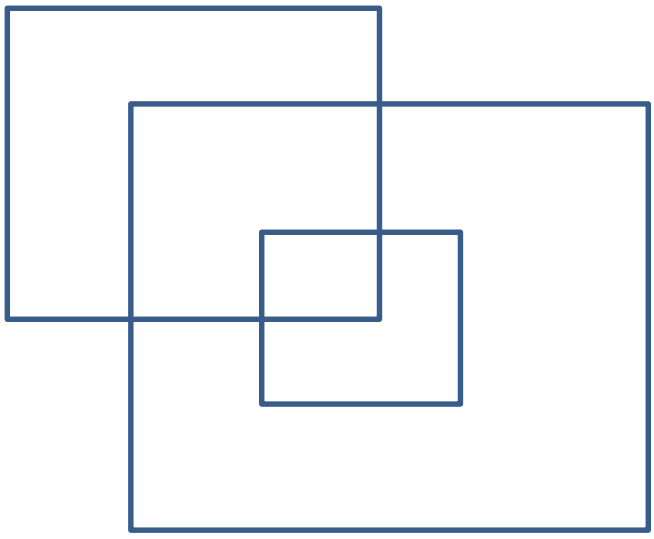
International Labour Organization

Measurement of the employment and labour-related impacts of Multinational Enterprises (MNEs)

Richard Sidebottom



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This report is produced for the International Labour Organisation (ILO) Multinational Enterprises and Enterprise Engagement Unit by Richard Sidebottom[1]. It provides an analysis of how to measure the impact of MNEs, with a particular focus on developing countries in Sub-Saharan Africa (SSA).

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Forward

Inward foreign direct investment has enormous potential to accelerate sustainable development, particularly in countries with limited access to capital in domestic markets. Foreign investment can facilitate job creation and skills development. It can also accelerate technology transfer and managerial capacity through increased backward and forward linkages between multinational enterprises (MNEs) and local enterprises, especially small and medium-sized enterprises (SMEs). The quality of the jobs created, both directly and indirectly also play a crucial role in advancing respect for workers' rights, social development and more inclusive growth. However, not all FDI lives up to this potential. Effective government policies are needed which create an enabling environment for MNEs to maximize their positive contribution to sustainable development.

The ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy provides guidance to governments on how to create an enabling environment for MNEs and other enterprises to contribute to sustainable development, in particular decent work. Commended to both governments and enterprises, it addresses general policies (including the fundamental principles and rights at work), employment, training, conditions of work and industrial relations.

Effective government policies require reliable data to assess their impacts. Only with such data can governments know whether their policies are on track, or need to be refined or modified. Yet, numerous surveys undertaken to examine the effect given to the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration) since its adoption in 1977 revealed that governments, even in OECD member states, struggle to collect data on the social impact of MNE operations in their countries.

The ILO has undertaken to support governments seeking to gather such data. The report "Measurement of the employment and labour-related impacts of MNEs: A proposal for action" (ILO, 2017) by Regina Galhardi maps the existing sources of data and areas of social development covered; and proposes a set of decent work indicators.

The paper "Measurement of the employment and labour related impacts of MNEs in Mexico: an analysis of two different methodologies" by Jorge Carrillo and Graciela Bensusán (ILO, 2017) examines the operational criteria used by the National Occupation and Employment Survey (ENOE) and the Economic Census in Mexico and those applied by an establishment survey to evaluate the strengths and limitations of each approach. This paper was discussed in a tripartite validation workshop held in Mexico City, Mexico in 2016. The consensus view of the constituents was that governments should gather data on the decent work impacts of MNE operations in their countries; but that further work in needed in finding the most effective means of gathering such data.

Carrillo and Bensusán followed up this study with "Employment in Multinational Enterprises in Mexico: Analysis of the Economic Census" (ILO, 2017). This paper assesses data from the national business census which INEGI also conducts; and compares its advantages and limitations with the two methodologies assessed in their previous study. A regional technical workshop for Latin America was held in Lima, Peru in early 2017. It brought together statisticians from several national statistics offices, a central bank and an

investment promotion agency to discuss the papers produced by Galhardi and Carrillo and Bensusán. The main conclusion of these discussions was that this is an important but complicated area for data collection. A clearer statistical definition of MNE was needed, as well as guidelines for various methodologies for gathering such data, including clearer indicators and recommended questions for each target population surveyed.

The study "Measurement of the employment and labour-related impacts of Multinational Enterprises (MNEs)" (ILO, 2017) by Richard Sidebottom provides an analysis of how to measure the impact of MNEs, with a particular focus on developing countries in Sub-Saharan Africa (SSA) where for most sectors MNE operations through global value chains is more important.

The objective of these studies is to stimulate a dialogue among national bodies—principally national statistics offices but also central banks, investment promotion agencies and other entities involved in collecting such data—to identify good practices and how ILO could better support these important efforts.

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Abbreviations

AFA	Activities of Foreign Affiliates
AfDB	African Development Bank
AGOA	African Growth and Opportunity Act
AMNE	Activities of Multinational Enterprises
AU	African Union
CTG	Capturing the Gains
DVX	Domestic Value added
ERETES	Equlibre Ressources-Emplois et Tableaux Entrées-sorties
ES	Enterprise survey
FATS	Foreign Affiliates Statistics
FCA	Foreign Controlled Affiliate
FDI	Foreign Direct Investment
FVA	Foreign Value added
GDDS	General Data Dissemination System
GDP	Gross Domestic Product
GVC	Global Value Chain
HS	Household Survey
IBES	Integrated Business Economic Survey
ICP	International Comparison Programme
IDR	Informing a Data Revolution
IIA	International Investment Agreement
IMF	International Monetary Fund

LFS	Labour Force Survey
MAPS	Marrakech Action Plan on Statistics
MDG	Millennium Development Goal
MNE	Multinational Enterprise
NEPAD	New Partnership for Africa's Development
NSDS	National Strategy for the Development of Statistics
NGO	Non-Governmental Organisation
NSO	National Statistics Office
OECD	Organisation for Economic Co-operation and Development
PARIS	Partnership in Statistics for Development in the 21st Century
R&D	Research and Development
SBR	Statistical Business Register
SDG	Sustainable Development Goal
SSA	Sub-Saharan Africa
SUT	Supply and Use Table
TNC	Transnational Corporation
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
WIOD	World Input Output Database
WTO	World Trade Organisation

Executive summary

- Decent work metrics to monitor MNE activities are an improvement on reliance on investment data, which is a poor proxy for social and economic upgrading. However, the proposals are founded on a number of assumptions both conceptual and practical. These present a number of empirical issues including the following:

- MNEs and Foreign Direct Investment (FDI), as well as modes of social and economic-upgrading, are neither synonymous nor homogenous. The effects of MNEs are sector and location-specific but not confined to their corporate legal boundaries or national ones. A common feature across different chains is fragmentation across sectors; across firms; and within them. Even within the same factory site, there may exist pockets of skilled, unskilled, formal, informal, full time employees and sub-contractors. This suggest the need for disaggregated data, which firms may not always be willing to disclose.

- Investment, contracting and upgrading decisions are conditioned through a complex interaction of internal and external decision filters. To further understanding of corporate strategies, risk parameters and motivations that allow economic and social upgrading to occur, data collection needs to assess internal management structures and account for the external networks with which MNEs engage.

