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Social justice
and growth: The role
of the minimum wage

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At what level should countries set their minimum wages?

Patrick Belser

International Labour Office, Geneva

Kristen Sobeck

International Labour Office, Geneva

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At what level should countries set their statutory minimum wages? The academic literature has surprisingly little to say about this simple but fundamental question. A comprehensive review of the existing literature reveals that most research is exclusively concerned with the impact of marginal changes in minimum wage levels (see for example Neumark and Wascher, 2008). On one side, a large number of studies scrutinize the possible adverse effects of marginal changes on the quantity of wage employment in the formal and the informal economy. On the other side, a growing number of articles document the extent of the benefits of marginal changes on reducing low pay and inequality. Together, these studies feed a seemingly never-ending debate among economists about whether minimum wages are desirable or not.

Yet, policy-makers seem to have made up their minds long ago. According to the ILO's *Global Wage Report 2008/09*, minimum wages are a nearly universal policy applied in some form or another in more than 90 per cent of countries in the world (ILO, 2008, p. 34). In all these countries, the main question that policy-makers have to answer is not whether a minimum wage should be adopted or not; it is "How should it be operated?" and "At what level should it be set?" The present paper discusses some relatively easily available indicators that can be used for setting minimum wages at the appropriate level, taking into account country-specific characteristics. The methodology does not contain much sophisticated econometrics, nor does it push the frontier of mathematical modelling. It seeks to make a contribution to a practical question, building on previous work done at the ILO (including ILO, 1992; Starr, 1993; Eyraud and Saget, 2005; Marinakis and Velasco, 2006; Belser and Rani, 2010; Vaughan-Whitehead, 2010; and Lee and McCann, 2011a).

The paper recognizes that the determination of the minimum wage level is a sensitive issue which should be decided by governments after full consultation of – and ideally through negotiation with – social partners. Statistical indicators thus only represent a starting point or a reference point for these consultations. Ultimately, it is up to the national stakeholders to agree on one or more figures, depending on the weight that they attribute to different social and economic objectives. In fact, there is not one "ideal" minimum wage level. The objective of statistical indicators is not to substitute for tripartism or collective bargaining; rather, it is to inform governments and social partners about the range of values for which the benefits of a minimum wage are likely to exceed the costs.

Part I of the paper proposes some preliminary considerations which revolve around the question of how minimum wage policies should be operated. It discusses in particular the role of social partners, the structure of minimum wages, their coverage and implications for the gender pay gap, the definition of what counts as wages, and enforcement strategies. Part II then dives into the question of the level of minimum wages by starting with a review of the criteria listed in the ILO Minimum Wage Fixing Convention, 1970 (No. 131), and a review of the trade-offs involved in minimum wage setting. Finally,

part III proposes some operational indicators, including the calculation of a minimum living wage, the ratio of minimum to mean and median wages, and the estimates of the impact on the total wage bill and the level of prices.

At what level should countries set their minimum wages?

Some preliminary considerations

What exactly is a minimum wage? From a legal perspective, the minimum wage “represents the lowest level of remuneration permitted, in law or fact, whatever the method of remuneration or the qualification of the worker; it is the wage which in each country has the force of law and which is enforceable under threat of penal or other appropriate sanctions”.¹ According to ILO Convention No. 131, the primary purpose of such a minimum wage is to provide protection for wage earners against “unduly low wages”. In other words, a minimum wage aims to set a floor to the distribution of wages, below which no worker can legally be paid.

The role of social partners

Who should set the minimum wage? ILO Convention No. 131 suggests that minimum wage fixing should involve governments, social partners, and independent experts. In designing this system, “provision shall be made for the direct participation” in the operation of the minimum wage system of:

- (a) representatives of organizations of employers and workers concerned or, where no such organizations exist, representatives of employers and workers concerned, on a basis of equality;
- (b) persons having recognised competence for representing the general interests of the country and appointed after full consultation with representative organizations of employers and workers concerned, where such organizations exist and such consultation is in accordance with national law or practice.

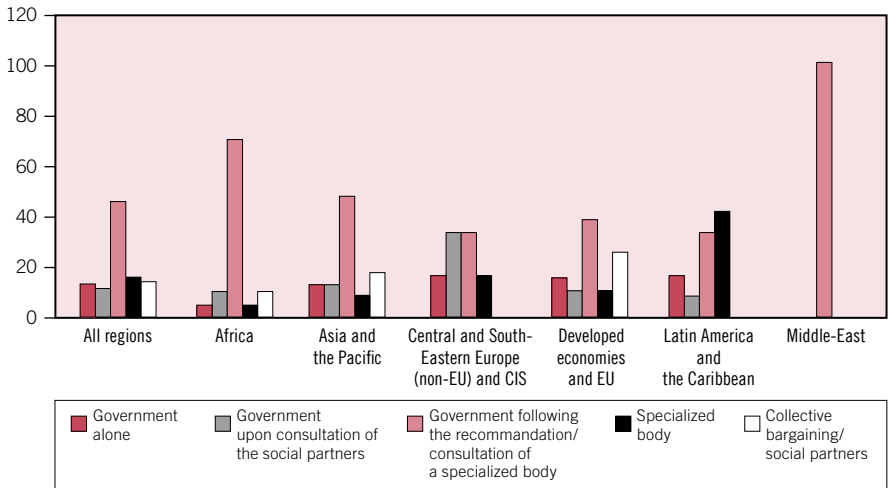
While many countries appear to have set up national “minimum wage commissions”, the actual minimum wage fixing “machinery” typically varies from country to country. ILO Convention No. 131 allows for the fixing of minimum wages by statute, decision of a competent authority, decision of wage boards or councils, industrial or labour courts or tribunals, or simply

1. ILO, 1992, p. 10, quoting from the report of a meeting of experts convened by the Governing Body at its 168th session (Geneva, February–March 1967). Minimum wages fixed by collective agreements made binding by public authorities are included in this definition.

giving the force of law to provisions of collective agreements.² But whatever system is chosen, decisions should not be taken by governments in isolation, but together with representatives of organizations of employers and workers. Social dialogue on minimum wages helps to promote consensus building and democratic involvement among the main stakeholders and encourages good governance. It also prevents erratic adjustments or unexpected changes to the system, which can disrupt economic activity. For social dialogue to work, social partners and policy makers also need timely access to relevant data and analysis from the national statistical office or other academic sources. Hence, sufficient resources should be devoted to the collection of statistics or other relevant data.

