that in countries at early stages of development, three drivers of firm-level productivity – success in exporting, firm capabilities and agglomeration economies – are mutually reinforcing. For example, industrial exports help to build firm capabilities, which are then transferred through agglomeration economies.

The investment climate plus approach stresses the complementarity among policies designed to promote the more rapid growth of modern sectors of the economy. The authors further argue that these complementary selective interventions are equally as applicable to 'industries without smokestacks', such as agro-industrial value chains and tradable services, as to manufacturing. For this reason

Table 6. What clusters of factors drive economic transformation?

Key elements	Selected interventions
Structural change	Manufacturing share: power, credit, labour market and business regulation Services: liberalisation of networks such as telecommunications
Sector productivity	Agricultural productivity: tariffs, interest rate controls Manufacturing productivity: capital account liberalisation and FDI, roads, education
Export product diversification	Higher level of education and institutional quality, deeper financial systems, proximity to markets, globalisation including south-south trade, trade liberalisation, agricultural reform and devaluation

Source: IMF (2014).

Newman et al. (2015) set out a four-part strategy for industrial growth in Africa that combines a redesigned investment reform agenda with policies to create an East Asian style ‘export push’, measures to attract FDI, and spatial industrial policies to encourage the formation of industrial clusters. The IMF (2014) appears to reach a broadly similar conclusion, noting that while many attempts to ‘pick winners’ have failed, broader types of policies – policies that aim to resolve specific market failures, such as those facilitating industrial agglomeration, and to provide information for nascent export oriented industries – have played a role in promoting entry into new economic activities in developing countries.

Ansui et al. (2016b) formulate a policy package consisting of seven elements that together form a coherent industrial policy:

- Continued improvements in the basics, including sound macroeconomic management, stronger general investment climate, support for the private sector, and development of public infrastructure and relevant skills;
- An export push, including regional trade and integration;
- Agglomeration through building and running efficient special economic zones and industrial parks;
- Active foreign direct investment promotion and building linkages with local firms;
- Supporting local small and medium enterprises to enhance productivity and access technology and long-term finance to help them venture into new or more sophisticated products;

- Improved coherence and implementation coordination within government;
- Strengthened consultation and collaboration between government and the private sector.

As discussed in this section, such elements work together. For example, it is challenging to provide good quality and appropriate skills and infrastructure, without weak co-ordination between government and the private sector. To attract investment, a good quality investment climate needs to be complemented by building special economic zones that have good transport, water and energy infrastructure. Special zones are also well suited to form part of an export push. In conclusion, there are many elements of the policy package that reinforce each other, and the absence of one can reduce the effectiveness of the other.

5.3 How might international development policies help?

We can follow the same categorisation as in Table 5 for national policies to discuss the role of international development policies, again distinguishing between actions that promote structural change and those that promote within-sector productivity change, and between enabling and targeted interventions. Table 7 lists illustrative examples. We also summarise the main points below.

General, enabling international support for structural change includes international trade, finance and migration policy. International trade policy can support economic transformation as. For example, Bangladesh and Mauritius have used market access in the EU and US to attract garments and sugar activities and transform their

Table 7. International support for economic transformation (illustrative examples)

	General, enabling interventions (policies and finance)	Targeted interventions (policies and finance)
International actions to support structural change	<p>Global and international policies, e.g.</p> <ul style="list-style-type: none"> • trade/transport policy (e.g. WTO, Regional Trade Agreements) • international tax policy • international migration policy (incl. cost of remittances) • global financial regulation (for stability, e.g. G20) • international shock facilities (e.g. IMF) <p>Investment climate reforms, building fundamentals, e.g. donor programmes to support countries in</p> <ul style="list-style-type: none"> • macroeconomic support • infrastructure (e.g. AFT) • human capital (skills) • financial sector development • energy markets • institutional development 	<p>Bilateral/Home country support, e.g.</p> <ul style="list-style-type: none"> • FDI incentives/regulation • value chain/buyer programmes • international tax policy • development finance institutions <p>Increase the pace of growth of higher-productivity sectors, e.g. donor programmes to support</p> <ul style="list-style-type: none"> • SEZs • development banks • IPAs
International actions to support within-sector productivity growth	<p>Global and international policies</p> <ul style="list-style-type: none"> • technology transfer • FDI regulation • trade policy (e.g. Rules of Origin) <p>Support for in-country programmes such as</p> <ul style="list-style-type: none"> • agricultural innovations • technology upgrading in industry • reducing red tape • competition policy • transparency and governance 	<p>Bilateral/home country support, e.g. international policies, e.g.</p> <ul style="list-style-type: none"> • FDI incentives • buyer programmes/value chain development <p>Increasing firm capabilities, e.g. programmes for</p> <ul style="list-style-type: none"> • making markets work • management training • challenge and innovation funds

economies. Further, the effects of Aid for Trade (AfT) on trade costs also have important impacts on economic transformation (Busse et al., 2011, Cali and te Velde, 2011; Dennis and Shepherd, 2011). International finance/shock facilities policy can also help countries to transform. The problem of transformation in poor countries is not just a failure to record periods of positive economic growth but also owes to the frequency of downturns (Winters et al., 2010). Donors and international financial institutions have designed shock facilities to cushion the impact of shocks on the poor and protect critical spending categories in order to sustain growth and economic transformation (te Velde, et al. 2011). Finally, international migration regimes also matter. Migration and remittances have been a crucial component in economic transformation in a range of small countries, such as Nepal.

Examples of targeted international support for structural change include China's assistance has helped industrialisation and SEZs in Africa (Brautigam and Tang, 2011) the work of the World Bank and UNCTAD supporting Investment Promotion Agencies (IPAs), which target and work directly with individual firms, both to attract their investment and to make that investment work for local economic development (see te Velde, 2013); and development finance institutions (DFIs) that can be used to provide finance with the potential to increase productivity and create jobs. Jouanjean and te Velde (2013) find that involvement of DFIs increased labour productivity by 13%, but DFIs are not spending a lot of resources on industrialisation directly.

General, enabling international support for sector productivity includes international cooperation can support R&D and innovation, for example in agriculture. Two good examples of donor-backed programmes targeted at raising productivity in African agricultures are the Comprehensive Africa Agriculture Development Programme (CAADP) and the adoption of the Land Governance Assessment Framework (LGAF) (see Diao, 2012; Benin, 2012).

Examples of targeted international support for sector productivity include support was provided through DFID's grant to Vodafone (Safaricom), to pilot and launch a

mobile banking solution in Kenya called M-PESA (which means mobile money). The grant helped bring about a substantial shift in Vodafone's internal strategy towards mobile banking. Vodafone subsequently launched its M-PESA mobile banking product commercially across Kenya and internationally. As another example, the World Development Report 2013 on jobs makes the case for 'targeted management training', arguing that management training must be kept simple and time bound. Programmes combining management training with financial support yield better results. Finally, the Japan International Cooperation Agency (JICA)'s support for 'Kaizen' aims to improve firm capabilities for a number of selected firms (Lemma, 2016). Kaizen means 'improvement' and refers to a process of innovation in firms involving the entire workforce. It involves customer orientation, quality control, new product development, just-in-time, automation and cooperative employer-employee relationships and so on. Kaizen is aimed at reducing inefficiencies. A range of African countries have already received support for Kaizen from JICA (Egypt, Tunisia, Ghana, Ethiopia, Kenya etc.). An initial assessment of an Ethiopian Kaizen project suggests three pilot companies have reduced costs of production, improved quality and reduced lead time (Desta et al., 2014).

This is not a prescriptive list, and the same external support is unlikely to have the same effect in different countries. Table 7 classifies different policies in different cells as if they are independent or implemented separately. Often, however, it is the combined policies and finance from the entire table that together support the process of economic transformation (as discussed in Section 5.2), even though some may be more important than others at certain times and in certain locations. It may also be the case that in isolation many policies make sense but together they are not achieving the transformational potential. It is important to consider the combination of policies and finance (European Report on Development (ERD), 2015). Finally, donors can support economic transformation processes by convening and providing analytical inputs. An example would be to support the approach outlines in Section 7.

6 Country experiences in economic transformation

This paper has discussed the definition, measurement and political economy of economic transformation. In addition, we have reviewed the range of types of policy measure that can be used to facilitate transformation, if and when politically feasible. This section draws together these elements and illustrates their use, examining the experience of five countries. We begin with a contrasting pair of continental African countries, Nigeria and Rwanda. Despite obvious differences in scale, history and geography, Nigeria and Rwanda exemplify situations of severe economic transformation deficit. The three other countries – Mauritius, Bangladesh and Indonesia – have all experienced greater economic transformation. They illustrate the potential for transformation in continental Africa, and at the same time illuminate the variety of policy approaches and political economies that can support progress in transformation. Taken together, these country comparisons confirm that the common challenges of economic transformation can be met in different ways, with a variety of policy combinations and ways of addressing political-economic obstacles.

We begin with some comparative data on transformation outcomes in the selected countries. First, we extend the Hausmann product-space analysis explained in Section 3 to shed light on transformation deficits across the five countries. Then we present some data on labour productivity over recent decades, to give an indication of the pace of the changes contributing, positively or negatively, to economic transformation over the past quarter-century. The country-by-country analysis that makes up the remainder of the section explores the range of experience with respect to (a) the influence of *political economy* factors, (b) relevant *policies and policy combinations* and (c) actual or potential *pathways of political-economic change*.