- Our understanding of the linkages between social and economic upgrading are based on case study research or empirical analysis of 'best fit' proxies. This reflects the fundamental obstacle to the implementation of the ILO's new proposals beyond the Organisation for Economic Co-operation and Development (OECD): the lack of data especially for social upgrading. Developing countries stand to gain most from a better understanding of how industrial and social policy can help foster equitable development outcomes. However, their business, livelihood and labour force statistics are often inadequate or aligned with external frameworks designed for countries at other levels of development, rather than a better understanding of the specific problems, constraints and aspirations in which development policy is framed.

1. Introduction

1.1. Background and objective

The 'Decent Work' agenda of the International Labour Organisation (ILO) seeks to address issues of job security, youth, gender and inequality at the core of the development paradigm. Decent Work is defined as "opportunities for women and men to obtain decent and productive work in conditions of freedom, equity, security and human dignity" (ILO, 2002: vi) and is incorporated into the Sustainable Development Goals (SDGs) (ILO, 2016). As Burchell et al, (2014:462) write, Decent Work "juxtaposes the generation of employment itself with the conditions under which it is generated".

Through their control of world merchandise trade and technological knowledge (Gunter & van der Hoeven, 2004; Nolan, 2014), it is often perceived that Multinational Enterprises (MNEs) have made an insufficient contribution to this agenda (ILO, 2014) such that there is a need to pay more attention to their "social accountability" (Brown et al, 2004:292). This provides the rationale for ILO proposals to explicitly monitor the social and economic impact of MNEs through Decent Work metrics (Galhardi, 2015; 2016).

The objective of this report is to summarise and evaluate these proposals. With reference to case studies in Sub-Saharan Africa (SSA), it highlights a number of practical and conceptual issues that may affect the effective implementation in countries outside the Organisation for Economic Co-operation and Development (OECD). The ILO's (2002:iv) admission that "one ends up measuring what is measureable" is never more true than in some developing countries outside the OECD that are often not afforded the luxury of employment choice.

1.2. Report structure

This document is structured as follows: Section 2 provides an overview of two ILO background documents (Galhardi, 2015; 2016) that propose new metrics to gauge the impact of MNEs.

Section 3 discusses some of the conceptual assumptions regarding MNEs that these proposals appear to be founded on whilst Section 4 highlights some of the systematic data issues that may inhibit their effective application in SSA.

The case studies in Section 5 are designed to illustrate these conceptual and empirical themes. The report ends with some brief conclusions on research gaps and the use of data.

2. ILO proposals

2.1. Existing MNE impact assessment

The ILO Tripartite Declaration of Principles on Multinational Enterprises and Social Policy (ILO, 2006) provides guidance regarding the behaviour and impact of MNEs (in host and home countries) on the quantity and quality of employment and working conditions (Galhardi, 2015).

The ILO proposals recommend that existing data to monitor MNE adherence to these guidelines is supplemented by 'Decent work' metrics. This is founded on a critique of the current reliance on investment and operational activity databases. Not only is this data often unavailable but it does not accurately reflect ILO Declaration principles (Galhardi 2015; 2016).

Foreign Direct Investment (FDI) data is a commonly used barometer but perhaps more due to its availability of data than its relevance. Galhardi (2015; 2016) notes some shortcomings of FDI data, such as the difficulties of tracing ultimate ownership (WIR, 2016) but does not discuss qualitative issues, such as nationality of investor or type of investment (Dunning, 1993) or the fact that measurement of inflows is of little use unless we understand their impact.

As investment data does not inform policy makers about operational activities, Galhardi (2015; 2016) also evaluates alternative datasets - the Activity of Multinational Enterprises (AMNE), Activities of Foreign Affiliates (AFA) and Foreign Affiliates Statistics (FATS). Based on annual surveys of MNEs, these provide historical data on most (but not all) OECD countries. Variables include production, employment, research and development, labour compensation and exports (OECD, 2016).

However, as AMNE figures account for control, not ownership ties, it is not clear if the MNE universe is the same as that for FDI data. Therefore are these complements or substitutes? Moreover, not all ILO pertinent metrics are available for all countries – even those in Europe or the OECD (Galhardi, 2015; 2016). It is therefore unclear how use of operating (rather than investment) statistics resolves the problem of a lack of data; where to look for it; or how to assess impact.

2.2. New proposals

The ILO proposals recommend that the impact of MNEs is better assessed by monitoring metrics that dovetail with the ILO's Core Principles and Decent Work Agenda (Galhardi, 2016). These would cover issues such as research; employment (number and security of jobs); gender; child labour; remuneration; and training not covered by existing databases.

Although Galhardi (2016) suggests a feasibility study of combined labour and firm surveys in Decent Work pioneer countries, such as Bangladesh, Brazil and Cambodia, issues of data availability (Burchell et al, 2014) are not addressed in detail. Moreover, the unit of analysis remains the MNE – the proposals simply change the data content.

In short, the proposals suggest several questions of implementation yet offer no explicit framework through which to analyse them. The proposals appear to rely upon presumed answers to three implicit inter-related questions:

1) What data should we collect?
2) Where should we collect it?
3) What data can we collect?

To supplement the ILO proposals and facilitate policy design, this report aims to highlight some practical implementation problems by addressing these questions explicitly.

The purpose of Section 3 is not to engage in an exhaustive discussion of the validity of 'Decent Work' metrics (ILO, 2002; Burchell et al, 2014) or to present yet another tutorial on Global Value chains (GVCs). However, in order to highlight some of the practical issues of relevance and implementation of the ILO proposals in the developing world, a re-examination of some core concepts is required.

Section 4 focuses on data collection issues whilst Section 5 endeavours to illustrate the wide variety of these issues across a range of sectors in SSA.

3. Conceptual issues

The purpose of this section is to offer suggestions regarding an analytical framework to facilitate greater understanding of the impact of MNEs on employment and livelihoods.

3.1. Unit of analysis

One of the most obvious problematic issues regarding the impact of MNEs is a lack of agreement how to define them (ILO, 2006; WIR, 2016). Terms such as 'MNE', 'Transnational Corporation' (TNC) or 'Foreign Controlled Affiliate' (FCA) are used interchangeably across an array of control, location and ownership structures (Galhardi, 2015).

MNEs are often assumed to be synonymous with FDI, GVCs or manufacturing. Case studies may illustrate some impacts of globalisation (Rossi, 2013; Evers et al, 2014) but prejudice particular MNE forms and sectors (Brown et al, 2004). The distinction between brands and manufacturers simplifies a complex picture (Coe & Yeung, 2015). Popular understandings conflate activity, place, control and ownership (OECD, 2008). In the absence of robust datasets, productive superiority of MNEs is often assumed, not demonstrated (Pfaffermayr & Bellak, 2002; Aryeetey et al, 2008; Amsden, 2009)[2].

This report follows Dicken's (2011:60) broad understanding of MNEs as "firms that have the power to coordinate and control operations in more than one country, even if they do not own them" (italics added). Therefore to gauge their impact, we need to understand both the internal and external means by which that control is asserted. This has a direct bearing on our first two data questions - what data should we collect and where should we collect it?