Available information from the ILO Database on Conditions of Work and Employment Laws³ analysed in the *Working Conditions Laws Report 2010* (ILO, 2010b) shows that in 13 per cent of countries, governments set minimum wages alone, without prior consultations. In a majority of countries, the government takes decisions either following consultations or recommendations of a specialized tripartite body such as the Low Pay Commission in the United Kingdom or the Minimum Wage Council in the Republic of Korea (45 per cent) or after direct consultation with social partners, as in Brazil, for example (11 per cent). Only in a minority of cases (16 per cent) is the full decision-making power handed over to some specialized body. Wage floors that are negotiated by collective bargaining without any intervention of

Figure 1. Minimum wages and social dialogue (%)



Source: ILO Database on Conditions of Work and Employment Laws.

2. This is the text from the Minimum Wage Fixing Recommendation, 1970 (No. 135).
3. <http://www.ilo.org/dyn/travail>.

the State, but which are made binding by public authorities (as in 14 per cent of countries) are also regarded as minimum wages by the ILO, even though they usually fail to cover vulnerable workers in sectors or industries where social partners are weak or inexistent.

At what level should countries set their minimum wages?

Keeping it simple

Throughout the world, an estimated 90 per cent of all countries have some kind of minimum-wage setting procedure (ILO, 2008). One striking feature, however, is their impressive diversity. Some countries implement relatively straightforward national minimum wages – which are economy-wide wage floors which apply to all workers, with some possible variation by regions or broad categories of workers (in particular young workers or other groups such as domestic workers). Examples include the UK National Minimum Wage or the SMIC in France. Another example is the United States' federal minimum wage, which in 2007 celebrated its 75th anniversary. A number of developing countries also rely on such a relatively simple system, including Brazil (with one national level), China (one level by Province), and much of francophone West Africa.

A minority of countries implement more complex systems of sectoral and/or occupational minimum wages. Systems in which public authorities determine such multiple minimum wage rates for different economic activities or occupations, are relatively more frequent in developing countries. Such minimum wage policies have often been implemented in order to compensate for the absence of collective bargaining in some sectors. In South Africa, for example, the Government sets minimum wages through so-called "Sectoral Determinations" in sectors characterized by a non-unionized and vulnerable workforce. Since 2002, this includes domestic workers and farm workers – categories which include some of the lowest-paid and poorest workers in the economy. Similar systems of mandated minimum wages at sectoral or occupation level exist in a rather large number of countries in Africa, Asia and Latin America.

While both systems are legitimate and depend largely on the historical choices in each individual country, the *Global Wage Report 2008/09* considered that it was preferable to keep the institutional design of minimum wage fixing as simple as possible (ILO, 2008). A similar recommendation emerges from Cunningham (2007). Indeed, simple designs are easier to communicate and make better known to the general public. Hence, even with industry-specific rates, it is advisable to keep their number within a manageable range. In addition, it must be remembered that industry-specific rates were initially considered as a temporary second best option to be suppressed once collective bargaining develops (see Starr, 1993). It is thus advisable to create a decentralized system of wage boards or commissions with the participation of

representatives of workers and employers for each industry. But when these boards or commissions set too many rates, the coordination and coherence of such systems can become a real challenge, and the system ultimately “crowds out” rather than encourages collective bargaining – turning into a permanent rather than a temporary “second best”.

A coordination challenge also arises when countries have minimum wages by region, sector, or occupation. If different regional wage boards do not agree on the criteria for minimum wage setting, there is a risk that similar workers in different provinces of the same country will be paid very different real wage rates. This can create tensions between the different regions, as it may affect the relative competitiveness of different regions and possibly even trigger large internal migration flows. In India, for example, the Indian National Trade Union Congress (INTUC) considered in 2007 that better coordination would avoid a shift of industries from one state to another in a kind of a race to the bottom to attract domestic and foreign investment.

Another complication arises when different aspects of social protection, such as pensions, disability payments, or maternity benefits, are linked to the level of minimum wages. In practice, this means that retirement and other benefits will be adjusted upwards when the minimum wage increases. Although this may be useful to maintain the purchasing power of the poorest pensioners, in practice it has sometimes prevented governments from increasing minimum wages for fear of the adverse impact on social security budgets and therefore makes the minimum wage an ineffective policy. Marinakis and Velasco (2006, p. 13) point out for example that in the 1980s the fall in the real value of the minimum wage in Argentina and Brazil was in fact mostly designed to reduce the budget deficit by cutting the social security expenditures.

Coverage and the gender pay gap

The over-representation of women in low-wage jobs seems to be a universal characteristic of labour markets, and the fact that women predominate in low-wage employment has a negative effect on the gap in average wages between men and women (ILO, 2010a). Part of the explanation in some countries has to do with women’s disadvantageous situation in terms of educational opportunities and, hence, their lower levels of skills and productivity; a situation which calls for policy measures to improve the education and skills (or “employability”) of women. At the same time, in many places the gender pay gap has decreased slowly in spite of an increasing alignment among the educational achievements and work experience between men and women; this points towards the continued existence of discriminatory wage practices against women.

In order to maximize the impact of minimum wages on gender equality, coverage acquires crucial relevance – as the jobs and sectors where women prevail are often excluded from the protection of minimum wage laws. In systems of sectoral or occupational minimum wages, female-dominated jobs or sectors are often the least likely to be covered. But even where national minimum wages are in place, some lower rates are frequently legislated for female-dominated occupations. The archetypal example is the case of domestic workers, who are often paid lower minima or are excluded altogether from the protection of existing labour law because they work in private households rather than in more conventional workplaces such as factories or offices. The new ILO Convention No. 189 on decent work for domestic workers seeks to ensure equal treatment in the future. In Chile, domestic workers are now entitled (since March 2011) to the same national minimum wage as other workers; this was achieved through progressively increasing the domestic workers' rate, which was previously set at 75 per cent of the general rate.

In other cases, even in the presence of collective bargaining, women can potentially benefit from the imposition of a statutory minimum wage. For example, in Finland it was shown that the over-representation of women in lower-paid collective agreements contributed significantly to the gender pay gap (Laine, 2008). Additionally, in Austria, in 2005, while collective bargaining coverage was about 99 per cent, at the lowest decile of earnings the gender pay gap reached 31 per cent, which was in part attributed to differential minimum rates in sectoral collective bargaining agreements; minimum rates in female-dominated sectors were consistently lower than those where males dominate (Rubery and Grimshaw, 2011). In 2009, social partners in Austria negotiated a cross-sector minimum which was inherently aimed at lower paid sectors, where women predominate. Although the cross-sector minimum was not statutory, one might nonetheless expect the agreement to help reduce the gap between men and women's earnings in the future.