6.1 Transformation outcomes compared

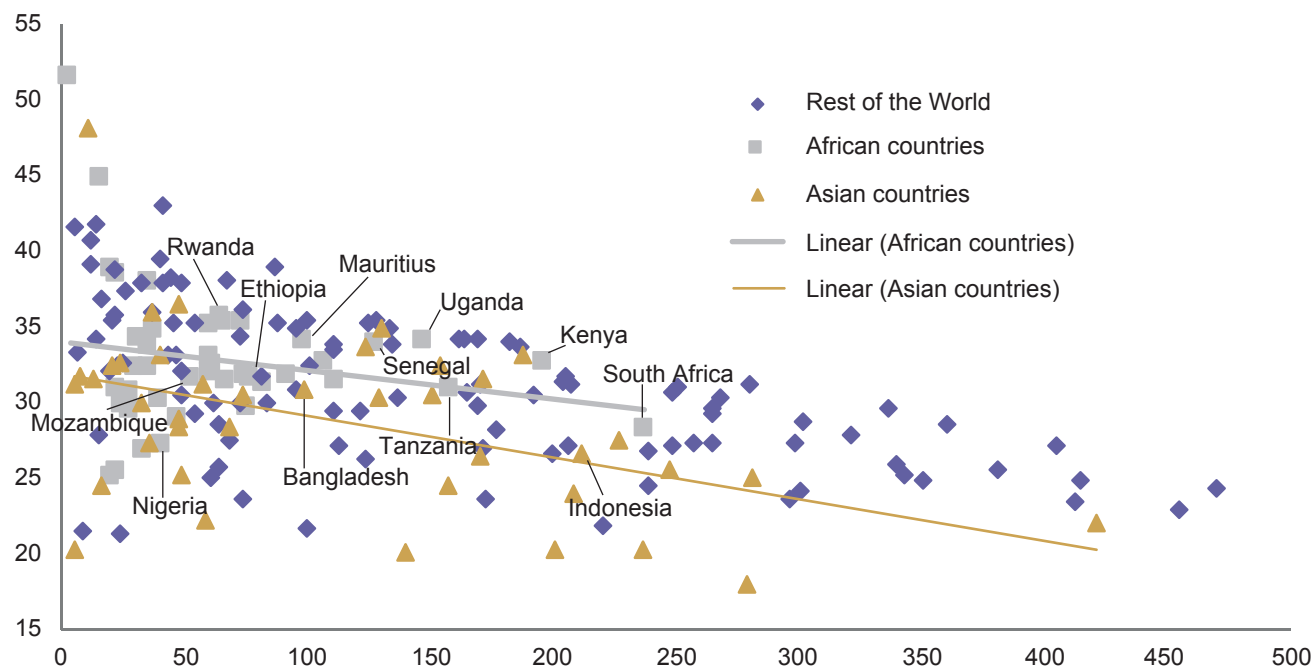
To assess the extent of transformation across the countries, we follow Hausmann et al. (2014) and examine both whether countries' exports include many products, and which of those products are not exported by many other countries. The data in Figure 3 show the negative relationship between the diversity of a country's exports and the average ubiquity of those products, as discussed in

Section 3. More diverse countries (countries which export a relatively large number of products) tend to export products with relatively lower ubiquity (products that are exported by relatively few other countries). The position of a country on the graphic provides a useful proxy measure of the extent of its economic transformation

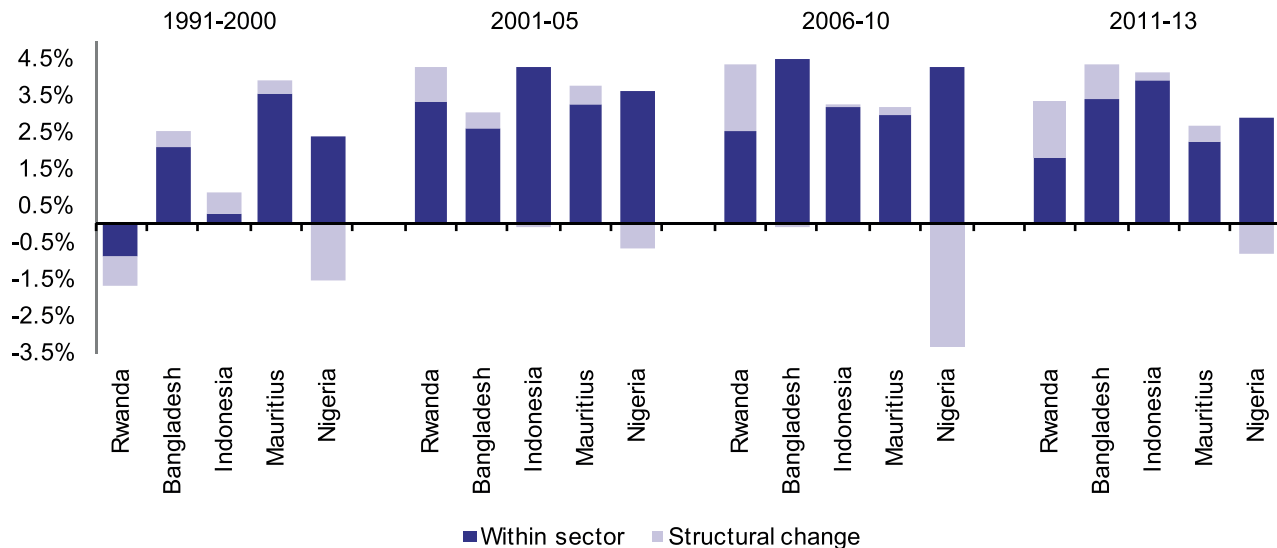
The location of our set of countries confirms, first of all, that both Nigeria and Rwanda have markedly undiversified exports, with the difference that Nigeria's export profile is less ubiquitous. Both have a long way to go in achieving economic transformation according to this measure. Mauritius, Bangladesh and Indonesia have all moved further towards export product diversification, and Indonesia in particular has both diversified and moved in a large way from exporting standard products (those with high ubiquity) to exporting exclusive products.

These data describe the state of affairs in 2012, which is the outcome of both long- and medium-term processes of change. To give some indication of the contribution of what has happened over recent decades and five-year periods, we take another proxy of transformation, changes in labour productivity. Figure 4 shows changes in labour productivity for the decade 1991-2000, the two halves of the next decade, and a period beginning 2010. The figure also decomposes the respective contributions of within-sector productivity gains and productivity-enhancing structural change.

The good news is that labour productivity has increased at average annual rates of between 2.5% and 4.5% since 2001 in all of the countries (apart from Nigeria over 2005-2010). This is higher than the ranges seen in Table 1. However, as indicated by the changes between 1991 and 2000, the countries are coming from different places. In particular, Rwanda has been catching up following a decade of negative rates on either side of the 1994 genocide. Indonesia also performed relatively poorly in the 1990s. Its strong position in terms of the product-space comparison reflects achievements in earlier decades as well as sustained progress since 2001. Across all the countries, within-sector change has remained the larger component in productivity improvement, although Rwanda has been able to achieve substantial productivity-enhancing structural change recently (almost at a level seen in Asian economies in the 1980s and 1990s).

Figure 3. The relationship between ubiquity (vertical axis) and diversification (horizontal axis)

Source: Authors' calculations for the year 2012. Squares are African countries, triangles are Asian, diamonds are the rest. Diversification refers to how many products a country is diversified in, whilst ubiquity refers to how many other countries export the same product on average.

Figure 4. Decomposition of labour productivity change (annual changes)

Source: Analysis by the SET programme, see <http://set.odi.org/>

6.2 Nigeria

Nigeria's GDP per capita has increased in recent decades, but over the long term per capita growth has fallen behind that of many comparator countries, largely due to a very low level of investment. Nigeria's growth, moreover, has been neither inclusive nor transformative (te Velde et al., 2016).

This judgement is affected somewhat by the rebasing of the GDP series. The pre-rebasing data suggested that over 1990-2010 there had been hardly any structural change, with the share of employment in agriculture changing very little. The new estimates of GDP do make Nigeria Africa's largest economy and recognise considerably more service-sector activities. But, even using the rebased data, the GDP share of manufacturing in Nigeria (9%, see Table 8) is still at the bottom of a range of comparator countries (and below the average for sub-Saharan Africa at 12%). Trade (the sum of imports and exports) as a percentage of GDP has declined over the past decade to only 31%. Nigeria has faced a massive decrease in competitiveness, with the real effective exchange rate appreciating by 40% over 2009-2014.

Moving beyond national averages, Kenyan manufacturing firms are 13% more productive than Nigerian firms, and productivity varies considerably among firms in Nigeria. There are also differences in economic performance between urban and rural areas, between the north and the south and inside industrial clusters and outside. These indicators suggest the potential gains from a more competitive environment in which resources are able to move from lower- to higher-productivity activities, initiating a process of economic transformation.

Political economy

International experience suggests that successful economic transformation involves getting many things right, in a coordinated way. The basic orientation of policy matters; an orientation to achieving international competitiveness in selected industries is fundamental. Other requirements include concerted monetary, trade and subsidy measures; pre-announced and predictable industrial policies; careful management of the incentives of 'winners' and 'losers'; and intensive monitoring against fixed targets and goals. Without these measures, industrial policies tend towards the strengthening of firms whose profitability depends on subsidies and a domestic market niche, with international competitiveness becoming progressively harder to achieve. This has been the dominant pattern in Nigeria.

A review of the post-independence period as a whole reveals the persistent influence of inward-looking policy mind-sets among the country's intellectual and policy elites (Bevan et al., 1999; Henley, 2015; Henley et al., 2012). This mind-set has been inimical to a trade-based vision of development, as well as pessimistic about the potential of the agriculture sector. Export-oriented manufacturing, and even the revival of agricultural exports in which Nigeria was once a major player, has not been viewed as either necessary or possible in past periods of development policy-making in Nigeria. The Dutch Disease effects of growing oil exports on non-oil sectors have been passively accommodated by policy-makers, rather than actively managed to stimulate first agricultural and then industrial transformation, as in Indonesia.

