GIGA Working Papers

German Institute of Global and Area Studies
Leibniz-Institut für Globale und Regionale Studien

GIGA Research Programme:
Socio-Economic Development in the Context of Globalisation
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**SMARTer Indicators for Decent Work in a Post-2015 Development Agenda:
A Discussion and a Proposal**

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No 266   **February 2015**

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Abstract

The aim of this paper is to contribute to the ongoing discussion about the design of a post-2015 development framework by proposing indicators to monitor employment outcomes. Our analysis of the current MDG employment indicators shows that measurement problems, the inappropriate use of aggregate statistics, ambiguous interpretability, and assumptions that often do not hold true in the context of developing countries are major shortcomings of the current indicators. Based on this critique, we develop a new set of indicators for productive employment and decent work. We propose four indicators: (i) the growth of labor value added per worker, (ii) the working poverty rate, (iii) (a) the share of workers receiving less than an absolute labor income and (b) the share of workers receiving less than 60 percent of the median labor income. We demonstrate the empirical application of these indicators using the country cases of Uganda and Peru.

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SMARTer Indicators for Decent Work in a Post-2015 Development Agenda: A Discussion and a Proposal

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Article Outline

1 Introduction

Employment is the main determinant of living standards (World Bank 2012: 9) and is of paramount importance for economic development. Quantitative analyses confirm that changes in labor earnings are the largest contributor to poverty reduction (Azevedo et al. 2013; Inchauste et al. 2012). Beyond its fundamental and immediate contribution to household income, employment also affects other dimensions of well-being on an individual and societal

level, including self-esteem, mental and physical health, and social cohesion. The influence of work on well-being depends not only on the availability of job opportunities but also on their characteristics.

In recognition of the fact that decent and productive work is central to human and economic development, a new employment target was officially incorporated into the Millennium Development Goals (MDGs) framework in 2008: "achieve full and productive employment and decent work for all, including women and young people" (Target 1.B; UN 2008). Four quantitative indicators were developed to measure progress towards this target. A fifth employment-related indicator is part of Target 3.A, which aims to "promote gender equality and empower women" (UN 2008).

Even though significant and substantial progress towards many of the MDG targets has been made on a global level, the employment challenge persists (UN 2013). The strong precrisis economic growth during recent decades failed to ensure sufficient and inclusive employment creation (ILO 2012d: 1). The Arab Spring movement in 2011 showed that even in countries that had made considerable progress towards the MDGs, social unrest was fuelled by a lack of decent jobs, especially for the youth (van der Hoeven 2012: 9 f.). The International Labour Organization (ILO) estimates that approximately 45 to 50 million new jobs will have to be created each year over the next 10 years to keep up with the growth of the world's working-age population (ILO 2012a: 9). These trends as well as the multidimensional, positive effects of decent and productive work on well-being and development highlight the need to consider employment as an important element of a post-2015 development agenda.

With the MDG deadline approaching, the international community is discussing the structure and content of a possible future agenda intensively. During the United Nations Conference on Sustainable Development (Rio+20) in 2012, the member states decided to develop a set of Sustainable Development Goals (SDGs) that will build on the MDGs and converge with the post-2015 development agenda (ECOSOC 2014). The most relevant proposal is that of the UN Open Working Group on Sustainable Development Goals, which contains the goal (Goal 8) to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" (Open Working Group on Sustainable Development Goals 2014: 11). Besides this working group, several other institutions and development practitioners have developed proposals for employment-related targets and indicators in a post-2015 development agenda (cf. Martins and Takeuchi 2013; Bates-Earner et al. 2012; ILO 2012d; ILO 2013).

Our work contributes to the current debate by proposing indicators for the measurement of employment outcomes within a post-2015 framework. To this end, we discuss the conceptual foundations of decent work and critically reflect on the current MDGs' employment-related indicators as well as on selected new proposals, highlighting their strengths and weaknesses (cf. Sparreboom and Albee 2011; ILO 2009; Ostermeier et al. 2012). In particular, we argue that measurement problems, the inappropriate use of aggregate statistics, ambiguous

interpretability, and assumptions that often do not hold true in the context of developing countries are major shortcomings of the MDG indicators.

This critique is behind our proposal of a new employment-related target and corresponding indicators for the post-2015 development agenda. We argue for a more explicit reference to equity, which is an important aspect of decent work. Inequality remained largely unaddressed in the original MDGs but has emerged as a key aspect in the post-2015 discussions (cf. UNDG 2013; UN System Task Team on the Post-2015 UN Development Agenda 2012: 23 ff.). The inequality of both opportunities and outcomes is increasingly recognized as a major obstacle to economic performance, poverty reduction, political stability, and improved social conditions (Melamed 2012: 4). Furthermore, we maintain that the discrimination against self- and family-employment implicit in the ILO's definition of vulnerable employment and the current MDG indicators is misplaced and does not have a firm empirical foundation. This is also one of the reasons why we believe that social protection would better be dealt with by formulating a separate goal regarding a population's coverage with basic social security benefits. Although social protection is one of the pillars of the ILO's Decent Work Agenda,[1] it does not necessarily have to be considered in the context of employment.

Based on these conceptual considerations, we propose the inclusion of an explicit employment-related target in the post-2015 development agenda. Such a target should focus on the quality of employment and include an equity element. It should be operationalized through indicators that are specific, measurable, achievable, relevant, and time-bound. We propose four indicators: (i) the growth of labor value added per worker, (ii) the working poverty rate, (iii) (a) the share of workers receiving less than an absolute labor income and (b) the share of workers receiving less than 60 percent of the median labor income. We illustrate the empirical application of the indicators using national household survey data from Uganda and Peru. This empirical application shows the feasibility of computing the proposed indicators. In the two case countries, our results clearly reveal both a lack of decent work in terms of decent pay and the associated problem of unequal labor incomes. Our empirical exercises also shed light on the data limitations and suggest some possible areas of improvement in the provision of standardized micro data.

The paper is structured as follows: Section 2 outlines some conceptual considerations by revisiting the dimensions of employment and postulating technical requirements for conceptually valid and feasible indicators. Section 3 reviews the five current employment-related MDG indicators and selected proposals for the post-2015 development agenda. We present our suggestions for employment-related indicators in Section 4 and illustrate their empirical application for the country cases of Uganda and Peru in Section 5. Section 6 concludes.

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1   The four pillars of the ILO Decent Work Agenda are employment creation, rights at work, social dialogue, and social protection.

2 Conceptual Considerations

This section revisits the foundations of employment-related development targets, starting with the employment target of the current MDGs, which we relate to some of the main dimensions of employment and decent work as understood by the ILO. From this discussion we derive different properties of employment that should ideally be captured by indicators. We discuss the possibility of including measures of social protection under an employment goal in the post-2015 development agenda. We then present a set of technical requirements for formulating conceptually valid and feasible indicators. Section 2 thus provides the conceptual background for our critique of the current MDG employment indicators as well as for our own proposed indicators.

2.1 Foundations and Challenges of Employment-Related Development Targets

Under MDG 1, Target 1.B seeks to "achieve full and productive employment and decent work for all, including women and young people" (UN 2008). This target incorporates three aspects of employment (Martins and Takeuchi 2013: 3):

1) quantity of employment: full [...] employment [...] for all;
2) quality of employment: productive employment and decent work; and
3) equity of employment opportunities: including women and young people.