What should be counted as wages?

The term “wages” refers to “remuneration or earnings, however designated or calculated, capable of being expressed in terms of money and fixed by mutual agreement or by national laws or regulations, which are payable in virtue of a written or unwritten contract of employment by an employer to an employed person for work done or for services rendered or to be rendered” (Protection of Wages Convention No. 95, Article 1). In principle, wages refer to gross wages before taxes, social security contributions and other statutory deductions and hence differ from the concept of net wages or “take-home” pay. Wages also differ from employers' total labour costs, which in addition to wages include contributions to social security, pension schemes or the costs of vocational training.

What components of the pay package count towards the minimum wage? In general, incentive payments (commissions, centralized tips, or piece rates) count towards compliance. That is, compliance is determined by adding base salary plus, say, centralized tips. However, allowances and premiums for non-standard work hours or overtime are not included – because workers should not be forced to work overtime to obtain the minimum wage. Tips paid directly by the customer to the worker are usually also excluded. In principle, a worker should be entitled to the minimum wage for each hour of actual working time, averaged over the worker's normal pay reference period up to a maximum of one month. For example, at the end of the month all workers – including homeworkers or those with piece rates – should receive the minimum whatever the piece rate or output achieved (Low Pay Commission, 1998).

One frequent question relates to the possibility of wage payment in kind. The ILO Protection of Wages Convention, 1949 (No. 95), recognizes that various allowances in kind may be customary or desirable in particular industries or occupations, and considers that such a method of payment is permissible when it is authorized at the national level. However, the payment of wages in kind may only be additional to cash payment, and therefore partial. The Convention also lays down that payment in the form of liquor or drugs is prohibited. Other conditions are that in-kind allowances are for the personal benefit of the worker and that the value attributed to the allowances is fair and reasonable. Also, cash and in-kind benefits are slightly different, as noted in the System of National Accounts: "Income in kind may bring less satisfaction than income in cash because employees are not free to choose how to spend it. Some of the goods or services provided to employees may be of a type or quality which the employee would not normally buy" (United Nations, 1993, para. 7.38).

Enforcement

While criteria for minimum wage setting are essential, so are measures to ensure compliance. Like other parts of labour law, minimum wages are seldom spontaneously complied with. Even under the most optimistic scenario, it would be unrealistic to assume that complete compliance can be achieved quickly in any country. Yet, there are measures that can be taken and which can dramatically increase the rate of compliance. First, simple systems that can be easily communicated to workers, employers and civil society will be easier to enforce. ILO research has shown that workers who know what they are entitled to are also more likely to be paid accordingly (Lee and McCann, 2011b). Even in the informal economy, a widely known wage standard can have a positive effect by altering workers' and employers' expectations – the so-called "lighthouse" effect (for a recent discussion on this effect in Brazil, see Boeri, Garibaldi and Ribeiro, 2010).

Second, compliance is a function of the probability of firms being visited by labour inspection services and of the level of penalties in case of non-compliance (Squire and Suthiwart-Narueput, 1997). Hence labour inspection strategies and the legal framework play a crucial role. The role of social partners is also important in ensuring observance of labour laws. Employers' organizations and trade unions can apply pressure on underpaying employers, while social peer pressure can also discourage abusive practices by employers. Third, policy coherence is also essential. If they pay the minimum wage, programmes such as national employment guarantee schemes can effectively sever labour supply to underpaying businesses – which can make compliance all the more likely (see the paper by Rani and Belser in this issue). For a fuller review of challenges and creative solutions to the implementation problem, such as the use of public procurement or social labelling, see Benassi (2011).

A balanced approach to minimum wage setting

Criteria for minimum wage fixing

We now turn to the main question of this paper: at what level should minimum wages be set? None of the ILO's international labour standards provide any mathematical formula. The ILO Minimum Wage Fixing Convention, 1970 (No. 131), in its Article 3 states the following:

The elements to be taken into consideration on determining the level of minimum wages shall, so far as possible and appropriate in relation to national practice and conditions, include:

- (a) the needs of workers and their families, taking into account the general level of wages in the country, the cost of living, social security benefits, and the relative living standards of other social groups;
- (b) economic factors, including the requirements of economic development, levels of productivity and the desirability of attaining and maintaining a high level of employment.

These same criteria are listed in the Minimum Wage Fixing Recommendation, 1970 (No. 135), without further clarifications. It is to be noted here that these criteria are quite abstract but convey the message that national minimum wage fixing authorities should try to strike a balance between economic and social concerns (Starr, 1993). The exact interpretation and relative importance of each of the criteria are left undefined. In fact, the above criteria do not claim to give final and unequivocal answers to the question on how exactly a suitable minimum wage level should be calculated. The relative weight given to the different elements is a subjective choice (ILO, 1992).

Timing and criteria for the adjustment of minimum wages

Minimum wages are distinguished from other labour standards by the rapidity with which they can become obsolete; indeed, they must be regularly adjusted if they are to maintain their relevance. While Recommendation No. 30 only suggests that with regard to industry-specific minimum wages “provision should be made for the review of the minimum rates (...) when this is desired by the workers or employers”, the later Convention No. 131 considered that minimum wages need to be “adjusted from time to time” (Article 4). The Minimum Wage Fixing Recommendation No. 135 is more explicit and states as follows:

11. Minimum wage rates should be adjusted from time to time to take account of changes in the cost of living and other economic conditions.
12. To this end a review might be carried out of minimum wage rates in relation to the cost of living and other economic conditions either at regular intervals or whenever such a review is considered appropriate in the light of variations in a cost-of-living index.

Therefore, based on the analysis of these two Conventions on the subject, it is possible to infer that there was an evolution in the understanding of the need to periodically readjust the levels of minimum wages, leaving open the possibility that this be done at regular intervals or not. It is interesting to note that the Minimum Wage Fixing Convention, 1970 (No. 131), does not draw any distinction between the criteria used for fixing minimum wage rates and the criteria used for adjusting them. So, in principle, the criteria for setting minimum wages should also be the criteria for adjustment. Yet, because it is generally not feasible to take all criteria into account each time an adjustment is made, a set of dynamic and simplified criteria are widely used for this purpose (ILO, 1992).