Inward-looking policy orientations have been bound up with a political economy that, since at least the end of the Biafra war in 1970, has reduced both politics and business to a struggle for control of oil rents. After 1970, the bureaucratic and military elite in power had an opportunity to begin the type of state-led nation-building project that contributed in progress in countries like Malaysia and Indonesia. But they failed to rise to the challenge (Lewis, 2007). Instead, what Joseph (1987) calls 'prebendal' politics and others would call patron-client politics has become entrenched in the way the rich and powerful share out the spoils of power among themselves and the way they legitimise this state of affairs with their followers. While significant improvements in institutions and economic management have been achieved since the restoration of democracy in 1999, the underlying power relations have changed little (Campbell, 2013; Lewis and Watts, 2015a, 2015b).

Policy choice

Thinking about options for initiating economic transformation in Nigeria today needs to be hard-headed about these legacies of the past and their manifestations in the economic structure of the present. However, as shown by te Velde et al. (2016), this does not mean that nothing can be done.

First, there is no shortage, in strictly economic terms, of good entry points for upgrading the quality of economic growth. A range of sectors and products appear economically promising on the basis of one or more type of rigorous assessment, including analysis of revealed comparative advantage, Hausmann/Hidalgo product space analysis and the Lin/Monga Growth Identification and Facilitation Framework.

Table 8. Economic transformation in Nigeria

	1990	2000	2010	2013
Agriculture, value added (% of GDP)	31.5	26.0	23.9	21.0
Manufacturing, value added (% of GDP)	5.5	3.7	6.6	9.0
Services, etc., value added (% of GDP)	23.2	21.8	51.2	53.7
GNI per capita (constant 2005 US\$)	..	467.1	949.4	1022.5
Gross fixed capital formation (% of GDP)	14.3	7.0	16.6	14.2

Source: WDI, retrieved May 2016, includes rebased data after 2010.

Second, there seems to be a reasonable consensus around both the general constraints (applicable across sectors) and the more sector-specific needs that warrant policy attention. The former include: (a) targeted and core infrastructure (in power, integrated transport network, aviation); (b) access to finance, particularly for small businesses; (c) reduced business environment costs that can encourage high value-chain sectors (e.g. reducing multiple taxation, encouraging formal land titling); (d) lower import protection and lower trade costs that will reduce input costs; and (e) skills-building, particularly through entrepreneurial and management training, and human capital development (health and education) generally.

As for the more targeted policies, most economists agree with Hausmann and Wyett (2014) that the focus should be on the development of new export activities that better utilise the human resources of the country. This would involve, among other things, action on the macro-economic front to achieve a more stable real exchange rate, improvements in the capacity to solve coordination failures in the provision of specific public sector inputs and programmes to stimulate investment in new tradable activities. A further list of specific policy opportunities is generated by the application of the Lin/Monga Growth Identification and Facilitation Framework, including R&D incentives and export expansion grants for food processing, vocational training in construction, trade facilitation for assembly operations, public-private collaboration and access to broadband in information and communication technology (ICT), improved power for the metal industry and removal of the petroleum subsidy to stimulate the fertiliser industry.

Political-economic pathways of change

Because of the underlying political economy, public policy making in Nigeria has a long way to travel before any of the above is likely to be adopted and implemented in a serious way. However, in applying global lessons and sound economic analysis to Nigeria, it is important not to exaggerate how much must change in the short of medium term in order to get transformation started.

One thing that emerges consistently from the general literature on transformation in Asia, as well as from the country experiences considered below, is that it is not necessary for the bureaucracy of the state as a whole to be turned an effective coordinator of policy and driver of private sector investment and productivity growth. Policy for transformation involves getting many things right, in a purposeful and coordinated way. But not all of this has to be done in a comprehensive, cross-sectoral way, and the organisations that steer the process can be specialised entities that have been given a specific mandate by the political leadership.

The key ideas that helped countries like Indonesia, Malaysia and Thailand first transform their agriculture and then move on to industrialisation, were not immediately persuasive to the political classes and bureaucracies of those countries as a whole. They were pioneered by specialised public agencies with strong political backing. Those agencies implemented their ideas vigorously, eventually producing such striking demonstration effects that their ideas became the new orthodoxy. The revolution

in thinking about development, socialism and capitalism that has taken place in China and Vietnam over the past 30 years is an even more important example of big changes arising from small beginnings as a result of demonstration effects (Beresford and Tran, 2004; Coase and Wang, 2012; Lin et al., 1996). The most promising ways forward for Nigeria may be investment initiatives focused on demonstrating the applicability to Nigeria of the best international thinking about economic transformation, including the benefits of an orientation to competitiveness in global markets.

In the immediate future, a policy focused on creating ‘demonstration effects’ that contribute to new perceptions of self-interest among Nigeria’s political and business elites may involve difficult trade-offs. The most promising geographical locations for such investments will tend not to be those states where the need for jobs and other poverty- and conflict-reducing impacts is greatest. Nonetheless, in the medium and long term, the key question is how to harness the famed dynamism that Nigerians display in several areas of business to new, more productive and internationally competitive, economic ventures. If this succeeds, a template for addressing the jobs crises and social issues that afflict the less favoured parts of the federation will have been created.

6.3 Rwanda

Compared with other countries of sub-Saharan Africa, Rwanda has a very high population density and is poor in natural resources as well as landlocked. Nevertheless, by most measures its recent economic performance has been good. Rwanda’s annual GDP growth between 1999 and 2012 was 8%; with annual population growth at 2.5%, GDP per capita grew at 5.5% per annum. Rwanda’s labour productivity growth was 3.5-4.5% annually over 2000-2013, well over the African average (Table 1). However, as Hausmann and Chauvin (2015) argue, it is not yet clear that Rwanda has successfully embarked on a sustainable growth path. Subsistence farming still employs close to 80% of the population and the country still has one of the lowest levels of exports per capita in the world.

When we examine the role of structural change in recent growth, we find that the non-tradable sectors lead recent growth in the economy. Thus, five subsectors of the economy have a growth rate 50% higher than the overall GDP growth rate in 1999-2012, and all of those sectors are more or less non-tradable (construction, hotels, transport, education and other personal services). The share of agriculture in GDP halved between independence and the genocide, and has remained constant since then, with growth concentrated in services, not manufacturing (Table 9). Since the mid-2000s, there have been significant improvements in yields and labour productivity in agriculture, including staple foodstuffs, a previously neglected priority (Booth and Golooba-Mutebi, 2014). Not least because these trends may release labour from agriculture, Hausmann and Chauvin (2015) are right to argue that Rwanda needs to develop a larger and more diversified manufacturing and exporting footprint, with an emphasis on employment-intensive investments.

Political economy

Although the political economy of post-genocide Rwanda has both favourable and unfavourable aspects from the perspective of effective transformation policies, the balance is more positive than in many parts of sub-Saharan Africa, including Nigeria. Much of the literature on the country dwells upon shortcomings of the political regime led by the Rwandan Patriotic Front in terms of global standards of liberal democracy (e.g. Reyntjens, 2013). Another strand of thinking emphasises the visionary leadership and technocratic effectiveness of the country's long-time president, Paul Kagame (e.g. Crisafulli and Redmond, 2013). A third approach pays particular attention to the underlying relationships and shared understandings and how these compare with the equivalent arrangements in other countries at a similar level of development. It argues that since 2000, when Kagame became president, the regime has been underpinned by a stable settlement or elite bargain based on three elements: national reconciliation through economic and social development (rather than negotiation); power-sharing among legal political parties; and building a form of multiparty politics that is not based on clientelism (Booth and Golooba-Mutebi, 2012; Golooba-Mutebi and Booth, 2013).

This settlement ensures a high level of commitment to securing development results and doing so relatively quickly. It also removes or substantially weakens two of the features that, in most contemporary African political systems, work to undermine policy making in the national interest: winner-takes-all electoral competition and the use of economic rents and political appointments to reward members and supporters of a winning coalition. The Rwandan settlement provides a conducive environment for policy learning. This does not automatically result in wise policies and there are some rigidities arising from the organisational culture of the state which work against timely policy adjustment. Nevertheless, the balance-sheet is unquestionably more favourable to policy making for economic transformation than in many of the other countries in the region.

Policy choice

Rwanda's striking growth in non-tradable sectors, particularly construction and education, is the result of investment. Investment as a ratio to GDP rose from 13% in 2000 to 25.5% in 2013. The annual average growth rate in investment over 2006-2012 reached 15%, and 77% of that investment was in construction. Part of the construction

boom is due to heavy investment in infrastructure.

Although the investment growth rate is impressive, it is dominated by the public sector. The data between 2007 and 2011 show that public investment as a share of total capital formation was 51% in 2007 and rose to 64% in 2011. Since this investment involves public spending in the domestic economy financed in part from external sources, it results in exchange rate appreciation, which deters growth in exports from the agricultural or manufacturing sectors.

Thanks to the improvement in policies for the rural sector, Rwanda's recent growth has been broad-based, leading to rapid reductions in poverty. Based on the Integrated Household Living Conditions Surveys 2 and 3 (Rwanda, National Institute of Statistics 2005/06, 2010/11), the national poverty rate decreased by 12 percentage points between 2005/06 and 2010/11. Between 2005/06 and 2010/11, per capita real income increased by almost 40% for the poorest 20% of households, more than 20% for the second and third quintiles of households, and slightly less than 20% for the fourth quintile of households. However, sustaining an inclusive growth process in the future is going to require further steps to enable productive, well remunerated off-farm employment, much of which needs to come from manufacturing.

Rwanda's growth performance has been supported by the government's commitment to policy and institutional reform. According to the World Bank's Doing Business 2014, Rwanda progressed from 58th to 32nd in the ease-of-doing-business ranking worldwide in recent years and ranks the second highest in Africa after South Africa. Rwanda is also considered to be the second-most-reformed economy in the world over the last five years, as well as being the first in the East African Community by this measure (World Bank, 2013). However, Rwanda's success in attracting new foreign direct investment and stimulating the local private sector has been much less striking than these improvements would suggest, pointing to the limitations of general investment climate reforms on their own.

