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Cover image: Man working inside a reinforced steel tube, Philippines.
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Acronyms and abbreviations

CCT	conditional cash transfer
DP	Development Progress (ODI)
EPZ	Export Processing Zone
GDP	gross domestic product
GVC	global value chain
ILO	International Labour Organization
IMF	International Monetary Fund
LIC	low-income country
LMIC	lower-middle-income country
PWP	public works programme
RCTs	Randomised controlled trials
SEZ	Special Economic Zone
SMEs	Small and medium-sized enterprises
TVET	technical and vocational education and training
UMIC	upper-middle-income country
WDI	World Development Indicators

Abstract

A key challenge for developing countries is to generate more and better employment opportunities while ensuring that all parts of the population are able to access these. This paper discusses what this means in practice, particularly in the context of economic structural transformation. Looking at job quality, quantity and access as they relate to sectoral labour demand and supply dynamics, the paper lays out some of the key progress indicators as they relate to structural change, and examines these for a group of Development Progress countries. The analysis shows that movement of workers between sectors contributes more to growth for the studied countries than rising productivity does within them. Further, this movement is mainly towards the service sector, rather than manufacturing, therefore including both modern-sector high-productivity employment but also precarious, low-productivity occupations that can miss the benefits of industrialisation. While household-level diversification can indicate initial steps in economic transformation and employment progress. This paper argues that putting employment at the centre of developing-country policy means focusing not only on employment quantity, but also quality and access as equally important goals, while also looking at how these interact with structural-change dynamics. Finally, the paper highlights the importance of politics as a key factor in determining employment progress.

Workers maintain a thermal power station in Ghana. Photo: © Jonathan Ernst for the World Bank.

1. Introduction

1.1 The employment challenge

As the International Labour Organization (ILO) (Osmani, 2002; Islam, 2004; Khan, 2007a) highlights, employment is the main link between growth and poverty reduction. Income generated through work is critical to poor households, implying that improved employment outcomes are essential to promoting economic inclusiveness and ensuring that economic growth leads to sustainable reductions in poverty and inequality. This has been called 'productive employment'. Productive employment also promotes other important goals, such as social cohesion, citizen empowerment and personal dignity (World Bank, 2012) and greater opportunities for learning and skills accumulation (Szirmai et al., 2013). In Africa, Page and Shimeles (2014: 1) argue that 'the employment problem and the poverty problem are in fact symptoms of Africa's lack of structural change'.

Nonetheless, the 'employment nexus' between growth and poverty reduction was relatively neglected (e.g. Oya et al., 2013) until the Arab Spring and the global financial crisis raised its importance. Employment was only belatedly included in the Millennium Development Goals in relation to poverty, although it has been more explicitly considered in discussion of the post-2015 Sustainable Development Goals, but it has nonetheless received limited traction.[1] This is partly because it is argued that employment is already a high priority in the national agendas of many developing countries. But in reality much employment progress has come as a secondary outcome of growth-focused policies rather than from explicit consideration of productive employment generation in the national debates.

If 'jobs' are increasingly a key developing-country policy objective, 'economic transformation' is increasingly seen as the means of achieving this. This broadly refers to policies that encourage structural change towards higher-productivity sectors and jobs. As McMillan et al. (2013) describe, productivity growth can take place *within* sectors, through technological upgrading or more efficient use of resources by other means. This could, however, potentially come at the expense of employment in some sectors, as technological upgrading can reduce labour demand, thus forcing workers to seek new employment in lower-productivity sectors.

1.2 Transformation with employment?

This paper examines the relationship between structural transformation and employment outcomes, and the different policies behind them. We review the literature and recent findings on employment progress in developing countries, defining employment progress as the generation of *quality* employment in productive sectors, where there is *access* for disadvantaged, vulnerable and other groups of society. The paper lays out some of the key progress indicators as they relate to structural change, and examines these for a group of countries as part of the Development Progress project. It also examines evidence on micro-level household activity and livelihoods to identify progress that is less visible in sectoral data but nonetheless reflects employment progress and micro-level transformations, and relates these to some of the key policies that have been behind identified progress, while also pointing to some caveats.

The analysis shows that movement of workers *between* sectors contributes more to growth for the studied countries than rising productivity *within* them. Further, this is mainly towards the services sector, rather than manufacturing, therefore includes not only modern-sector, high-productivity employment, but also precarious, low-productivity occupations. While household-level diversification therefore potentially indicates the initial steps in economic transformation and employment progress, as Rodrik (2015) points out, this may lead to some countries missing out on the benefits of industrialisation, with both economic and political consequences. This paper argues that these intra-sectoral differences must be taken into account in industrial policy design and implementation.

'The jobs challenge facing the world is multifaceted, ranging from improving aspects of the work people do, to supporting the reallocation of people to better jobs, to creating jobs for those who want to work' (World Bank, 2012: 48)

1 Not only have the links with poverty been highlighted but its role in growth and economic transformation have granted employment a separate place in the Open Working Group report and the United Nations' most recent Secretary-General's synthesis report (2014) (http://www.un.org/disabilities/documents/reports/SG_Synthesis_Report_Road_to_Dignity_by_2030.pdf).

1.3 Addressing the employment challenge

In line with the call to 'move policies for jobs to the center stage' in development policy (World Bank, 2012), the challenge then is to create jobs and increase worker productivity within sectors, while also ensuring that labour demand shifts from low- to high-productivity sectors. This requires better understanding of how to generate more and better jobs, and to ensure that disadvantaged groups are able to access these employment opportunities. This means using industrial policy that takes explicit account of job quality, quantity and access as they relate to sectoral labour demand and supply dynamics.

Labour-demand policies relate to policies affecting firm creation and firm growth, while supply-side policies relate to the ability of the population to fill job opportunities. This relates to education and training, job matching and social protection services to support transitions between jobs, all of which vary according to sectoral growth dynamics and the related policies. Other factors such as labour mobility and migration also play a role in determining employment outcomes, while a livelihoods perspective draws attention to policies that promote entry into local markets for household-level, informal workers, particularly in agriculture and related sectors.

While complex, linking drivers of employment quantity, quality and access with sectoral dynamics can improve efforts to prioritise investment and skills development towards specific sectors and activities according to existing capabilities and feasible development goals. This includes the use of donor finance to catalyse 'pioneer investment' (e.g. Collier, 2014) and employment-creating partnerships (e.g. Byiers and Rosengren, 2012) in higher-productivity sectors. While some sectors can become more productive through the adoption of new technologies and better management processes, the largest productivity gains in developing countries are found by relocating work from low-productivity activities (e.g. subsistence agriculture) to higher-productivity sectors (e.g. commercial agriculture, manufacturing and modern services). In that sense, well-targeted structural policies may play an important role in producing incentives for investment in employment-intensive sectors with potential for high productivity growth.

Both public and private actors face numerous constraints in achieving the right mix of policies at the right time. Labour-market information is essential for appropriate policy prescriptions and monitoring their impact (Sparreboom and Albee, 2011), but lack of data is a major challenge in looking at employment in developing countries. For example, only 11 out of 45 sub-Saharan African countries were able to provide statistics on unemployment for at least three years for the period 1991-2008, while 16 countries could not provide data on new employment for the entire period (Dimova and Nordman, 2014).[2] In addition, differences in definition of employment indicators (e.g. informality, self-employment, vulnerable work – and even unemployment), as well as in techniques in data collection and reporting (e.g. limited geographical coverage, age cut-offs) make cross-country comparisons hard to interpret. Even at the micro-level, identifying and measuring jobs created is a growing challenge for donors working in partnership with the private sector (Byiers and Rosengren, 2012). This is a parallel challenge to that of employment itself.

Public and private actors also face practical constraints in implementing reforms and allocating resources to promote more and better employment. That brings politics and the political economy of supporting and promoting economic transformation to the fore, underlining the need to understand the political economic implications of sectoral employment strategies to promote broader employment progress.

The remainder of this paper discusses employment progress in the above terms. Drawing on data for selected country cases, Section 2 discusses evidence of structural-change dynamics and employment progress. Section 3 looks at how these outcomes are affected by policies to promote different sectoral demands for employment, while Section 4 discusses supply-side policies in a similar way. Section 5 briefly summarises the importance of politics in relating employment to economic transformation outcomes, while Section 6 concludes.

2 This relates partly to poor statistical capacity, but also reflects the developed-country origins of official statistics that are not generally adapted to the working reality in developing countries. For a discussion on the political economy of official statistics, see Byiers, B. and Kratke, F. (2014) 'The political economy of official statistics: implications for the data revolution in sub-Saharan Africa'. ECDPM Discussion Paper produced for OECD Paris 21 (http://www.ecdpm.org/dp170).

2. Structural change and jobs

Afghan men work on a road construction project. Photo: © UN Photo.

2.1 From growth to jobs with economic transformation

2.1.1 Jobs, growth, poverty and social cohesion

The Arab Spring in 2010 very quickly brought jobs to the centre of developing-country policy concerns. While countries such as Egypt and Tunisia had been praised for their overall economic performance, the grievances expressed by their citizens underlined the centrality of employment in linking economic growth, poverty reduction and social cohesion. Recent high economic growth rates with seemingly little formal job creation, particularly in Africa and South Asia, have also highlighted the importance of employment creation as a key development policy goal and a way of addressing social exclusion (ILO, 2013). This combines with the growing recognition among policy-makers and aid agencies of the need to go beyond social expenditures to sustainably raise incomes and reduce poverty in developing countries.

At the same time, there is recognition that not all jobs are 'good' jobs. Employment quality is also important, including aspects such as working conditions, wage levels and social protection (e.g. ILO, 2014). Even where jobs exist, equitable access to employment opportunities is important in linking employment and development outcomes, whether access relates to age, gender or ethnic group. Further, different types of jobs and employment policies can fulfil different development outcomes (World Bank, 2012). These different aspects of employment outcomes can be looked at in terms of *quantity* of jobs created, *quality* of those jobs, and *access* to them for different population groups.

Three prominent conceptual frameworks exist for understanding the relationship between employment and other outcomes such as growth and poverty reduction. These are: the ILO's growth-employment-poverty nexus (Islam, 2004; Osmani, 2002; Khan, 2007a, among others), the World Bank MILES framework (World Bank, 2012) and the IMF's framework (IMF, 2013). While different, all three highlight factors that affect demand for labour – including macroeconomic policies, investment climate, institutions and infrastructure. This demand for workers must also be matched by a supply of workers in the labour market, underlining the importance of education and

skills to support human capital accumulation as well as labour-market policies and social protection for vulnerable workers. Institutions, policies and programmes also need to make the link between the supply of and demand for labour.

2.1.2 Linking jobs and economic transformation

According to Timmer et al. (2012), 'structural transformation is the defining characteristic of the development process; it is both the cause and the effect of economic growth' (Timmer et al., 2012: 1). They points to four 'quite relentless and interrelated processes that define the structural transformation process' (Timmer et al., 2012: 1) overall:

- a declining share of agriculture in gross domestic product (GDP) and employment
- the rapid process of urbanisation as people migrate from rural to urban areas
- the rise of a modern industrial and service economy
- a demographic transition from high to low rates of births and deaths.

These are underpinned by rising labour productivity due to productivity growth within sectors, but also shifts between sectors, with implications for the types of jobs created. As McMillan et al. (2013) explain, labour-productivity growth within economic sectors takes place by raising worker productivity through capital accumulation, technological change, or improved allocation of resources across plants; between sectors, it takes place through the movement of workers from positions of low productivity to those with high productivity. This latter switch is described by McMillan et al. (2013) as the contribution of structural change to overall productivity growth, which is positive (or productivity-enhancing) if labour primarily migrates from lower to higher-productivity sectors, or negative (or productivity-reducing) otherwise.

In other words, 'In economies where the low-productivity sectors – including informality and unemployment – have wages (or self-employed incomes) that are close to or below the poverty line, the movement of workers into lower productivity jobs will tend to offset the positive impact of within sector productivity growth on poverty reduction' (Page and Shimeles, 2014: 5). Growing productivity and output in one sector can only be broadly transformative if the remainder of the economy can productively absorb workers in other sectors. Failure to create enough additional productive opportunities that match with labour supply characteristics is part of the story in recent developing-country growth, especially in economies with extractive resources.

While the proximate causes of poverty are the quantity and quality of employment, and how these emerge from structural change dynamics, Osmani (2002) points to the importance of growth, employment elasticity and 'integrability'. While growth and expansion of the economy's production potential is the starting point for creating more jobs, the extent to which this expands the scope for improving the quantity and quality of employment relates to employment elasticity, while the degree to which the poor can benefit from these is determined by whether they possess the necessary attributes that will enable them to integrate fully into working in an expanding economy – the integrability factor.

The first two of these clearly relate to the origins of growth, as well as the employment characteristics of the sectors driving growth. Whether firms are able to invest or innovate to boost productivity and competitiveness and therefore expand employment clearly relies on market demand, access to inputs, transport and other transaction costs, the broader regulatory environment, and the incentives to capital and capabilities' accumulation offered by national policies. It also depends on the availability of sufficiently and appropriately skilled individuals – the labour supply.

Building on this, and on Osmani (2002), the pro-poorness of the growth process depends on three features:

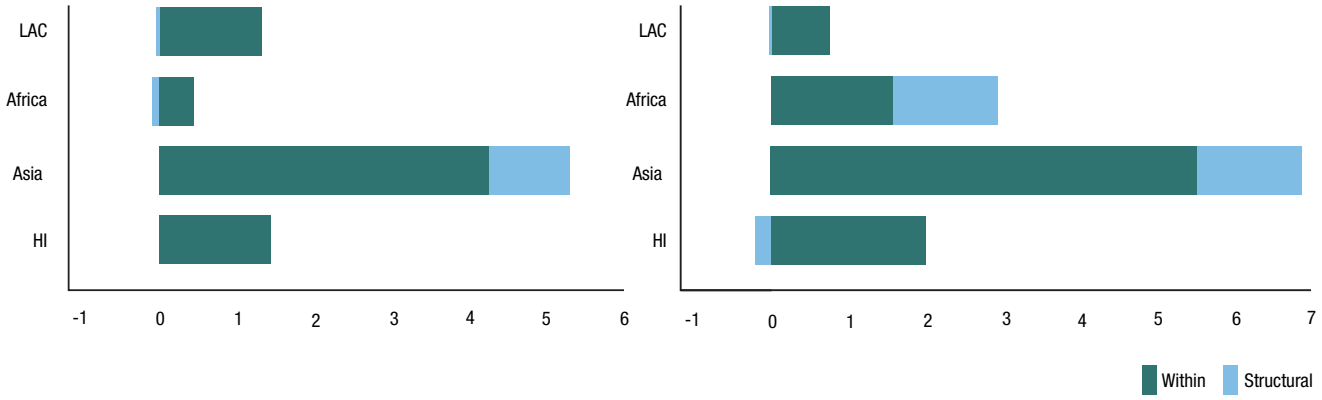
- the sectoral composition of output and whether it is concentrated in more labour-intensive sectors, where the poor tend to work
- the extent to which more labour-intensive techniques are used, and the extent to which there are discernible shifts in the structure of employment towards high-productivity sectors
- the evolution of real wages and earnings more generally, and the extent to which the internal and external terms of trade improve for the labour-intensive sector.