The trade-offs in setting and adjusting the level of the minimum wage

The balanced approach recommended in ILO standards reflects the fact that a minimum wage is a redistributive tool which has both costs and benefits (see for example Freeman, 1996). On the benefit side, the literature from both developed and developing countries shows that minimum wages, by creating an effective floor in the distribution of wages, can succeed in reducing wage inequality or, more frequently, in limiting its increase. Recent academic research shows that inequality has increased in recent years in both developed and developing countries, “leaving more and more people behind” (OECD, 2008; see also Goldberg and Pavcnik, 2007). The ILO’s *Global Wage Report 2008/09* calculates for example that more than two-thirds of countries for

which data are available have experienced a growing gap between the best-paid 10 per cent and the worst-paid 10 per cent of wage earners. The proportion of employees with “low pay” relative to the national median wage has also increased in more than two-thirds of countries for which data are available.⁴ In such a context the minimum wage can be a useful instrument to limit the level of inequality and the number of “working poor” (workers living in poor households), and to ensure that low-paid workers also benefit from overall economic growth. Women may even benefit disproportionately from such a policy given their over-representation at the bottom of the wage distribution.

While these effects benefit some workers in particular, they may also benefit society at large. Indeed, low and stagnating wages at the bottom can undermine public perception that policies are fair or lead to a better future. This can lead to social conflict and political instability.⁵ It may be worth recalling that the Preamble to the ILO Constitution considers that “universal and lasting peace can be established only if it is based upon social justice”. More recent research shows that perceptions about inequality are one of the key determinants of social unrest (IILS, 2010). The political changes which occurred in the context of the “Arab spring” of 2010–11 were at least in part driven by perceptions that economic growth had not been distributed equitably across the population. As pointed out by Rodrik, markets are social institutions, and their continued existence is predicated on the perception that their processes and outcomes are legitimate: “Social disintegration is not a spectator sport – those on the sidelines also get splashed with mud from the field” (Rodrick, 1997).

Yet, minimum wages – if set too high – will be counterproductive. They may set off price inflation, hurt employment and turn out to be unenforceable by small and medium-sized enterprises. One particularly controversial debate revolves around the methodologies to measure the impact of minimum wages on employment. But it is intuitive that when the floor is set much too high, enterprises that are forced to implement these floors will be driven into bankruptcy.⁶ By contrast, a majority of research now considers that the impact of minimum wages which increase labour costs only moderately can be absorbed by companies through a combination of internal redistribution, lower profits, higher prices, reduced turnover, and measures that increase labour productivity. One analysis by the OECD (2010, p. 197) concluded for example that in advanced countries “statutory minimum wages have at best second-order

4. Low pay is defined here as workers paid less than two-thirds of the national median wage.

5. See, for example, ILO: *World of Work Report 2010*, Chapter 2.

6. Here it must be noted that even when minimum wages are set at the appropriate level, some enterprises based on exploitative wage practices may go into bankruptcy. When this concerns only a small proportion of firms, though, the result may simply be some reallocation of resources towards more productive firms. Hence singular examples of bankruptcy of inefficient firms do not mean that the minimum wage necessarily has an overall negative impact on employment.

impacts on labour reallocation". A similar conclusion was reached by the tripartite Low Pay Commission in the United Kingdom (see box 1).

One reason for the apparent absence of adverse employment effects predicted by orthodox economists is perhaps that the overall level of employment in any economy ultimately depends on the level of aggregate demand for its goods and services as well as on the overall labour supply. And whereas higher wages may lead to lower investments by firms, this negative effect on aggregate demand can be more than compensated by the increased ability of low-paid workers to spend their incomes on consumption. In any event, the effects of minimum wages (both positive and negative) on macroeconomic indicators tend to be diluted by the various ways and mechanisms through which firms and countries absorb relatively small shocks on aggregate labour costs.

In light of the trade-offs and the fact that – by definition – only wage earners can benefit, minimum wages alone cannot suffice for the overcoming of poverty and the satisfaction of the minimum needs of all workers

Box 1. The employment effects of the UK National Minimum Wage after 10 years

In 2010, the minimum wage was identified as the most successful government policy of the past 30 years in a survey of British political experts.¹ In this survey, a successful policy was defined as one which is successfully implemented, has a positive social and economic impact, and can be sustained over time. The UK minimum wage had been introduced in April 1999, after reforms in the 1980s had ended collective bargaining in many industries and abolished the former system of wage councils.

Perhaps most importantly, the much-feared negative impact on UK jobs failed to materialize. In 2009, the independent Chairman of the Low Pay Commission – the body which oversees the policy – recalled that "at its inception, the National Minimum Wage had its detractors. Many believed it would bring both unemployment and wage inflation. But a large volume of research has demonstrated that the minimum wage has not had a significant impact on either measure over its first ten years."²

The Commission's previous Chairman shared this view. He wrote: "Ten years ago, as the minimum wage was about to be introduced, it was just this fear of job losses that dominated discussion. (...) In fact, since the introduction of the National Minimum Wage, the Low Pay Commission has been at the forefront of the search for evidence of any damage caused by the minimum wage to the economy or to jobs. So far we have not found any significant negative effect, either in the work we have done ourselves or in the work we have commissioned from others. And we have looked long and hard in all the places that are most likely to reveal such an effect."³ Indeed, the Low Pay Commission devotes considerable resources every year on independent research which it posts on its website.⁴

¹ See www.bbc.co.uk/news/uk-politics-11896971?print=true. ² Low Pay Commission (2009), p. ix. ³ Low Pay Commission (2008), pp. vi–vii. ⁴ See <http://www.lowpay.gov.uk/>.

Source: Low Pay Commission Reports.

(ILO, 1992, p. 11). Indeed, a minimum wage should not be confused with a “minimum income policy”, which provides for minimum living conditions regardless of whether a person is a wage earner. Overall, the levels of incomes of workers’ households also critically depend on the existence of targeted income transfers and social security schemes as well as on their levels of taxation. So-called “in-work benefits” in the form of tax relief for low-paid workers can make a major contribution to the welfare of the poor without compromising the volume of employment.