Targeted policies have been used to promote structural change with targeted investments, including relaunching of the national airline, RwandAir and the construction of an international conference and convention centre. There has also been attention to the performance of new sectors. For example, the ICT sector has been supported through e-banking, e-agriculture, e-government and e-trade as part of a National Information and Communication Plan (UNCTAD, 2014). However, until recently these initiatives have not paid serious attention to export manufacturing or processing. The Kigali Special Economic Zone, a strong

Table 9. Economic transformation in Rwanda

	1970	1980	1990	2000	2010	2013
Agriculture, value added (% of GDP)	61.6	45.8	32.5	37.2	32.6	33.4
Manufacturing, value added (% of GDP)	3.6	15.3	18.3	7.0	5.8	5.5
Services, etc., value added (% of GDP)	29.8	32.6	42.8	49.2	54.6	51.7
GNI per capita (constant 2005 US\$)	223.8	276.4	239.5	212.9	352.2	394.9
Gross fixed capital formation (% of GDP)	7.2	12.2	14.6	13.4	22.5	25.5

Source: WDI.

step in the right direction, has been operational for a relatively short time, with a number of pilot investments showing promise. The SEZ now has a few dozen companies in operation, including regional and global companies.

Political-economic pathways of change

Some of the pillars of Rwanda's strong performance are the following: a consultative approach; zero tolerance to corruption; strong performance on the doing business indicator including infrastructure and investment promotion; advancement of women, with record numbers as female ministers; high-quality primary completion, whilst taking technical education seriously; a focus on agriculture; open trade and migration stance, and efforts to create strong central mechanisms for investment coordination. The country has a number of well-considered strategy papers geared to economic transformation. These are taken exceptionally seriously at all levels of government, which places Rwanda in a good position to move on from broadly enabling policies to targeted support to transformative investments. However, the way forward is going to pass through the creation of more sophisticated means of addressing the country's competitive disadvantages in terms of market size, infrastructure and location. And it will call for new capabilities for supporting and managing foreign and domestic investment, within and outside the planned multiplication of SEZs and industrial parks. As in Nigeria, any definite success in creating a manufacturing cluster with strong impacts on the trade balance and employment may be expected to create a significant 'bandwagon effect', with other global and regional firms showing new interest.

The management of public-private cooperation in Rwanda has involved the creation of an apex business organisation, the Private Sector Federation, on government initiative in view of the absence of any credible interlocutor in the years after the genocide. In other respects, however, the Ethiopian multi-method style is followed, with one approach taken in pyrethrum agribusiness and road and housing construction and another in mining (Behuria, 2015). In these and other cases, the diversity of approach may well be a permanent necessity, since sectors will continue to have different needs and possibilities. It may also, however, be the reflection of an incomplete learning process in which governments that have espoused economic transformation as a national project, and have begun to create protected and empowered coordination bodies, feel their way towards a viable model for engaging with credible private sector organisations. Extending the reach

and representativeness of the PSF will be a necessary complement to deepening the capabilities of the state in sustaining and steering investment flows.

6.4 Mauritius

In Mauritius, a well-designed combination of targeted and general, enabling policies was supported by a remarkable political consensus, enabling a successful transition from plantation agriculture to manufacturing and then to high-value services. As documented by Treebhoohun and Jutliah (2014), despite being a vulnerable, small island based on a monoculture economy characterised by high unemployment, low education and the absence of natural resources at independence in 1968, Mauritius has undergone rapid structural change. After lowering its dependence on sugar in the 1970s, it developed an export-oriented textile and garment sector in the 1980s and a tourism industry followed by a dynamic financial and business services platform after 1990. As agriculture's contribution to GDP declined, the share of manufacturing GDP doubled between 1970 and 1998. In the 1980s, the share of services in GDP increased by 10 percentage points in the 2000s.

Political economy

At the outset of its transformation process, Mauritius was not obviously well placed to emerge as a high performing economy. On the contrary, this Indian Ocean island shared with continental members of the Africa region several structural features that have often been seen as predestining countries to irregular economic growth and limited structural change. At independence in 1968, the island was reliant on sugar exports for 88% of its foreign exchange and therefore vulnerable to terms-of-trade shocks. The domestic market supported limited import substitution. A small but rapidly growing population consisted of a Hindu majority and several minorities, including Franco-Mauritians, Creoles and Muslims. Majority rule under a Westminster-style political constitution was widely expected to result in the hegemony of a majority group without substantial representation in property ownership or business, to the detriment of the conditions for economic development. The fact that, despite these well-grounded, independent Mauritius turned out to be one of the most remarkable transformers in the Africa region gives the experience particular interest (Bräutigam et al., 2002; Subramanian and Roy, 2003).

Table 10. Economic transformation in Mauritius

	1980	1990	2000	2010	2013
Agriculture, value added (% of GDP)	13.1	12.9	7.0	3.6	3.2
Manufacturing, value added (% of GDP)	15.8	24.4	23.5	17.0	17.0
Services, etc., value added (% of GDP)	60.7	54.4	62.1	70.3	72.5
Gross fixed capital formation (% of GDP)	23.2	30.6	22.9	24.9	21.2

Source: WDI.

Policy choice

Despite its challenging starting-point, from the 1970s onward Mauritians built a consensus view across the public and private sectors around a strategic direction for the economy, which was based on structural transformation away from sugar and towards garments, tourism, financial services and finally an integrated services platform. This government-supported model led to major gains for the productivity and wages of the majority of workers, while also involving adjustment costs for some, which needed to be addressed. Rents from the sugar sector were reinvested to stimulate other sectors. Mauritius followed a policy of export promotion and import substitution (Ansu et al., 2016b). While protection at home was reduced gradually, Export Processing Zones (EPZs) boosted garment exports. Preferential trade access for sugar and garments was eventually lost, which required productivity enhancement in surviving firms and retraining and redeployment of labour from existing firms and sectors into other sectors (Rojid et al., 2009; Treebhooon and Jutliah, 2014; ERD, 2015).

A range of targeted policies supported this transformation. Macroeconomic fiscal and exchange rate policies, regulatory policy reforms and structural adjustment programmes set the broad conditions for the economy's competitiveness and increases in trade and provided incentives for investment (above 30% of GDP in the 1990s) and savings. Mauritius also employed a range of targeted policies aiming to develop sectors and diversify to achieve structural change. The active reallocation of finance from agriculture to manufacturing and services by both the public and the private sectors was behind structural change in the 1970s and 1980s. The active pursuit of FDI and trade-promotion policies, including the establishment of an EPZ, led to a 50-fold increase in merchandise exports between 1971 and 1990. In response to increased competition for its textile exports as a result of the abolition of the Multi-Fibre Arrangement (MFA), the government set up the Export Processing Zones Development Authority (EPZDA) to provide financial incentives for productive restructuring. The Mauritius Offshore Business Activities Authority, established in 1992, promoted the development of offshore financial services.

Since 2000, Mauritius has opened up its economy to skills, promoting ICT and financial services and pursuing a 'blue and green growth strategy' to take advantage of its two million km² maritime zone. The ICT Authority was set up in 2001 to develop Mauritius as a 'cyber island'. The contribution of ICT to GDP grew from 4.1% in 2000 to 6.5% in 2010, creating 8,000 new jobs. These selective interventions aim to address global competition in traditional sectors from other low-cost economies through further diversification and productivity enhancement using export promotion and investment in technology, including renewable energy.

Political-economic pathways of change

The package of policies pursued with such success in Mauritius would not have been possible if the country's unpromising structural conditions had been allowed to work themselves out in the expected way. The strategic consensus that underpinned the effectiveness of policy was rooted in the discovery of political arrangements that

turned the country's ethnic make-up from a threat to an advantage. This in turn permitted the building of effective institutional arrangements for consultation and joint policy-making between the government and the private sector.

The constitutional conference in 1965 that prepared the ground for independence arrived at a compromise designed to protect the position of the minority communities, including the Franco-Mauritians. The National Assembly would have 62 elected seats plus eight 'best loser' seats. Also counterbalancing the harmful potential of majority rule, a broad alliance of minority tendencies remained sufficiently unified to capture 43% of the popular vote. Under the long tenure of the country's first prime minister, the leader of the Mauritian Labour Party, there emerged a pattern of multiparty politics in which the business-oriented minority played a continuously important role in policy making, both in and out of government. This provided fertile ground for the construction of a collaborative relationship among the principal public- and private-sector actors, and in turn the pursuit of policies that combined economic and political good sense.

At the heart of this relationship was an agreement among the (predominantly Indian) political elite and the (predominantly non-Indian) economic elite to treat the sugar-export sector not as a cash cow but as a platform for a progressive diversification of the economy. Transfers to majority groups took the form of an expansion of the civil service and systems of social protection, providing the basis for what Subramanian and Roy (2003) refer to as an optimal form of inter-elite rent-sharing.

The policy process was led by public sector bodies such as the Export Processing Zones Development Authority and the Export Development and Investment Authority, the Industrial and Vocational Training Board, the National Productivity and Competitiveness Council and the Ministry of Finance. However, the finance ministry worked in tandem with private sector associations, especially the apex body, the Joint Economic Council. This latter is funded entirely by its institutional members, which include the Chamber of Commerce and Industry, the Chamber of Agriculture, the Employers' Federation, the Sugar Producers' Association, the Export Processing Zone Association, the Bankers' Association, the Insurers' Association, the Association des Hôteliers et Restaurateurs and the Association of Mauritian Manufacturers. It is the main actor in a system of formal and informal collaboration between the public and private sector based on well-established trust.