[2] These studies identify the importance of scale and credit access, not country origin per se

This presents inter-linked data management problems. First, ownership of foreign affiliates is extremely dynamic and complex. Although most structures are simple, 60% of global MNE value added is controlled by the 1% of MNEs that have hundreds of affiliates, joint ventures and cross-shareholdings across multiple international jurisdictions (WIR, 2016). Control is also exercised by non-equity relations, state companies or wealth funds (UNCTAD, 2014).

The second problem is that functional boundaries extend beyond legal ones (Dunning, 1993). This requires an understanding of MNEs as "networks within networks" (Dicken, 2011:121). These have internal and external drivers and a horizontal dimension (relations with competitors) and a vertical dimension (relations with suppliers and customers) (Coe & Yeung, 2015). Depending upon the internal management structures, a subsidiary may have distinct external local relations or knowledge diffusion strategy. In a hierarchical structure, data may be of little use to generate change as all decisions are centralised (Dunning, 1993).

Data gathering therefore needs to include some measure of internal management structure to understand <u>how</u> outcomes are reached.

A core driver of the recent acceleration in world trade volumes has been trade in intermediate rather than final goods (Gunter & van der Hoeven, 2004; OECD, 2013). This results from the relocation of MNE production facilities to reduce costs or to withdraw from manufacturing altogether to focus on core competences, such as marketing and design (Dicken, 2011).

We can distinguish these by referring to the former as "fragmentation" and the latter as "outsourcing" (Brown et al, 2004:305). Fragmentation may keep production and employment within the legal boundaries of the MNE firm but outsourcing (or sub-contracting) relinquishes a degree of control. Each scenario is not exclusive[3] and either may (or may not) involve FDI[4].

Metrics need to be clear which phenomenon they are trying to measure and <u>which question they are trying to answer</u>.

Through this realignment of MNE strategies, manufacturing has become more fragmented (Milberg, 2004; Barrientos, 2013) but the higher value added activities of Design, marketing and knowledge have become more concentrated (Nolan, 2014). End product markets may feature oligopolistic competition but intermediate and input markets are subject to fierce competition amongst global and local suppliers (Milberg & Winkler, 2010; Foster- McGregor et al, 2016). This not only depresses manufacturing terms of trade but also reduces scope for social upgrading (UNECA, 2016). Sub-contracting of production (Milberg, 2004) often lies at the root of labour abuses or safety problems (such as Rana Plaza). Where brands co-operate in supply chain management but still compete on the high street, it may not be clear where precise responsibility for social compliance lies (Sidebottom, 2016a).

[3] See Section 5.2

[4] Therefore the frequently used apparel case is only one example. Gereffi et al (2005) delineates 5 typologies of networks: hierarchical; captive; relational; modular; and market. Captive relationships feature many small suppliers reliant on one large buyer. They include close ties in Chaebol or Zaibatsu networks as well as looser models in Apparel and Footwear used by companies like Nike. Nike's control and liability for labour compliance relies upon its role as a brand, not its role as a direct manufacturer or employer (Dicken, 2011).

Analysis of the activities of an individual firm therefore highlights only part of a complex inter-related web (Coe & Yeung, 2015) but does not necessarily help policy makers understand the MNE's impact. The impact of many (but not all) MNEs cannot be measured just by looking at their own direct operations, as employment is frequently generated elsewhere (Dunning, 1993). This requires a greater understanding of the mode of globalisation by evaluating the degree to which particular functions are outsourced to external parties and whether MNEs make such decisions independently or not. In short, statisticians need to account for the external, not just the internal (Giuliani & Macchi, 2014).

Data gathering needs to gauge MNCs' external linkages, not rely only on internal metrics.

3.2. Measuring activity or measuring impact?

The impact of MNEs is highly sensitive to context and metric. This suggests that a focus on quantitative outcomes is insufficient without understanding the qualitative decision making processes behind them, such as company strategy or the use of policy incentives which may include tax breaks or provision of infrastructure by the state (Dunning, 1993). Policy remedies require us to ask why, not just what (Sumberg et al, 2012). Such questions require a more complete set of metrics to properly contextualize the data to assess development impacts.

3.2.1 Job creation

Employment data needs to look beyond the number of jobs created to allow for skill levels; training; health care; wages; work conditions; and job security.

Aryeetey et al (2008) find that Ghanaian MNEs create 400 jobs on average. However, a quarter of these are non-permanent and nearly half of senior positions are occupied by expatriates. Likewise in South Africa, MNE investment has deepened labour market segmentation through a focus on skilled, rather than unskilled job creation (Gelb & Black, 2004).

This highlights the need to allow for those excluded, as well as those included. This requires data gathering and analysis that looks beyond direct positive and negative impacts. MNE investment may have *indirect* employment consequences beyond the MNE firm: for suppliers, distributors and competitors (Dunning, 1993).

3.2.2 Foreign Direct Investment (FDI)

In 2015 Global FDI flows amounted to US$1.8 trillion. Only 40% of these were Greenfield investments[5], rather than Mergers or Acquisitions. 55% of flows were in the developed world (or China) and were dominated by services (including telecoms and infrastructure), rather than manufacturing (WIR, 2016).

Use of FDI data as an impact barometer presumes that all FDI is equally beneficial and is used by all MNEs (Brown et al, 2004; Giuliani & Macchi, 2014). In fact an MNE may

[5] Creation of a new establishment rather than the change of ownership of an existing one (Brown et al, 2004)

choose to physically locate only if alternatives (licensing or contracting) are unfeasible; there is local demand for the product to be produced; or a location dovetails exactly with an MNE's specific capabilities (Vernon, 1966 & Hymer, 1976 cited in Abdulai, 2005; Dunning, 1993).

Despite a vast volume of literature, we are unable to confirm the circumstances under which FDI generates economic upgrading (Amsden, 2009); if social and economic upgrading are synonymous (Jiang & Milberg, 2013); or detail the precise mechanisms by which MNEs affect local labour markets (Cramer et al, 2014).

Some studies conclude that FDI enhances economic growth (Dollar & Kray, 2001) but others find causality may be reversed (Chowdhury, & Mavrotas, 2006). The impact of FDI may be contingent on human capital; industrial policy; or location (Borenzstein et al, 1998; Sumner, 2005; Bwalya, 2006; Abor, 2010; Morrissey, 2012; UNIDO, 2012; Giuliani & Macchi, 2014).

Evidence on social impact is equally equivocal. There are examples of positive wage effects (Brown et al, 2004), minimal or no effect (Aitken et al, 1996; OECD, 2008) or negative effects (Chen et al, 2011). From a dataset of mainly developed countries, Lopez-Gonzalez et al (2015) conclude that GVC participation creates wage inequality only where it provides scope for skill upgrading by a *sub-set* of workers. This suggests an "equity-efficiency trade off" (Lopez-Gonzalez et al, 2015: 7) where skill upgrading yields unequal social benefits.

The type of FDI received and specific MNE strategy followed has significant development implications. Resource seeking FDI offers few upgrading or employment opportunities (UNECA, 2016) but Efficiency seeking FDI may offer more potential where there is pre-existing local absorptive capacity or technical gaps are small (Cantwell, 1989; Nunnekamp & Spatz, 2004).

Most of the US$300 billion FDI SSA received from 2000-2013 is concentrated in the primary sectors of a small group of countries[6] (UNCTAD, 2016). This reinforcement of SSA's *existing* comparative advantage has fundamental development implications (UNECA, 2016). Only in South Africa have "market-seeking" flows been attracted by domestic market potential (Gelb & Black, 2004:191).