In fact, minimum wages and in-work benefits are best seen as complementary policies, for in the absence of the former, employers may feel that they can reduce some labour costs by shifting them to tax credits. When in-work benefits remain a difficult policy option, broader income-transfer measures, which are not related to the employment status, can be used. Examples include *Bolsa família* in Brazil or the Child Support Grant in South Africa. The point here is that the minimum wage is only one of a set of different policies that can help increase the standard of living of low-paid workers and thereby reduce the rate of poverty and the level of inequality (ILO, 1992). Also, it must be kept in mind that while wages are paid to individuals, the poverty status is measured at the level of the household, whose total income depends not only on wages of household members but also on income from other sources, such as property income or social transfers.

Indicators for minimum wage setting

How can the criteria for minimum wage setting listed under ILO Convention No. 131 be operationalized? Based on international practice, the present paper suggests that social partners, governments and experts may find it useful to base their discussions on a few well-defined indicators, such as for example:

- (a) a minimum living wage threshold;
- (b) the ratio of the minimum wage to the average (mean and median) wage;
- (c) the number of employees directly affected by the minimum wage, and the impact on the country’s total wage bill.

The minimum living wage calculation

In many countries, the concept of the minimum wage has been intimately linked to the concept of a living wage. The Preamble to the ILO Constitution called for “the provision of an adequate living wage”. Later, this notion of an “adequate living wage” was transformed into the concept of a “minimum living wage”. Both the 1944 Declaration of Philadelphia and the 2008 ILO Declaration on Social Justice for a Fair Globalization called for “a minimum

living wage to all employed and in need of such protection". Therefore, according to the 1992 ILO General Survey, the "concept of a minimum wage level that cannot be abated implies the concept of a minimum living wage" (p. 10).

The difficulty lies with the definition and measurement of a minimum living wage. While it is generally accepted that a minimum living wage should provide workers and families with a decent standard of living (as stated in the United Nations International Covenant on Economic, Social and Cultural Rights), views diverge on the quantities of specified goods and services that are necessary to achieve this objective. One lower benchmark for living standards is provided by poverty lines. There exist both national poverty lines (defined at national level) and international poverty lines (calculated by the World Bank), which are usually based on the "cost of basic needs" for adequate nutrition (often 2100 calories per person per day) and other non-food essentials such as clothing, shelter, and other items.⁷

The lowest international poverty line from which the World Bank calculates global poverty estimates is set at US\$1.25 per day in PPP (purchasing power parity), while a second international benchmark is set at US\$2.00 PPP per day. In addition, country-specific national poverty lines are often published by national institutions or by the UNDP through their national Human Development Reports. In general, it should be noted that there are substantial debates about the adequacy of international poverty lines. A number of authors have questioned the relevance of such low thresholds as US\$1.25 and US\$2.00 PPP per day. According to Reddy (2008), for example, these poverty lines are far too low to cover the costs of purchasing basic necessities. Ravallion (2008) from the World Bank acknowledges that poverty is a socially specific concept and that international poverty lines are based on the standards of poor countries and most useful for the purpose of international comparison. Because different countries may have different perceptions of who is poor, it is more useful to base policy decisions on national rather than on international poverty lines.

How can poverty lines be used to calculate a minimum wage? As discussed in Anker (2006), a minimum wage will allow a typical household to escape poverty when the poverty line is multiplied by the household size and divided by the number of household members who work full time. In this case, the definition of a typical household may also wish to be defined using the particular characteristics of households with low incomes (hence those households most likely to benefit from the minimum wage). Household size may be defined in terms of "adult equivalent", which takes into account economies of scale (the fact that it costs less to feed and house a couple than to feed and house two single individuals) as well as the different needs of different individuals (particularly the lower consumption needs of children). Using the standard "OECD scale" the first adult counts as one adult, the

7. See the World Bank Poverty Manual at <http://siteresources.worldbank.org/PGLP/Resources/PovertyManual.pdf>.

second adult counts as 0.7 adults and children are given a weight of 0.5. Thus, the formula becomes:

$$\text{Minimum living wage} = \frac{(\text{poverty line} \times \text{adult equivalents in the household})}{\text{household members who work full time}}$$

It may be that national stakeholders consider that the minimum wage should provide for more than just relief from poverty, and also cover additional health or education expenses. It is of course up to them to define the

At what level should countries set their minimum wages?

Box 2. An illustration for Egypt in 2008–09

To estimate a “minimum living wage” one will need at the very least some reliable data on national poverty lines, on household size, and on working time. As an illustration we take the case of Egypt, where data on household size and working time were provided mostly by the Central Agency for Public Mobilization and Statistics (CAPMAS), which is the country’s national statistical office, while poverty lines are published in UNDP’s Egypt Human Development Report. According to the latter source, the national poverty lines defined the “poor” as people living on less than £2,223 in 2008–09 and the “extreme poor” as people living on less than £1,648 per year. Dividing these figures by 12 months, we obtain monthly poverty lines of £185 and £137, respectively. For the sake of illustration, we use the higher figure for our minimum living wage estimation.

According to official data, the average household size in Egypt is estimated at roughly 2 adults and 2.5 children. To calculate the number of “adult equivalents” we then use the following OECD formula:

$$\text{Adult equivalents} = 1 \text{ adult} + 0.7 \times 1 \text{ adult} + 0.5 \times 2.5 \text{ children} = 2.9$$

In terms of the labour market, Egypt is characterized by a very low participation of women in the labour force and a high rate of female unemployment. As a result, the actual employment-to-population ratio among the working-age population stands at only about 50 per cent, meaning that in most cases only one adult (the man) can realistically be expected to draw a wage from the labour market. As in many developing countries, the normal hours of work limit is set at 48 hours per week, typically spread over six days per week. Thus, to obtain the number of hours worked per month we multiply 48 by 52 weeks and divide it by 12 months to obtain 208 hours per month. With this information, we can now calculate a poverty-based “minimum living wage” for Egypt with the following formula:

$$\begin{aligned} \text{Minimum living wage (monthly)} &= \frac{(\text{£185 per month} \times 2.9 \text{ adult equivalents})}{1 \text{ full time equivalent worker}} \\ &= \text{£537/month} \end{aligned}$$

or

$$\begin{aligned} \text{Minimum living wage (monthly)} &= \frac{(\text{£185 per month} \times 2.9 \text{ adult equivalents})}{208 \text{ hours worked per household}} \\ &= \text{£2.6/hour} \end{aligned}$$