Employment and productivity growth therefore have an impact on poverty reduction not only by increasing economic growth but also, more powerfully, by pushing inequality down (Khan, 2007b).

2.1.3 Livelihoods and work

While the nature of structural transformation and its relation to job quantity, quality and access are key, statistics on structural transformation generally reflect only formal employment, although wage employment is often the exception rather than the norm in developing countries (Gindling and Newhouse, 2012; La Porta and Shleifer, 2014). In most developing countries, livelihoods are maintained through agricultural activity, but also through informal non-agricultural activities that go unrecorded. An understanding of employment progress in developing countries must also take improvements in household incomes into account, where diversification in activities from pure agriculture to include secondary non-farm activities appears to be an important dynamic, and arguably an early sign of structural change. This form of progress, as with structural transformation, also potentially relates to rural–urban migration, as highlighted above. Analysis of employment progress and structural change

Figure 1: Decomposition of productivity growth by country group, 1990-1999 and after 2000 (weighted)



Source: McMillan et al. (2013: Figures 17.b and 17.d).

in developing countries must therefore include micro-level data on income, expenditures and occupations – for example, from household surveys.

This underlines the main message in this paper: that a policy focus on economic transformation must also look at the specifics of job quality, quantity and access as they relate to sectoral labour demand and supply dynamics, to achieve broad, national employment progress. Similarly, positive developments in some sectors can have positive spillover effects in others – this is the ultimate goal of policy-makers.

2.2 Disaggregating structural change

2.2.1 Growth decomposition across world regions

The above dynamics vary across regions and between periods. Figure 1 shows the decomposition of productivity growth by country group for 1990-1999 and after 2000. In Africa in the 1990s, growth was mainly due to productivity growth within sectors, with movement between sectors undermining growth; after 2000, sectoral shifts also contributed positively to growth, suggesting that on average employment quantity and quality both rose. In Asia, the bulk of growth relates to productivity growth within sectors, with shifts across sectors consistently playing an important positive role. In high-income countries, the data suggest that shifts between sectors have lowered growth by moving people to lower-productivity employment.

2.2.2 Country-level structural change

Using similar data for selected Development Progress countries (Box 1, overleaf) this section carries out a similar exercise to relate within-sector productivity increases and structural change to employment progress. The country selection means that these results are not representative of particular regions or income groups but serve as an illustration of the patterns of economic and employment transformation. Using the World Bank's Job Generation and Growth (JoGGs) decomposition tool[3] we compute decompositions of GDP per capita growth that account for both the relative size of the sector in the economy and the magnitude of the change.[4] This decomposes economic growth into:

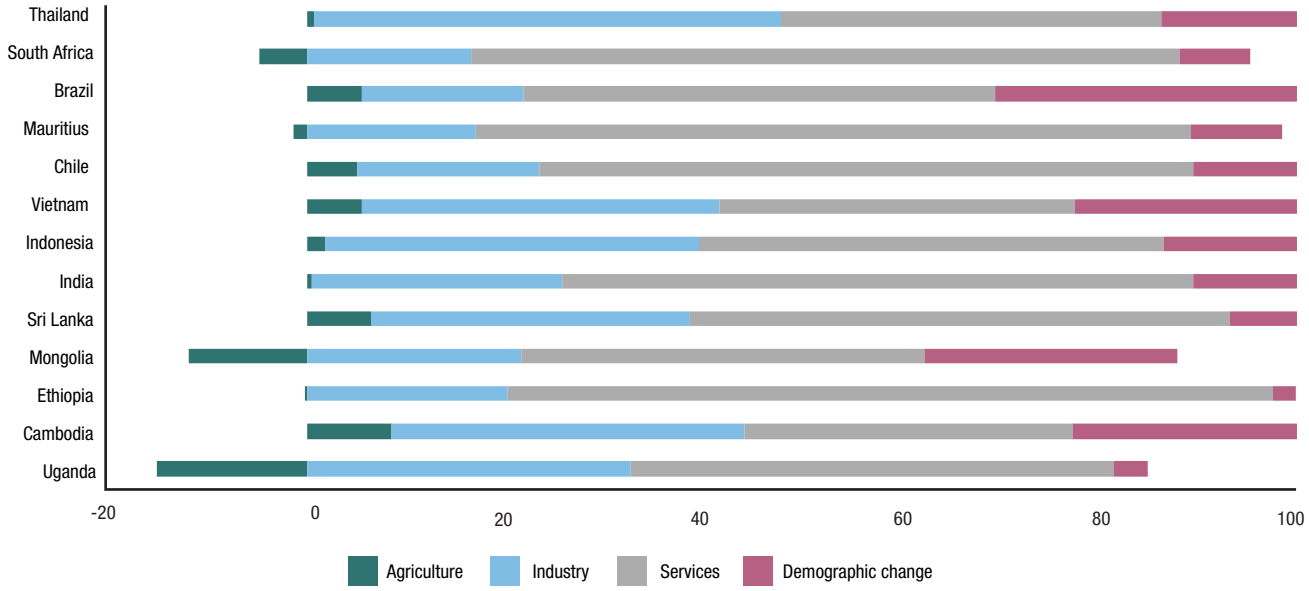
- the contribution of changes in *labour productivity* in each sector (the 'within' component in McMillan et al. (2013) terminology)
- the contribution of changes in *employment* in each sector
- the contribution of changes in *employment across sectors* (the structural change component)
- the contribution of changes in demographic structures, particularly of the working-age population.

Due to limits of data availability, we analyse only 13 countries. Although these results need to be interpreted with caution, given data availability constraints across countries, they nonetheless show how structural change and employment have varied across countries. While Figure 2 (overleaf) shows some striking differences in sectoral employment contributions to GDP per capita growth across countries, apart from Cambodia, Viet Nam and Thailand, services have been the main driver of growth across all countries in the group. In particular, the four African countries, South Africa, Uganda, Ethiopia and Mauritius, have seen the highest services

3 Available at http://bit.ly/1zWiUtO.

4 We compute simple additive (Shapley) decompositions using the World Bank's Job Generation and Growth (JoGGs) decomposition tool and data on: (i) value added (the net output of a sector after adding up all outputs and subtracting intermediate inputs consumed in production) in 2005 constant US$; (ii) total employment; (iii) employment shares by sector; and (iv) population from the World Bank's World Development Indicators (WDI) November 2014 update. For details on the methodology, see the Reference Manual and User's Guide (http://siteresources.worldbank.org/INTEMPSHAGRO/Resources/JoGGs_Decomposition_Tool_UsersGuide.pdf).

Figure 2: Growth decomposition: contribution to total growth in GDP (value added) per capita, selected countries



Source: Authors' elaboration based on JoGGs decomposition tool.

contribution to growth. Given the difference in income levels of Mauritius and South Africa compared with the other two, there is a need to look at sectoral dynamics in more detail to better understand how this might relate to employment outcomes.

Table 1 presents the detail underlying Figure 2.[5] Columns m, n and o give the overall sectoral contribution to total growth (the shares presented in Figure 2), while Table 1 also explains the channel through which this happened: because of within-sector productivity changes (columns a, b, c), because of employment changes in the sector (columns e, f, g), or because of movement of labour from another sector (columns i, j, k).

2.2.3 Dynamics of low-income countries

Among the low-income countries (LICs): in Uganda and Ethiopia, the services sector has been the largest contributor to economic growth; in Cambodia, industry and services contributed almost equally to economic growth. The contribution of services growth in Uganda was due to rising worker productivity within sectors and to a lesser extent to structural change towards services, making it similar to the other more wealthy countries in the sample in this regard. The movement of workers to services was from industry, where, at the same time, productivity increases were higher than in services, potentially reflecting efficiency gains from downsizing of firms. At the same time, workers shifted from other sectors to agriculture (inter-sectoral shifts) apparently leading to a decline in productivity in that sector. This illustrates the challenge of raising the quantity of employment within a sector (e.g. manufacturing) while simultaneously improving productivity and job quality, pointing to the need to understand the underlying dynamics of labour demand and supply.

In contrast, while services in Ethiopia also contributed most to growth, rather than productivity improvements

Box 1: Development Progress case studies connected to employment progress

The broader Development Progress project explores progress across a range of case study countries in eight dimensions of wellbeing. Employment is one of these dimensions, and a further five are related in some way to employment. From these, we examine the following:

- Case studies on **Employment:** Uganda and Sri Lanka
- Case studies on **Education:** Cambodia, Benin, Ethiopia, Mongolia, Kenya, Chile and Indonesia
- Case studies on **Agriculture and rural development:** Ghana and Thailand
- Case studies on **Social protection:** India, Brazil and South Africa
- Case studies on **Economic conditions:** Malawi, Mauritius, Viet Nam
- Case studies on **Multidimensional progress:** Ghana (health, education and political voice), India (political voice, material wellbeing and environment) and Ethiopia (employment, education and material wellbeing).

5 More details can be found in Table A1 in the Annexe.

Table 1: Growth decomposition: contribution to total growth in GDP (value added) per capita, selected countries

	Contribution of within-sector changes in output per worker (%)				Contribution of changes in employment (%)				Contribution of inter-sectoral shifts (%)			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Year and country	Agriculture	Industry	Services	Subtotals	Agriculture	Industry	Services	Subtotals	Agriculture	Industry	Services	Subtotals
2003-2009 Uganda	-5.84	64.02	32.08	90.27	-27.18	-4.93	18.32	-13.79	11.22	-12.14	19.63	18.71
1998-2012 Cambodia	24.42	9.48	-9.74	24.16	-30.03	16.58	18.67	5.22	14.07	9.58	24.33	47.99
1994-2005 Ethiopia	59.54	-29.07	11.09	41.56	-74.25	13.76	14.83	-45.66	14.70	35.63	51.39	101.72
1993-2011 Mongolia	-2.38	40.20	44.53	82.34	-17.34	-8.41	9.16	-16.58	3.93	-3.32	0.01	0.62
1999-2012 Sri Lanka	5.98	36.01	34.24	76.23	-5.87	-1.71	14.78	7.20	6.27	-2.08	5.57	9.76
1994-2012 India	10.08	13.45	55.51	79.04	-19.33	8.76	3.14	-7.44	9.85	3.00	5.06	17.91
1990-2011 Indonesia	13.82	12.95	26.23	53.01	-32.44	9.57	18.40	-4.47	20.54	15.11	2.45	38.10
1996-2012 Viet Nam	15.06	6.69	8.82	30.57	-28.28	13.46	15.63	0.81	18.81	15.88	11.46	46.15
1990-2011 Chile	6.26	16.33	36.16	58.75	-9.02	3.30	30.11	24.39	7.82	-1.09	-0.30	6.43
1990-2012 Mauritius	5.83	33.79	35.59	75.21	-11.10	-19.08	33.14	2.96	3.78	2.78	5.68	12.24
1992-2011 Brazil	16.56	10.49	9.78	36.83	-37.71	4.30	32.63	-0.77	26.74	1.48	5.31	33.53
2000-2011 South Africa	21.48	24.50	84.40	130.38	-57.96	-8.45	-5.95	-72.36	31.23	2.28	0.68	34.19
1990-2012 Thailand	11.31	26.79	2.57	40.66	-35.93	8.68	22.77	-4.47	25.45	11.54	13.18	50.16

Source: Authors' elaboration based on JoGGs decomposition tool.

Low income *Lower-middle income* *Upper-middle income*

Table 1: Growth decomposition: contribution to total growth in GDP (value added) per capita, selected countries (continued)

	Total (%)				Demographic component	Total % change in value added per capita
	(m)	(n)	(o)	(p)	(q)	(r)
Year and country	Agriculture	Industry	Services	Subtotals	Demographic change	Total % change in value added per capita
2003-2009 Uganda	-21.79	46.95	70.03	95.18	4.82	25.32
1998-2012 Cambodia	8.47	35.64	33.26	77.37	22.63	126.68
1994-2005 Ethiopia	-0.01	20.33	77.31	97.62	2.38	32.62
1993-2011 Mongolia	-15.79	28.48	53.70	66.38	33.62	84.17
1999-2012 Sri Lanka	6.38	32.22	54.59	93.19	6.81	174.91
1994-2012 India	0.60	25.20	63.70	89.51	10.49	155.35
1990-2011 Indonesia	1.92	37.63	47.09	86.64	13.36	98.28
1996-2012 Viet Nam	5.59	36.04	35.91	77.53	22.47	125.57
1990-2011 Chile	5.06	18.54	65.97	89.58	10.42	105.97
1990-2012 Mauritius	-1.49	17.49	74.41	90.42	9.58	124.51
1992-2011 Brazil	5.59	16.27	47.72	69.59	30.41	41.65
2000-2011 South Africa	-5.24	18.33	79.13	92.22	7.78	24.14
1990-2012 Thailand	0.83	47.01	38.52	86.36	13.64	112.65

Source: Authors' elaboration based on JoGGs decomposition tool.

Low income *Lower-middle income* *Upper-middle income*

within the sector, economic growth is largely explained by employment movements out of agriculture and towards services. This partially explains why within-sector productivity growth was highest in agriculture. In fact, of all the sample of countries, Ethiopia has the largest intersectoral-shifts contribution to economic growth, reflecting early signs of a broader economic transformation. Further, the predominance of services-sector productivity growth in all other countries (except Cambodia) may also indicate latent potential for services-sector productivity growth in Ethiopia in future. Finally, because much of the progress achieved in Ethiopia is post-2005, more recent data are likely to provide a different picture.