Full employment is a standard economic concept and requires that all people who are available, capable, and willing to work are able to do so. Achieving full employment implies that unemployment is to be avoided or reduced. However, the quantity aspect of employment also refers to participation in the labor market, as some people, particularly women, may not even be actively seeking work – the prerequisite for being considered unemployed – despite being available, capable, and willing to work. In general, the importance of both quantitative dimensions of employment – that is, labor market participation and unemployment – depends on a country's level of development and the country-specific labor market conditions. In low-income countries without or with only limited basic income support, people are forced to engage in some form of income-generating activity to make ends meet. This typically implies that labor market participation is high and unemployment low. Nevertheless, a large number of people are (involuntarily) underemployed (Parisotto 2014: 2).

The quality of employment is described by the attributes "productive" and "decent." According to the ILO, *productive employment* can be defined as "employment yielding sufficient returns to labour to permit the worker and her/his dependents a level of consumption above the poverty line" (ILO 2012c: 3). According to this definition, a deficit of productive employment is manifested in the working poor, who are not able to achieve a minimum consumption level despite being employed, as well as in the unemployed. A lack of productive employment may also be attributed to the underemployed. Yet productive employment and underemployment are not easily distinguished. Underemployment reflects the underutiliza-

tion of the productive capacity of the employed. It relates to an alternative employment situation in which a person is willing and available to engage (ILO 1998: 1). Employment can be inadequate in terms of compensation (income-related underemployment), working hours (time-related underemployment), and/or skill level and experience (skills-related underemployment). The definition of underemployment already points to the major conceptual problem: the actual employment situation is compared to a specific norm or alternative employment. Notions of this alternative employment situation differ across countries and in terms of time. Furthermore, some features of underemployment, such as the underutilization of skills, are highly subjective and difficult to proxy.

Decent work is a more comprehensive concept and is understood as "productive work in which rights are protected, which generates an adequate income, with adequate social protection" (ILO 1999). Under social protection the ILO subsumes (i) the coverage and effectiveness of social security schemes and (ii) labor protection, "which comprises decent conditions of work, including wages, working time and occupational safety and health" (ILO 2014). We come back to the issue of social security coverage below, but we consider "decent conditions of work" to be a key element of decent work.

Finally, the MDG employment target considers equity aspects, stressing the exclusion of specific groups, here women and youth, from full and productive work. While this is doubtless relevant, the focus on the inequality of opportunities rather than outcomes is too narrow. In our view, feedback mechanisms from outcomes to opportunities – for example, low wages that result in little investment in human capital – require that an employment target also take into account the distribution of outcomes. We hence suggest considering the equality of labor earnings.

(More) earnings equality is also not part of the goal to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" proposed by the UN Open Working Group. This proposal has four work-related targets (Open Working Group on Sustainable Development Goals 2014):

8.5 → by 2030 achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value;

8.6 → by 2020 substantially reduce the proportion of youth not in employment, education or training;

8.7 → take immediate and effective measures to secure the prohibition and elimination of the worst forms of child labour, eradicate forced labour, and by 2025 end child labour in all its forms including recruitment and use of child soldiers;

8.8 → protect labour rights and promote safe and secure working environments of all workers, including migrant workers, particularly women migrants, and those in precarious employment.

This new catalogue of targets hence not only builds on the earlier target but also adds the notion of equal pay for work of equal value (while not addressing unequal pay generally), explicitly mentions persons with disabilities, and emphasizes the NEETs (youth not in employment, education, or training) as well as the elimination of child labor. It also mentions migrant and precarious workers as further groups that may be particularly affected by employment discrimination. Furthermore, Target 8.8 refers to some aspects of decent work conditions (as defined above) – however, without reference to labor earnings.

This discussion has looked into some key aspects of possible employment-related development targets, drawing on the concepts of full and productive employment, decent work, and employment-related equity. It has revealed some conceptual ambiguities that become even more apparent when indicators are to be devised for these targets. The next subsection deals with "vulnerable employment," another related concept that is key in the ILO's current efforts to operationalize the lack of decent work.

2.2 The Relationship between Employment and Social Protection

Non-decent employment conditions can place people at economic and personal risk. Thus, there is a rationale for linking employment and social protection in the post-2015 development agenda, and many proposals indeed incorporate measures of social protection. Yet, from a conceptual point of view, including social security (for example, health, old-age, and/or unemployment benefits coverage) under an employment goal is appropriate only if related measures directly indicate the decency of the employment relationship. This is the case if social security benefits are directly tied to the employment relationship – that is, if they are a component of the employment arrangement. However, this typically only applies to wage and salary workers where the employer makes social security contributions for the employee and/or where the work contract entitles the employee to social insurance benefits. By contrast, the mere access to social security benefits does not directly indicate the decency of the employment situation: a person may enjoy benefits because he/she has privately concluded an insurance contract or because the government offers noncontributory social insurance. Thus, indicators such as the *share of wage employees covered by health insurance and/or pension schemes* are not adequate if subsumed under an employment goal, because they then only reflect the situation of employees in a context of employer-based social insurance schemes. A second, more practical problem is the diverse and context-specific nature of social protection systems and working arrangements. The institutional setup, coverage, and quality of social protection policies vary considerably between countries and thus impede cross-country comparisons.

2.3 SMART Indicators

The challenge in measuring decent work is to find indicators that can meaningfully capture all three dimensions of the employment target by combining what is relevant as a reflection

of decent work with what seems realistic in practice, particularly in terms of actually collecting and managing data. A widely used and internationally renowned set of formal requirements to assess the quality of indicators is made up of the SMART criteria.

Table 1: The SMART Criteria

Specific	The indicator must ensure a clear and unambiguous interpretation and thus should be a true translation of the target in question – that is, it should be valid. This way, the changes measured by the indicator express the achievement of the respective target.
Measurable	The indicator must be (easily) measurable and deliver reliable (and hence replicable) data, no matter who does the measurement. It is desirable to rely on common data already collected within the scope of the country's statistical strategy (for example, living standard measurement surveys, national household surveys, or labor force surveys). For intertemporal and cross-country comparisons it is essential that the data sources, the collection and preparation methods, and the final analysis comply with international standards. Moreover, the methodologies have to be consistent over time and should not show major conceptual adjustments.
Achievable	The indicator's aspiration level must be achievable. Too-low target values can suggest evident results but are not adequate for measuring the effectiveness of the project, program, or policy under consideration.
Relevant	The indicator must deliver important information for the decision makers. In the context of employment-related indicators this concerns primarily the national governments, but can also include the international community as well as individual workers or worker unions.
Timely/ Time-bound	The indicator must specify a deadline or time frame.

Source: Authors' compilation based on EC (2004), UNDP (2009).

The viability of using the indicators for intertemporal and cross-country comparisons is of particular importance in the context of the MDGs and the post-2015 development agenda. This requires further efforts from international organizations and national statistical institutes to harmonize data, procedures, and definitions. The following section presents and scrutinizes each employment-related MDG indicator currently in use with regard to its compliance with the SMART criteria.

3 A Critical Review of the Employment-Related MDG Indicators and Selected New Proposals

The five MDG indicators related to employment and decent work are: (i) the annual growth rate of gross domestic product (GDP) per person employed, (ii) the employment-to-population ratio, (iii) the working poverty rate, (iv) the vulnerable employment rate, and (v) the share of women in wage employment in the nonagricultural sector.

3.1 Growth Rate of Labor Productivity (Indicator 1.4)

The first employment-related indicator of the MDGs addresses the creation of *productive employment* by measuring the annual growth rate of labor productivity, as displayed in equations (1) and (2):

$$Labor\ productivity\ growth\ rate = \frac{Labor\ productivity_{year\ N} - Labor\ productivity_{year\ N-1}}{Labor\ productivity_{year\ N-1}} \times 100 \qquad (1)$$

$$with:\ Labor\ productivity = \frac{GDP}{Total\ employment} \qquad (2)$$

The rationale for including labor productivity in the set of MDG indicators is its close and positive relationship with wages. According to neoclassical theory, wages equal marginal labor productivity. Empirical studies confirm a close – although far from perfect – relationship between wages and labor productivity. In fact, differences in the level of labor productivity can explain approximately 65 percent of the variation in wages in a cross-sectional dataset of 108 countries (Luebker 2011: 15).