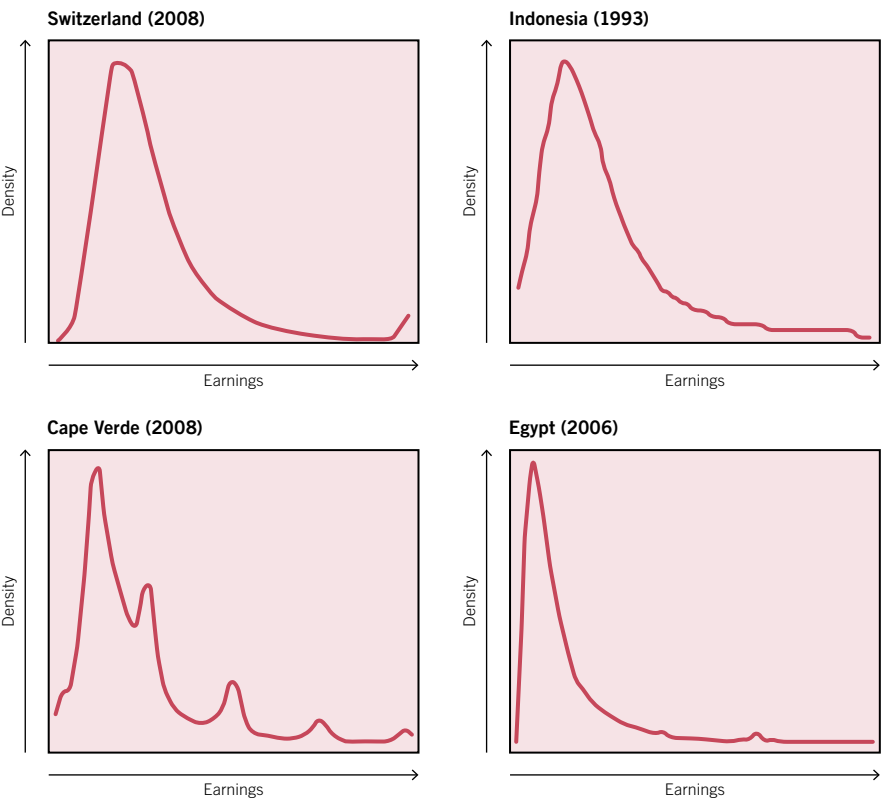
We find that in order to lift a “typical” Egyptian household out of poverty in 2008–09, the minimum wage should have been set at £537 per month (or £2.6 per hour) – substantially higher than the prevailing level of £35 per month where it was set in 1984.

minimum living wage in their national circumstances. The present section merely offers a formula which can also be used with a higher level “poverty line”. Also, while the minimum living wage calculation is unaffected by the industry in which workers are employed or by the workers’ occupation (the things a salary can buy does not depend on whether one is a cook, a nurse, or a bus driver), regional differences in price levels can have a large effect on the costs of basic needs. Such regional differences will show up in regional poverty lines. For countries which have regional minimum wages, regional rather than national minimum living wages should be calculated.

Minimum to average and median wages

While the minimum living wage calculation takes into consideration the needs of workers and their families, it turns a blind eye to the “economic factors”. Another insufficiency is that in assessing the needs of workers and their

Figure 2. The skewed distribution of earnings



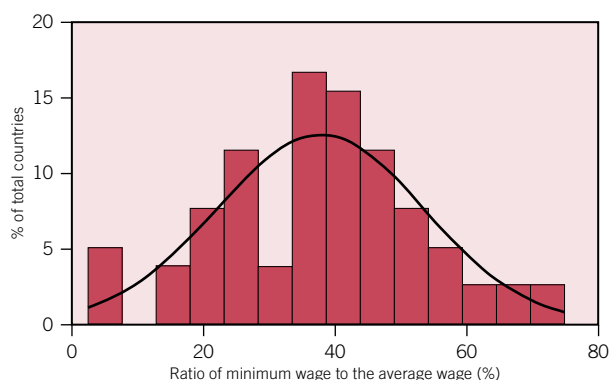
Sources: Switzerland: Swiss Wage Structure Survey 2008, Swiss Federal Statistical Office; Indonesia: Labour Force Survey 1993, distribution for Jawa Barat; Cape Verde: Employment Survey 2009, National Statistical Office; Egypt: Labour Market Survey 2006, Economic Research Forum.

families, it does not take into account the general level of wages in the country or the level of social security benefits, as specified in the ILO Minimum Wage Fixing Convention, 1970 (No. 131). The minimum living wage calculation thus raises a number of questions. First, will a reasonably large share of the employers be able to pay for the desired minimum living wages? Second, could the minimum wage perhaps be raised even further so as to provide not just for a minimum living wage, but also to serve as a tool for further reducing overall wage inequality? Some answers to these questions can be found by looking at the ratio of the minimum wage to the mean and/or to the median wages.

Before doing so, however, it is worth recalling some essential aspects of the distribution of wages. Neal and Rosen (2000) remind us that there is a remarkable regularity that is found in all observed earnings distributions in large populations, namely that earnings distributions are asymmetric and display a long right tail (i.e. they are skewed to the right). Such characteristics can be observed in the panels of figure 2. One key feature of such distribution is that mean earnings exceed median earnings,⁸ and that the most frequent scenario (i.e. the peak or mode of the distribution) is closer to the median than to the mean. The implication is that the top percentiles of earners always account for a strikingly disproportionate share of total earnings – and low-paid workers account for a disproportionately small share.

So what about the relationship between minimum and mean or median wages? The ILO's *Global Wage Report 2008/09* showed that countries for which data are available most frequently set their minimum wages at between 35 per cent and 45 per cent of mean wages. The data are reproduced, with updated figures, for 75 countries in figure 3. On this basis, the ILO *Global Wage Report 2008/09* considered that 40 per cent represented a useful reference

Figure 3. Ratio of minimum to mean wages in 75 countries



Source: ILO Global Wage Database.

8. The median wage refers to the wage in the middle of the wage distribution, while the mean is the sum of all wages divided by the number of employees.

point when considering the level for the minimum wage (p. 47), but also emphasized the need to extend the analysis beyond this rough ballpark reference figure. It is important in particular to disaggregate the analysis, and look at the distribution of wages separately for women and men, and for different industries, to observe where a minimum wage lies in these respective distributions.

Data on median wages are less frequently available. In the smaller set of countries for which data are available, the minimum wage is most frequently set at about 50 to 60 per cent of the median wage. According to the Low Pay Commission (2010), the UK minimum wage – known to be relatively low – corresponded to 52 per cent of median wages, while the French minimum wage (SMIC) was set at 61 per cent of median wages. These figures again represent a useful benchmark for minimum wage setting, even though here again, any country-specific analysis ought to dive into deeper detail and observe gender- and industry-specific distributions.