In Cambodia, industry and services contributed similarly to growth, but this was also driven by inter-sectoral shifts to services, a decline in agricultural employment and growth in agricultural productivity. The decline in services-sector productivity suggests movement of some workers into more precarious forms of employment, indicative of a decline in employment quality for those workers. This may be the price of rising industrial and agricultural productivity.

While the services sector has clearly played an important role in growth in these countries, the implications for policy depend very much on the quality of jobs that people are moving to within the services sector. Even if rising average productivity in the services sector suggests that, on average, newer jobs are growth-enhancing and potentially therefore able to provide decent work conditions, the services sector is a diverse sector that also includes low-income and precarious forms of employment.

2.2.4 Middle-income countries

As in Uganda and Ethiopia, the contribution of within-sector productivity increases in services has been the largest source of economic growth for the lower-middle-income countries (LMICs) in the sample, except for Viet Nam (these were highest in India and Mongolia, at 55% and 44% respectively). It is therefore important to consider the different sub-sectors that make up the services sector in order to have a better understanding of the structural change dynamics of these countries.

Industry played an important role in Mongolia and Sri Lanka, where the contribution of productivity growth was 40% and 36% respectively. In contrast to the LICs, inter-sectoral shifts played a very small role in both countries (particularly Mongolia), indicating that productivity growth mostly stemmed from an expanding workforce in the sector and rising productivity, both positive indicators for sectoral employment quantity and quality.

In contrast to the other LMICs, but similar to Cambodia, services and industry contributed equally to Viet Nam's economic growth (about 36%), due to employment growth made possible by demographic change and structural change away from agriculture.

Finally, the upper-middle-income countries (UMICs) – Chile, Mauritius, Brazil, South Africa and Thailand – also

show a variety of transformation experiences. In all except Thailand, services were the largest contributor to value-added growth. South Africa, Mauritius and Chile exhibit large contributions to growth from increases in productivity in that sector, so potentially rising employment quality for those already employed. In Brazil, employment growth in the services sector, together with positive demographic change, was the main cause of economic growth, indicating an expansion of employment opportunities.

Rather than services, industry contributed the most to value-added growth in Thailand. Moreover, structural change accounted for half of the country's growth between 1990 and 2012. In fact, Thailand had the greatest absolute-change contribution of the structural-transformation component. In Mauritius and South Africa, the contribution of industrial productivity was also large, but declining employment offset this and reduced the overall contribution of industry. Sectoral shifts away from low-productivity sectors, particularly agriculture, into the industrial and services sector (with higher productivity) had a positive effect in all countries, although this contribution ranged from 6% in Chile to 50% in Thailand.

2.2.5 A closer look at structural change in Ethiopia, India and Thailand

The above discussion highlights the need to capture more detail regarding the sub-sectors within 'industry' and 'services' in order to better reflect on issues of employment quality. Clearly, the services sector, for example, includes both high-tech, high-productivity activities, for example in ICT, as well as very low-productivity small-scale retail, the shares of which are likely to differ across countries at different income levels.

This section uses data from the GDDC 10-sector database[6] for a more detailed analysis of three countries:

- within the LICs, Ethiopia experienced the highest variation in value added, most of which is explained by structural change
- Thailand, a UMIC, is the second-best performer and the country with the largest contribution of structural change in absolute terms
- India is the best LMIC performer for which disaggregated data are available.

The 10-sector database allows the disaggregation of industry into manufacturing, mining, construction and utilities, and distinguishes between five types of services: trade services (wholesale and retail, restaurants and hotels); transport, storage and communication; business services (finance, insurance, real estate); government services; and personal services (community, social and personal services). Table 2 (overleaf) presents the percentage changes in shares in value added and employment, and changes in labour productivity disaggregated by industry, as described above.

In Ethiopia, the highest growth rates in value added are registered in government, construction, trade and transport, and business services.[7] While government services are less interesting in terms of structural-change dynamics (and may be subject to doubts about their calculation) and construction's growth can be explained by public-works programmes, the growth of the business services is an important phenomenon. Due to their application of ICT and their need for skilled labour, business services are considered 'modern services'. These sectors tend to offer higher-quality employment, but due to their skills' requirements, they are not easily accessible by the poor. Business services are also the sector with the highest average labour productivity (134,396 birr, 2005 constant prices), roughly 80 times higher than labour productivity in agriculture, the sector with lowest average productivity.

Both value added and employment of trade services (also referred to as 'traditional services', due to their low technology and knowledge intensity) increased in the past decades.[8] These services offer low-quality jobs, still. This may explain the prevalence of low-quality employment in Ethiopia. Ethiopian manufacturing value added and employment have also increased in the past two decades, despite negative labour productivity growth. In terms of labour productivity, data show a clear problem of the economy in raising labour productivity in most industries (notable exceptions are agriculture and transport services). This might be related to the improvements in infrastructure and roads, and consequently market access for rural producers.

Similarly, business, transport and trade services show the highest increase in value added in India. Together with construction, business services also witnessed the highest rates of employment growth. While the role of business services in the Indian economy is so widely recognised that modern services have been considered the new engine of Indian economic growth (e.g. Dasgupta and Singh, 2005), the highest rates of productivity growth are found in utilities and manufacturing. As McMillan et al. (2013) show, India experienced growth-enhancing structural change thanks to the movement of labour from low-productivity (agriculture) to high- (and increasing) productivity industries like manufacturing. Thailand shows a very similar and even more remarkable pattern, where productivity growth in

6 Available at: http://www.rug.nl/research/ggdc/data/10-sector-database.

7 The high rates in mining are because, from 1990 to 1991, value added and employment increased respectively by 103% and 107%. If we compare the average growth in mining from 1991, value added and employment grew by 7% and 8%, respectively.

8 Trade services include small and mostly informal activities related to wholesale and retail, restaurants and hotels.

Table 2: Average change in value added, employment and labour productivity by industry, Ethiopia, India and Thailand, 1990-2010 (%)

	Ethiopia			India			Thailand		
	VA change	Empl. change	Prod. change	VA change	Empl. change	Prod. change	VA change	Empl. change	Prod. change
Agriculture	3.9	2.0	1.9	3.0	0.7	2.3	2.6	-1.2	4.1
Mining	12.0	13.3	-1.2	4.5	0.9	4.0	6.2	-0.4	8.7
Manufacturing	6.8	9.9	-2.9	6.7	2.2	4.5	6.4	3.2	3.2
Utilities	4.9	4.0	0.9	6.4	1.0	5.6	6.5	1.9	6.4
Construction	8.4	14.5	-5.4	7.4	9.0	-1.0	0.3	5.2	-4.6
Trade services	8.1	8.7	-0.6	8.3	4.0	4.2	2.8	4.7	-1.6
Transport services	8.1	4.2	3.7	8.9	4.5	4.3	5.7	2.3	3.6
Business services	9.4	11.2	-1.7	11.0	10.7	1.2	4.3	6.8	-2.0
Government services	10.9	4.1	6.5	6.5	-0.6	7.2	6.2	3.9	2.5
Personal services	8.0	3.6	4.2	6.1	1.3	4.8	4.0	3.2	1.1

Source: Authors' elaboration based on GDDC 10-sector database.

agriculture and other traditional and low-labour-quality industries ignited a process of structural change towards manufacturing and business services.

These structural-change dynamics are important in our understanding of industrial processes and their relations to employment. In the past, development was associated with industrialisation, and de-industrialisation was considered a by-product of economic development, resulting from rising incomes and consumption diversification. In our analysis, only the higher-income country, Thailand, experiences growth in manufacturing value added, a result that may be symptomatic of a new development trajectory based on services, rather than manufacturing. This is also consistent with Rodrik's (2014) prediction that African countries will not achieve growth by industrialising, but rather through agriculture or services.

2.2.6 Economic transformation and poverty

The above distinctions are important in how they link growth with poverty reduction. While the expansion of employment in highly productive sectors is important for growth, the employment link between growth and poverty reduction relies on the poor having access to these jobs. There is growing evidence that, in contrast to the traditional structural transformation theory and early archetypical cases of the East Asian Tigers, employment outside manufacturing can be an important source of transformation and a link between growth and poverty reduction (e.g. Melamed et al., 2011; Fox and Pimhidzai, 2011). For 18 cases of growth episodes associated with falling poverty rates studied by Melamed et al. (2011), 15 related to a rise in employment in services, in ten a rise in industrial employment, and in six cases a rise in employment in agriculture.[9] Moreover, while increasing productivity via high-skilled sectors is desirable, 'a labour market dominated by a few high-productivity, high-skill jobs can be a recipe for rising inequality and unemployment for the majority' (Melamed et al., 2011: 3). In sub-Saharan Africa, especially in resource-rich countries such as Nigeria, employment is moving away from agriculture, but into the services sector rather than manufacturing and industry (Fox et al., 2013).

In Ethiopia, rural poverty has fallen faster than urban poverty (Table 3), thanks to improvements in productivity in the agricultural sector and declining labour participation in the sector, as seen above. India has placed great emphasis on providing employment for the poor (Holmes et al., 2011), and thus strengthening the employment link, especially in rural areas. Thailand has also promoted agriculture and rural-sector competitiveness and diversification quite strongly within an economy that has both industrialised and urbanised (Leturque and Wiggins, 2011). This strategy has led to falling rural poverty and better food security and nutrition (Leturque and Wiggins, 2011), as well as relatively high economic growth and transformation in the more modern sectors.

9 Six saw rises in employment in two of the three sectors.

Table 3: Changes in poverty (at national poverty lines), Ethiopia, India and Thailand

Country		Period	Absolute change (%)	Annual change (%)
Ethiopia	Rural poverty	1995-2011	17.1	1.07
	Urban poverty	1995-2011	7.5	0.47
	National poverty	1995-2011	15.9	0.99
India	Rural poverty	1994-2012	24.4	1.36
	Urban poverty	1994-2012	18.1	1.01
	National poverty	1994-2012	23.4	1.30
Thailand	Rural poverty	1990-2011	49.5	2.36
	Urban poverty	1990-2011	29.7	1.41
	National poverty	1990-2011	44.9	2.14

Source: Authors' estimations based on WDI.

2.2.7 'Livelihoods' and economic transformation

As the data behind the structural transformation story described by McMillan et al. (2013) generally reflect only formal wage employment and primary activities, a large part of the activity that affects poverty and livelihoods is therefore absent or only estimated. This includes secondary and other multiple sources of income that may reflect important changes in household economic opportunities.[10] As Figure 3 illustrates, employment evolutions at the household level may also play an important role in employment quantity, quality and access as individuals diversify their sources of income.

As this suggests, structural shifts *within* agriculture and rural areas to higher-value products and non-farm activities are also important contributors to employment outcomes (Islam, 2004). In developing countries, the informal sector comprises about 30%-40%[11] of the economic activity, with approximately three registered firms per 1,000 people (La Porta and Shleifer, 2014). About half of the labour force in middle-income countries is estimated to be own-account or non-paid employees (contributing family workers), rising to 70% in low-income countries (Gindling and Newhouse,

Figure 3: Employment status: evolution and structural transformation

Source: Authors' elaboration based on Gindling and Newhouse (2012).

10 The coding of employment status and economic activity in surveys can lead to under-estimations of self-employment and structural transformation. Moreover, it is often derived from the reported primary sector of employment and thus ignores multiple sources of employment and incomes (Fox and Pimhidzai, 2011).

11 Depending on the definition used. See Box A1 and Table A2 in the Annexe.

2012).[12] Thus, the evolution of labour markets differs, depending on the level of economic development.

To illustrate, in Indonesia during the 1970s and 1980s, poverty reduction was helped by high rates of growth in agriculture and rural non-farm activities, on top of which the country experienced increases in manufacturing and real wages. In the rural areas of Viet Nam, improvements in farm productivity due to diversification to higher-value activities led to higher household incomes in the 1990s, which in turn were reflected in non-farm employment increasing by 6.7% per year from 1993 to 1998. The case of Uganda is also illustrative, with a clear trend toward income diversification into activities outside subsistence agriculture and a rise in (secondary) non-farm enterprises at an annual average rate of 6% (Fox and Pimhidzai, 2011; 2013; Byiers et al., 2015a). As Fox and Pimhidzai (2011: 18) illustrate for Uganda, this diversification is 'an *addition* to household livelihoods, not a switch' and thus is not entirely reflected in primary employment data.

This form of progress also relates to patterns of internal migration. In some countries, structural transformation is accompanied by migration out of rural agricultural activities into other rural off-farm activities and secondary towns, while others undergo rapid agglomeration in mega-cities (Christiaensen and Todo, 2014). While there are clear growth benefits of large urban agglomerations, Dorosh and Thurlow (2014) and Christiaensen and Todo (2014) find that migration out of agriculture into the 'missing middle' (rural non-farm economy and secondary towns) yields more inclusive growth patterns and faster poverty reduction than agglomeration in mega-cities. Strong linkages between agriculture and industrial activity, for example through food processing value chains, as in Uganda, can also bring more benefits to urban agglomeration (Dorosh and Thurlow, 2014). Moreover, many migrants retain connections with rural areas; in northern Uganda, Mallet and Atim (2014) find that the retention of connections with rural areas enables successful town-based livelihoods, for example with returns to rural areas during rainy or harvesting seasons.

12 Based on data for 98 countries from the World Bank I2D2 dataset. The estimate covers 63% of the population of low- and middle-income countries, and 60% of all countries worldwide. There are no data on China and for some larger countries in the Middle East and North Africa.

3. Labour demand policy and employment progress

Women maintain a rural road in Viet Nam. Photo: © Ngan Hong Nguyen for the World Bank.

The kinds of employment progress and structural transformation discussed above result from firm-level and individual investment decisions that themselves result from policies to stimulate market demand and thus labour, and to improve labour supply through education, training and employee protection. The sectoral productivity dynamics and their relation to employment outcomes then emerge from the interaction of factors that affect demand for labour at macroeconomic, sectoral and firm levels. Each of these levels is discussed below.