As an indicator for decent work, labor productivity growth entails several drawbacks that limit its validity for measuring productive employment. Most importantly, in a significant number of developing economies other production factors, particularly natural resources and land (in countries with important mining or agricultural sectors), generate a considerable share of value added with factor income being earned by the respective owners. In more developed economies with high capital-to-labor ratios, GDP increases may be driven mainly by capital accumulation (not necessarily higher returns) and the earned factor incomes then typically accrue to capital owners. This implies that levels of labor productivity – to say nothing of growth rates – can only be meaningfully compared across economies that share similar factor endowments and sector composition.

Furthermore, labor productivity is only a relevant measure for decent pay if there are no large differences in labor productivity and corresponding wages across economic sectors. Many poor economies, however, may employ highly productive labor with high wages in some sectors – for example, in mining – while a large share of their workforce is engaged in low-productivity and low-wage sectors, such as subsistence agriculture and urban informal sectors. In consequence, GDP growth may occur without any improvement in labor productivity and wages for large parts of the workforce (Lay and Prediger 2013: 2)

Several measurement problems also hamper the intertemporal and international comparability of the indicator. These relate mainly to the calculation of the GDP (gross output versus value added, price measure versus volume measure of value added, and the coverage of informal activities). Differences in the overall integrity and quality of national accounts statistics further complicate cross-country comparisons and threaten reliability (ILO 2012b).

3.2 Employment-to-Population Ratio (Indicator 1.5)

The employment-to-population ratio (EPR) is the share of a country's working-age population that is actually employed, formally expressed by equation (3):

$$Employment\text{-}to\text{-}population\ ratio = \frac{Total\ employment}{Working\text{-}age\ population} \times 100 \qquad (3)$$

The *working-age population* is the "population above a certain age […] prescribed for the measurement of economic characteristics" (ILO 2012b; sec. KILM 1). The age limit is set by each country individually and adheres to societal norms and standards regarding years of compulsory education and age limits for admission to the labor market. The ILO member states have agreed that the age threshold shall not be lower than 15 years (ILO 1976). Some countries – for instance, Uganda, Rwanda, and Finland – also apply an upper age limit in labor statistics.

The indicator measures an economy's ability to provide employment for those people who are able to work – that is, the extent to which full employment is achieved. The ILO (2009) suggests a value range of 50 to 75 percent, while other scholars consider 60 percent an appropriate ratio (Elder 2011). The lack of a clear target value or even a desirable direction for the EPR renders the interpretation of this indicator difficult and ambiguous.

The EPR captures both unemployment and labor force participation. Ambiguities can arise with regard to both concepts – again, particularly in the context of developing economies. For example, a high employment-to-population ratio may result from a low unemployment rate, which in turn might be a sign of a well-functioning and quickly absorbing labor market. However, low unemployment can also be registered in many poor economies that lack social support systems, let alone unemployment insurance. People in such contexts cannot afford to be unemployed and have to take up work to ensure survival. Similarly, high labor market participation and, consequently, a high employment-to-population ratio in economies dominated by smallholder agriculture do not signal ample labor market opportunities, but rather that all available labor, including that of women and children, is required to operate the household farm. Finally, an employment-to-population ratio may also be low because a significant share of the population is out of the active labor force and attending school or university.

Taken together, these ambiguities render the employment-to-population ratio an unspecific indicator that can hardly provide relevant information on progress or regression in terms of achieving full employment.

3.3 Working Poverty Rate (Indicator 1.6)

The ILO (2009) defines the working poverty rate (WPR) as the proportion of people in employment living in a household with a per capita income below the nationally defined poverty line. This is formally expressed in equations (4a) and (4b)

$$WPR = \left(\frac{No.\ of\ employed\ persons\ living\ in\ household\ with\ income\ below\ the\ poverty\ line}{Total\ employed\ population}\right) x100 \quad \text{(4a)}$$

$$= \left(\frac{POP_{poor} \times D_{poor} \times LPR_{poor}}{Total\ employed\ population}\right) x100 \quad \text{(4b)}$$

where POP_{poor} represents a country's total poor population, D_{poor} is a demographic weighting factor for the poor, and LPR_{poor} is the labor force participation rate of the poor. Many countries also report the WPR with respect to the international poverty lines of 1.25 or 2 international dollars (hereafter, Int\$).[2]

The WPR provides a measurement of productive employment by linking poverty and employment data. It represents the share of individuals whose jobs do not generate sufficient income to lift them and their families out of poverty. Although the indicator explicitly considers only the income dimension of decent work, it implicitly provides a broader picture: it is reasonable to assume that jobs that provide people with insufficient means to meet their basic needs are unlikely to fulfil the other requirements of decent work (ILO 2009: 24). This is not to say, however, that these other requirements are equally likely to be met by employment that generates sufficient income. Besides, working poverty may be caused by factors other than low pay (for example, number of dependents) and other sources of income might mask low labor earnings (for example, remittances and government transfers).

In principle, the WPR can be readily computed from micro datasets that contain information on poverty status at the household level and employment at the individual level. Yet, in practice the WPR has often been calculated using aggregate statistics as the product of the poverty rate and the labor force participation rate (macroeconomic approach). This simplification has been justified by a lack of micro-level data, but it has important drawbacks. First, it assumes that the share of the working-age population in the total population (the demographic factor D) is the same among poor and nonpoor households. Yet, it is well known that the poor typically have more children below working age than the nonpoor ($D_{poor} < D_{nonpoor}$).[3] Neglecting these demographic differences results in an overestimation of a country's incidence of working poverty. A second disadvantage of the simplified calculation procedure is that it neglects potential differences in labor force participation rates (LPRs) between poor and nonpoor households. In the more likely case of a higher LPR among the needy poor, the use of a constant LPR across all households results in the underestimation of the incidence of working poverty. The two concepts, the micro and the macro approach, can lead to significantly different results. Kapsos (2011) finds an average difference of 8.6 percentage points be-

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2   The international dollar is a hypothetical currency that is used to translate and compare monetary values between different countries using a common reference point, the US dollar. An international dollar has the same purchasing power as the US dollar had in the United States at a given point in time.

3   In Uganda, the case we examine in more detail below and where the working age ranges from 14 to 64 years, the demographic factor for the nonpoor (*Dnonpoor*=.63) was approximately seven percentage points higher than that for the poor (*Dpoor*=.56) in 2005. A factor of .56 means that approximately 44 percent of the poor population is of working age.

tween the macro- and the micro-based WPR estimates using available data for 15 sub-Saharan African countries.

The indicator suffers from the general drawbacks of the headcount index in that it does not account for intrahousehold inequality or for the depth of poverty. It is also plagued by the problems related to the definition of national (and more so) international poverty lines. Despite these problems, intertemporal and cross-country comparisons are possible.