While these indicators may seem simple enough, there are inevitably some practical complications. First, it is recommended to repeat the calculation with the most recent Labour Force Survey (LFS) *and* the most recent establishment survey. Analyses using both types of sources will be more robust since they will produce different estimates due to the difference in coverage and accuracy between the two sources. For example, establishment surveys are generally acknowledged to have smaller measurement error in the measure of earnings because the data are obtained directly from the establishments. In contrast, while the earnings variable in a LFS has more measurement error (people do not like to report their earnings or report them inaccurately), the employee coverage is generally acknowledged to be larger; this is particularly the case for countries which have a large informal sector not captured in establishment surveys, or which carry out establishment surveys which are limited to certain firm sizes (only firms with ten or more employees, for example).

Another complication in computing wage distributions arises from the fact that hours worked can vary considerably. One solution to this problem is to calculate a *derived* hourly and monthly wage on the basis of data for all employees, including both part-time and full-time employees. Initially, the *derived hourly wage* of each employee can be calculated for each individual in the microdata by dividing earnings by the number of hours worked. The derived full-time equivalent monthly wage can then be calculated by multiplying the derived hourly wage by the normal monthly hours of work limit fixed in the country's legislation (usually between 40 and 48 hours per week multiplied by 52 weeks and divided by 12 months).

It is from these derived monthly wage distributions that the median wage and the mean wage should be calculated (which might be called the *derived* mean and *derived* median wage). Otherwise, the monthly mean and median will be biased downwards by those who work less than full time.

This means that in practice some individuals will in effect be earning more than the derived monthly wage because they work more than normal hours, while other will earn less because they work part time. Hence actual mean and median wages could be either higher or lower than the derived figures. However, any monthly minimum wage should be payable for normal hours of work. Overtime should be paid on top of the minimum wage, while part-time workers should be entitled only to a fraction of the monthly minimum.

Impact on the total wage bill and on prices

In principle, a judicious minimum wage, which protects workers against unduly low pay but does not disrupt the economy, would be placed somewhere on the left-hand side of the peak of the distribution – as illustrated in the panel on Indonesia in figure 2. Any minimum wage on the right-hand side of the distribution's peak (i.e. the most frequent wage) is likely to affect a large number of workers and could have unexpectedly large impacts on average labour costs and the total wage bill to be paid out by employers. This, in turn, could trigger price inflation and/or reduce the level of employment. Since compliance is largely a function of the level of the minimum wage, there is also a high probability that employers and workers would collude to evade minimum wage legislation. In practice, the share of workers who earn minimum wages varies from country to country. When the United Kingdom introduced the new national minimum wage of £3.60 in 1999, this floor exceeded the wages of 9 per cent of all the country's wage earners. In France, it is estimated that around 17 per cent of employees are clustered around the minimum wage (SMIC). In Indonesia, the share of workers at or below the minimum wage was estimated at about one quarter of wage earners.

How will a minimum wage affect a country's total wage bill and the level of prices? The impact on the total wage bill depends on two factors: the number of workers affected and the average wage increase brought about by the new minimum wage. In the case of Cape Verde, for example, it was estimated that if a new minimum wage was introduced to benefit 15 to 20 per cent of employees, this would increase the total wage bill by about 2.0 per cent. Hence, as long as a minimum wage is set below the peak of the wage distribution, its overall impact on the total wage bill remains limited. This is due to the fact that such a floor affects a limited share of employees, and also because the bottom percentiles of earners typically account for a strikingly small share of total earnings (the reverse image of the fact that high earners account for a disproportionately large share of earnings).

What is the inflationary pressure from a 2.0 per cent increase in wages? The answer depends on the evolution of labour productivity as well as on the share of labour in total production costs in the sectors or occupations where minimum wage workers are most concentrated. The latter can be obtained

from the so-called input-output tables or, if not available, from data from establishment surveys. Just to illustrate: if labour costs in restaurants represent half of total production costs, it will follow that – even in the unrealistic case that minimum wages are perfectly enforced – a 2.0 per cent increase in labour costs will increase total production costs by no more than 1.0 per cent. If, at the same time, labour productivity also goes up by 1.0 per cent, there is no reason to expect higher prices. But even under the assumption of unchanged labour productivity, the pressure on price increases does not exceed 1.0 per cent. This may provide a useful indication to those who fear that minimum wages might trigger hyperinflation.

In practice, the overall effects of a 2.0 per cent increase in the wage bill in, say, Cape Verde are likely to be even less than 1 per cent. One reason for this is imperfect compliance. Even with the best of intentions, minimum wages are never perfectly enforced. When simulating the possible effect of an increase in minimum wages it is therefore instructive to assume not only full compliance but also assume that the so-called “fraction of workers affected” includes all wage earners whose hourly wages are comprised between 95 per cent of the old minimum wage and 105 per cent of the new minimum wage. These people are the most likely to benefit from a legislated adjustment. Others, in particular those who were paid substantially less in violation of the earlier legal minimum, are likely to remain in non-compliance even after the adjustment – unless inspection measures are strengthened or other mechanisms put in place to strengthen compliance.

Conclusion

This paper has reviewed some fundamental elements of minimum wage setting and proposed a discussion on some of the indicators which can be used to set a first-time minimum wage or to evaluate whether an existing legal floor is set at the “right” level. The use of such indicators is a practical way to choose a minimum wage rate that brings real benefits to low-paid workers, while at the same time remaining consistent with the objectives of a competitive economy.

Once these indicators are calculated, it is of course up to the governments, and the social partners, to define their respective positions with a view to convincing a majority of those who hold the final decision-making power. But by using these indicators, decision-makers at least have some basic information to develop their bargaining positions. They know what minimum wage is necessary for an average household to remain above the poverty line, they have an estimate of the extent to which enterprises will be able to cope with the minimum wage, and they will have an idea of the possible impact on the level of prices. What the government and social partners ultimately decide is up to them, of course. This will also depend on the overall social

objectives the government may have in mind in light of the overall policy framework in place. But the empirical analysis should hopefully have helped to prevent consensus on either an irrelevantly low or an excessively high minimum wage.