It was this set of relationships that permitted the success of key initiatives for economic transformation such as the setting up of an export processing zone, the building of the first hotels, renegotiation of the sugar protocol, the creation of a national airline and the establishment of a stock exchange (Rojid et al., 2010; Treebhooon and Jutliah, 2014). The success of the model was assisted to an important degree by the trade preferences enjoyed at the time – which among other things allowed domestic market protection to remain in place without weakening export incentives for longer than would otherwise have been possible (Subramanian and Roy, 2003). However, the way this time-limited advantage was exploited to facilitate restructuring of the economy is an example among others

of the capabilities that can be generated when a viable political-economic pathway is available to a country.

6.5 Bangladesh

Bangladesh has experienced significant transformation, based on somewhat lopsided advances in manufacturing. As documented by Khatun (2015), Bangladesh has undergone significant economic transformation over the last few decades. Investment rates were high and per capita income increased from \$90 in 1973 to \$1,044 in 2013. The share of agriculture in GDP halved from 31.6% in 1990 to 16.3% in 2013, whilst manufacturing increased from 13.8% to 17.3% and services from 47.8% to 56.1% over the same period (Table 11).

The ready-made garment sector has been the most visible aspect of this transformation. Its output has grown at annual rates in excess of 15% over the last half dozen years, and Bangladesh is now the world's second largest exporter of garments behind China. The sector now accounts for more than 12% of Bangladeshi GDP and 80% of exports (Woodruff, 2014). Garments have also played a central role in the expansion of labour market opportunities for women – for whom the employment-to-population ratio increased from 22% to 34% between 2000 and 2010. Country-wide labour productivity growth was 2.5% annually in the 1990s, and 3-4.5% from 2000 to 2013.

Political economy

Bangladesh's progress in economic transformation is a leading example (along with Indonesia, as we shall see) of something that would never have happened if conventional assumptions about the political economy of development were true. In conventional terms, it is a paradox that the country has experienced substantial success in export manufacturing and a number of other fields of economic and social development despite scoring poorly on most indicators of quality of governance. However, as Khan (2013) and Levy (2014) have argued, the Bangladesh experience provides one of the clearest examples of why we need to recognise more than one viable pathway of development. The conventional story, in which improvements in governance or the effectiveness of the state as a leading force in development occur in tandem with economic advance, corresponds closely enough to some other experiences in Asia (so long as developmental governance is not identified too closely with liberal democracy). However, Bangladesh needs to be treated as an

alternative pathway, one in which the relationship between state effectiveness and economic transformation is different.

The manner in which Bangladesh gained its first and second independence, first from Britain and then from Pakistan, gave the country a relatively equitable distribution of land assets. This provided the basis for a relatively inclusive pattern of economic and political development, one aspect of which has been the role played by a large development-oriented NGO sector. Politically, inclusion eventually took the form of a violently competitive and aggressively clientelistic two-party system. The record of this system in building an effective state and pursuing the reforms needed to accelerate development has been very poor, the most impressive reform episodes occurring without exception during interludes of military rule. As Levy puts it, 'Bangladeshi growth is a story of "islands" – of the emergence, and rapid expansion, of enclaves of dynamism within a broader sea of policy and institutional dysfunction' (2014: 79).

The most celebrated and important island of success is the garments sector. But garments production is one example among several of a *pattern* of development in which spectacular headway is made more in spite of than because of the contribution of the state. Leaving aside the way basic service provision has been spearheaded by organisations like BRAC and Proshika, examples include shrimp and fish aquaculture, tube-well irrigation in the rice sector and migrant remittances. These are all areas in which rapid development results have been achieved on the basis of narrowly focused institutional and policy reforms, in which non-governmental and private initiative has been able to play a significant role (ibid: 80).

Policy choice

The economic enablers of Bangladesh's transformation under this political-economic system have included improved telecommunications, rural roads, power generation, distribution networks, and investment in health and education and in technology. The improvement of rural road networks has created local employment and income opportunities. Poor and landless women and men have found work in road construction and maintenance. Better roads have reduced travel time and increased access to non-rural employment and to social services. As a result, women have been better able to seek employment and to benefit from maternal and child health programmes, and school attendance in rural areas has also improved. Better infrastructure has encouraged the development of rural markets through private investment in services such as

Table 11. Economic transformation in Bangladesh

	1960	1970	1980	1990	2000	2010	2013
Agriculture, value added (% of GDP)	57.5	54.6	31.6	30.3	25.5	17.8	16.3
Manufacturing, value added (% of GDP)	5.3	5.8	13.8	13.1	15.2	16.9	17.3
Services, etc., value added (% of GDP)	35.6	36.7	47.8	48.3	49.2	56.0	56.1
GNI per capita (constant 2005 US\$)			243.8	275.4	362.6	577.9	669.5
Gross fixed capital formation (% of GDP)			14.4	17.1	23.0	26.2	28.4

Source: WDI.

shops, restaurants, pharmacies, tea stalls and salons. These have created rural employment opportunities. Moreover, greater rural–urban connections have led to a rise in the value of land.

As we have said, a range of targeted policies and specific initiatives have been equally important in spurring Bangladesh's transformation. In the garments sector, key roles were played by exploitation of EU trade preferences, conducive trade finance (letters of credit) and private entrepreneurship (a garment company transferring knowledge and technology from Korea). More recently, there have been attempts to promote within-sector productivity, to withstand competition from lower-cost location, through training for garment workers. Recently, donors and buyers have begun to support upgrading of the garment sector in Bangladesh through buyers based elsewhere.

Whilst there has been relevant economic transformation, much still needs to be done, as many factors hamper further progress; political uncertainty, weak institutions, lack of skilled workers, unreliable energy supply, the availability of suitable land, and a cumbersome and opaque regulatory framework have held back investment. There is a shortage of land and unclear property rights. There are no computerised records of land titles, and disputes are common. As a result, acquiring land for investment is a slow and lengthy process. Bangladeshi exports are not sufficiently diversified, and its garments exports are vulnerable with low-cost countries such as Ethiopia and Myanmar coming on steam.

Political-economic pathways of change

The story of the garments sector, as told by Khan and Levy, includes several details that are highly relevant to countries that have until now achieved less economic transformation than Bangladesh and face similarly difficult political economies. The origins of the sector involve a particular form of foreign direct investment. In 1979, the Korean conglomerate Daewoo, aiming to circumvent quotas on its garments exports to Western markets, established a joint venture with a retired civil servant to begin manufacturing in Bangladesh. Daewoo took 130 workers for intensive training in its factories in Korea. Benefiting from the explicit support of the then military ruler, General Zia, the initiative was supported with targeted policy measures based on Korean experience, including export credits and duty-free importation of inputs. In due course, almost all of the trained workers, having acquired both technical production skills and the necessary knowledge of the

export business, left the original firm and set up their own companies. By 2006, there were over 3,500 garment-exporting firms, employing over two million people.

Several ingredients of this success story deserve to be underlined in view of the opportunities currently facing countries like Nigeria and Rwanda. One is the contribution of a footloose East Asian investor with established technological capabilities and a world-market niche. Another is the dynamic of change set in motion by the training of a cohort of local workers in the production disciplines and market realities of a significant international value chain, including the impossibility of restricting the learning so acquired to the initial small circle of companies. Last but not least, the story underlines the importance of seizing the political moment to get in place both the required convergence of foreign and domestic private interests and the necessary minimum of targeted policy support. The Bangladesh garments experience is not a pure private-enterprise miracle. It seems significant that it began under military rule, before the competitive clientelism of civilian politics had become fully established. It then experienced such explosive growth, and the number of firms became large enough, that its sectoral associations gained sufficient clout – as well as persuasive technical arguments – to compel both of the dominant political parties to keep the policy framework in place (Khan, 2013: 54–55; Levy, 2014: 81).

6.6 Indonesia

Indonesia, with the smallest transformation deficit in our set, is a good example of a country that has transformed successfully whilst addressing the potential negative effects of abundant natural resources. Despite facing initial conditions closely comparable with those of Nigeria, Indonesia has fared much better, managing the transition out of primary commodity production more smoothly and to greater gain in terms of economic growth and poverty reduction. The share of agriculture in GDP fell from 51.5% in 1960 to 14.4% in 2013, whilst the manufacturing sector grew from 9.2% in 1960 to a peak of 27.7% in 2000 before falling to 23.7% in 2013. Importantly, this change in the structure of the economy was led by impressive early gains in the productivity of agriculture and the rural economy, with the expansion of export manufacturing coming later (Henley, 2015: 86–92). Nonetheless, the significant increase in manufacturing, as Table 12 shows, is remarkable and really sets Indonesia apart from other natural resource-dependent countries.

Table 12. Economic transformation in Indonesia

1960	1970	1980	1990	2000	2010	2013	2013
Agriculture, value added (% of GDP)	51.5	44.9	24.0	19.4	15.6	15.3	14.4
Manufacturing, value added (% of GDP)	9.2	10.3	13.0	20.7	27.7	24.8	23.7
Services, etc., value added (% of GDP)	33.5	36.4	34.3	41.5	38.5	37.7	39.9
GNI per capita (constant 2005 US\$)	287.1	332.6	533.8	801.2	986.8	1526.3	1756.9
Gross fixed capital formation (% of GDP)			21.6	28.3	19.9	32.0	31.7

Source: WDI.

Political economy

The period over which Indonesia built the relatively diversified and productive economy that it enjoys today is a relatively long one, with a clear starting point in the mid-1960s and the political turmoil that brought President Suharto to power. At the beginning of that period, the country shared many features in common with some of the larger African countries, including Nigeria. Like Nigeria, it was a geographically extensive new nation populated by several large ethnicities and language groups with little or no pre-colonial history of joint statehood. 1960s Indonesia was the subject of an influential academic literature that predicted enduring underdevelopment on the basis of a profound cultural resistance to modernising change, especially in rural areas. Like Nigeria and Bangladesh, Indonesia has consistently performed poorly on corruption-perception indicators and other conventional measures of the quality of governance. During the decades in which their development performance diverged, Nigeria and Indonesia were both ruled by military-based regimes with their origins in episodes of large-scale violence. Finally, both countries became major oil exporters at around the same time and experienced the same immediate effects of the international oil price movements of the subsequent decades.