3.4 Vulnerable Employment Rate (Indicator 1.7)

The vulnerable employment rate is the proportion of own-account and contributing family workers in total employment, formally expressed by equation (5):

$$\textit{Vulnerable employment rate} = \frac{\textit{own-account workers} + \textit{contributing family workers}}{\textit{total employment}} \times 100 \qquad (5)$$

The International Classification by Status in Employment (ILO 1993) defines *own-account workers* as people working alone or with one or more partners in self-employment (that is, a job where the remuneration is directly dependent upon the profits derived from the goods and services produced) without having any employees on a permanent basis. *Contributing family workers* are self-employed and work in a "market-oriented establishment [which is] operated by a related person living in the same household" (ILO 1993: sec. III.12.5). The underlying idea for classifying these two employment status groups as more vulnerable than others[4] is based on the assumption that they face greater economic risks. Own-account workers and contributing family workers are assumed to be less likely to have formal work arrangements, and thus to often lack elements of decent work, such as adequate social security and recourse to effective social dialogue mechanisms (Sparreboom and Albee 2011: 58). Additionally, own-account workers in developing countries are usually expected to earn a low and irregular income since they are mainly active as subsistence farmers and small-scale entrepreneurs in the informal sector. In many cases contributing family workers receive payment neither in cash nor in kind, but benefit indirectly from an increased household income.

However, the assumption that self-employed (family) workers are more vulnerable per se than employees is problematic, and it calls the specificity and relevance of the indicator into question. Own-account workers and the associated contributing family members form a very heterogeneous group in developing countries. Among them are those engaged in agricultural and urban informal subsistence activities as well as those running productive and profitable enterprises. In fact, research has shown that self-employment is often, albeit not always and conditional on the context, chosen voluntarily (Maloney 2004). Furthermore, in

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4 The ILO distinguishes further between wage and salary workers (=employees), self-employed workers with employees (=employers), members of producers' cooperatives, and workers who are not classifiable by their status. See ILO (1993: sec. II.4.).

many developing countries wage workers (not to mention casual or seasonal workers) are not covered by social protection and do not have legally enforceable labor contracts. Such factors might render their working conditions just as precarious as those of some own-account and contributing family workers. Thus, vulnerable employment would be better defined in terms of employment *conditions* rather than employment *status*.

3.5 Share of Women in Wage Employment in the Nonagricultural Sector (Indicator 3.2)

The last employment-related indicator of the current MDGs is part of the gender equality goal (MDG 3) and can be found under Target 3.A: "the elimination of gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015." The indicator is defined as the share of women in paid employment in the nonagricultural sector expressed as the percentage of the total number of paid employees in the same sector.

$$\text{Share of women in wage employment in the nonagricultural sector} =$$
$$\frac{Number\ of\ women\ in\ paid\ employment\ in\ the\ nonagricultural\ sector}{Total\ number\ of\ people\ in\ paid\ employment\ in\ the\ nonagricultural\ sector} \times 100 \qquad (6)$$

Typically, economic development implies a structural transition from an agricultural-based towards an increasingly industry- and service-based economy. As a consequence, labor migrates between the three sectors. The ratio of women in wage employment in the industrial and service sectors is therefore meant to indicate the degree to which female workers have access to the modern monetary economy – and thus how they are benefitting from the structural transition. It is assumed that women in wage and salary employment have greater autonomy and self-reliance in personal development and decision making (ILO 2009: 31).

While there is indeed some evidence that wage employment outside of agriculture improves the situation of women (Kabeer 2005), the general discrimination against self-employment and agriculture does not have a firm empirical foundation. There may well be jobs in agriculture and nonagricultural self-employment that provide much better working conditions and more decent pay than wage jobs in nonagricultural sectors. The indicator ignores aspects of remuneration, social protection, and general working conditions, in particular the value that women may attach to the flexibility offered by working on a household farm or in a household enterprise. This is very much in line with the argument above that warns against the general discrimination against self-employment. Wage employment does not necessarily only bring about positive changes in women's lives. In many cases, women continue to be responsible for domestic work and child care, and thus gender inequalities in the burden of work may intensify (Kabeer 2005).

3.6 Summary and Other Indicators

In sum, this critical assessment of the current employment-related MDGs shows that they are often not specific enough – that is, changes in the indicator values do not clearly relate to the achievement of full employment, of decent and productive work for all. We have shown that GDP per person employed is not a specific measure of productive employment, as it also includes factor earnings from capital and land that may accrue to the owners of these factors. Labor productivity may vary considerably across sectors, and GDP may thus increase without any improvement in labor productivity for large parts of the workforce. Because of a multitude of ambiguities, the employment-to-population ratio (EPR) lacks both validity and relevance. A high EPR is not necessarily a sign of a well-functioning labor market, and a low EPR doesn't always reflect a lack of employment opportunities. The working poverty rate comes close to fulfilling the SMART criteria, and by linking poverty and employment data it partially reflects the adequacy of pay. Yet the use of aggregate data is based on assumptions that are often violated in developing countries. The vulnerable employment rate is again not a specific indicator. The assumption that own-account workers and contributing family members generally suffer from more vulnerable working conditions than wage workers is not confirmed by empirical evidence. A similar critique can be applied to the share of women in wage employment in the nonagricultural economy.

In the current debate on a post-2015 framework, a number of proposals from development institutions and think tanks have also considered measures of employment. Annex 2 presents a selection of such proposals. Most of the recommendations build upon the above MDG indicators as well as the ILO decent work indicators.[5] They offer some interesting additions and alternative indicators, but they often fail to systematically address those shortcomings of previous indicators that we have discussed above.

Several proposals attempt to operationalize the decency of pay, such as the low pay rate (percentage of *wage-dependent* workers who receive less than two-thirds of median earnings) (ILO 2013: 4). While this important dimension of decent work certainly needs to be addressed, this specific measure disregards the main source of employment and income in most developing countries – namely, self-employment.

Another proposal made by the ILO and other organizations calls for a reduction of the *share of informal employment in total employment*. Although precarious working conditions may be more prevalent among informal sector workers, the same argument as for the vulnerable employment rate can be applied: Assuming informal sector employment to be more vulnerable per se than formal sector employment neglects the immense heterogeneity of informal

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5   In 2008, the ILO adopted a framework of statistical and legal Decent Work Indicators covering 10 aspects of decent work (employment opportunities; adequate earnings and productive work; decent working time; combining work, family, and personal life; work that should be abolished; stability and security of work; equal opportunity and treatment in employment; safe work environment; social security; and social dialogue, employers' and workers' representation).

sector activities in terms of productivity, profitability, and income stability. A lack of basic social security benefits and of decent working conditions are worrisome deficits found not only in informal firms but also in formal ones (including major corporations operating globally). Ultimately, whether or not such an indicator (and target) is specific depends on the precise definition of informality. Informality is not a uniformly defined concept, and features of informality may differ strongly across countries, rendering cross-country comparisons difficult. In practice, the proposals are likely to end up equating informal employment and self-employment, which brings us back to the above arguments against such indicators.

Quite a number of proposals address the lack of indicators on working conditions. They hence propose capturing hazardous work (Bates-Earner et al. 2012; ITUC CSI IGB 2012) and time-related under- or overemployment (ITUC 2012). While this would be desirable in order to better reflect decent working conditions, there is basically no data on occupational safety and health for developing countries. For working time, data limitations add to the conceptual problem of identifying a reference value for adequate working hours that would take into account the reasons for working short/long hours as well as people's availability and willingness to work additional/fewer hours.

Further proposals for indicators that better operationalize decent working conditions include the *share of workers without a work contract* (Lay and Prediger 2013) or the *precarious employment rate* – that is, the share of the employed whose contract of employment is of relatively short duration or whose contract can be terminated on short notice (ILO 2012c). Besides the obvious drawback of only depicting the situation of employees, the sheer existence of a contract may be a good proxy for higher job security and more stable income flows, thus reducing economic risk for the employed. Yet, work contracts can have very different formats and specifications – for example, with regard to contract duration and employee rights. Contract compliance and opportunities to enforce contractual obligations also vary between regions. In addition, different national customs and regulations as well as varying ways to inquire about contract status in surveys make it difficult to identify a common measure.[6]

4   Proposal for a New Employment Target and Set of Indicators

Based on the above conceptual considerations and building on the assessment of selected indicators, this section proposes a new employment target and corresponding indicators. In general, the multidimensional target formulation of both the employment MDG target and the current proposal by the Open Working Group is an important strength. It avoids some of the criticisms leveled at other MDG targets, such as a missing focus on quality (for example,

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6   The necessary information on work contracts is available in some household and labour force surveys. A simple comparison between datasets from Uganda and Peru shows that the methodology for gathering information on the contractual status of wage workers can differ greatly between countries, as well as within countries at different points of time.