Impact may also vary by source of funds. Some insight is gained by looking at motivation and risk in the decision making process. Foreign firms can be more risk averse than domestic ones, such that they only transfer technology to tightly controlled subsidiaries that are locally embedded (Amsden, 2009; Saliola & Zanffei, 2009). Collier (2000) suggests risk aversion may encourage foreign investors to avoid sunk costs in illiquid sectors such as agriculture.

The growth of Chinese investment into SSA reinforces the need to dig below headline FDI figures but at the same time presents further specific problems. Chinese financial flows blur 'public-private boundaries' of Aid and FDI (Sidebottom, 2016b) and feature distinct motivations and economic, rather than political, conditionalities (Rotberg, 2008; Shen, 2013; Lin & Wang, 2014). There is a strong focus on infrastructure, not just resources. Chinese aid, trade and FDI are inextricably linked through financing or contracts (Rupp,

[6] 44% went to two resource dependent countries (Nigeria and South Africa) and a further 25% to natural resources in Ghana, Mozambique, Congo Republic and Sudan (UNCTAD, 2016).

2008; Brautigam, 2009; Shen, 2013). These inflows may ensure rapid delivery of tangible assets (Rupp, 2008; Zenawi, 2012) but create few jobs if built with Chinese labour (Chan, 2013).

These factors suggest the need for metrics to better understand the specific corporate strategies and motivations that allow economic and social upgrading to occur.

3.2.3 Upgrading

The reorientation of the value-chain literature away from a firm-centric approach to address labour and social welfare reflects a growing recognition that globalisation and export growth are not synonymous with higher wages or skill upgrading (Milberg & Winkler, 2010; Barrientos et al, 2011a; Barrientos et al, 2011b; Selwyn, 2012). Previous work had indicated that greater social protection did not necessarily inhibit FDI (Brown et al, 2004) but the "social dimension of globalisation" (Gunter & van der Hoeven, 2004:8) was poorly understood.

To address these weaknesses, the Capturing the Gains (CTG) project (Milberg & Winkler, 2010) makes two analytical distinctions:

1. Economic upgrading and social upgrading (Barrientos et al, 2011a).
2. Co-existence of informal and formal employment relations (Rossi, 2013).

The problem is how to operationalise these concepts given a lack of available panel data (Barrientos et al, 2011a). Some studies proxy innovation through R&D or patents but this prejudices upgrading of a particular type. Firm level surveys (eg World Bank Enterprise survey or United Nations Industrial Development Organization (UNIDO) Africa Investor survey) often do not ask questions about all types of innovation (Foster-McGregor et al, 2016).

Use of export data reflects the paucity of alternatives. Milberg & Winkler (2010) use export value added per worker as a proxy for economic upgrading and higher wages over time for social upgrading. Milberg & Winkler, 2011 (and Bernhardt & Milberg, 2011) allowed for greater export sophistication through export unit values and market shares over time. They find a low correlation between economic and social upgrading. However, their economic proxies may reflect market power, not economic efficiency; the data-set covered only a sub-set of developing countries; and social proxies make no comparison with local income benchmarks.

Jiang & Milberg (2013) use World Input-Output (WIOD) panel data to conclude that GVCs have generated 88 million jobs through intermediate trade flows (compared with over 500 million from final demand). However, the domestic demand for labour is contingent upon engagement with high value activities. Rossi (2011) and Lopez-Gonzalez et al (2015)[7] suggest that social upgrading benefits only those (skilled) workers that are formally employed and inherently engaged with productivity improvements[8].

[7] Rossi (2011) derived findings from Moroccan Apparel firm case studies and Lopez-Gonzalez et al (2015) used developed country data from the World Input-Output Database
[8] See Section 3.2.2

Based on Koopman et al's (2011) framework to distinguish foreign and domestic value added using regional input-output tables across a wider dataset[9] to calculate foreign value added (FVA) and the value supplied to other countries' exports (DVX), Foster-McGregor et al, (2016) attempt to identify upstream and downstream activities in SSA[10]. Africa's[11] engagement with GVCs is relatively high especially with Europe and by commodity exporters (eg Botswana; Angola) and textile manufacturers (eg Lesotho; Mauritius). However, this is mostly in upstream activities (where there is little evidence of economic upgrading) and some countries (Cote d'Ivoire; Uganda) are barely engaged at all. In food and beverages, wages and employment have improved but in textiles there has been a decline of jobs and only small wage increases[12].

The implication is the need to proxy type of activity. Use of sector or operational metrics may not capture the fact that not all activities have the same upgrading potential.

3.3. Summary

Even if MNEs *are* more productive than domestic firms, the evidence suggests that this does not necessarily lead to economic or social upgrading in host countries. There is no axiomatic link between MNEs, economic upgrading and social upgrading. This puts the onus on policy makers to understand the circumstances under which economic upgrading *does* occur and to actively monitor employment quality (Servais, 2004).

This requires an appreciation of internal and external qualitative, as well as quantitative factors. These include corporate governance structures (of parent and subsidiary); nationality (Amsden, 2009; Morris et al, 2015); and local context (Giuliani & Macchi, 2014).

The concentration of SSA FDI in extractive sectors would appear to offer less potential for economic upgrading (as there are few inter-linkages) or social upgrading (as skill posts tend to be filled by foreign workers) but neither of these is necessarily immutable (UNECA, 2016). Through flexible design and effective enforcement (through legislation or multi-stakeholder co-ordination), social compliance can form part of Industrial policy design that governs MNE engagement (Servais, 2004; Rani et al, 2013; UNECA, 2016).

Each of the facets will be a function of local human and state capacity. Some metrics that gauge these respective capacities may therefore help contextualise proposed ILO metrics on MNEs.

[9] Although this comes from UNCTAD's Eora database covering 184 countries, Input-Output tables cannot be calculated for all of them (Lenzen et al, 2013)

[10] A lack of data means social upgrading is defined narrowly to mean changes in sector employment and wage levels. Analysis is limited to a small number of sectors and countries.

[11] The authors do not distinguish North & SSA. They created their own database for 108 countries for 1950-2012 complied from numerous sources including Groningen Growth & Development Centre's Sector & World Input-Output Databases; the UN national accounts; the Maddison database; Gallup et al (1999); and the Barro and Lee dataset (www.barrolee.com).

[12] These are not benchmarked locally. Worker perceptions of the relative importance of each proxy are beyond the scope of this report.

4. Application in Sub-Saharan Africa (SSA)

Africa has been labelled both a "growth tragedy" (Easterly & Levine, 1997: 1203 and a statistical one (Devarajan, 2013). This section addresses these tragedies through a focus on the question of - What data can we collect?[13] It highlights aspects of SSA development paradigm before discussing difficulties in quantifying problems and designing policy solutions due to systematic failings of the entire institutional statistical framework, not just those relating to the labour market.

4.1 Diagnosing the development problem

At the heart of the current global development paradigm lies the need to provide livelihood opportunities for the growing youth cohort (White, 2012; Page, 2014; Montpellier, 2014). By 2030 in SSA, the "demographic dividend" (AGRA, 2015:15) will reduce the median age in many countries to below 20 years old and flood the labour market with an extra 10 million workers per year to exacerbate a youth unemployment which in some areas exceeds 40% (AGRA, 2015; GIIN, 2015; Kew, 2015). Most employment in SSA is informal self-employment (AGRA, 2015). Formal wage jobs constitute only 10% of the total and low labour productivity hampers social upgrading (ILO, 2007). Even in a middle income country like South Africa, labour markets are segmented by skill and formality (Gelb & Black, 2004).