These observations have important implications. They imply that the reasons for Indonesia's success in economic transformation need to be looked for in areas other than those emphasised in theories about the institutional drivers and inhibitors of development progress that remain influential in international quarters, especially in relation to Africa. The relevant literature, which includes several substantial studies devoted to the Nigeria-Indonesia comparison (Bevan et al., 1999; Henley, 2015; Lewis, 2007), differs in the emphasis given to particular factors while agreeing on most of the fundamental matters of interpretation. There is a large measure of agreement that policy differences account for the bulk of the divergence in outcomes, especially in two areas: macro-economic management and investment priorities. The more difficult, controversial and important questions relate to why particular policy choices were made and the degree to which they were pre-ordained, if not on the basis of the kind of structural factors mentioned in the last paragraph then on account of political-economic features of a more specific sort.

Policy choice

In both Indonesia and Nigeria, GDP per capita grew fast during the oil boom the 1970s. During the oil-price slump of 1980-86, income per head continued to grow in Indonesia while in Nigeria it fell sharply. The immediate reason for the difference was that in Indonesia the collapse in foreign exchange earnings prompted an economic liberalisation and opening to foreign investment which paved the way for the rapid growth of export-oriented manufacturing, whereas in Nigeria similar moves were rejected. Both before and after this critical juncture, moreover, Nigerian exchange-rate policy deepened the Dutch Disease effects of export exports, effectively killing off non-oil export sectors and sucking in imports, including of staple foodstuffs, while Indonesian policy consistently

combated exchange-rate overvaluation and supported non-oil exports.

These differences in the long-term orientation of macro-management explain on their own much of Indonesia's superior performance in economic transformation. However, the effects were deepened by differences in sectoral investment priorities. Indonesia's boom in export manufacturing built upon a major push, led by public investment and starting some 15 years earlier, to improve rural infrastructure and raise the productivity of smallholder agriculture and staple crop production. Nigerian policy neglected staple agriculture as well as the inclusive social policies that were part of the Indonesian approach. Nigerian politicians and technocrats advocated the kind of inward-looking industrial big push that was fashionable in Latin America in the 1960s. They pursued this ambition long after the superiority of the more outward-looking Asian approach had begun to be established.

Underneath these headline differences, particular policies – non-selective and selective – have been important to Indonesian transformation. In the former category, human capital development has been a top priority for development plans since the start of the New Order Government in 1967. The government has implemented compulsory education since 1984. Targeted policies have been important in transforming the financing environment. Before 1986 Indonesia was essentially a closed economy where nearly all finance was based on oil revenues. After a weakening in oil revenues, Indonesia engaged in trade and FDI policy reforms that led to manufacturing FDI inflows which transformed the economy towards a more outward oriented economy. In 1997, Indonesia was hit by the Asian financial crisis, which had a major impact on the financial sector. It also led to a change in Indonesia's debt, from foreign (short-term) loans towards long-term bonds and especially towards domestic debt. More recently, FDI has also been attracted to the services sectors. Thus specific trade and finance policies contributed towards economic transformation.

Political-economic pathways of change

A key debate, with important implications for countries seeking to emulate Indonesia's transformation, is about why or how wise policy choices were taken notwithstanding initial conditions not very different from those prevailing in Africa today. Some experts place most of the explanatory emphasis on the influence of policy ideas from different economic traditions. In Indonesia technocratic planning units staffed by economics graduates were afforded critical support by a political elite that maintained strong affinities with rural life and believed in inclusive development. This contrasts with the pattern in Nigeria and much of Africa where senior civil servants and politicians regard smallholder agriculture as inherently backward and aspire to a form of transformation based on emulating the urban-industrial achievements of the former colonial powers.

Henley (2015), the leading advocate of this view, traces the ultimate determinants of the contrasting sets of elite attitudes to individuals' career experiences, which in the Indonesian case included fighting alongside rural people in the independence war against the Dutch. However, his emphasis on the role of ideas leads to a relatively optimistic

perspective on the feasibility of transformation-friendly policy in the current African context, one that agrees with Rodrik's (2014) cautions about the use of interest-based political economy diagnostics in defining the scope for policy change.

Even if Henley is right about the fundamental ideational underpinnings of Indonesia's transformational policies, there may be room for interest-based interpretations of various critical junctures. The interpretations of Lewis (2007) and Joseph (1987) attribute the failure of Nigerian governments after the end of the Biafra war to implement any coherent strategy for national development to the barriers to elite collective action created by Nigeria's particular ethno-regional make-up. Although Indonesia was also a diverse multi-ethnic state created to meet the needs of a colonial power, the regional arithmetic was more favourable. The dominance of the Javanese (42% of the national population) underpinned the efforts of the Suharto regime to steer Indonesia away from the regionally based competitive rent-seeking that became the dominant characteristic of Nigerian regimes. In short, Indonesia's superior long-term development performance ultimately reflects greater ability of that country's elites to solve problems of collective action.

6.7 Summing up

The experience of the five countries reviewed in Section 6 illustrates the previous discussion in this paper in several respects. First, it illustrates the extent to which different levels of achievement in economic transformation are bound up with political economy factors that, to a greater or lesser extent, shape the selection and implementation of policies favouring transformation. Second, it provides an application of the policy typology of Section 5, summarised in Table 13, which distinguishes selective and non-selective policies for structural change and sector productivity. Table 13 brings together some of the examples given in the text.

Third, the country experiences confirm there is no single path towards transformative outcomes. This refers to the sequence in which structural changes and within-sector productivity gains are achieved. It also applies to the way in which the political-economic obstacles and opportunities were navigated, harnessed or circumvented. This supports our broader argument that economic transformation may be possible in even the least favourable country contexts but that success requires both technically sound policy packages and forms of design and delivery that are smart in dealing with the politics and the vested interests that stand in their way.

Table 13. Public actions that supported economic transformation (illustrative country examples)

	General enabling interventions (policies and finance)	Targeted interventions (policies and finance)
Actions that supported structural change	Macro policies (Mauritius) Effective state–business relations (Mauritius) Human capital development (Indonesia)	Proactively reinvesting rents from sugar by both public and private sectors (Mauritius) Cyber island initiative (Mauritius) EU trade preferences, letters of credit and transfer of knowledge to kick-start garments (Bangladesh) FDI and export-oriented development policy (Indonesia)
Actions that supported within-sector productivity growth	Skills, promoting ICT and financial services (Mauritius) Donor support for garment value chains (Bangladesh)	Restructuring and productivity programmes in garments (Mauritius) Training for (female supervisors in) garments (Bangladesh) National information and communication plans (Rwanda)

7 Conclusions: towards a guided enquiry into economic transformation

This concluding section combines what we have learnt into a guided enquiry into economic transformation. Worrall et al. (2016) show that many developing country governments have over the past few years put economic transformation at the forefront of their national strategic visions and long-term plans. The Sustainable Development Goals also include goals around employment and industrialisation. However, there is a large gap between our understanding and measuring of economic transformation at country level on the one hand and what to do in practice to promote economic transformation in a specific country context on the other. There exists no agreed methodology of obtaining such information and acting on it. This section brings together the various elements discussed into a practical guided enquiry into economic transformation at country level.

This is not to say that no attempts are being made. On the contrary, we can build on an impressive range of relevant methodologies to understand economic transformation, but these have positive and negative aspects:

- **Academic (empirical) analyses of economic transformation** (e.g. McMillan and Rodrik, 2011) provide an excellent start to understanding the degree of economic transformation in a country (e.g. within and between productivity change), but these analyses often do not discuss policy implications, let alone practical policy implementation issues.
- The **HRV growth diagnostic** (Hausmann et al., 2008) is an excellent way of analysing bindings constraints to economic growth at the country level, but it does not focus on economic transformation (a subset of growth outcomes). It also does not specify the policy options to overcome a binding constraint or deal with policy implementation issues.
- The **World Bank's Country Economic Memorandum** brings together the latest economic analysis of selected economic policy challenges, although it does not devote much space to political economy issues around policy implementation.
- The work by Booth and te Velde (2009) overlays an **economic policy and political economy analysis** onto the outcomes of a growth diagnostic (the Uganda Country Economic Memorandum) and discusses a range of policy options to overcome the binding constraint; it follows this with an assessment of the political viability of these options.
- The World Bank's **problem-driven political economy analysis** (Fritz et al., 2014) comprises three steps. The first is to identify a specific development challenge, often one where technical analysis and engagement on their own have failed to gain operational traction. The second consists of analysing why the observed, dysfunctional patterns are present – that is, the political economy drivers, around (a) relevant structural factors that influence stakeholder positions; (b) existing institutions, including institutional dysfunctions that channel behaviour, as well as ongoing institutional change; and, finally, (c) stakeholder interests and constellations. The third and final step is to identify ways forward, including how to initiate change. To our knowledge, this approach has yet to be applied to the challenges of economic transformation.
- Pritchett et al. (2012) examine interests and incentives, which differ according to the position of particular **economic powerful elites** in the economy and/or the sectors they operate in (e.g. whether the players and firms are export- or import-oriented and whether they operate in high rent or more competitive spaces). This analysis would need to be integrated into a comprehensive analysis of policy support for economic transformation.
- ODI's *Politically smart, but locally led development* (Booth and Unsworth, 2014) and *Doing development differently* (Booth and Wild, 2015) approaches highlight the limitations of pre-planned, overly designed interventions that pretend to have ready-made answers in spite of the challenging uncertainties of development in the real world. Instead, they emphasise the value of 'learning by doing' approaches based on purposeful experimentation and rapid-cycle adaptation, with people who are close to the problems taking the lead in finding solutions.
- **DFID's inclusive growth diagnostics** (Clark et al., 2015) is a very useful heuristic that has been applied to a range of countries of interest to DFID. These are short analyses by DFID country offices and may not be able to discuss at length the main issues around economic transformation or the political economy

issues around specific government policy options or donor programming.