Target 2.A on full primary education) and the general absence of (any) equity considerations in the MDG agenda. We hence subscribe to the idea that an employment target should cover quantity, quality, and equity aspects. These aspects can be subsumed under a target to "achieve full and productive employment and decent work for all." The implicit weight given to the different aspects of this employment target will ultimately be determined to an important extent by the chosen indicators.

While full employment should be explicitly mentioned in the target, our conceptual considerations and the assessment of the employment-to-population ratio have demonstrated that the underlying drivers, participation and unemployment, are subject to ambiguity if quantitative aspiration levels are formulated. This is because the desirable state of full employment depends on the level of economic development and the specific labor market conditions. In our view, this precludes setting specific indicators for full employment.

For most qualitative components of decent work, such as wages, occupational safety, and health, there is no such ambiguity. Yet, an indicator for decent working time would suffer from ambiguity, similarly to the indicator for labor market participation. More practical problems arise when it comes to operationalizing the quality of employment, as illustrated by our discussion of the existence of a formal work contract above. This holds in particular for occupational safety and health. While good data collection practices can be found, for example, in the European Union (Burchell et al. 2014), there is almost no data available for developing countries.

In light of these problems, we suggest focusing on the income component of decent work. We implicitly assume that, often, income is strongly correlated with the nonmonetary dimensions of decent work, particularly those related to occupational safety and health. In addition, we stress that decent work enables a person to generate an adequate income. We refer to this below as decent pay.

As regards social protection, we argue in favor of setting a separate social protection goal rather than including an element of social protection in an employment target. The corresponding indicators would then not be directly tied to a person's employment relationship but would rather provide information about the total population's coverage by social security schemes. After all, social protection benefits compensate for imperfections in the *insurance* market, not in the *labor* market. Therefore, achieving an expansion of social protection, including health, old-age, and unemployment insurance, may well be formulated as an independent goal in a post-2015 development agenda.

Regarding equity, we suggest focusing on relative labor-earnings inequality. While we consider equal pay for equal work a worthwhile target as well, any indicator for such a target would need to be able to unambiguously identify "pairs of equal work" that can be compared with each other. While there are techniques for doing this, their sophistication implies that such an indicator would hardly be suitable as an SDG indicator.

The proposed indicators are an attempt to overcome some of the weaknesses of the current indicators of productive employment and decent work and to explicitly introduce an element of equity. We only propose conceptually valid and feasible indicators that allow for the quantitative measurement of progress towards (or regression from) specific, important aspects of productive employment and decent work. Applying the SMART criteria from above, we obtain a catalogue of four indicators for the target of "achieving full and productive employment and decent work for all": (i) the growth of labor value added per worker, (ii) the working poverty rate, (iii) (a) the share of workers receiving less than an absolute labor income and (b) the share of workers receiving less than 60 percent of the median labor income.

We should note that all indicators can be disaggregated by gender, youth, and other groups of interest to the decision maker. Whether other disadvantaged groups, for example, persons with disabilities or migrants, should be explicitly considered under an employment target is also a question related to the general design of the SDGs. Alternatively, cross-cutting issues of discrimination against specific groups could also be dealt with under separate targets. This would limit the risk of overloading the "thematic," which in our case is the employment targets. Finally, we suggest that target values should be set nationally in order to adequately reflect the country-specific employment challenges and development contexts.[7]

4.1 Indicator 1: Growth of Labor Value Added per Worker

Labor value added is defined as total labor compensation (including income from self-employment) over total employment. It captures both the productivity of the worker and the share of production accruing to labor through factor income earned. Growth of labor value added per worker is driven by higher wages, which may, in turn, be the result of higher productivity. This indicator reduces the problem of nonlabor income being taken as a sign of productive work that plagues the currently employed Indicator 1.4 (growth rate of labor productivity). Single sectors with large shares of income generated by natural resources or capital do not bias the overall indicator. A decline in labor value added per worker unambiguously indicates that wages and/or employment creation have not kept pace with economic growth. In countries where labor value added is not provided frequently enough by the national account system, it can be approximated by GDP minus factor payments for capital and land, taxes, and tariff revenues. Labor value added can also be calculated using nationally representative household data by dividing total labor earnings by total employment. This microeconomic calculation approach can be considered an upper-bound estimate since

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7   If development goals are only determined at the global level, the performance of a few large and fast-growing countries (such as China, India, and Brazil between 2000 and 2015) will determine any global outcome (van der Hoeven 2012: 11).

it includes profits from self-employment under total labor income.[8] The attribution of these profits to labor, capital, or land is unclear since income from self-employment represents returns on labor inputs, land use, and capital investments. While some researchers have argued in favor of attributing two-thirds of mixed incomes to labor and one-third to capital, we believe that taking total labor income including profits from self-employment is appropriate, especially in the context of developing countries, where capital and land is typically owned by the entrepreneur and tied to his/her labor input.

The indicator would be to increase labor value added by a certain country-specific percentage by 2030. Some limitations in using the indicator may arise from intertemporal and international differences in the calculation of labor value added as well as from the integrity and quality of national statistics if the indicator is being produced from aggregate data.

4.2 Indicator 2: Working Poverty Rate

The working poverty rate captures the concept of decent work fairly well – in the sense that decent work enables workers and their families to earn a decent livelihood. In addition to using national poverty lines, the WPR should also be reported with respect to the international poverty lines of Int$1.25 and Int$2 in order to allow for cross-country comparisons. Regarding its operationalization, we want to stress that it should be computed using household or labor force survey data. The indicator would be to reduce the incidence of working poverty by a certain country-specific percentage by 2030.

4.3 Indicators 3a and 3b: Proportion of Working People Earning Less than an Absolute and a Relative Minimum Labor Income

Although the WPR measures productive employment in terms of livable income at the household level, we think that this still inadequately reflects the decency of individual labor earnings. Thus, we propose two indicators for decent pay. These indicators represent the proportion of working-age people receiving a labor income below nationally or internationally defined minimum income levels ("minimum labor earnings"). These minimum-labor-income levels should be specified in both *absolute* (for example, with reference to the international World Bank poverty lines or national poverty lines) and *relative* terms (for example, 60 percent of the median labor income). Using an absolute threshold allows for unambiguous interpretation: labor-income levels directly affect one's material livelihood, and ceteris paribus, higher earned income is preferred over lower earned income. In addition, defining a relative "decent labor-income threshold" as a certain percentage of the mean or median labor income puts more emphasis on equity since the indicator will not respond to labor income increases that do not affect the distribution of labor earnings.

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8   Note that household survey data are known to produce much lower estimates of income compared to national accounts (Deaton 2005). So while the inclusion of capital income from self-employment induces an upward bias, the very use of micro data implies a downward bias.