Whilst some advocate an intensification of agriculture to address SSA's demographic, productivity and food security problems (Montpellier, 2014; AGRA, 2015), others call for a structural shift to manufacturing exports (Rodrik, 2007; UNECA, 2016; Brookings, 2016).

With unit labour costs sometimes higher than South-East Asia (Brookings, 2016) and with world trade concentrated in GVCs, it is far from axiomatic that any economic benefits from globalisation are synonymous with opportunities for youths or social upgrading in SSA (Gunter & van der Hoeven, 2004; Barrientos et al, 2011a). An acceleration in FDI and trade preference agreements (such as the Africa Growth and Opportunity Acts (AGOA)) have proved insufficient to address deep rooted social issues of joblessness and poverty that have specific spatial, generational and gender impacts (ILO, 2007). SSA needs an "employment centred growth strategy" (ILO, 2007). The question is how can the monitoring of MNE Decent work compliance not only measure but facilitate resolution?

[13] See Section 2.2

4.2. Statistical capacity

Data of all types in Sub-Saharan Africa (SSA) suffers from problems of collection, availability, aggregation and analysis. This has been attributed to an array of systemic inter-linked factors: physical, financial and human resources; over-reliance on external sponsorship; and poor prioritisation and co-ordination. The roots of this malaise are historical and political, not just technical competence (Jerven, 2013; Devarajan, 2013).

4.2.1 Human resources

Poor working conditions and rates of pay have created a shortage of new recruits and high staff turnover (Paris, 2006; UNECA, 2006; OPM, 2009; Eele, 2015). Staff are often unqualified as statistical training is inadequate in scale and content. Some studies claim that training is too theoretical (Lufumpa & Mouyelo-Katoula, 2005; UNECA, 2006) whilst others conclude there are simply insufficient Training schools – particularly in Anglophone Africa (OPM, 2009).

4.2.2 Institutional and physical resources

In countries like Zambia, legislation had not been updated since the 1960s (OPM, 2009). There is therefore no legal framework under which data is collected or data collectors are empowered. Combined with poor physical infrastructure (including basic provision of reliable electricity, office equipment and technology), statisticians are poorly equipped to ensure the integrity and punctuality of data (Paris, 2006; OPM, 2009; Eele, 2015).

4.2.3 Financial resources; ownership and priorities

Prioritisation of statistical functions and of particular datasets often reflects a specific political economy (Jerven, 2013:61) which has both a national and international dimension. Historically SSA data only referred to external trade data as this was a basis for taxation. Non-cash crop agriculture (despite being the largest employer) was largely ignored.

These problems reflect the fact that National Statistics Offices (NSOs) are empowered neither financially nor politically[14]. They have exacerbated low staff morale that is also linked to a lack of autonomy, status and domestic ownership of the importance of data (UNECA, 2006; OPM, 2009). State funding in SSA often covers only staff remuneration but surveys are financed by uncoordinated donor initiatives geared to suit specific needs (Paris, 2006; OPM, 2009).

The decentralisation of data collection across an array of government departments, Non-governmental institutions (NGOs); central banks; and research institutes (UNECA, 2006) sometimes results in data that is incomplete, inconsistent, delayed and of varying quality (Lufumpa & Mouyelo-Katoula, 2005; Jerven, 2013).

4.2.4 Impact

Data access is often better outside the country. In 2002 the World Bank ranked most countries in Africa alongside Afghanistan and Iraq in terms of statistical capacity. Half of SSA countries had major data breaks or inconsistencies (WB, 2002).

[14] Even empowerment is not sufficient. Uganda's Statistical institutions have been made autonomous and backed by an Act of Parliament (UNECA, 2006) but it ranks only 29th in the AfDB survey (AfDb, 2015).

This damning verdict resulted in a plethora of capacity building efforts including the multi-stakeholder Partnership in Statistics for Development in the 21st Century (PARIS21) initiative[15], as well as the World Bank's Trust Fund for Statistical Capacity building in 2000 (World Bank, 2002; UNECA, 2006). These have been implemented through the UN and IMF, using the General Data Dissemination System (GDDS) and Data Quality Assessment Frameworks (WB, 2002) to enable improvements in household and living standards surveys and measurement of trade competitiveness.

This prolonged remedial programme has been supplemented by a network of organisations including the World Bank, Donors, International Monetary Fund (IMF), the New Partnership for Africa's Development (NEPAD), the African Union (AU) and the African Development Bank the African Development Bank (AfDB) (OPM, 2009) and the Gates funded 'Informing a Data Revolution (IDR)' project (Eele, 2015). Under the International Comparison Program (ICP), AfDB has co-ordinated a capacity building programme with a focus on macro-economic indicators. Through the "Yaoundé Declaration on Statistical Development in Africa", all states adopted ICP-Africa as the framework to update their National Strategies for the Development of Statistics (NSDS) in line with the Marrakech Action Plan on Statistics (MAPS). The intention was to ensure that statistical integrity is incorporated into development strategies, not treated as a side issue (Lufumpa & Mouyelo-Katoula, 2005).

These initiatives have borne some fruit. Many SSA countries now use a variety of advanced computer models[16] and methodologies that comply with the United Nations System of National Accounts (SNA) (although some still use 1993 standards) (AfDB, 2014b; AfDB, 2015).

Whilst there is evidence of improvement in areas such as aid effectiveness and some macro-economic data (OPM, 2009), there remain significant failings in statistical data collection in many SSA countries (and as a consequence data analysis) (Eele, 2015). Technical fixes cannot disguise continuing problems.

Even in Botswana, a country hailed for its governance, the country's own Statistical office's identified failings in 2015 in data coordination; quality; and punctuality. In Trade and Industry, there was no coordination or adherence to international standards across a fragmented sector (Botswana, 2015). Botswana is ranked only 19th out of 44 SSA countries in terms of statistical performance (AfDB, 2015).

These issues in Botswana mirror those across SSA and are symptomatic of a continued lack of public and private sector prioritisation and awareness of the importance of statistical data (Paris, 2006). The chronic lack of investment in statistical systems has led to the supply of poor quality data which discourages demand for future output (WB, 2002; UNECA, 2006).

[15]Involving the United Nations (UN); OECD; World Bank; IMF; and European Union.

16 Including Eurostat's Equlibre Ressources-Emplois et Tableaux Entrees-sorties (ERETES) system.

4.3 Poor data

The continuing problem appears to be data collection, rather than analysis (Jerven, 2013; AfDB, 2015). Progress has been made in donor defined priority areas (such as population censuses) but significant gaps remain necessitating use of proxies and extrapolations (Lufumpa & Mouyelo-Katoula, 2005; Jerven, 2013). This partly reflects statistical capacity but also the informal patterns of development which may require new modes of data collection[17].

Data reconciliation and analysis requires regular surveys of enterprise, labour, households, trade, government and finance particularly for the construction of Supply and Use Tables (SUTs). African countries do not have a diverse set of surveys by which to reconcile data. In SSA, SUT compilations are frequently subject to delays of 2 years or more (AfDB, 2015).