3.1 Macroeconomic policies

Macroeconomic stability has been understood as a key precondition for investment and economic growth for a long time. The structural adjustment era of the 1980s and 1990s was a clear reflection of this, and led international financial institutions and the donor community to focus on rectifying macroeconomic imbalances, with employment expected to follow macroeconomic stability.

But the track record of these macroeconomic policies in promoting employment-friendly growth and poverty reduction has been mixed. A UNDP set of case studies (Khan, 2007b) shows poor employment outcomes resulting from an overemphasis on stabilisation: because of the lack of income-protection mechanisms, downturns are accompanied by transitions to informal or household-based activities, as well as reduced earnings (World Bank, 2012). The resulting 'informalisation', characterised by 'persistent high informal and vulnerable employment leading to entrenched poverty and rising inequality in the developing world' has led policy-makers to focus more explicitly on how macroeconomic policy can promote structural changes and employment creation (Islam and Chowdhury, 2014). This implies 'going beyond the conventional macroeconomic policy framework focused on a "single mandate" of macroeconomic stability in terms of

low single digit inflation, fiscal and external sustainability' (Islam and Chowdhury, 2014).

Instead of aiming at strict macroeconomic stability, macroeconomic policies can be used to counteract or 'manage' business cycles. In so doing, counter-cyclical macroeconomic policies avoid the negative effects of economic crisis on the real economy. For example, if monetary authorities follow a strict inflation rule, the effects are pro-cyclical in the presence of high capital mobility;[13] a counter-cyclical monetary policy would aim to avoid the accumulation of high-risk public and private debt during periods of boom, when capital is widely available in international markets. Recent empirical analysis shows that macroeconomic policies affect firms' investment in the manufacturing sector, not because of structural conditions but because firm investment behaviour follows business-cycle fluctuations. This ultimately implies that, rather than focusing on ensuring macroeconomic stable conditions (essentially in the form of low inflation and fiscal discipline), macroeconomic policies should aim at counteracting business cycles, and so should be counter-cyclical rather than pro-cyclical (Guadagno, forthcoming).

While in some countries this is the case, many countries still pursue macroeconomic stability as the overriding and absolute objective of economic policy. In developing countries, macroeconomic policies must be compatible with policies to promote investment and employment, one candidate being the exchange rate. Exchange rate management is crucial in resource-rich developing countries where cyclical overvaluations of the exchange rate (due to volatile international commodity prices) divert investments away from the manufacturing sector and so hinder export diversification, while maintaining a competitive exchange rate can do the opposite, promoting export diversification, and protecting against inflation (e.g. World Bank, 2012), as was the case in Uganda with the switch to cash crops. On the other hand, failure to manage the exchange rate can ultimately result in limited job creation, premature de-industrialisation and delays in achieving socioeconomic development (Ocampo, 2011).

3.2 Sectoral issues: industrial policy for more and better jobs

Importantly, given the discussion above linking sectoral employment shifts, productivity and growth, the goal of promoting more and better jobs in specific high-productivity, labour-intensive or high-growth sectors is increasingly (re-)emerging through the use of industrial policies. While it is beyond the ambition of this paper to review the long debate on industrial policy, functional, or non-selective, industrial policies have generally been preferred to selective industrial policies for a long time (e.g. World Bank, 1993). As has been argued, selective industrial policies are difficult to implement because governments do not always possess the knowledge and capabilities to target specific industries. In other words, market failures can be more than offset by government failures, i.e. misallocation of resources and capture of government agencies (Krueger, 1990). Today, industrial policy has been recognised as having a key role in the cases of successful industrialisation (e.g. South Korea or Taiwan), leading to a return to thinking about 'industrial policy': 'the question is not whether any government should engage in industrial policy but how to do it right' (Stiglitz et al., 2013: 6). As Rodrik (2008), UNECA (2014) and others highlight, new industrial policy requires functioning institutions that can design and implement appropriate policies, monitor their impact, adapt policies where necessary, and withdraw support when policies or responses to policies are not as expected.

Since 'modern economic growth is a process of continuous technological innovation, industrial upgrading and economic diversification' (Stiglitz et al., 2013: 7), achieving economic transformation implies overcoming the constraints that hinder these processes. For example, the Growth Diagnostics framework of Hausmann et al. (2004) aims to help identify critical constraints to investment and entrepreneurship in developing countries. These authors distinguish between factors that cause: (a) *low returns to economic activities* – either because of *low social returns* such as poor geography, low human capital, bad infrastructure or because of *low appropriability* because of government and market failures; or (b) *high cost of finance* due to a dysfunctional international or local financial system and intermediation. They thus highlight both financial and non-financial factors as potential binding constraints to economic transformations, an important aspect to maintain in the discussion of economic transformation and job creation. Solutions will therefore be multidimensional, involving different combinations of financial and non-financial enablers.

Looking at some specific approaches and their relation to employment, common instruments are Special Economic Zones (SEZs), Export Processing Zones (EPZs), and other instruments of spatial industrial policy. SEZs and EPZs are delimited areas within a country's territory, where high-quality infrastructures, favourable fiscal regimes and more relaxed regulatory frameworks are intended to attract investment, promote and diversify production structures and exports, stimulate knowledge and technology transfer from foreign to domestic firms, and generate employment. SEZs have been very successful in Asia (Byiers et al., 2015b), while in Africa, apart from Mauritius (Vandemoortele and Bird, 2010), SEZs' performance

13 During booms, capital inflows have expansionary aggregate demand effects, accompanied by downward pressures on interest rates and/or exchange rate appreciation. Attempts to counteract those by using contractionary monetary policy will be self-defeating, as the higher interest rates will induce additional capital inflows and thus additional inflationary pressures (Ocampo, 2005).

has been less satisfactory, failing to attract a significant number of investors (Farole and Moberg, 2014). While generally creating important employment opportunities, not least for women, SEZs in many developing countries pose fundamental questions on the quality of employment generated (Chen, 2014).

Governments have also relied on fiscal and financial incentives, SME-support programmes, and in some countries on state-owned enterprises and public procurement to encourage investment and employment creation. For example, in Ethiopia, fiscal and financial incentives encourage investments in strategic industries, and policies in support of micro and small enterprises facilitate their (very limited) access to credit (Gebreeyesus, 2013).[14] Ethiopia's record in reducing poverty through increased employment and diversified incomes suggests that this strategy is having some success. Productivity growth in the agricultural sector has been the main driver of poverty reduction in Ethiopia, as seen in Section 2, made possible by public investments in infrastructure and extension services, and improved access to fertilisers (World Bank, 2014). Public works and programmes to support micro- and small enterprises have also created employment in both urban and rural areas (Lenhardt et al., forthcoming) while mega-investments in infrastructure, especially road construction, attracted manufacturing firms and spurred their growth (Shiferaw et al., 2012).[15]

Compared with earlier industrial policy, modern industrial policy gives a more central role to learning and capabilities' accumulation. These are considered essential to accelerate and sustain the processes of structural and technological change that countries undergo when they develop (Cimoli et al., 2009). Baldwin (2010), for example, points to the more limited benefits of *joining* global value chains (GVCs) today than for past industrialisers, who were able to *build* them. While existing GVCs therefore make industrialisation a lot easier today, the smile-curve element of GVCs suggests that technological upgrading is fundamental to making advances in industrialisation. Developing-country governments are increasingly recognising this. As a consequence, explicit science, technology and innovation plans are being designed in several developing countries. Mongolia, for example, developed and is currently implementing its Science and Technology Master Plan for 2007-2020 by which R&D fiscal and financial incentives will stimulate R&D investments in the private sector (UNIDO, 2011).[16] These policies are complemented by substantial public investments to increase post-primary education (Engel et al., 2014).

3.3 Constraints to firm growth in developing countries

As well as differing across sectors, productivity levels also vary widely across firms, often in relation to firm size and with a large impact on employment quantity and quality. Few firms in developing countries are large, while the majority are very small and mostly informal. Page and Soderbom (2012: 3) find that for Africa, once firm survival is taken into account, small and large firms 'perform essentially the same in creating new net jobs over the medium term' but that 'small firms have higher job turnover and persistently lower wages than larger firms', suggesting that better-quality employment is on average found in larger firms.

Further, firms often have difficulty growing, resulting in many micro- and small firms with very few medium-sized firms (e.g. Gebreeyesus, 2013). Summarising extensive literature on enterprise growth and development, Tybout (2000) highlights the wide evidence on the limited growth of developing-country firms as the majority of small firms aim to stay 'below the government's radar', referring to a range of different regulatory and other factors that hinder firm growth, particularly where some degree of informal operation is an option, and sometimes a necessity. Vaillant et al. (2014) find that in Madagascar, 'informal sector employment growth is extensive rather than intensive', through the creation of new businesses rather than growing businesses. This clearly relates back to the discussion above on employment creation as an unemployment coping strategy, with likely implications for employment quality.

Management skills and capabilities are also a challenge to firm expansion and employment creation, as well as to employee conditions. Bloom et al. (2013) show that management assistance in a sample of Indian firms results in large positive effects on firm-level productivity. This is a particularly important issue in large firms, where firms' size makes formal managerial practices even more important to efficient firm functioning. Together with management skills, knowledge and capabilities also play a great role in firms' survival and growth. Sutton and Kellow (2010) find that in Ethiopia successful manufacturing firms often started out as trading firms and invested in production only once they had understood the market. This then suggests that job creation may stem more from large firms, and from older

14 While considerable, public-sector investments do not seem to create a problem of fiscal sustainability: the fiscal deficit is small and decreasing and external debt has reduced considerably, also thanks to the positive assessments by the HIPC Initiative which granted major debt reliefs.

15 While these policies clearly contributed to the structural-change dynamics described above, public policies have not been equally effective in spurring growth of the manufacturing sector. Despite the support received, some industries (e.g. the leather industry) still face considerable obstacles, and not enough foreign firms decided to invest in the country. Today, a stronger focus on industrialisation is expected to redirect structural change towards the manufacturing sector to create additional and more productive employment (Lenhardt et al., forthcoming).

16 These financial resources come from the Mongolia Development Fund, a fund built with revenues from natural resources (UNIDO, 2011).

firms (who have potentially worked in other sectors) that are able to diversify.

Even for more formal firms, evidence suggests that different firms face very different constraints to survival and expansion, even within the same region, country and sector and when ostensibly faced with the same regulations (Hallward-Driemeier and Pritchett, 2011).[17] So even in 'unfriendly environments' there are firms that successfully start up, survive and expand employment despite (or because of) regulatory barriers. These incumbent firms may even actively oppose reforms to lower the costs of new firm entrance, thus undermining efforts to promote private-sector reforms and employment creation.

The reaction of firms and their interaction with policy-makers is discussed by Pritchett and Werker (2012), who propose categorising firms according to their market focus (export or domestic) and the competitiveness of that market (competitive or high rent), illustrated in Table 4. The location of firms and sectors among these categories is important in shaping how firms interact with policy and their potential for expanding and creating employment. Individuals or operators in competitive markets will generally have little economic or political power, thus they are workhorses, or if they manage to remain competitive in world markets they are 'magicians', especially when compared with operators in high-rent sectors, the so-called 'rentiers' and 'power-brokers'. This is particularly important when one begins to consider the incentives for political elites to promote employment-intensive private-sector development, an aspect discussed in Section 5.

3.4 Informalisation and employment quality

While household-level diversification of activity and migration into non-farm activities is an important part of the economic transformation process, as discussed in Section 2, it also reflects the process of de-industrialisation, 'casualisation' or 'informalisation' of employment seen in many countries since the 1990s. While the shift in employment to services seen above can reflect productive employment in the in ICT sector, for example, a large informal sector, often in retail services, is also a pool for labour absorption that reflects informalisation and the weakening of bargaining power of workers since the 1990s (Oya et al., 2013). This raises important questions about whether de-industrialisation is a reflection of countries 'skipping' a step in their structural transformation process (i.e. India and the emergence of the ICT sector) or whether this reflects a worsening in employment opportunities (Oya et al., 2013).

In the absence of robust demand for labour from new and expanding firms, people have to create their own opportunities and make their own jobs (Fox et al., 2013). Poor working conditions in the wage sector of poor countries has also acted as a push factor for workers to start their own enterprises. In northern Uganda, expectations of wage employment fall short of what young people hope to get out of the urban labour market, with informal entrepreneurship often a desired alternative (Mallet and Atim, 2014).

Not all self-employed entrepreneurs are the same and have the same chances for success. Grimm et al. (2012) estimate that in West Africa between 19% and 58% of entrepreneurs are high-potential 'constrained gazelles', depending on the country and the definition used. The accompanying fall in working poverty is a sign of the increase in these high-potential entrepreneurs. In Ghana, the working poverty rate in own-account workers has gone down from 35% in 1992 to 15% in 2006 (Ghana Living Standard Surveys). This again emphasises the need to go beyond the objective of creating jobs to pay attention to working conditions, wages and employment security, especially as countries progress to middle-income level.

Table 4: Classification of firms

	High-rent	Competitive
Export-oriented	Rentiers Natural resource exporters, agricultural concession exporters	Magicians Manufacturing and service exporters, other agricultural exporters
Domestic market	Power-brokers Legislative monopolies or oligopolies, natural monopolies or oligopolies, government services	Workhorses Importers, traders, retailers, subsistence farmers, local manufacturers, producers of non-tradeables

Source: Pritchett and Werker (2012).

17 Hallward-Driemeier and Pritchett (2011) compare Doing Business ('de jure') data with reported data from enterprises ('de facto') on certain business procedures, such as the time taken to get a construction permit. They find enormous differences in the average 'de facto' conditions compared with the 'de jure' estimate from Doing Business estimates. They also find wide dispersion in the 'de facto' conditions, suggesting large variations in conditions faced by firms.