While these methodologies are useful building blocks, there is a need for a more explicit methodology that understands more directly what needs to be done in practical terms to support economic transformation. This paper has yielded key insights for developing such a guided enquiry. The reviews in Sections 2 and 3 discussed the concept of economic transformation and how to measure it. Section 4 looked at the relevance of political economy dimension, arguing that political economy aspects are interlinked with progress on economic transformation. Section 5 presented policy options to promote economic transformation. Section 6 applied the measurement, political economy and policy options to five countries that have seen different levels of transformation.

We present a new methodology with four core steps that anyone interested (policy-makers, donors, experts) in understanding how to support economic transformation will need to go through. These four dimensions of a country's experience in economic transformation include:

- What is happening? (discussing the achievements and limits of transformation to date)
- Why is it happening? (discussing the political economy of past policy choices as well as economic constraints)
- What should be done? (discussing the policies needed to facilitate transformation and identification of promising sectors)
- How to make it happen? (identifying technically sound, politically smart policy support)

In this final section, we cover these dimensions below, setting out what we would do (diagnostics) and what we have learnt (broad propositions, but no lists of prescriptive policies). Figure 5 summarises the steps.

7.1 What is happening?

The first building block describes the current transformation experiences. This would answer questions such as: how much has the production structure evolved historically to where the country is now? How large are the productivity differences across sectors and among firms? What is the 'productive knowledge' in an economy? There are a number of diagnostics, and applications of these have already led to several general observations or propositions.

Diagnostics

High-quality, cutting-edge economic transformation diagnostics include (the framework for measuring was discussed in Section 3):

- Sectoral productivity decompositions – how much productivity change is driven by structural change, how much within sector productivity change and how much past growth was simply increased economic activity without productivity change (more of the same)?
- Firm-level productivity analysis – what is the level and dispersion of productivity among firms in a sector?
- Trade in value added (e.g. Eora) – how much (domestic) value added is embodied in trade?
- Hausmann product space analysis – what is the level of sophistication, upgrading and diversification of exports?
- Other analyses such as employment, trade and FDI, gender and spatial data analysis – what groups are benefiting from transformation, how open is the economy, etc.?

Propositions

The discussions in this paper and underlying work suggest there are a number of propositions on economic

Box 5. Supporting economic transformation, a new approach and key propositions

Anyone concerned with improving the quality of growth in low income countries will need to work around four guiding questions and related propositions around economic transformation.

What is happening? Many LICs have experienced severe transformation deficits indicated by growth without structural change or job creation, lack of productivity change at firm and sector level and existence of large productivity differentials across sectors and firms, lack of meaningful diversification (little industrialisation, too many low-productivity services) and lack of resilience and quality growth.

Why is it happening? Many economic constraints to economic transformation are well known and country-specific (e.g. lack of skills, infrastructure and technology; weak business environment). However, economic transformation policy is generally hard to undertake or understand, as there are often deep-rooted (political-economy) factors impeding technically optimal measures.

What should be done? It is possible to identify objectively and focus on promising country-specific sectors within manufacturing and services that can promote economic transformation and quality jobs. A review of transformation experiences suggests (a) transformation is associated with good economic fundamentals, openness and exporting and (b) some level of policy targeting is required as general 'investment climate' support is not sufficient.

How to make it happen? A targeted set of actors (donors, country governments and private actors) can help get a country onto a more transformational path, but achieving this all at once in a complex setting is a tall order: instead, it is important to target politically feasible projects and demonstration projects. A process with feedback and learning is needed.

Source: This paper, Section 6.

transformation. Many LICs have experienced severe transformation deficits indicated by:

- growth without structural change;
- lack of productivity change at firm and sector level and existence of large productivity differentials across sectors and firms;
- lack of meaningful diversification: little industrialisation, too many low-productivity services;
- lack of resilience and quality growth.

Of course, each country is different and the diagnostics will be able to bring out country specifics.

7.2 Why is it happening?

The second step is to understand why there has been so little transformation, which is a good entry point into both economic and political economy issues.

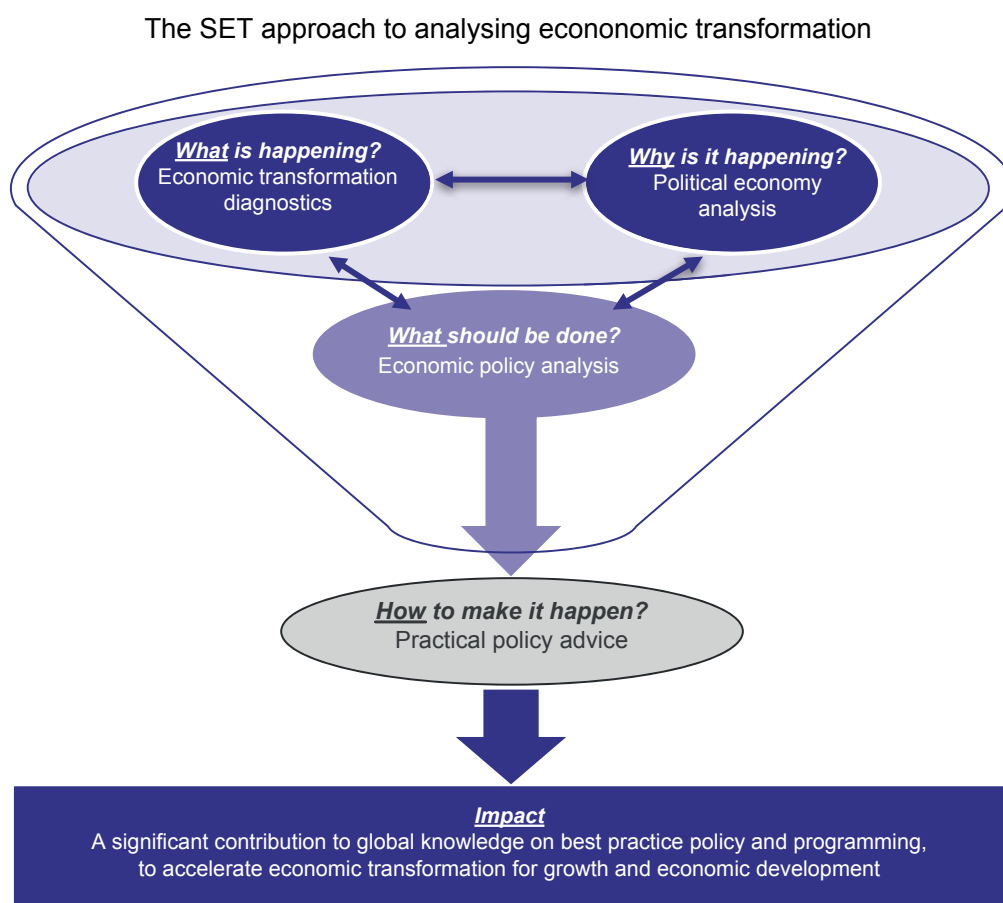
Diagnostics

The following diagnostics can be used to understand the lack of transformation:

- Review economic constraints
 - firm surveys and consultation – what do existing or prospective firms regard as the main barriers? For example World Bank Enterprise Surveys or other firm surveys are often used to assess perceived or stated constraints.

- Review results of existing studies, for example:
 - Sutton enterprise map,¹³ which reveals productive capabilities in an economy but also gaps
 - Growth diagnostic approach (Hausmann et al., 2008), which can be used to identify binding constraints at the national level. Such analyses often present a number of constraints, in order of importance, starting with the most binding. Economic transformation constraints can be seen as a subset of growth constraints, as discussed by Dercon et al. (2014).
- New analysis.
- Analyse political economy constraints by studying:
 - political and business incentives – are incentives aligned with economic transformation?
 - policy-making processes – what are the specific processes leading to policy decisions and/or influencing their implementation?
 - leadership, policy consistency, coordinating capacity, effective state–business relations – how do these factors affect policy processes? Balchin et al. (2016a) provide an application in the case of Tanzania, building on Rodrik (2004, 2013) and others.

Figure 5. A guided enquiry into economic transformation at country level



Propositions

The discussions in this paper and underlying work (e.g. Ansu et al., 2016a) suggest there are a number of propositions as to why economic transformation has not happened. Many economic constraints to economic transformation are well known, even though they are country-specific (e.g. lack of skills, infrastructure and technology; weak business environment). However, economic transformation policy is generally hard to undertake, as there are often deep-rooted (political-economy) factors impeding technical optimal measures, similar to those that have limited economic transformation in the past. Moreover, the policy-making processes are often opaque, without obvious entry points.

7.3 What needs to be done?

Bearing in mind the political economy, the third step is to work out what needs to be done to support economic transformation. Again, a range of diagnostic tools will be useful.

Diagnostics

What sectors should be prioritised. Promising sectors are associated with:

- high levels and growth of productivity change (this can be analysed using McMillan/Rodrik productivity decomposition);
- comparative advantage (using revealed comparative advantage analysis);
- GDP and employment effects (using multiplier analysis using input-output analysis);
- diversification and growth benefits (using Hausmann product space analysis);
- private sector interests (using firm-level consultations and surveys).

Balchin et al. (2016a) apply these techniques to Tanzania and te Velde et al (2016) to Nigeria.