Statisticians rely on extrapolations for consumption as Household expenditure surveys may be five years apart. In 2013, 25% of SSA countries relied on agricultural data that was 5 years old and 50% used business and household statistics that were at least four years old (AfDB, 2015).

Linkages between statistical capacity, economic wealth and politics continue to be complex (Jerven, 2013; AfDB, 2014b; AfDB, 2015). Based on 50 statistical quality indicators, an AfDB assessment in 2013 found a number of strong performers with relatively high Gross Domestic Product (GDP) per capita (Mauritius; South Africa) but also some poorer ones (including Ethiopia and Niger). Equatorial Guinea, by contrast, ranks bottom despite being one of the richest in per capita terms (AfDB, 2015). Kenya conducts regular household (HS) and Enterprise surveys (ES) but along with Ethiopia has not conducted a Labour Force survey (LFS) since 2007[18] (AfDB, 2015).

4.3.1 Macro indicators

Many NSOs struggle with reconciling expenditure; income; and production methods of calculating GDP, let alone have enough time or resources to analyse its micro economic origins (Lufumpa & Mouyelo-Katoula, 2005). An expenditure approach is often impossible due to a lack of compatible data, especially in rural areas.

Difficulties include outdated base years, infrequent censuses, and poorly conducted surveys (Jerven, 2013). One analysis of statistical practices in 2002 found that base years for National Accounts and inflation had often not been updated for decades (Burkina Faso 1985; Cameroon 1980; Haiti 1976; Algeria 1980) or a population or agricultural census taken for even longer, especially in conflict zones such as Angola and Eritrea (World Bank, 2002). This leads to a failure to account for new formal sectors (such as telecoms) or for informal ones. Recent upgrades to GDP estimates in Ghana and Nigeria are testament to the massive scale of the problem.

4.3.2 Business sector data

Problems with macro-data are magnified when it comes to the firm level. Even UNCTAD can only track shareholder and financial data for a sub-set of African firms (WIR, 2016).

[17] For example, perhaps through the use of mobile phone technology

[18] The cost and logistics of Labour force surveys are particularly significant in a country such as Kenya recently subject to recent social conflict and where employment is predominantly informal (Kenya, 2014).

Business data (for foreign and domestic owned firms) is collected via registers, censuses, or one-off surveys. The latter are subject to significant human and financial resource obstacles with the result that many are incomplete or outdated (World Bank, 2002). Fifteen SSA countries use only a single source for their Statistical Business Register (SBR), most often the tax authority or the social security administration (AfDB, 2015). However, issues specific to sector or foreign enterprises are glossed over in most of the statistical capacity assessments in favour of high level socio-economic priorities (UNECA, 2006).

SBRs may serve as a platform to facilitate detailed surveys but are not themselves sufficient as they collate only *descriptive* data on companies and provide little information regarding interaction with MNEs (AfDB, 2014a). One third of countries do not update SBRs annually or reflect the particular nature of African firms. Many SSA firms are not only small and informal[19] but grow through an 'octopus form' in unrelated activities that change frequently (Kiggundu, 2002; Sidebottom, 2016b).

In the absence of well-maintained SBRs, it is often unclear which firms to survey. The AfDB has tried to encourage their establishment through publications and workshops (AFDB, 2014a). Most countries compile SBRs using tax data or trade association memberships. Use of multiple sources risks duplication unless companies have a unique identifier code (as in some Francophone countries).

Rwanda conducted its first Integrated Business Enterprise Survey in 2014 (NISR, 2016) and Ghana's is due to be complete in 2016 (GSS, 2016). Ghana has also produced a business register and completed a labour force survey (World Bank, 2016a). However, numerous others (including Cote d'Ivoire, Mali and Zimbabwe) will not complete a World Bank Enterprise survey until late 2016-17 (World Bank, 2016b). Moreover, these may exclude the informal sector; cover a limited number of firms; and not always incorporate questions pertinent to MNEs, innovation or the ILO.

4.4 Summary

The monitoring of MNE impact, effective policy design and the enforcement of social standards requires not only contextually relevant metrics (Galhardi, 2016) but a robust statistical framework (AfDB, 2014a; AfDB, 2015) that facilitates comparative analysis of local firms and labour markets (Dunning, 1993). For example, through a combination of data from MNE interviews and the World Enterprise survey, Aryeetey et al (2008) found that MNEs were larger, more productive and staff were better trained. However, what were the drivers behind this? Is it being foreign, better know-how or simply scale or access to credit? Without a comprehensive dataset across *all* firms, data collected from MNEs lacks context and such questions remain unanswered.

[19] In many cases the informal sector contributes over 1/3 of GDP. 17 countries had no estimate (AfDB, 2015).

5 Case Studies

5.1 Manufacturing: Apparel

Case studies focused on apparel production often isolate the sub-sector from the more capital intensive Textiles sector of which it forms a part and thereby oversimplify a complex picture. Bernhardt & Milberg (2011) paint a mixed picture of apparel upgrading in Africa. The Apparel sector in various countries differs by ownership, market orientation and linkages with the wider textile sector (Sidebottom, 2016a). In South Africa most textile production is domestically owned and focused on the home market. Foreign entrants have outperformed South African firms in export markets driven by price and quality but their development footprint in terms of quality and quantity of jobs is small compared with the domestic sector (Gelb & Black, 2004).

By contrast Lesotho's export-orientated apparel sector is dominated by South African and Taiwanese firms, some of whom left South Africa in pursuit of cheaper labour (Sidebottom, 2016a). South African firms in Lesotho (who target the South African and Western markets) show evidence of upgrading but the Taiwanese focus on low value runs for the American market via the AGOA trade regime has reduced scope for backward or forward linkages (Morris et al, 2015). These patterns could be attributed to cost or the inability to source quality inputs locally (Sidebottom, 2016a). Staritz (2012) suggests that the composition of demand, social ties[20] and the specific strategy of the investor are key. It is therefore the *quality* and *nature*[21] of capital and its specific strategic focus, not just the quantity that matters. Staritz & Frederick (2014) and Rivoli (2015) conclude that reliance on FDI flows and ephemeral trade preferences does little for capacity building, as exporters receive *unconditional* rents[22].

Even where there *is* economic upgrading, Rossi (2013) shows the potential for a trade-off against social improvements. The pressures of economic upgrading in Morocco have resulted in longer working hours and a segregation of the labour force into permanent skilled and temporary contractor arrangement for semi-skilled workers. Economic upgrading is therefore a likely driver of greater *intra*-country inequality. There are numerous industry efforts to mitigate this trade-off. However, many social equity initiatives rely on 3rd party audit firms (CleanClothes, 2005) or lack *local* legitimacy. My own research in East Africa found that garment factory owners expressed strong doubts regarding the local case for social sustainability certification as the costs of compliance are high. South Africa's apparel firms are a kaleidoscope of formal and informal (Sidebottom, 2016a).

Whilst consumers remain unwilling to pay a social premium (CottonInc, 2013; Sumner, 2015), there is an inherent tension between profitability and sustainability resulting in poor code specification and enforcement (Locke, 2013). Reaction to the Rana Plaza tragedy

[20] There is a small but growing body of research that suggest that strong social ties between investors and investees enhance trust and allow for greater technology transfer and capacity building. This suggests the need for metrics that gauge the capacity building effectiveness over time, rather than simply focus on the amount of FDI.