Conceptually, we would prefer to use mean labor income as a reference for a relative indicator. It is more sensitive to income gains in the richer parts of the employed workforce than the median. This means that the indicator will increase if the mean of the labor income distribution increases, while the distribution will remain unchanged below the mean. Yet, practically, estimates of mean incomes from household or labor force survey data are prone to errors, particularly because of reporting biases for higher incomes. This is why the median labor income is the more robust reference, though the resulting indicator will not respond to changes in the income distribution above the median. We propose to use 60 percent of the median as a relative threshold, a choice that is motivated by the fact that the European Union, for example, bases its poverty figures on this percentage of the median per capita income, with people below this threshold considered "at risk of poverty." Some caution is warranted when interpreting the proposed simple relative indicator, particularly when comparing it across countries. What is key is the meaning of the reference income, the median labor income, which depends on the shape of the labor income distribution in combination with the structural features of a specific economy. In a country where the median earner is a subsistence farmer or entrepreneur (for instance, in a number of sub-Saharan African economies), the income distribution below the median will be very flat, and probably only a small fraction of people will earn less than 60 percent of the median labor income. In other words, the inequality of labor income among a large and fairly poor population is low. It is obvious that an income distribution with a higher median income, with the accompanying cost of higher inequality among those below the median labor income, may be more desirable. It is hence advisable to have the proposed combination of absolute and relative indicators.

For the absolute indicator, an international minimum-labor-income level would be an appropriate threshold. Such a reference could be derived using the methods applied to compute the international poverty line. Instead of national poverty lines, which are the basis of empirical work on the international poverty line (e.g. Chen and Ravallion 2010), one would use minimum labor incomes, typically "minimum wages." To account for heterogeneity with respect to the current level of economic development, a separate calculation for low- and middle-income countries (regional differences could also be taken into account) could be performed. Due to the practical challenges involved in the computation of this "international minimum labor income," which are beyond the scope of this paper, we propose simply using established per capita poverty thresholds, the national and international poverty lines, to proxy a minimum-labor-income threshold.

Another practical aspect is the choice of the reference period – that is, whether to consider hourly, weekly, or monthly labor income. The hourly income level would be most appropriate for cross-country comparisons because the average workload needed to gain a certain income may vary substantially among people within an economy as well as across countries. Moreover, hourly income is related to labor productivity, the means of achieving productive employment. However, information on working hours or hourly earnings is often unavailable,

incomplete, or unreliable for developing countries, particularly because of the high prevalence of self-employment. This is why we propose using monthly earnings irrespective of working hours. The two indicators would thus be to reduce the share of workers below both the absolute and the relative labor-income threshold by a country-specific percentage by 2030.

4.4 SMARTer Indicators

Labor value added growth and the working poverty rate can be clearly and unambiguously interpreted, and it is also fairly straightforward to formulate corresponding country-specific aspirations. This also holds for the share of workers earning less than a specified labor income, but not for the relative "equity" indicator. This is of course not unique to this specific indicator of inequality, as any such indicator entails a value judgment on the weight assigned to the welfare of individuals at different quantiles of the distribution of labor earnings. Since only those who earn less than 60 percent of the median labor income are taken into account, the implied weight given to the distance to earners of very high incomes is zero.

All the proposed indicators can be measured using available data (living standard measurement surveys, national household surveys, or labor force surveys). The lack of detailed comparable data on working conditions also explains our focus on income. It would certainly be desirable to better reflect working conditions with regard to health, safety, and working hours in the SDG indicators. Yet it is not conceivable that the necessary data will be available for a sufficient number of countries in the short term.

Finally, the proposed indicators are clearly relevant, as they can deliver important information for decision makers. If based on micro data, all the indicators can be broken down – for example, by occupation, sector, gender, education, and migration status. This can help to identify groups that are particularly affected by working conditions that are not "decent." Depending on the overall setup of the SDGs, specific subgroup indicator values could hence be derived for each indicator. The indicators with regard to the minimum labor income can also inform policy interventions such as the setting of a national minimum wage.

5 Empirical Illustration of the Proposed Indicators

This section illustrates the application of the proposed indicators using the examples of Uganda and Peru. We believe that these two cases are well suited to demonstrating the advantages and challenges associated with the proposed indicators in different settings.

Specifically, some of Uganda's characteristics make it a suitable representative for other low-income economies, particularly the predominance of the agricultural sector, urban employment that is largely informal, and a high labor force participation rate. Despite impressive growth over the past 20 years compared to the African average, Uganda is still a low-income country. Income poverty has been reduced considerably from over 70 percent of the population in the early 1990s to approximately 38 percent in 2009 (headcount ratio applying

the PPP Int\$1.25 poverty line) (World Bank 2010). In this process, agricultural and nonagricultural self-employment have played an important role, as they account for more than two-thirds of employment in Uganda (authors' own calculations based on the *Ugandan National Household Survey* (*UNHS*) *2005/2006* and *2009/2010*). This does not even include other contributing household members on and off the farm, who account for another 20 percent of the workforce. While the share of urban population has been increasing, it still has not reached 15 percent (as of 2010). In the illustrations below, we use data from the *UNHS* for the years 2005/2006 and 2009/2010. This survey sampled approximately 7,400 households with more than 41,200 individuals in 2005/2006 and 6,775 households with more than 36,400 individuals in 2009/2010.

Peru is an upper-middle-income economy. Like Uganda, it has demonstrated good growth over the past 15 years, together with a constantly declining poverty headcount ratio, from 12.4 percent in 2000 to 4.9 percent in 2010 (World Bank 2014). Compared to Uganda, Peru's share of self-employment is lower and has decreased slightly since the middle of the last decade, but the majority of the workforce is still self-employed (over 54 percent in 2009). In terms of sectoral composition, Peru has a fairly large service sector, which is the source of more than 55 percent of total employment, while Uganda is largely dominated by agricultural activities (73 percent). The basic characteristics of the Peruvian labor market are comparable not only to those of some Latin American economies, such as Mexico or Colombia, with still-large shares of self-employment, but also to those of Asian middle-income economies, including Indonesia and Thailand. For Peru we use household data from the *Encuesta Nacional de Hogares* (*ENAHO*) for the years 2005 and 2009. The survey comprised more than 25,600 households (with almost 93,000 individuals) in 2005 and 26,600 households (with over 96,000 individuals) in 2009.

5.1 Growth of Labor Value Added per Worker

We compute labor value added per worker for both countries and the respective years as the sum of all wages and net profits divided by the number of persons employed.[9]

Table 2 below depicts the development of labor value added per worker in Uganda and Peru. The estimates are well in line with the overall economic performance of both countries over time. In Peru, labor value added per worker grew by approximately 7 percent annually between 2005 and 2009, starting at 9,323 Peruvian nuevo soles in 2005 (Int\$3,424 in PPP),[10] while the annual gross national income (GNI) per capita growth rate was 6.3 percent for this period (World Bank 2014). In Uganda, which had a per capita income of only Int\$353 in 2005, the annual estimated growth of labor value added per worker was 14.1 percent and hence considerably higher than the GNI per capita growth of only 4.8 percent (World Bank 2014).

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9 Employed persons (1) were employed in the seven days prior to the survey being conducted or (2) were usually employed but were absent from work during the seven-day recall period due to illness, vacation, etc.

10 Note that all prices, both national and international, are 2005 prices.

Closer inspection of the Ugandan data reveals that this strong increase was due to the considerable growth of labor value added in agriculture, while labor value added per worker in nonagricultural self-employment even decreased.

Table 2: Annual Labour Value Added and Growth of Labor Value Added per Worker

Country		2005	2009	Annual Growth (in %)
Uganda	(in constant 2005 Int$)	353	451	6.3
	(in constant LCU)	263,009	446,320	14.1
Peru	(in constant 2005 Int$)	3,424	4,504	7.1
	(in constant LCU)	9,323	13,015	7.1

Source: Authors' own calculations based on *UNHS 2005/2006* and *2009/2010* and *ENAHO 2005* and *2009*.
Note: LCU refers to local currency units (Ugandan schillings and Peruvian nuevo soles).