Table 5: Obstacles to doing business

		Formal enterprise survey				
	Informal enterprise survey	Small	Medium	Big	All	Formal vs. Informal
Obstacles (% of firms identifying an obstacle as the most important)						
Access to financing	43.80	20.60	17.80	13.60	18.50	–25.3*
Political instability	11.40	9.50	9.10	11.70	9.70	–1.7
Access to land	11.20	5.60	4.20	4.10	5.00	–6.3**
Corruption	7.40	7.30	8.20	6.00	7.40	0.00
Electricity	7.30%	10.00%	9.80%	7.40%	9.80%	2.50%
Business licensing and permit	6.30%	2.30%	2.70%	1.70%	2.40%	–3.9%**
Crime	3.40%	5.20%	5.00%	7.20%	5.40%	2.00%
Legal system	3.30%	0.50%	0.50%	1.90%	0.80%	–2.5%*
Customs and trade regulations	2.10%	3.20%	4.40%	5.00%	3.80%	1.80%
Uneducated labour force	1.80%	4.60%	6.00%	10.40%	6.00%	4.2%***
Labour regulation	1.80%	2.60%	3.10%	4.80%	3.30%	1.40%
Tax administration	0.10%	4.30%	6.70%	6.40%	5.30%	5.2%**
Practices of competitors in the informal economy	0.10%	14.40%	13.40%	9.90%	12.90%	12.9%*
Tax rates	0.00%	7.70%	6.20%	6.30%	6.80%	6.8%*
Transportation	0.00%	2.20%	2.90%	3.70%	2.80%	2.8%*

Source: La Porta and Schiefel (2014).

As with larger firms, entrepreneurial capacity is also important in the informal sector. Evidence on micro- and small enterprises in several countries in Latin America and West Africa shows that after two years of operation most micro-enterprises tend to remain at their start-up employment levels (World Bank, 2012). Improving know-how among entrepreneurs and managers can be the key to fuelling their growth and thus their future employment generation. Randomised experiments in Tanzania, Ghana and Viet Nam indicate that the benefit of selective training methods outweighs their costs (World Bank, 2012). In Kenya, such entrepreneurship training has even been incorporated into the public school system. Small Business Centres are attached to all public post-secondary schools and some private technical and vocational education and training (TVET) institutions, delivering entrepreneurship education at an early age (Adams et al., 2013).

Finally, alleviating credit constraints to firms can be an important way to support potentially successful entrepreneurs in expanding and creating employment. Access to credit is fundamental for any type of enterprise, but informal and small ones tend to face greater obstacles (Table 5). RCTs in Mexico and Sri Lanka (de Mel et al., 2008; McKenzie and Woodruff, 2006) also identify the impact of additional capital on non-farm enterprise growth,[18] challenging the conventional wisdom that these micro-household enterprises have no scope for growth (McKenzie, 2009).

The *World Development Report 2013* (World Bank, 2012) underlines the point that different countries face different employment challenges. In particular, it distinguishes between the jobs challenge of economies that are agrarian, conflict-affected, urbanising, resource-rich, small-island, high youth-unemployment, formalising and ageing. Clearly, countries can fall into more than one category, but nonetheless the policy challenges differ. As such, for Uganda, a primarily agrarian economy, 'increasing productivity in smallholder farming is fundamental for

18 Returns to capital were 5.7% per month in Sri Lanka and 20% in Mexico, rates much higher than market interest rates in both countries.

poverty reduction, given the share of the population living in rural areas. But urban jobs in activities that connect the economy to world markets and global value chains are necessary for growth. With limited resources to support both, a trade-off between living standards and productivity may arise' (World Bank, 2012: 88). In contrast, for Sri Lanka, with high youth unemployment, 'job opportunities are not commensurate with the expectations created by the expansion of education systems. And the active labor market programs needed to defuse social tensions in the short term may not do much for poverty reduction because many of the jobless come from middle-class families, and devoting public resources to finance them may reduce economic dynamism' (World Bank, 2012: 89).

As this section highlights, demand for labour is clearly affected by macroeconomic, sectoral and firm-level policies, and the interaction between these. However, as the previous sections in this paper have argued, putting employment at the centre of development policy also means thinking about the quality and accessibility of employment, and how these relate to and interact with structural-change dynamics. While countries (and countries within regions) may therefore need specific employment-related policies to promote particular types of demand for labour, the above points also highlight the interaction of firm and sectoral expansion with labour supply – the degree to which the population can satisfy the needs of an expanding labour market.

4. Labour force transformation policies

Fishermen in Nigeria. Photo: © Arne Hoel for the World Bank.

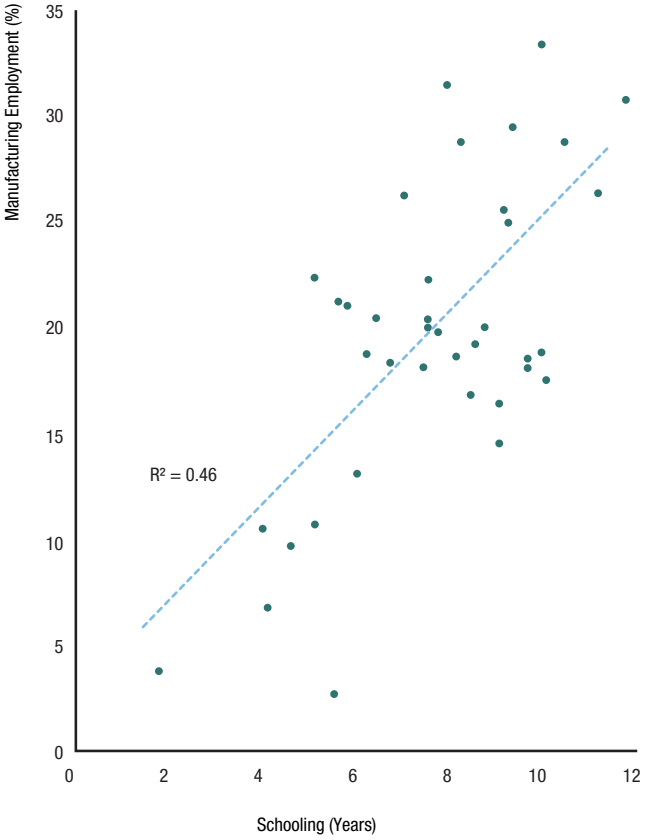
4.1 General education

While Golub and Hayat (2014) find that 'lack of demand for labour rather than worker characteristics is the main reason for pervasive underemployment' in Africa, there is nonetheless an important interaction between labour demands and levels of human capital. A key element of supply-side policy for employment outcomes is countries' education systems. The nature of work within higher-productivity sectors (manufacturing and services) requires a more complex skill set among its labour force, suggestive of the need for higher levels of educational attainment. This is illustrated in Figures 4a and 4b (overleaf): using data from the World Bank's *World Development Report 2013*, the average level of educational attainment (represented by average years of schooling among the population) is correlated with the proportion of manufacturing and services employment in the economy.[19]

Schooling is also highly correlated with the share of wage employment across countries, as shown in Figure 5 (overleaf). Given that wage employment is broadly associated with higher-quality employment, and though these results do not necessarily indicate a direct line of causation from schooling towards higher-quality employment, they do suggest that for more productive sectors to prosper, employers need to be able to identify a large-enough pool of educated workers who can fulfil complex positions within their firms. This is reflected in sub-Saharan Africa where Filmer and Fox (2014) show that higher-quality and more productive employment,

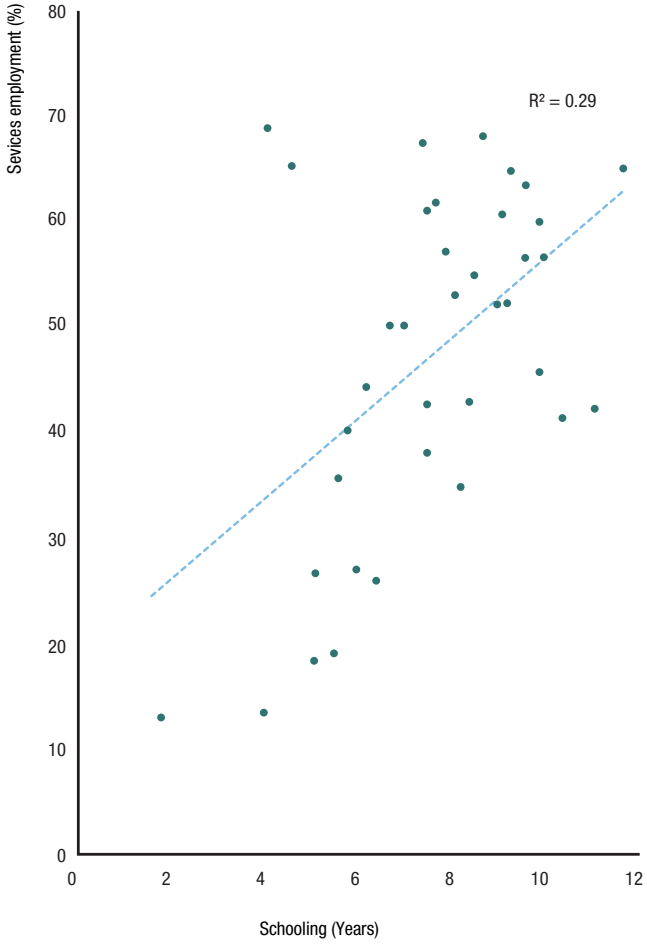
19 Correlation for low- and middle-income countries' schooling (years) against manufacturing employment – 0.46, services employment – 0.29 (http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2014/01/22/000333037_20140122102826/Rendered/PDF/840830V10Youth0SSA0Overview0English.pdf).

Figure 4a: Relationship between average years of schooling and manufacturing employment



Source: Authors' elaboration based on data from World Bank (2012).

Figure 4b: Relationship between average years of schooling and services employment



Source: Authors' elaboration based on data from World Bank (2012).

involving wages, contracts and non-farm enterprises, are secured much more often by those with better educational backgrounds.[20]

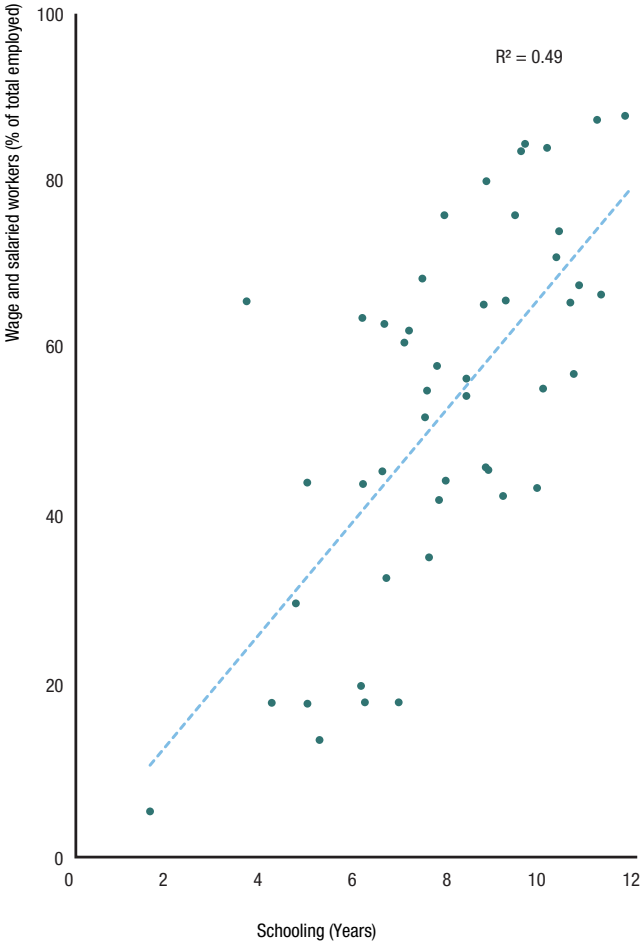
Educational attainment has increased substantially in developing countries over recent years. Average years of education among 15-24-year-olds in developing countries rose from 6.5 years in 1990 to nearly 8.8 years in 2010. The proportion of those without any education among 15-24-year-olds has declined dramatically to just 7% in 2010 (down from 47% in 1950) (Barro and Lee, 2010). Most of these improvements in developing countries are accounted for by primary- and secondary-level education. These are vital sectors that can provide to mass populations the basic skills required for positions in agriculture and manufacturing. Moreover, significant progress has also been made in reducing gender inequality in education: the ratio of female-to-male average years of schooling increased from around 58% in 1950 to 80% in 1990 and 86% by 2010 (Barro and Lee, 2010).

Although full enrolment at primary and secondary levels have yet to be achieved in many countries, these educational improvements are likely to have contributed to the sectoral- and household-level gains in productivity and diversification discussed in Section 2. A recent World Bank study (Patrinos and Montenegro, 2014) covering 139 countries shows that private returns to education[21] are higher at the primary level of education and lowest at secondary, before rising again at tertiary. This effect is greatest among low-income economies, where primary education can give an individual the skills and basic literacy and numeracy to attain employment or to better participate in certain self-employed activities, potentially as part of household diversification of activities if not in wage employment. This was found Uganda, for example, where primary-education completion was found to increase an individual's chance of participating in non-farm

20 The effect is more pronounced among slightly older workers as African youth, even if highly educated, typically find it hard to find formal employment. The majority of those with even lower secondary education are currently unable to obtain waged positions.

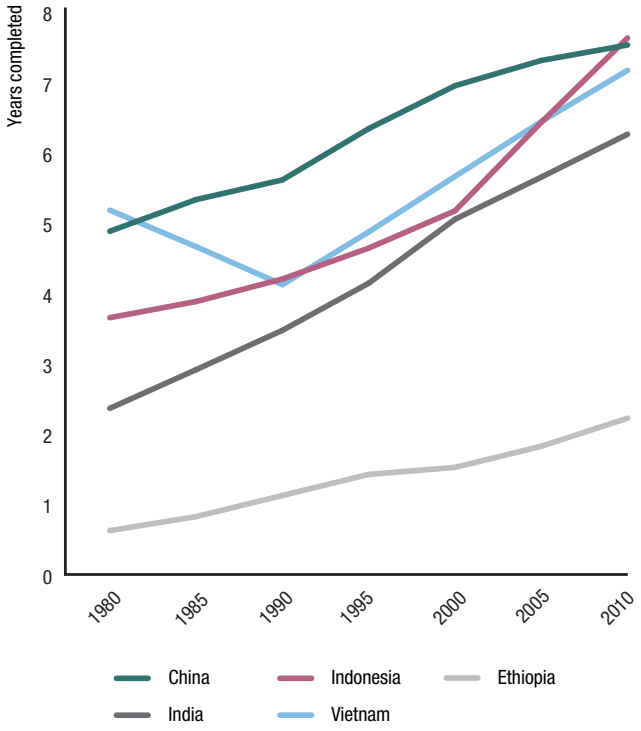
21 The impact on income or wealth of individuals who increase their educational attainment (in terms of years of education completed).