[21] This alludes to the need to distinguish between the monetary and non-monetary benefits of capital inflows. For example, does FDI lead to enhanced training for workers or favourable contracts and capacity building support for small suppliers?

[22] This refers to requirements to use local materials or workers, for example, in return for subsidised electricity or tax breaks.

resulted in treatment of quantifiable symptoms but not underlying causes (Sidebottom, 2016a).

Industry surveys indicate that brands and retailers are increasingly demanding more of suppliers, including inventory management and short delivery times, as well as lower cost (McKinsey, 2013). The notion of 'upgrading' is thereby extending in multiple directions (Sidebottom, 2016a). It is perhaps unreasonable to expect the upgrading proxies of Bernhardt & Milberg (2011) (or indeed Decent Work metrics) to fully capture such complexity.

5.2 Manufacturing: Automotives

The automotive sector generates employment in three distinct areas that tend to cluster together: equipment supply, assembly and after-service (sales and repair) (Barnes & Morris, 2008). In contrast to apparel, automotive assembly is an example of a "producer-driven" (Dicken, 2011:333) or "technology intensive" chain (Barnes & Morris, 2008:36). A small number of large global MNEs allocate the manufacture of components to suppliers in close proximity to assembly plants. These configurations reflect the complex interaction of various components of knowledge in car manufacturing (Sturgeon et al, 2008) and rely on specialisation, regional co-ordination and standardised technology rather than scale.

Production is still concentrated in USA, Asia (Japan, China and Korea), Brazil and Europe but leading manufacturers (such as Nissan and Honda) make more than 2/3 of their cars offshore. Shifts in production to countries like Thailand have been driven by cost but those to China target the large domestic market (Dicken, 2011). Firms retain distinct traces of national origin in attitudes to control of foreign affiliates and domestic plants. This partly reflects the political profile of the industry (Sturgeon et al, 2008). European firms remain embedded in home countries and have decentralised mainly to Eastern Europe.

Component firms need to cluster around assembly plants and have the capability to provide a full package service including customised design (Dicken, 2011). This has led to industry consolidation and the growth of multinational component firms such as Bosch, Johnson Controls or Lear who supply a number of *different* manufacturers (Barnes & Morris, 2008). We not only have globalised manufacturers but globalised suppliers (Sturgeon et al, 2008). The dynamics in respective sub-sectors are inter-dependent (Nolan, 2014). With a 13% share of exports, automotive assembly and components' supply is the largest manufacturing sector in South Africa (DTI, 2015). Most of the world's major car makers have established 100% subsidiaries and employ 30,000 people directly in assembly roles (DTI, 2015). De-regulation and an active industrial policy since 1994 have attracted market and efficiency seeking FDI despite a reputation for labour unrest (Gelb & Black, 2004; Alfaro et al, 2012).

However, these inflows have also eroded domestic ownership of assembly firms and their supply network (Barnes & Morris, 2008; NAACAM, 2011). This network encompasses 1st tier component suppliers (mostly foreign owned) and 2nd and 3rd tier locally-owned firms employing an additional 80,000 people (DTI, 2015). It is in these lower tiers of sub-contracting that issues of social compliance may occur but where the degree of MNE attention and control is less (Dibben & Wood, 2015). A focus on MNE operating statistics

(be they Decent work parameters or not) may not be an accurate gauge of their wider impact.

Although the social compliance record of the sector is better than elsewhere, the weakness of control in lower production tiers is evidenced through continued instances of unequal gender employment opportunities within firms or 'out'-sourcing of core functions, in some cases to suppliers which were physically located in the same building as assembly workers. This sub-contracting may be cost driven or simply a means to avoid the higher degree of unionisation and regulation in MNE assembly plants compared with suppliers (Dibben & Wood, 2015).

Component suppliers with links to wholly owned German-owned subsidiaries (which have been more historically embedded in South Africa) have been more successful in exporting than others (Barnes, 2000). However, whilst vehicle and component exports and employment have grown, local content is low, wage growth has not kept pace with productivity and the scope for economic upgrading is limited by foreign oligopolistic control of knowledge and marketing channels (Barnes, 2000; Barnes & Morris, 2008; Alfaro et al, 2012; Nolan, 2014). This has a direct bearing on whether firms engage in training. The impact of MNEs has in effect been the hollowing out of domestic research and learning capacities (Alfaro et al, 2012).

These latter two points suggest potential gaps in data collection that could potentially be addressed through widening the scope of business surveys or social compliance audits.

First, being able to identify precisely which functions are performed by employees (rather than sub-contractors) across similar firms may highlight areas of concern. Second, policy makers need a holistic understanding of how knowledge is controlled and disseminated through a deeper appreciation of the nature of the MNE-subsidiary-supplier relations (Barnes, 2000).

These facets have a significant bearing on workers' welfare, yet are unlikely to be captured within existing workplace metrics. As such, some data may be informative but have limited use as a practical remedial device to assist the development of policy tools in areas such as training incentives or knowledge sharing (Alfaro et al, 2012).

5.3 Agri-business: Horticulture[23]

Agri-business forms part of a vast agricultural global export sector that represents 10% of global trade (ITC, 2016) in which developed country actors operate as both producers *and* consumers across complex global value chains (Bernhardt & Milberg, 2011). For developing countries agri-business often serves as key conduit through which to initiate economic transformation towards value-added processing and manufacturing. However, using UN Comtrade data[24], Bernhardt & Milberg (2011) find that only six of 19 horticulture exporting countries upgraded economically 1990-2009[25].

Moreover, horticultural workers are subject to seasonal demand peaks, stringent quality standards and intensive use of chemicals (Riisgaard, 2009). The simple observation of

[23] This section owes much to discussions with my colleague Nungari Mwangi though mistakes are all mine.

[24] Floriculture imports and export data estimates are frequently inconsistent (for example, due to different classification of intermediates). This suggest the need for caution with sole reliance on cross country exercises (Evers et al, 2014)

[25] Defined as economic upgrading as a combination of growth in export market shares and export unit values

Ethiopia's success in generating 50,000 jobs in the floriculture sub-sector, for example, tells us nothing about social upgrading (due to the dire shortage of wage data) or FDI was simply attracted through state-led financial incentives and cheap labour (UNECA, 2016).

Social standards have recently begun to supplement long standing health and environmental metrics such that the floriculture sub-sector now features an array of process and product quality metrics (including safety, quality, sustainable and ethical standards). Industry bodies (both national and global), individual companies and importing country legislators therefore influence job creation and investment patterns in developing countries through *remote* governance of rules of the game across value chains even without a local presence (Dolan & Humphrey, 2000; Friedberg, 2003).

As such rules are driven by *developed* country buyers and producers, Ziegler (2010) maintains that rising quality and health standards reflect their capabilities and priorities. However, there is no universal demarcation between actor and rule type. Enforcement can be private, collaborative or regulated (Jaffee & Masakure, 2005)[26]. Even if codes have some basis in local law or global benchmarks (such as ILO), interpretation and enforcement are often contextual. Barrientos (2013) finds that labour contracting schemes are used to circumvent some labour codes in the horticulture sector, much like in apparel (Rossi, 2013). In Kenya Ziegler (2010) finds that firms pay more attention to lower pesticide exposure than higher wages or better conditions of employment.