Technically, the differences between PPP-adjusted values and local currency values in the Ugandan case are noteworthy. The much lower growth of labor value added in constant international dollars in Uganda can, for example, be explained by significant changes in the PPP conversion factors. While the figures in international dollars are useful for cross-country comparisons, which are certainly one important dimension for judging human development progress, the analysis of within-country changes over time should be complemented by indicators measured in local currency. Finally, this exercise illustrates that a possible meaningful aspiration level for this indicator could be the envisaged growth rate of GNI per capita.

5.2 Working Poverty Rate

We now compute the incidence of working poverty in Uganda and Peru. Table 3 shows the poverty headcount ratio and the working poverty rate for Uganda and Peru in 2005 and 2009, using different approaches. We follow national conventions and contrast the results with those obtained using the World Bank's approach to computing internationally comparable poverty rates (applying the Int$1.25/day poverty line to monitor MDG 1). For the production of its official national poverty statistics, Uganda uses a consumption aggregate per adult equivalent and regional poverty lines that further distinguish between rural and urban areas. Peru bases its estimates on consumption per capita and also uses regional poverty lines. The regional poverty lines can differ considerably (the highest in Peru is 52 percent higher than the lowest, and in Uganda it is four times higher than the lowest). Depending on the context, the consideration of equivalence scales and regional price differences is known to matter when measuring poverty and, accordingly, working poverty. These are only two problems related to computing internationally comparable (working) poverty rates, and a more extensive discussion of the issues goes beyond the scope of this paper. Nonetheless, we consider the advantage of having internationally comparable indicators to outweigh these disadvantages.

Table 3: Calculation of the Working Poverty Rate

		Uganda		Peru	
		2005	2009	2005	2009
Poor (headcount – national poverty line)	%	29.3	24.5	55.6	33.5
Poor (headcount – Int$1.25)	%	48.3	35.7	5.6	2.2
Poor (headcount – Int$2)	%	74.0	64.4	16.8	8.7
LPR	%	85.0	86.0	71.7	76.9
Total number of persons employed		10,941,688	11,432,223	13,107,577	15,418,822
WPR (national poverty line)	%	28.7	22.5	55.7	32.0
WPR (Int$1.25)	%	46.4	29.7	5.5	2.0
WPR (Int$2)	%	73.3	60.2	17.0	8.2

Source: Authors' own calculations based on *UNHS 2005/2006* and *2009/2010* and *ENAHO 2005* and *2009*.
Notes: LPR and WPR refer to labor force participation rate and working poverty rate, respectively.

Table 3 shows that poverty decreased in both countries, and the results illustrate the importance of the choices regarding applied methods and poverty lines. In Uganda, the national poverty statistics suggest a moderate decrease in the headcount ratio between 2005 and 2009. Using the international poverty lines, the reduction of extreme poverty (less than Int$1.25 per capita per day) appears much more pronounced, while the application of the higher poverty line (less than Int$2) shows that it has declined less. In the Peruvian case, the national poverty line is much higher than the international lines. Albeit to different degrees, all the poverty indicators decline drastically in the period under consideration.

For the WPR some very interesting patterns emerge, which illustrate the possible value of this indicator in addition to poverty measures. For Peru, the WPR is very close to the headcount ratio – that is, the share of poor workers among all workers is similar to the share of poor people in the population. This holds for all indicators and both periods, thereby implying that progress in poverty reduction correlates with progress in workers' incomes. In Uganda, in contrast, this is only the case in 2005; in 2009, the WPR is between three and five percentage points lower than the headcount index. This means that the working population fares better than the nonworking population and that income from work better enables people to escape poverty than other sources of income. This is in line with the above finding of a considerable increase in labor value added per worker in Uganda and is likely to also reflect higher labor market participation, with more household members contributing to household income as a result of their labor. In general, the fact that overall poverty rates in Uganda are higher than working poverty rates – while the two are more similar to one another in Peru – is likely to be related to the different composition of household income sources in the two countries. In particular, nonlabor incomes, for example, old-age pension or other types of transfers, which partially sustain households without employed individuals, are more commonplace in the Peruvian than in the Ugandan context. In other words, in economies without social support programs people are more dependent on decent labor income.[11]

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11 On a technical note, for both countries the estimates presented are much higher compared to the simplified approach based on aggregate information, which does not consider differences in labor force participation and demographic characteristics between poor and nonpoor households.

5.3   Proportion of Working People Earning Less than an Absolute and a Relative Minimum Labor Income

As explained above, we use established per capita poverty thresholds – that is, national and international poverty lines – to proxy an absolute minimum-labor-income threshold. To compute the proposed relative threshold of 60 percent of median labor income and to ultimately produce estimates of employed people below both thresholds, we first calculate total monthly labor income for each employed person. Calculating this income in a developing country context often poses a number of challenges. One such challenge is the high incidence of unpaid family members in household firms (and farms), an important feature not just of the Ugandan economy. Unfortunately, the intrahousehold allocation of profits accruing from such household-level economic activities is not known. In order to obtain income measures for the unpaid, we have decided to simply divide household business and farm incomes equally among all household members involved in the respective productive activity.[12]

Table 4: Working People Earning Less than an Absolute and a Relative Minimum Labor Income

		Uganda		Peru	
		2005	2009	2005	2009
Total monthly labor income per employed person – median	*Int$*	19.7	28.6	159	240
	Constant LCU (base=2005)	14,625	28,324	263	396
60% of the median	*Int$*	11.8	17.2	95	144
	Constant LCU (base=2005)	8,775	16,995	158	238
Share of workers earning below Int$1.25 (PPP) per working day (Int$31.25 per month)	%	60.6	52.1	14.8	8.8
Share of workers earning below 60% of MEDIAN income	%	37.3	36.4	36.7	36.5

Source: Authors' own calculations based on *UNHS 2005/2006* and *2009/2010* and *ENAHO 2005* and *2009*.
Notes: LCU refers to local currency units.

Table 4 reports the median monthly labor incomes in 2005 and 2009 for both countries, as well as the share of workers aged 15 years and above earning less than the respective thresholds. In line with the previous observations on changes in labor value added and the inci-

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12 A more general problem of micro datasets is missing values. We use a regression-based approach to impute missing labor incomes separately for wage employees, the self-employed in agriculture, and the self-employed in nonagricultural work. Regression-based imputation is a statistical technique to replace missing income values with predicted values derived from available information at the individual level. We control for personal (e.g., age, education, gender) and industrial (e.g., firm size and sector) characteristics, as well as for geographical location (e.g., region, urban–rural).

dence of working poverty, the figures show that labor earnings increased substantially in both countries in the period under review. However, it also becomes directly apparent that Ugandan workers have low earnings: The monthly median labor income was Int$28.6 in 2009, which implies that slightly more than 50 percent of workers earned less than the absolute threshold of Int$1.25 per working day (Int$31.25 per month; we assume 25 working days per month). This share was down from 60 percent in 2005, so some progress can also be seen in individual labor earnings. The latter also holds for Peru, where the share of workers earning less than Int$1.25 per working day declined from 14.8 to 8.8 percent over the same period. Yet what is noteworthy for the Peruvian case is that the share is relatively high when compared to the WPR (5.5 percent and 2 percent in 2005 and 2009, respectively). This implies that employed persons with very low labor earnings live in households that have additional income sources (either other workers with higher labor income or social transfer payments). There is also a marked difference between the working poverty rate and the minimum-labor-income indicator, but the difference is somewhat less pronounced in Uganda.