Before closing it is worth emphasizing as a caveat that the use of indicators discussed in the present paper represents a relatively low-tech guidance for governments and social partners. In particular, these indicators do not take into account all possible general equilibrium effects. They also ignore the possible positive effects of higher wages on productivity as well as the possible restoration of pay differentials for workers above the minimum wage (i.e. the so-called “ripple effect”). Finally, they fail to provide a detailed picture of the effects of minimum wages on labour costs and prices in different industries or firms or for different occupations. For these and other reasons it is recommended to complement this basic analysis with more detailed country-specific analyses. At the same time, however, the use of such indicators would serve as a useful starting point and, in many countries, would already represent an improvement over existing methods towards minimum wage setting.

Rooting decision-making in empirical analysis is of paramount importance because the potential for mismanagement of minimum wage policies is extremely high. Minimum wages that are set at unrealistically high levels can trigger inflation, unemployment, and/or widespread non-compliance. On the other hand, wage floors that are too low are ineffective and leave many workers and their families in a life of misery and poverty. Also, decisions about minimum wage levels affect a large number of people. Across the world, millions of wage earners are direct beneficiaries. Minimum wages that are set at a judicious level can help many of these workers and their families increase their level of consumption, attain decent living standards, and – for those from low-income households – escape poverty.

References

- Anker, R. 2006. “Living wages around the world: A new methodology and estimates of internally comparable living wages”, in *International Labour Review*, Vol. 145, No. 4, pp. 309–338.
- Belser, P.; Rani, U. 2010. *Extending the coverage of minimum wages in India: Simulations from household data*, ILO Conditions of Work and Employment Series No. 26 (Geneva, ILO).
- Benassi, C. 2011. *The implementation of minimum wage: Challenges and creative solutions*, Working paper No. 12, Global Labour University (GLU).
- Boeri, T.; Garibaldi, P.; Ribeiro, M. 2010. *Behind the lighthouse effect*, IZA Working Paper, No. 4890.
- Cunningham, W. 2007. *Minimum wages and social policy: Lessons from developing countries* (Washington, DC, World Bank).

- Eyraud, F.; Saget, C. 2005. *The fundamentals of minimum wage fixing* (Geneva, ILO).
- Freeman, R. 1996. "The minimum wage as a redistributive tool", in *The Economic Journal*, No. 106, May, pp. 639–649.
- Goldberg, P.; Pavcnik, N. 2007. "Distributional effects of globalization in developing countries", in *Journal of Economic Literature*, Vol. XLV (Mar.).
- Hayter, S.; Weinberg, B. 2011. "Mind the gap: Collective bargaining and wage inequality", in S. Hayter (ed.): *The role of collective bargaining in the global economy* (Cheltenham, Edward Elgar and Geneva, ILO).
- IILS (International Institute for Labour Studies). 2008. *World of Work Report 2008: Income inequalities in the age of financial globalization* (Geneva, ILO/IILS).
- . 2010. *World of Work Report 2010: From one crisis to the next?* (Geneva, ILO/IILS).
- ILO. 1992. *Minimum wages: Wage-fixing machinery, application and supervision*, Report of the Committee of Experts on the Application of Conventions and Recommendations (articles 19, 22 and 35 of the Constitution), International Labour Conference, 79th Session, Geneva.
- . 2008. *Global Wage Report 2008/09* (Geneva).
- . 2010a. *Global Wage Report 2010/11* (Geneva).
- . 2010b. *Working Conditions Laws Report 2010* (Geneva).
- Laine, P. 2008. *Segregation, gender pay gap and cross-sectional heterogeneity across collective agreements*, Discussion Paper No. 241, Helsinki Center of Economic Research.
- Lee, S.; McCann, D. (eds). 2011a. *Regulating for decent work: New directions in labour market regulation* (Geneva, ILO and Palgrave MacMillan).
- ; —. 2011b. "The impact of labour regulations: Measuring the effectiveness of legal norms in a developing country", in Lee and McCann (eds).
- Lemos, S. 2009. "Minimum wage effects in a developing country", in *Labour Economics*, Vol. 16, No. 2, pp. 224–237.
- Low Pay Commission. Various years. *National minimum wage reports* (Norwich, The Stationery Office). Available at http://www.lowpay.gov.uk/lowpay/rep_a_p_index.shtml.
- Marinakos, A.; Velasco, J.J. 2006. *Para qué sirve el salario mínimo? Elementos para su determinación en los Países del cono sur* (Santiago, ILO).
- Neal, D.; Rosen, S. 2000. "Theories of the distribution of earnings", in A.B. Atkinson and F. Bourguignon (eds): *Handbook of income distribution*, Vol. 1, Chapter VII, pp. 379–427 (Elsevier B.V.).
- Neumark, D.; Wascher, W.L. 2008. *Minimum wages* (Cambridge, MA, MIT Press).
- OECD. 2008. *Growing unequal? Income distribution and poverty in OECD countries* (Paris).
- . 2010. *OECD Employment Outlook: Moving beyond the crisis* (Paris).
- Ravallion, M. 2008. "Global poverty reassessed: A reply to Reddy", in *One pager* (Brasília, IPC), Sep., No. 66. Available at www.ipc-undp.org/pub/IPCOnePager66.pdf.
- Reddy, S. 2008. "The new global poverty estimates – Digging deeper into a hole", in *One pager* (Brasília, IPC), Sep., No. 65. Available at www.ipc-undp.org/pub/IPCOnePager65.pdf.

- Rodrik, D. 1997. "Has globalization gone too far?", in *California Management Review*, Vol. 39, No. 3, Spring.
- Rubery, J.; Grimshaw, D. 2011. "Gender and the minimum wage", in Lee and McCann (eds).
- Saget, C. 2006. *Wage fixing in the informal economy: Evidence from Brazil, India, Indonesia and South Africa*, ILO Conditions of Work and Employment Series No. 16 (Geneva, ILO).
- Squire, L.; Suthiwart-Narueput, S. 1997. "The impact of labor market regulations", in *World Bank Economic Review*, No. 11, pp. 119–143.
- Starr, G. 1993. *Minimum wage fixing* (Geneva, ILO).
- United Nations. 1993. *System of National Accounts 1993* (SNA93), prepared jointly by the Commission of the European Communities, IMF, OECD, UN Statistical Division and the World Bank. Available at <http://unstats.un.org/unsd/nationalaccount/docs/1993sna.pdf>.
- Vaughan-Whitehead, D. (ed). 2010. *The minimum wage revisited in the enlarged EU* (Cheltenham, Edward Elgar).