As engagement with global buyers incurs significant capital investments (to meet higher standards for post-harvest processing, packaging, storage and logistics), smaller domestic suppliers are often excluded from access to GVCs (Dolan & Humphrey, 2000; Jaffee & Masakure, 2005). In Kenya flower exports in Kenya are now concentrated in the top 10% of agri-producers (Ziegler, 2010).

Some research tries to distinguish between "risk management" & "product differentiation" standards (Riisgaard, 2009: 6-7). The former set a lower bar through focus on issues salient to consumers (such as product health and safety) whilst worker rights may be tailored to suit branding reputation and product differentiation (Barrientos & Smith, 2007). Alternatively this can be broken down into metrics that protect (for example, minimum wages) and those that enable (for example, collective bargaining). In essence, this is a difference between outcomes versus processes. It entails an understanding of audit processes and whether local NGOs or Trade unions are included in both metric design and enforcement (Riisgaard, 2009). This allows for what Coe & Jordhus-Lier (2010:211) describe as "labour agency" to help frame the upgrading process, rather than serve as passive victims (Selwyn, 2012).

This may be contingent upon the nature of the relationship between buyer and seller. In Ugandan cut flowers[27] Evers et al (2014) use company and workers interviews to identify how direct MNE ownership and worker involvement has helped address issues of risk and trust on both sides.

[26] The same is true in other agricultural sectors. Organic food crops, for example, tend to feature national legislation but a non-food, such as cotton relies primarily on industry certification (Sidebottom, 2016a).

[27] The cuttings sub-sector is distinct from flowers. The latter refers primarily to roses. Up to 80% goes through GVCs as final processed products to a myriad of buyers. Cuttings are high value low bulk partially grown chrysanthemums or pot plants exported to a small group of propagation European companies (Evers et al, 2014).

Lead buyers provide managerial and financial assistance to suppliers to comply with regulatory and private company standards as they have ownership and benefit from quality compliance in terms of costs and marketing. There is no risk of suppliers reneging on contracts or free riding on knowledge transfer by selling to another buyer. As improvements in less visible social metrics (such as collective bargaining) have been instrumental in driving more observable ones, there is enhanced co-operation and trust between employer and employee (Evers et al, 2014).

This suggests social standard compliance can form part of a process of 'learning by doing' mode of technical transfer and that captive chain relationships may offer more upgrading potential (Amsden, 2009; Evers et al, 2014).

5.4 Primary: Gold Mining

Owing to the capital- and technology-intensive nature of production, the mineral extractives sectors (mining; oil and gas) are prime examples of "*producer-driven* industries" (Dicken, 2011:244) dominated by a small number of large conglomerates from developed and developing countries including Vale and BHP Billiton[28]. The sector not only encompasses extraction (Eshun & Jellicoe, 2012) but exploration, equipment supply, servicing and refining. These linked industries are also increasingly dominated by MNEs (Dicken, 2011).

More than any other sector, mining provides a pivotal role for governments (Dicken, 2011). Their dilemma is that mining generates financial benefits but few jobs (Aryee, 2001). The Gold mining sector in Ghana has a long history as a major source of foreign exchange and fiscal revenue (Awudi, 2002). It accounts for most FDI inflows (mainly from UK and USA) and output is concentrated under the control of a small number of MNEs (Aryeetey et al, 2008).

Mining investments are governed under specific regulations outside the Ghana Investment Promotion Centre Act (1994). These have evolved through a series of Parliamentary Acts[29] that have gradually reduced the tax burden on MNEs with apparently little conditionality in terms of local procurement; job provision or training (Abdulai, 2005; Aubynn, 2013). Mining contracts are negotiated directly with the Mining Department but have been criticised for being too favourable to MNEs, a lack of transparency and poor enforcement of employment provisions (Ayee et al, 2011; Rutherford & Ofori-Mensah, 2011).

Other than fiscal benefits (Aryee, 2001), *direct* effects appear to be limited. Linkages with the rest of the economy are weak (Aveh et al, 2013) although Bloch & Owusu (2012) suggest consumption and backward linkages are underestimated and mining companies lament that community investments are ignored (Aryeetey et al, 2008). What is indisputable is that value-added (Bloch & Owusu, 2012) and direct MNE employment (20,000) are low (Awudi, 2002).

However, the Chamber of Mines estimates indirect employment is over 100,000 (Aubynn, 2013). A lack of data prohibits verification of these claims of wider economic benefits –

[28] Unlike in the Oil and Gas sector, mining has few state owned firms (Dicken, 2011).

[29] Minerals and Mining Law (1986); the Minerals and Mining Amendment Act (1994); and the Minerals and Mining Act (2006) (Abdulai, 2005; Aubynn, 2013).

consumption linkages or indirect employment; but we do have limited data on social upgrading.

Eshun & Jellicoe (2012) found that over 95% of a total of over 10,000 mining employees were Ghanaian but that expatriates still dominated management roles despite mining regulations requiring local management empowerment. Although some MNE companies complain that Ghanaians lack vocational skills (KPMG, 2014), this is less true in the mining sector (Aryeetey et al, 2008). Eshun & Jellicoe's interviews (2012) suggest employment of expatriates in senior roles usually reflects MNE underlying concerns regarding *control*, rather than human capital.

The fact that most non-mining MNEs' subsidiaries are majority owned indicates that this is not restricted to natural resources (Aryeetey et al, 2008). Only by understanding motives and risk aversion that govern MNE activities can policy makers understand the outcomes they produce. A quantitative approach can lead us only so far – we need to understand how numbers came about and what they actually mean.

Conclusion

This report has shown that ILO proposals to incorporate Decent work metrics into the monitoring of MNE activity represent an improvement on reliance on FDI data but raise a number of issues, particularly for developing countries.

Through a brief overview of a number of conceptual issues illustrated by selected case studies from SSA, the report has discussed how economic and social upgrading may be firm, sector or task specific. As such, analysis needs to be tailored by sector and value chain and look beyond legal boundaries to identify variation both within and across firms. This broadening of scope should also be extended to domestic firms not only to enrich MNE analysis but inform policy makers how best to blend foreign and domestic capital (Aryeetey et al, 2008). The policy question is whether remedial action should start in the home country or host.

These issues, however, can only be resolved through improvements in the general statistical infrastructure and an explicit integration of social compliance monitoring within the framing of Industrial policy governing MNE activity and FDI. Although World Trade Organisation (WTO) rules, International Investment Agreement (IIA) provisions and GVCs complicate policy making, they do not render nation states impotent (Cramer, 1999; OECD, 2013; UNECA, 2016; WIR, 2016).

Our understanding of the nature of the social and economic upgrading relationship is dependent upon a very limited amount of research and plagued by a glaring absence of data outside the OECD (Bernhardt & Winkler, 2011). To enhance policy efficacy, research and data collection needs to use a broader lens to further our understanding of the nuances of MNE decision making and distinctive technical, sectoral and home country risk parameters within which it operates (Amsden, 2009). This will facilitate resolution of apparent vocational skill mismatches and enable policy makers to address MNE promotion of local workers or sharing of technical knowledge that is sometimes limited by concerns of risk rather than local competence.

Whether conceptual and empirical issues are overcome or not, numbers should always be a means to ask further questions and observation of empirical outcomes be regarded as no substitute for understanding the processes of how we got there.

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