Figure 5: Relationship between schooling and wage employment across low- and middle-income countries



Source: Authors' elaboration based on data from World Bank (2012).

Figure 6: Average number of years of schooling completed by individuals aged 15+, selected countries



Source: Authors' elaboration based on data from Barro and Lee (2010) and IIASA/VID (2014)

self-employment by 11 percentage points, helping to explain part of the country's success in moving away from agriculture and expanding other enterprises (Byiers et al., 2015a). Still, returns to education are likely to change as countries progress. In Uganda again, as average levels of education rose after the introduction of universal primary education and alongside economic transformation, the returns to primary education started to decline while those of secondary education increased.

Evidence is also emerging though that *public* returns to education[22] are high and rising at secondary and tertiary levels for developing countries (Barro and Lee, 2010; Schultz, 2004; Duraisamy, 2002; Sparreboom and Staneva, 2014). This would suggest that investment in secondary education is still worthwhile on economic grounds, both for the country and for individuals, and not just as a moral endeavour. When looking at Figure 5 above, it would appear that a country's labour force generally needs to have an average level of schooling beyond at least five years of basic education to maintain a level of manufacturing employment above 10% and services employment above 20%. This indicates a correlation between the minimum level of education within a country and its ability to handle a significant amount of industrial and service activity.

Other evidence of the importance of education for economic transformation comes from specific countries. As Figure 6 illustrates, China managed to increase its average years of schooling, among those of working age, above five years during the 1990s, allowing for (though not necessarily causing) its industrial take-off during that decade. Viet Nam and Indonesia successfully increased average years of schooling to six years by 2010, also helping to fuel current industrial expansion in these countries. The clear outlier in Figure 6 is Ethiopia, where the average number of completed years of schooling remains exceptionally low.

Those countries experiencing take-off into structural transformation have displayed at least widespread literacy among their workforce. When take-off began in China in 1990, its literacy rate was estimated at around 78%, while in Viet Nam, where a similar trajectory began in 2000, the literacy rate was estimated at around 90%

22 The economic benefit gained by a society from increasing its educational attainment (in terms of years of education completed).

(Joshi and Verspoor, 2013). Sri Lanka's literacy was also around 90% in 2000, as its growth rate soared.[23] Meanwhile, Ethiopia's literacy rate was as low as 39% as recently as 2007, despite rapidly improving enrolment rates. While this hampers Ethiopia's ongoing attempts to attract foreign direct investment in industry and develop its manufacturing base, it has been shown that education has had a positive effect on agricultural productivity and poverty reduction (World Bank, 2014).

While educational attainment and widening access are important, increasing attention is also being paid to the quality of education as the ultimate determinant of an individual's ability to engage in productive employment, Hanushek and Woessmann (2007) providing one example. It is certainly true that many countries have improved levels of attainment much faster than the quality of education, and evidence suggests that more than 70% of Ugandan third-grade students cannot read a single word; the equivalent figure is 80% in Mali (Beltran et al., 2011). In comparison, 67% of Indonesian students do achieve this rank, showing the learning divergence across prospering developing economies (Filmer and Fox, 2014).

Countries therefore face trade-offs in decision-making on educational policy for employment outcomes and adapting this to labour demand from firms. Promoting higher-level technical or university education, more expensive per student, can help facilitate the leap to more productive sectors. But this can come at the cost of reduced funding for junior levels of education, which might allow for a wider boost to low-productivity employment. It can also help to exacerbate inequalities in education, with tertiary places more often taken up by those from wealthier backgrounds. Increasing investment in lower levels of education tends to have a greater effect on improving attainment outcomes among the poorest. At the same time, expanding educational enrolment and attainment may reduce available funding necessary for higher-quality education, such as for school facilities, teacher training and wages. Governments therefore need to balance considerations of equity within education alongside the quality and complexity of learning experienced by their future workforce.

4.2 TVET schemes in developing countries

Given the nature of developing-country economies and the objective of expanding productive employment, technical and vocational education and training (TVET) schemes often represent a more targeted, or at least complementary, policy for improving the quality of the labour force. Employers in developing countries (particularly in large firms, as shown in Table 5) often cite skills deficits or mismatches as their biggest obstacle to growth and transformation, despite an otherwise well-educated labour force. For example, only 13% of employers in Cambodia say that graduates are equipped with the soft and technical skills needed for work, with many commenting that the skills being developed are not relevant to the workplace (Aring, 2012). The importance of skills deficits in employer complaints increases with the level of development, particularly in 'countries moving from low-income to lower middle-income status' (Lyon et al, 2012). Skills deficits are also found to increase in significance with the relative importance of the service sector in the economy, presumably where the services sector is particularly knowledge-based.

In economies with higher levels of youth unemployment, a larger share of firms report being affected by skills constraints, despite highly educated youth populations. Indeed, the Development Progress case study on Indonesia found that those most likely to report being unemployed in the country had a substantial education up to senior high-school level. This suggests demand deficits and skill mismatches among high-school graduates (Tobias et al., 2014).

While TVET may offer a way to improve matching of skills requirements, a perception persists in many countries among students and parents that formal school and university education is of a higher status than TVET schemes (CIDA, 2012). This has often contributed to low enrolment rates in TVET programmes in developing countries and a low general supply of programmes from public and private sources. South Asia and sub-Saharan Africa have extremely low enrolments in TVET in particular, as shown in Table 6, while East Asian and Arab states, more successful in transforming their economies in the 1990s and 2000s, have far higher TVET enrolment.

A recent study of 46 developing countries with large youth populations found that 25 either had or were developing policy documents concerning TVET programmes (Engel, 2012). Bangladesh, Ethiopia, Jordan and Sierra Leone are among those countries that have made efforts to modernise TVET systems, expand access to training, and ensure that the types of skills taught are linked to labour market needs (Engel, 2012). Two important goals in those countries have been attempts to reach the marginalised, through, for example, agricultural training or rural jobs for ex-combatants, and the integration of formal and informal training and the recognition of qualifications obtained outside the formal system. However, the results of TVET programmes vary considerably, ranging from increasing employment rates by about 0 to 5 percentage points, as indicatively highlighted

23 Data from World Development Indicators.

in Table 7 (overleaf).[24] This effect is higher for some groups, such as women in Colombia and Panama. More impressive, though, is the more significant impact on job quality. The benefit of TVET enrolment in Latin America in terms of the formality of employment obtained and the receipt of higher wages is substantial.

The Development Progress case studies themselves have shown the employment benefits reaped by TVET schemes. In Uganda, the marginal returns to TVET programmes in the informal sector are higher than the marginal returns for an extra year in university (Byiers et al., 2015a). In fact, the benefits of TVET in the informal sector are often more pronounced in developing economies, where vocational skills are often more in demand, again highlighting the need to take this sub-sector of the population into account when looking at matching labour demand and supply.

In Mongolia and Ethiopia, the Development Progress case studies found that TVET graduates were far more able to find a job than their university counterparts (Engel et al., 2014; Lenhardt et al., forthcoming). An evaluation of the Sri Lankan TVET sector from 2009 notes that the rate of return of the TVET sector was 42%, with rates of 50% and higher found for private and village-level institutes (Byiers et al., 2015b). The study concluded that the TVET

Table 6: Enrolment in technical and vocational education by country group and region

	1999		2007		
	% TVET share of total school enrolment	% female	% TVET share of total school enrolment	% female	% increase in total TVET enrolment
World	11	45	10	46	16
Countries in transition	9	40	13	40	26
Developed countries	18	45	16	43	-10
Developing countries	9	46	9	47	28
North America and Western Europe	15	45	14	43	-2
Arab states	15	43	11	43	-4
Central and Eastern Europe	18	41	20	39	-12
Central Asia	6	41	12	46	129
East Asia	14	47	14	49	27
Pacific	36	47	32	44	-6
Caribbean	3	45	4	49	30
Latin America	10	54	11	54	25
South and West Asia	2	30	2	27	57
Sub-Saharan Africa	6	36	6	39	93

Source: Kingombe (2012).

24 The table summarises the findings from the Inter-American Development Bank's first rigorous evaluations on TVET-related programmes in Latin America and independent evaluations of similar programmes in Chile and Colombia.

sector was a supply-side complement to Sri Lanka's shift towards export-oriented manufacturing and was likely to be a major part of the growth in investment and productivity, 'if not a watershed for employment growth' (Byiers et al., 2015b).

An important benefit of TVET programmes is that they can be tailored to the needs of employers in-country, potentially allowing important synergies with the kinds of industrial and firm-level policies discussed in the previous section. The best TVET schemes work with and consult the private sector to match skills development to the demands of industries. In Sri Lanka, 10 of the 17 members of the Tertiary and Vocational Education Commission, including its chair, represent employer associations and private-sector entrepreneurs. TVET plans are therefore designed for major industrial sectors and as such have given particular attention to apparel industries in recent years. The withdrawal of trade preferences from the end of the Multi-Fibre Arrangement in 2005 meant that Sri Lankan apparel firms had to increase productivity, innovate and increase value addition in order to stay in competition with foreign firms. A five-year strategy for upgrading within the industry, focusing on labour skills in marketing, design and technical competence, enabled Sri Lankan firms to remain competitive after their trade preferences were removed (Byiers et al., 2015b). With the upcoming removal of EU trade preferences, Sri Lanka will have to focus further on TVET schemes to continue developing its labour skill sets.

4.3 Recognising the informal sector as a source of human capital

As argued in Section 2, in some countries, especially at very low levels of economic development, employment shifts are not necessarily reflected in macroeconomic sectoral data. The literature on non-agricultural household enterprises and informal employment (e.g. Cho et al., 2012; Margolis, 2014; Fox and Pimhidzai, 2011) has recognised their role as drivers of employment transformation. However, there are various types of household entrepreneurs.[25] A small minority are successful, and able to move out of the 'vulnerable' category, grow and eventually hire people in their enterprises, but the majority earn very little and are rationed out of waged jobs or constrained from growing their enterprises (Gindling and Newhouse, 2012).[26] Beyond broad access to education, the key question is how to

Table 7: Labour market impacts of large-scale job training programmes in Latin America

	Increase in employment rate (percentage points)	Increase in formality rate (percentage points)	Increase in wages (percentage change)
Argentina	Overall – 0-11% Youth (<21) – 10-30%	Overall – 0-3% Youngest – 6-9%	Overall – Limited change
Chile	Overall – 18-22% Youth – 22%+	Youngest – 15-23%	Overall – 22-25%
Colombia	Women – 5% Men – No change	Women – 6-7% Men – 5-9%	Women – 22% Men – 10%
Dominican Republic	Overall – 5-6% Santo Domingo – Limited change East – Limited change	Men – 9% increase in health insurance coverage	Overall – 17%
Mexico	Overall – No change On-the-job training – 12-30%	Overall – 10-20%	Overall – Limited change
Panama	Overall – Limited change Women – 10-12% Panama City – 10-12%	Overall – Limited change	Overall – Limited change Women – 38% Panama City – 25%
Peru	Overall – 13% Women – 20%	Overall – 11% Women – 14% Men – 5%	Overall – 12-30%

Source: Kingombe (2012).

Notes: Impacts reflect training group performance against control group performance.

25 With various names given in the literature: opportunity or necessity, exit or exclusion, choice or constraint, De Soto or Tokman, constrained gazelles or survival entrepreneurs (Margolis, 2014). In addition, contributing family workers account for a large share of the vulnerable employment in the developing world. On average, 25% of the self-employed are contributing family workers, and the share is larger for women than for men (Margolis, 2014). This is even larger in agriculture where contributing family workers amount to 36% of the self-employed workers.

26 Moreover, some argue that the trend of non-farm self-employment will be the dominant trend for the large youth populations entering the labour market (Fox et al., 2013).

enable livelihood diversification at the household level, for successful non-farm self-employment.

National TVET systems emerging in the 1960s were designed to help the labour force meet the expected skill requirements of industrialisation. They did not focus on the needs of the informal sector, to which they have generally not adapted (Brewer, 2004; Haan, 2006; Liimatainen, 2002; NISER, 2007; Filipiak, 2007). Public TVET today is still largely aimed at white-collar jobs in formal, urban sectors (World Bank, 2009). Large proportions of total education budgets are now spent on formal TVET, a positive development, but given the vast amount of untrained, underdeveloped labour in informal sectors, failing to expand this to informal training opportunities and informal firms represents a missed opportunity to interact with millions of workers. For example, Burkina Faso invests vast sums in its TVET system but does little to support its 2 million traditional apprentices (Walther and Savadogo, 2010). Senegal has around 10,000 young adults in TVET schemes, while its motor-repair industry alone has around 440,000 informal apprentices (Walther, 2011).

Within the informal sector, workers develop their specific skills largely 'on the job', without any rigorous training. An Asian Development Bank survey in Bangladesh found that 78% of skilled workers in manufacturing establishments acquired their skills on the job (Comyn, 2009). Similarly, World Bank research found that only 25% of manufacturing firms in the country provided their employees with in-service formal training. This is significantly lower than other South and East Asian countries that have achieved greater success in attracting value from industrialisation, such as Malaysia and China, which have a greater proportion of formal firms developing staff skills and attracting higher-value manufacturing activities (Engel, 2012). A survey conducted in 2003 in Ethiopia (where the informal sector accounts for 90% of all labour market activities and jobs) showed 68% of employees from the sector acquired their skills through self-training, 29% within the family and 3.5% through apprenticeship or on-the-job training. Just 0.09% had undertaken any sort of formal training (CSA, 2003). Similarly in their study of informal shoemaking in Ethiopia, Gebreeyesus and Mohnen (2013) found that 100% of entrepreneurs learned shoemaking on the job (i.e. with no formal training), of which 68% learned as workers in other enterprises while the rest trained in family-owned enterprises.