Table 4 also reports the estimates of the proportion of workers earning less than 60 percent of the median income in both countries. Maybe somewhat surprisingly, this share is very similar in both countries – approximately 36 percent – and has remained relatively constant over time. With Int$11.8 in 2005 and Int$17.2 in 2009, the threshold is very low in Uganda, so the fact that more than a third of workers fall below this threshold is striking. Yet even those with extremely low earnings appear to benefit from general income growth – or, at least, their relative position is not deteriorating. However, it is obvious that there is room for improvement, as in both countries more than a third of workers earn less than 60 percent of median earnings, even though the median earner already earns well below the average labor income in the respective country.

6 Conclusion

This paper contributes to the discussion on employment-related targets and indicators in a post-2015 development agenda. We propose to measure progress towards or regression from a target to "achieve full and productive employment and decent work for all" using four indicators: (i) the growth of labor value added per worker, (ii) the working poverty rate, (iii) (a) the share of workers receiving less than an absolute labor income and (b) the share of workers receiving less than 60 percent of the median labor income. The suggested target and indicators overcome most of the major limitations of the indicators currently in use and put special emphasis on equity – an aspect that has essentially been neglected in the current MDG agenda. The proposed indicators are conceptually valid according to the SMART criteria and allow for the quantitative measurement of progress towards/regression from important aspects of productive employment and decent work. Moreover, the setting of targets at the national level and the possibility of disaggregating each proposed indicator by gender, age, and

other groups of interest to the decision maker allows for the incorporation of additional aspects of equity and inclusion. Nonetheless, the multidimensionality of decent work implies that neither the currently applied employment-related indicators nor those proposed by us are able to capture all of its facets.

A major challenge in measuring decent work stems from the quality, scope, coverage, and periodicity of data collection, since these factors impede cross-country comparisons to a large extent. The proposed indicators are income-focused not because we think that income is a perfect proxy for the quality of work, but because data on conditions of work – for example, working time and occupational safety and health – is simply not available for a sufficient number of countries. There is hence an urgent need to expand the scope of and to harmonize household and labor force surveys as the main data source for employment indicators. This will require the further strengthening of national statistical institutes' capacities.

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Annex 1: Employment-Related Goals and Targets in the Outcome Document – Open Working Group on Sustainable Development Goals (Zero Draft)

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

8.1   sustain per capita economic growth in accordance with national circumstances, and in particular at least 7% per annum GDP growth in the least-developed countries

8.2   achieve higher levels of productivity of economies through diversification, technological upgrading and innovation, including through a focus on high value added and labour-intensive sectors

8.3   promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage formalization and growth of micro-, small- and medium-sized enterprises including through access to financial services

8.4   improve progressively through 2030 global resource efficiency in consumption and production, and endeavour to decouple economic growth from environmental degradation in accordance with the 10-year framework of programmes on sustainable consumption and production with developed countries taking the lead

8.5   by 2030 achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

8.6   by 2020 substantially reduce the proportion of youth not in employment, education or training

8.7   take immediate and effective measures to secure the prohibition and elimination of the worst forms of child labour, eradicate forced labour, and by 2025 end child labour in all its forms including recruitment and use of child soldiers

8.8   protect labour rights and promote safe and secure working environments of all workers, including migrant workers, particularly women migrants, and those in precarious employment

8.9   by 2030 devise and implement policies to promote sustainable tourism which creates jobs, promotes local culture and products

8.10   strengthen the capacity of domestic financial institutions to encourage and to expand access to banking, insurance and financial services for all

8.a   increase Aid for Trade support for developing countries, particularly LDCs, including through the Enhanced Integrated Framework for LDCs

8.b   by 2020 develop and operationalize a global strategy for youth employment and implement the ILO Global Jobs Pact

Annex 2: Selected Proposals for a Post-2015 Development Agenda

Source	Goal	Description	Targets	Employment-Related Indicator
UN Task Team 2015 (ILO, UNCTAD, UNDESA, WTO)	Decent employment to support poverty reduction	Integration of growth-promoting macroeconomic policies with developmental industrial policies and redistributive measures, all geared towards the creation of decent employment. These elements must be combined with a social protection framework aimed at eliminating the causes of poverty and exclusion. Raise the productivity of the poorest workers within an overall sustainable development approach.	1. Employment creation 2. National specific employment targets	– A rate of growth for non-agricultural formal employment that at least keeps up with labor force growth and rural–urban migration – Decent work indicators
Delhi Group on Informal Sector Statistics				– Share of informal employment in total employment
ILO			1. Improved livelihoods for the most vulnerable workers and households 2. Increases in the proportion of "good jobs" 3. Increased participation of women and youth in employment 4. Coverage and level of social protection floors	– Working poverty rate – Share of paid employment by sector (agriculture, manufacturing, services) – Agricultural indicators (e.g., share of households engaged in subsistence farming, output per worker) – Share of informal employment in total employment – Low pay rate (below two-thirds of median hourly earnings) – Employment-to-population ratio by gender and age group – No. of young people not in education or employment – Public social protection expenditure on programs targeting the working-age population

Annex 2: Selected Proposals for a Post-2015 Development Agenda

Source	Goal	Description	Targets	Employment-Related Indicator
CIGI-KDI (Bellagio Goals)	Inclusive growth for dignified livelihoods and adequate standards of living	Inclusive growth is comprised of three elements: High, efficient and sustained growth that creates jobs and economic opportunities; social inclusion to ensure access to those; and social safety nets to protect from livelihood shocks.	*1. Inclusive growth* a) Income poverty b) Economic growth c) Opportunities d) Conditions *2. Standard of Living* a) Shelter b) Well-being c) Social security	– Growth rate of GDP per person employed – Employment rate – Share of population aged 65 and above benefitting from pension
Save the Children	Eradicate extreme poverty and reduce alternative poverty through inclusive growth and decent work	Growth should generate decent work so that workers can benefit from employment. Provide a safety net for those who have no work or are unable to do so.	1. Provide decent work for all 2. Establish a global social protection floor	– Wage share of GDP – Closing disparities in employment: youth and gender (employment rates and pay) – Percentage of children involved in hazardous work (as defined in ILO 182, art. 3d)
Centre for Global Development	Poverty eradication	To expand access to decent work worldwide. To develop and implement strategies that give young people everywhere a real chance to find decent and productive work.	1. Youth employment	– Gap between youth unemployment and total unemployment

Annex 2: Selected Proposals for a Post-2015 Development Agenda

Source	Goal	Description	Targets	Employment-Related Indicator
International Trade Union Confederation	Decent work and social protection	Introduction of a specific goal on full and decent employment, built on the ILO's Decent Work Agenda. Ensuring universal access to basic guarantees of social protection is a human right and a direct and efficient way of reducing inequalities. The new agenda should include a goal on the implementation of social protection floors as defined in the Bachelet Report and the ILO Recommendation 202, which has set an international standard to be applied at the national level.	1. Full employment 2. Investment in green job promotion 3. Reducing precarious work 4. Ensuring a living wage in compliance with international labor rights for all workers 5. Gender equality in the workplace	– Employment-to-population ratio – Employment growth rate – Annual hours worked per employed persons – Labor productivity – GDP per employed person – Proportion of own-account and contributing family workers in total employment – Share of people engaged in informal work relations among the active population – Proportion of employed people living below $1.25 a day – Wage inequality – Low pay rate – Minimum wage as percentage of median wage – Ratification of the eight ILO Core Labour Conventions – Ratification of the ILO Convention No. 183 on maternity protection, No. 156 on workers with family responsibilities and No. 189 on domestic workers – Gender wage gap – Excessive hours – Occupational injury rate (fatal and nonfatal) – Union density rate – Enterprises belonging to employer organization – Collective bargaining coverage rate – Share of population aged 65 and above benefiting from a pension

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