Policy analysis will identify appropriate policies moving forward, highlighting economy-wide, broad-based policies and targeted interventions (e.g. SEZs, value chain analysis), as discussed in Section 5. Prioritisation of policies needs to take into account first- and second-best policies as well as political economy constraints.

Once the constraints are identified and are shown to involve some market or government failure, a change in public action can be designed to address these with the intended result of promoting economic transformation. One developed variant of such an approach (focusing on specific constraints) is the six-step growth identification and facilitation procedure of Lin and Monga (2011), which tries to fix market and coordination failures in a set of sectors that are in line with a country's latent comparative advantages. The growth diagnostic identifies constraints to growth but does not yield policy options. Once the economic transformation constraints are identified, it is possible to define a range of different policy options to overcome the constraints. Booth and te Velde (2009) provide an example, presenting a resource-intensive (e.g. more funds for road-building) and an institutional response (more efficient road agency) to each of the constraints (lack of urban and rural feeder roads).

Thus, some public action targets sector productivity, whereas other public actions aim to promote structural change. The matrix of policy suggestions in Table 5 is therefore a useful heuristic as it considers the range of general and targeted policies for within-sector productivity and structural change. It is also relevant to consider not just national but also international dimensions of public action, as in Table 11. A further dimension would be to consider the policies in order of importance – for example the extent to which they can promote further economic transformation (as is inherent in the growth diagnostic approach). This could focus policy on the most relevant areas.

Propositions

By applying these techniques in a variety of settings, it is possible to **identify objectively and focus on promising sectors** within manufacturing and services that can promote economic transformation and quality jobs. Doing this carefully means governments do not waste resources on sectors without promise. Moreover, it also clear that a range of policies (broad-based and targeted) can be identified to promote such promising sectors; some of them are common across sectors. A study in the context of Nigeria (te Velde et al., 2016) suggests quite a number of policies need to be coordinated at the same time (see Section 5.2). A review of transformation experiences in large developing countries (Leipziger, 2015) and of promising transformation policy in Africa (Ansu et al., 2016b) suggests (a) **transformation is associated with openness and exporting** and (b) **some level of targeting is required as general 'investment climate' support is not sufficient**.

7.4 How to make it happen?

A crucial dimension of the challenge of economic transformation in low and middle income countries is to give serious and continuous attention how the technically preferred remedies (promising sectors, combinations of broadly enabling and targeted policies, etc.) can be promoted and delivered in politically smart ways. What counts as politically smart will depend, obviously, on the country-specific political economy findings. However, there will be no direct read-off from the political economy diagnostic to the realistic pathway of policy change for economic transformation. Smart navigation of the obstacles and opportunities will call for flexible and adaptive decision processes over a period of time.

Diagnostics

A range of techniques and activities need to be undertaken, for example:

- In-depth stakeholder engagement (including policy-makers, donors and private sector firms), looking to opportunities for new forms of self-interested action by powerful players that improve conditions for transformation;
- Identifying politically smart interventions linked to country policy-makers' programmes (drawing on regularly updated political economy analysis), paying attention to both feasibility and country capacities for policy monitoring, learning and adaptation;

- Linking donor programmes with feasible policies (assessing the transformational potential of the combination of donor programmes); for example Booth (2015) divides donor options into those that are focused on sectors (targeted) and those that are focused on context (enabling) in one dimension, and those that focus on transformative growth and those that focus on holding pattern growth in another dimension. At one extreme, donors can facilitate demonstration projects that show how transformative growth works in practice in a specific context. At the other extreme, donors can continue to alleviate general constraints to SME development.

Propositions

Applying these techniques, the following lessons can be identified:

- A targeted set of actors (donors, country governments and private actors) can help get a country onto a more transformational path.
- The steps above can take advantage of **the uncertainties inherent in complex change processes**.
- Implementation matters. **Getting it all right at once is a tall order: instead, it is important to target politically feasible projects and demonstration projects. A process with feedback and learning is needed.**
- **Policy ideas matter.** Governments are more likely to implement policies they believe are important, but some of the ideas politicians hold can be dogmatic and based on false economic thinking (e.g. industrial development through import substitution based on raising import barriers). Demonstration projects can be useful in both changing investor perceptions of self-interest and shifting the agenda of policy advisors and influential academics.

7.5 Conclusions

While policy-makers, experts and donors interested in supporting economic transformation now have an improved understanding of the concept, empirics and policy insights on economic transformation (Sections 2-5), there is still a large gap in our understanding of how to support economic transformation in practical terms at country level. This paper has concluded by outlining the core elements of a guided enquiry into economic transformation at country level. Anyone interested in supporting economic transformation needs to go through the four steps outlined above.

There is much analysis to be done in each area. For example, data are lacking; when they exist, basic productivity decompositions and agreed records of economic transformation are lacking, and there is often no agreement on what are the most promising sectors. There are few country analyses that go from identifying constraints to economic transformation to policy suggestions. And, most notably, there are few analyses of the political feasibility of such policy options and fewer practical formulas for making them happen. Therefore, economic transformation policy practice is lagging behind theory. The guided enquiry can help countries analyse, identify and facilitate economic transformation with the aim of improving the quality of growth, create jobs and reduce poverty.

Endnotes

- 1 This paper is concerned with developing an approach on how to promote economic transformation. For in-depth discussions on how economic transformation affects different groups of people see e.g. Fox (2015) on gender aspects, for discussions on how industrial development helps job creation and resilience to shocks see Ansu et al. (2016b) and Balchin et al. (2016b), and on how the development of services relate to job creation see Khanna et al. (2016).
- 2 Conversely, where the manufacturing sector stagnates and structural transformation involves primarily reallocation of workers into lower-productivity sectors, aggregate productivity is slower, especially among developing countries whose productivity in services remains low – relative both to agriculture in other countries and to other sectors within the country.
- 3 As the movement of resources from low productivity to high productivity sector is key for structural change and economic transformation, the academic literature is also trying to understand the connections between different sectors of the economy and the forces that drive the process of structural change through various approaches. For example, modern dual-economy models (e.g. Temple, 2005; Vollrath, 2009) depart from the assumption that sectoral allocations are efficient and consider the possibility that a variety of forces can lead to differing levels of productivity across sectors. Another approach focuses on the dynamics of the structural transformation to show how economic growth is related to changes in the sectoral composition of output. For example, Gollin, Parente and Rogerson (2007) discuss when agricultural productivity plays a critical role in determining the timing of structural transformation. Caselli and Coleman (2005) and Restuccia, Yang, and Zhu (2008) suggest that barriers and policy distortions can lead to allocative inefficiencies. Gollin and Rogerson (2011) ask specifically whether transportation and transaction costs can explain the prevalence of subsistence agriculture in poor countries. Bryan, Chowdhury and Mobarak (2012) suggests that risk aversion and information asymmetries may produce inefficiently low rates of migration from rural areas.
- 4 While urbanisation and the demographic transition may accompany the transition from traditional to modern modes of production, we exclude these from our definition for a few reasons. First, the rise of the rural non-farm economy is likely to be an important part of structural change, but it is not necessarily synonymous with urbanisation. Second, recent work by Gollin et al. (2015) suggests that urbanisation and industrialisation do not necessarily go hand in hand. And third, modern medicine has played a role in reducing mortality even for the very poor. Indeed, as pointed out by Kazianga et al. (2014), modern medicine may have played a role in retarding the demographic transition in Africa.
- 5 For an overview of economic statistics see PEAKS topic guide here. For a discussion of data quality and weak capacity for measurement especially in relation to GDP we refer see Morten Jerven's (2012) book on African statistics.
- 6 The national account rebasing in other African countries also reveal the challenges in measuring transformation. In particular, rebased GDP suggests increased value added in real estate, Information and Communication Technology (ICT), and manufacturing in Nigeria/Kenya/Uganda/Zambia; agriculture in Tanzania; livestock in Uganda; and mining in Zambia. The role of manufacturing in output has become more important in Nigeria, Ghana, Kenya, Uganda (1-2% of GDP) owing to rebasing and better capturing of informal activities. The construction sector has become less important.
- 7 <http://set.odi.org/data-portal/> Kennan and te Velde (2015) discusses sources and methods of data for economic transformation.
- 8 See, for example, Balchin et al. (2016), who use SET work in Tanzania utilising the International Food Policy Research Institute's Social Accounting Matrix.
- 9 The SET programme has applied these measures in detailed reports on Tanzania, Nigeria, Myanmar; the SET website also has a data portal with details for 26 developing countries. They confirm this general picture.
- 10 It is important to focus on the growth constraints that can accelerate economic transformation rather than those constraints that affect holding pattern growth, which involves few changes in economic structures. Dercon et al. (2014) suggest two conditions under which an intervention that eases a constraint is likely to be 'transformational'. First, there must be a credible case that the public investment, policy change, or institutional reform would directly result in higher private investment and jobs. Second, there must also be substantial secondary effects. For it to be 'transformational', an intervention should also (eventually) ease the shift of resources to higher-productivity activities and sectors and contribute to self-sustaining growth.
- 11 See for example Page (2012a). Interestingly, Rodrik finds no significant relationship between undervaluation and agricultural growth. In fact he redefines tradables as industry, and most of his empirical results and their interpretation may be viewed as describing a causal relationship that runs from undervaluation to industrial development to growth.
- 12 See Bloom and Van Reenen (2010) and Bloom and others (2010). This approach is not without its problems, which Bloom and Van Reenen acknowledge. Much of what was scored as 'best practice' management was based on the recommendations of the management consulting industry. It is possible that these 'best practices' are in fact just the latest managerial fads. It is also possible that more productive and profitable firms are better able to hire management consultants, raising the possibility of reverse causation.
- 13 See <http://www.theigc.org/project/the-enterprise-map-series/> for enterprise maps for Ethiopia, Ghana, Tanzania, Zambia and Mozambique.

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