Training opportunities for those in informal enterprises are particularly effective in expanding skills development to the poor and most marginalised, who are far more likely to work in the informal sector. Youths are also far more likely than adults to be employed in the informal sector in many developing countries. The flexibility of informal apprenticeships and community initiatives, as well as their affordability, their attachment to future employment and their generally lower entry standards, make them more attractive to disadvantaged youths. They present themselves as a low-cost and possibly tailored education opportunity for governments seeking a way to support the least educated, those who were unsuccessful in formal schooling and those who failed to qualify for formal TVET schemes.

Traditional apprenticeships are by far the most common source of skills training within informal roles. They consist of private contractual arrangements between a parent or apprentice and a master craftsperson who agrees to provide practical training in the workplace and certify the training in return for a fee or reduced earnings while learning. They are unlikely to be registered with a government agency, or part of any recognised national certification scheme, and do not involve the support of worker organisations.

In Bangladesh, the new national training and qualifications framework aims for a 'more ubiquitous and universal method of skills recognition', enabling the transferability of qualifications and skills from the informal sector (Engel, 2012). Ghana, where traditional apprenticeships are particularly common, is formalising such training, while Malawi is expanding accreditation to these apprenticeships. Mali, Côte d'Ivoire, Senegal and Tanzania are reforming traditional apprenticeship schemes in conjunction with the ILO (Walther, 2011).

4.4 Social protection and public works programmes

While employment is the primary source of income during working life, social protection plays an important role in smoothing incomes and aggregate demand, facilitating job transitions and thereby facilitating structural change (ILO, 2014). The ILO estimates that 73% of the world's population is not adequately covered by social protection,[27] although many developing countries are beginning to expand their social protection systems, especially since 2000 (ILO, 2014).

Without income-protection support, laid-off or unemployed workers cannot spend time searching for a salaried job and have little choice but to seek employment in the informal economy (Cazes and Verick, 2010) or in vulnerable positions. Employment insurance, public works programmes or other similar approaches can affect households by providing a predictable safety net that households know they have access to when they experience a negative economic shock, and/or by providing an extra source of income for un- or under-employed workers. '[It] makes self-employment a less risky occupation than before, which indirectly subsidises such activities and reduces the

27 Policies include sickness benefits, unemployment benefits, old-age benefits, employment injury benefits, family/child benefits, maternity benefits, invalidity/disability benefits and survivors' benefits.

need for households to work in the safer casual private sector' (Zimmermann, 2013: 3).

Social protection policies have also been shown to encourage labour market participation (ILO, 2014). In South Africa for example, labour market participation was 13%-17% higher for households receiving a cash transfer (EPRC, 2004, cited in ILO, 2014) and in some countries, such as Uganda and India, they have been specifically targeted to provide access to employment for young and poor people. Furthermore, simulations of cash transfers in Ethiopia and Kenya show aggregate net real benefits[28] in boosting the local economy and stimulating local markets (FAO, 2014, and Taylor et al., 2013, cited in ILO, 2014).

Viet Nam introduced an employment insurance scheme in 2009, and is now expanding the scope to employment promotion measures provided in combination with cash benefits. In Sri Lanka, pension schemes now include farmers, fishermen and all self-employed workers in the non-farming sector, and a further special pension scheme ('Sestha') for migrant workers was created in 2007.[29] Other examples are: the inclusion of domestic workers, small-scale fishermen, workers rescued from forced labour and trainee workers (in Bolsa Qualificacao) in the unemployment scheme of Brazil; the coverage of domestic workers in the Unemployment Insurance Fund of South Africa since 2003; and the eligibility for unemployment benefits for first-time job-seekers in Chile.[30] While these schemes still need improvements – they are voluntary rather than compulsory, provide lump-sum benefits rather than a regular cash flow and have limited coverage – it is notable that developing countries are taking such steps.

Universal social security schemes involve considerable financial and institutional capacity, but some countries are working through overcoming these constraints (Cazes and Verick, 2010). Even some low-income countries, such as Malawi, Kenya, Uganda, Ethiopia and Nepal, where financial constraints and challenges are higher, have also taken steps to expand their social protection systems through safety-net programmes (ILO, 2014).

In the poorest countries, focusing on payroll employees alone excludes those in the informal economy, the working poor and the long-term unemployed because social protection is typically based on employment contributions. To address this, governments in both low- and middle-income countries (often together with development partners) are making increasing efforts to establish social protection schemes that link conditional cash or in-kind transfers or public work programmes (Cazes and Verick, 2010). Pioneer conditional cash transfer (CCT) programmes such as Mexico's Progresa/Oportunidades and Brazil's Bolsa Familia have been important income-protection mechanisms, helping to reduce poverty and even income inequality (e.g. Lustig et al., 2012, in Latin American countries) and there is very little evidence of CCTs having the undesired outcome of discouraging employment, except in the case of child labour (Fizbein and Schady, 2012). Active labour-market policies such as public employment programmes and CCTs have been used to reach the un- and under-employed and can be used as stepping stones towards a more universal and comprehensive social security system.

Public works programmes (PWPs) are intended to provide short-term employment in order to support incomes and reduce the effects of economic shocks. Examples range from the various temporary PWPs established by NGOs and donors in the aftermath of the 2004 tsunami in Sri Lanka, to the Pedat Kaya employment creation programme in Indonesia and the Jefes de Hogar (Head of Household) programme in Argentina, created to deal with the adverse employment impacts of economic crisis. The difficulty is that there is an assumption that PWPs can simultaneously act as 'safety nets',[31] addressing short-term basic-needs provision for beneficiaries, and address more complex challenges, such as chronic unemployment, poverty and even economic growth and stability (McCord, 2012). The labour-market impacts of these programmes are hard to estimate; they may support the transitions to more diverse economic activities at household level, especially for poor rural households, and when designed as government employment programmes (employment guarantee schemes) in which the state acts as an 'employer of last resort'.

Many social protection programmes, including PWPs, can be linked to training. Argentina's Jefes de Hogar allows participants to choose between work and training/education activities for 4-6 hours a day. Similarly, Uganda's NUSAF (Northern Uganda Social Action Fund) cash transfer could be used by young people (aged 16-35) to pay for either fees at a local technical or vocational training institute of their choosing or to buy tools and materials for practising a craft. The effects were positive overall. For example, nearly 80% of those receiving the cash transfer enrolled in vocational training and four years later participants were 65% more likely to practise a skilled trade. Incomes and savings increased in the short and medium terms. While most still farmed part-time,

28 Benefits being significantly higher than the actual cost of the transfers.

29 Reflecting the importance of labour migration, which has grown from less than 10% in the 1990s to about a quarter of the labour force in 2009 (Byiers et al., 2015b).

30 Only 20 out of 201 countries reviewed allow this.

31 The minimalist conceptualisation of social protection as a form of social risk management is a 'social safety net' to ensure that the basic consumption needs of the poorest are met at times of crisis (McCord, 2012).

hours worked were 17% higher, nearly entirely accounted for by the new professions taken up. Beneficiaries were also 40% more likely to keep records, register their business and pay taxes (Blattman et al., 2011).

Some critics of PWPs and cash transfer systems maintain that they manage to provide only limited benefits to part of the population, with few benefits beyond the period of programme participation.[32] However, this criticism does not consider the potential intra-household re-allocation of labour and that the short-termism does not hold true for those programmes that offer guaranteed employment[33] (McCord and Slater, 2009), such as India's Mahatma Gandhi National Rural Employment Guarantee Scheme (NREGS) and Ethiopia's national Productive Safety Net Programme (PSNP).[34] In India, for example, because of NREGS men moved out of the private casual sector and into alternative occupations such as self-employment (Zimmermann, 2013), and the programme has also supported diversification and productivity of agricultural activities and even investments in children's education (Holmes et al., 2011). In Ethiopia, households with PSNP and other food-security transfers not only increased their food security, but also were more likely to borrow for productive purposes, use improved agricultural technologies and establish their own off-farm businesses (Gilligan et al., 2008; World Bank, 2014).

As this section has highlighted, a wide range of policies and factors affect the capacity of the labour force to access any employment opportunities that become available. Depending on the policy objectives, these can be targeted towards specific types of work, sectors and population groups. There are examples of social protection, training and private-sector participation in course design, which may offer important opportunities for improving employment dynamics more broadly.

32 And also that most estimations do not account for the forgone income caused by being involved in the public works rather than in other economic activities (McCord and Slater, 2009).

33 Albeit they represent a very small part of PWP. McCord and Slater (2009) note that 95% of programmes in sub-Saharan Africa and the majority in Asia offer only short-term employment.

34 The Indian programme legally guarantees every rural household (about 70% of India's population) 100 days of public-sector manual work per year at the minimum wage. Public-sector employment under NREGS can be requested at any point during the year, and in most areas the programme wage is substantially higher than the casual private-sector wage. The Ethiopian programme seeks to address the risk of persistent drought by offering a period of employment each year for up to five years for participating households.

Box 2: The cost of micro-determinants of employment

Criticisms of social protection programmes, as well as of other micro-determinants of employment quality (e.g. employment-protection legislation, minimum wages, collective-bargaining agreements, public employment services), not only stress concerns about financial sustainability but also argue that the behavioural effects may have unintended negative consequences for employment. In the case of CCTs, for example, it is argued that they can generate dependency and encourage withdrawal from the labour market. However, there is little evidence supporting that argument. Studies in Mexico, Ecuador and Cambodia found no significant impact on the labour markets (Fizbein and Schady, 2012). Only in Nicaragua is there evidence of reduction of the hours worked by men (but not women), and in Colombia, single parents (mostly women) seem to be the only ones affected (Bulla et al., 2013).

On the contrary, important benefits have been seen in reducing child labour and improving education, with potentially positive spillovers in the future employment prospects of those children once they reach adulthood. Moreover, as the case of the cotton industry in Andhra Pradesh in India shows, the tightening of the labour market due to a reduction in child labour can have further positive impacts for adult workers, in terms of wages and increased bargaining power for better working conditions (Bulla et al., 2013).

Similarly, while the debate has been heated, there seems to be an emerging consensus, expressed for instance in the *World Development Report 2013* (World Bank, 2012), suggesting that the impacts of minimum wages and employment protection legislation on employment levels and productivity growth tend to be modest. There is little evidence supporting the view that regulations increase informality or limit employment creation (Bulla et al., 2013). Moreover, minimum wages and employment legislation can have an important impact on the quality of jobs created, but only a marginal impact on slowing down job creation, especially considering the low starting point of many countries. This does not mean that some particular regulations do not need reforming. As the Development Progress case study on Sri Lanka shows, employment creation legislation (Termination of Employment of Workmen Act – TEWA) is likely to have disincentivised firm expansion and private-sector job creation (Byiers et al., 2015b). Even then, the unemployment effects have mainly been felt by a small segment of the population (those with a high level of education and who can afford to 'queue' for a perceived better employment opportunity, often in the public sector) and many firms have managed to bypass the legislation by setting themselves in EPZs.

5. The politics of matching labour supply and demand

Sugar cane cutter in Brazil. Photo: © UN Photo.

The preceding sections have summarised the complex array of potentially overlapping and interacting policy areas and options facing policy-makers charged with addressing the employment challenges in their countries. Growth with poverty reduction and productivity-enhancing employment creation requires investment and expansion of firms within sectors and movements of workers to higher-productivity sectors. The wide array of policy options and combinations affecting labour demand and the ability of the workforce to fill new posts are subject to the limitation that the impact of any one policy will depend not only on *what* is implemented, but also on the politics behind *how* it is implemented.

5.1 From 'best practice' to 'best fit'

There is broad recognition that a well-performing economy rests on institutions characterised by transparent and predictable decision-making, oversight mechanisms, accountability in how resources are used, effective public officials and the protection of property rights, among other factors (Rodrik, 2008). Yet, these 'best practice' institutions are hard to find in developing countries.

This has led to a change in thinking from 'good governance' to 'good enough governance' (e.g. Grindle, 2011) or 'best fit' policies, rather than 'best practice' (e.g. Booth, 2011). As Rodrik (2008) points out, this idea of the need for 'appropriate' institutions goes at least as far back as Gerschenkron (1962), involving a shift from focusing on formal institutions, the so-called formal 'rules of the game', to how formal and informal institutions interact, where informal institutions include habits, customs, cultures and values (e.g. North, 1991). Taking a 'best fit' approach implies the need to understand the interplay between formal and informal institutions.

5.2 The primacy of politics

Such an adaptive approach reflects the 'primacy of politics', where politics are defined 'as consisting of all the many activities of cooperation, conflict and negotiation involved in decisions about the use, production and distribution of resources, whether these activities are formal or informal, public or private, or a mixture of all' (Leftwich, 2008: 6). *Any* policy reform to promote demand for labour or improve human capacity and labour-supply conditions affects different group and individual interests in different ways and is therefore political, creating potential winners and losers. The degree to which these potential effects can be defined, identified and associated with different individuals and groups, and the level of political power of those involved, will all affect the response to the above policies. Whether power and interests overwhelmingly support, resist or simply undermine the reforms will then define whether reforms are implemented as planned, whether people adapt informal practices to bypass the reforms, or whether people act to force changes in the reform path. The nature of ruling coalitions will also define how the government agenda is set and implemented.

In analysing the political economy of structural transformation in Uganda, Kjær and Katusiimeh (2012) find that the nature of the ruling coalition 'induces the ruling elite to spend huge sums on patronage to win elections and to maintain political support in order to stay in power', resulting in 'a continued lack of structural transformation and a perpetually small indigenous capitalist class' (Kjær and Katusiimeh, 2012: 8). This is because private-sector success stems largely from personal and individualised ties with the ruling coalition. Further, the wealthiest have usually obtained their wealth from trade, imports, distribution or the services sector (such as hotels and mobile telephone services), contributing to the results seen above, but not necessarily to effective employment promotion. As such, while Uganda's ruling elite has been capable of achieving macroeconomic stability and promoting growth, its progress in promoting real structural transformation has been limited by 'the fact that it has proved so challenging to hold the ruling coalition together' (Kjær and Katusiimeh, 2012: 29). In brief, political survival has overruled economic transformation and employment creation as a political priority.

5.3 Political survival and economic transformation

Political survival is assumed to be the key motivation for ruling elites (often coalitions), including their interventions in favour of the productive sectors (Geddes, 1994; Bueno de Mesquita et al., 2003; Moore and Schmitz, 2008; Leftwich, 2010; Kahn, 2010; Whitfield and Therkildsen, 2011). When governments face the choice between their own political survival and longer-term interests in economic transformation and better employment outcomes, training and education, they tend to prioritise the former in ways that may not align with the latter, and may even undermine or compromise them. Furthermore, political survival in a democracy depends on being able to maintain a ruling coalition and win elections. This may include using patronage to gain electoral or other support, creating strong incentives for 'rent-seeking' to cement alliances for maintaining or gaining power. This calls for a deeper understanding of the degree of political competition (Khan, 2005), the process of state–society bargaining (IDS, 2010) and the distribution and management of economic rents (Khan, 2006).

Political survival is the basis of Whitfield and Therkildsen's (2011) framework for understanding when and why political elites support the productive sector. Because political survival is a key motivation of governments, maintaining the coalitions required to stay in power leads to the choice of policy and implementation strategy. To implement a complex combination of policies to promote more and better employment therefore requires that this would support an elite's political objectives and help maintain political survival.

While that has not been the case in Uganda (Kjær and Katusiimeh, 2012), it is at least partly the case in Ethiopia, where the ruling coalition has staked its political survival on improving livelihoods, through encouraging specific foreign manufacturing investments and programmes to support rural diversification and income creation. Berhanu and Poulton (2014) find that 'broad-based agricultural growth is perceived as essential to the long-term survival of the current Ethiopian People's Revolutionary Democratic Front (EPRDF) government and that agricultural extension is perceived as essential to raising the productivity of smallholder agriculture' (Berhanu and Poulton, 2014: 198), while also contributing to secure political control (this secondary objective having the effect of reducing its effectiveness in achieving the first goal of broad-based agricultural growth). Similarly, Buur and Whitfield (2011) find that long-run political commitment to rehabilitating the Mozambican sugar sector was related to the fact that this was a means through which the Frelimo ruling elite could link with populations and territory in former opposition Renamo areas in central and northern Mozambique. '[T]he sugar industry allowed the Frelimo government to provide jobs and income opportunities for demobilised soldiers and slowly to assert its control and reorganise and forge new relationships with formerly "hostile" populations' (Buur and Whitfield, 2011: 15).

At a minimum, addressing employment concerns requires what Buur and Whitfield (2011) refer to as 'pockets of bureaucratic efficiency'. This requires not only technical knowledge, for example of the sort that Hausmann et al. (2004) discuss in terms of continuously identifying binding constraints, but also relationships with ruling elites and with industry actors (which hinge on information flows, credible commitment and, to a

certain extent, a shared vision). Buur and Whitfield (2011) therefore point to the importance of whether a specific sector is characterised by an 'embedded and mediating bureaucracy', meaning that state bureaucrats are engaged in institutionalised relations with industry actors to credibly address industry needs. Being embedded means having knowledge of industry and relations with relevant industry actors. This enhances government's ability to collect and possess information, monitor business behaviour, and articulate a vision and viable strategy of how to support particular industries (Evans, 1995). This then also brings politics and the political economy of supporting and promoting economic transformation to the fore in understanding employment progress.

While this paper cannot go further into the sectoral distinctions that have been shown here to be important in relation to employment outcomes, it is nonetheless worth highlighting the interaction of sectoral characteristics with political incentives. As Harris et al. (2013) point out: the political salience and visibility of a service or a sector at national level increases the incentives for politicians and providers to commit to providing quality services and be accountable. The balance of power between policy-makers and other actors involved in service delivery is also important, with monopoly-provided services implying less incentive for state oversight or improved performance. As such, investments in roads or electricity connections for businesses have a different level of political visibility than does improvement in educational quality, a potentially fundamental aspect of where and when governments will support specific reforms that might help improve employment quality, quantity and access.

6. Conclusion

Woman works in a textile factory in Eritrea. Photo: © Andrea Moroni.

In the past, employment progress has often been a secondary effect of growth-focused policies, thereby struggling to create widespread good jobs. Today, employment is increasingly a top priority for many developing countries, but it is not clear what 'putting employment at the centre of developing-country economic policy' really means. This paper argues that this requires a focus on not only employment quantity, but also quality and access, and how these interact with structural-change dynamics and political-economic factors. This means looking at the specifics of sectoral job quality, quantity and access as they relate to labour demand and supply dynamics within and between sectors, and the drivers behind these.

Structural change, intended as the shift from agrarian to modern industrial economies, is considered a powerful engine of economic growth and job creation. This paper shows these dynamics at work in a number of countries at different stages of development. Structural change today deviates from the traditional assumption of a declining agricultural sector and an increasing manufacturing sector. Rather, in many countries, the services sector is the largest contributor to economic and employment growth. Indeed, despite limited structural change towards industry, much of the growth in GDP per capita since the 1990s is nonetheless shown to have stemmed from sectoral shifts of workers, representing gains in employment quality at least, as individuals find new opportunities in new areas of work.

Even if services and agriculture remain important, Rodrik (2014) predicts that Africa's growth, if it happens, will not be from industrialisation, but from agriculture or services. Others confirm this view, suggesting that exports of traditional and non-traditional agricultural cash crops are a viable African alternative to manufacturing for labour-intensive export-led growth, with many 'manufacturing-like' characteristics (Golub et al., 2008; Brenton et al., 2009). While this paper cannot provide supporting empirical evidence for this hypothesis, it certainly sees a certain difficulty for African countries, such as Ethiopia and Uganda, in boosting manufacturing growth and benefiting from rapid industrialisation, as East Asian countries have done and some Asian countries (e.g. Thailand) are experiencing today. This potentially underlines the need for a more focused approach to agricultural and related

modern-services employment through government policies, on the side of labour demand and supply.

Indeed, what some country cases seem to show is that policies to promote economic growth are not enough to stimulate productive employment and structural change. Macroeconomic and industrial policies, regulatory frameworks and broad framework conditions matter for structural change. However, evidence is limited on clear success stories of specific policies. This highlights the messy nature of employment creation at this broad level, as well as the difficulty of disentangling policy reforms from other contextual issues and political-economic drivers. Together with labour-demand forces, employment generation also depends on supply-side forces, and in particular on education systems, TVET schemes, training, and on-the-job training in the formal and informal sectors. These policies can address the issue of skill mismatch, and improve the employability of the labour force. Even when these policies are in place, their impact might not be immediate, and lengthy processes of trial and error in policy-making have to be allowed.

While structural transformation clearly remains an important goal of development agendas, understanding employment progress in the least-developed countries may also require further attention to more micro-level data on how individuals use their time and derive their incomes across multiple occupations. These activities constitute important sources of job creation and intermediate steps in the traditional structural transformation process described only with macro-level data. A large part of the activity that affects poverty and livelihoods is therefore mostly absent from much structural-transformation analysis.

Labour-market policies can play an important role in supporting this intermediate transition, for example by promoting and supporting entrepreneurship, but also through investments in education and skill. Programmes to support the development and survival of micro- and small enterprises can also have a big impact on firms' establishment and employment creation.

This paper has discussed some of the elements that might hold back progress. Economic growth and development are complex phenomena. Setting employment at the centre of development agendas requires a whole range of policies, plus coordination among these policies and of the dynamics between different sectors of the economy. Education policies need to be matched with the requirements of growing industries with productive employment potential. Labour-market policies can encourage labour-market participation, provide short-term employment opportunities and spur entrepreneurship, but need to be financially sustainable and coordinated with policies that increase the demand for labour. Donors may also be able to play a role using aid as a catalyst for 'pioneer investments', encouraging investment that itself can not only create employment, but also contribute more broadly to structural transformation (Collier, 2014). These are only a few examples of the sort of interrelations of labour demand and supply-side policies.

While the role of institutions and policies has been widely analysed in the literature, the political economy of policy reforms for employment creation has been much less discussed. The ongoing challenge of promoting employment as a development objective would benefit from further detailed analysis and discussion of cases that illustrate how the sectoral shifts associated with economic growth have affected employment quality, quantity and access. It is also important to consider the political-economic factors behind the design and implementation of particular policies – the growing interest of international investors in so-called frontier markets represents an opportunity, but potentially also some risks. Better understanding these dynamics would allow policy-makers and development partners to improve design of their approaches and instruments to help spread the array of benefits of employment to reach a wider and growing population in developing countries.

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Annexe

Table A1: Decomposition of output per worker into within-sector changes and inter-sectoral shifts

Year	Country	Contribution to change in total output per worker by sector						Inter-sectoral shift		Total change in output per worker
		Agriculture (2005 USD)	Agriculture (%)	Industry (2005 USD)	Industry (%)	Services (2005 USD)	Services (%)	(2005 USD)	(%)	Constant 2005 USD
2003-2009	Uganda	-11.90	-5.4	130.47	58.7	65.38	29.4	38.13	17.2	222.09
1998-2012	Cambodia	182.62	33.9	70.87	13.1	-72.85	-13.5	358.80	66.5	539.44
1994-2005	Ethiopia	49.04	41.6	-23.94	-20.3	9.14	7.7	83.78	71.0	118.01
1993-2011	Mongolia	-36.60	-2.9	617.20	48.5	683.66	53.7	9.54	0.7	1273.79
1999-2012	Sri Lanka	194.66	6.9	1171.80	41.9	1114.18	39.8	317.59	11.3	2798.23
1994-2012	India	203.77	10.4	271.86	13.9	1121.92	57.3	361.98	18.5	1959.52
1990-2011	Indonesia	258.32	15.2	242.04	14.2	490.29	28.8	712.10	41.8	1702.75
1996-2012	Viet Nam	156.04	19.6	69.34	8.7	91.33	11.5	478.09	60.2	794.79
1990-2011	Chile	689.00	9.6	1797.88	25.1	3979.77	55.5	708.01	9.9	7174.66
1990-2012	Mauritius	457.81	6.7	2652.47	38.6	2793.83	40.7	961.05	14.0	6865.17
2000-2011	South Africa	812.03	13.9	926.13	14.9	3190.54	51.3	1292.57	20.8	6221.27
1992-2011	Brazil	525.79	23.5	333.08	14.9	310.57	13.9	1064.65	47.7	2234.10
1990-2012	Thailand	359.91	12.5	852.62	29.5	81.70	2.8	1596.56	55.2	2890.79

Source: Authors' elaboration based on JoGGs decomposition tool.

Box A1: Key employment terms to understand the links with livelihoods transformations

- **Own-account worker:** one holding a self-employment job and does not engage 'employees' on a continuous basis.
- **Contributing family worker:** one holding a self-employment job in an establishment operated by a related person.
- Contributing family workers cannot be regarded as partners in the operation of the productive unit because their degree of commitment to the operation of the unit, in terms of working time or other factors, is not at a level comparable to that of the head of the enterprise; often labelled 'unpaid workers'.
- **Self-employment jobs:** those where the remuneration is directly dependent upon the profits (or the potential for profits) derived from the goods or services produced (where own consumption is considered to be part of the profits). This includes employers, own-account workers and contributing family workers.
- **Vulnerable employment:** consists of the sum of own-account workers and contributing family workers. These workers are often characterised by inadequate earnings, difficult conditions of work and low productivity.
- **Unemployment:** applies to those persons who, during the reference week, did not work nor have a job but were willing to work (they prove this by looking actively for work) and were available to work.
- **Under-employment:** reflects the underutilisation of the productive capacity of the employed population. It includes persons who, even though during the reference week worked or had a job, were willing and available to work 'better' or 'more adequately'.
- **Informal employment:** total number of informal jobs, whether carried out in formal-sector enterprises,
- informal-sector enterprises or households. This includes: own-account workers in their own informal-sector
- enterprises or engaged in production of goods exclusively for own final use by their household; employers in their own informal-sector enterprises; contributing family workers, irrespective of type of enterprise; members of informal producers' cooperatives (not established as legal entities); employees holding informal jobs as defined according to the employment relationship (in law or in practice, jobs not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits, such as paid annual or sick leave).
- **Employment in the informal sector:** all jobs in unregistered and/or small-scale private unincorporated enterprises that produce goods or services meant for sale or barter.
- **Working poverty:** employed persons living in households in which per capita consumption is below the poverty line (national or international – US$1.25 or US$2.00).

Sources: Sparreboom and Albee (2011); ILO Key Indicators of the Labour Market, 8th edition; International Classification by Status in Employment (ICSE-93).

Table A2: Informality estimates – size of the informal economy by alternative measures

Country		Measure of informality				
Income quartile	GDP/population	% GDP informal (WEF)	% tax evasion (enterprise survey)	% self-employment	% GDP informal (electricity consumption)	Registered firms/population (thousands)
Bottom	429	35.4	29	46.4	38.9	3.2
Second	1,362	33.7	23.3	35.7	42.7	8.2
Third	4,002	27.6	19.7	23.1	31.3	28.7
Top	20,348	17.3	8.2	13.3	17.6	41.8
Sample mean	10,015	27.6	22.5	26.5	29	24.7
Difference 1st vs 4th quartile	–19,919*	–18.1*	–20.8*	–33.1*	–21.4*	38.7*
Observations	185	125	95	133	57	83

Source: La Porta and Shleifer (2014).
*Notes: 185 countries grouped by the quartile of per capita income; * significance at 1% level.*

Table A3: Percentage of workers in each employment category by country, region and income group

	Non-agriculture				Agriculture
Region and income level (number of countries in sample)	**Wage and salary employee**	**Non-paid employee**	**Employer**	**Own account**	
All countries (90)	45.2	2.6	2.1	14.4	35.8
Low- and middle-income countries (68)	37.9	3	1.8	15.7	41.7
Region (low- and middle-income countries)					
East Asia and Pacific (6)		4.1	1.8	17.2	41.2
Europe and Central Asia (13)	74.3	0.6	2.6	5	17.5
Latin America and Caribbean (18)	59.2	2.2	3.8	18.5	16.3
Middle East and North Africa (4)	48	2.3	4	8.7	37.1
South Asia (4)	28.7	3.8	0.7	15.6	51.2
Sub-Saharan Africa (21)	13.4	2.4	1.4	19	63.7
Per capita GNI					
Low income (17)	18.6	2.1	1	17.9	60.4
Lower middle income (27)	32.2	3.8	1.3	15.6	47.1
Upper middle income (22)	65.2	1.7	3.6	14.3	15.1
High income (24)	84	0.4	3.5	7.5	4.6

Source: Gindling and Newhouse (2012).

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