8. Hungary: The consequences of doubling the minimum wage

János Köllö

8.1 INTRODUCTION

A single national monthly gross minimum wage was introduced by Hungary’s last communist-led government in 1989. Until 2001, Hungary belonged to the group of low minimum wage countries, with the minimum wage gradually falling from 35 per cent of the average wage (Kaitz index) at its introduction, to 29 per cent in 2000 (for a discussion of falling minimum wages in most transition countries during the transformational recession see Standing and Vaughan-Whitehead, 1995). A total change in policy came about in 2001–02, when the minimum wage was nearly doubled in nominal terms, resulting in a 14 percentage point rise in the Kaitz index and a 64 per cent increase in the real value of the net minimum wage. Following this dramatic hike, the minimum wage settled at a relatively high level by international comparison. Currently, Hungary ranks seventh in the EU in terms of the minimum wage to average wage ratio. What was the logic behind such a radical shift in minimum wage policy? What effects did it have on the Hungarian economy and society?

The effects of such dramatic hikes are most clearly understood in the context of Hungarian minimum wage fixing, which takes place within the national council of employers and unions – the Council for the Reconciliation of Interests. The government is usually required to enter the process only near the end and to accept the recommendations of the Council, but it is authorized to take a unilateral decision should the negotiations fail, as happened in 2001. With all the important social partners having a voice, the bargaining process has been driven by somewhat diverse policy objectives, as detailed below.

• **Ruling out “substandard” wages.** The principle of “ensuring the effective exercise of the right to fair remuneration” is widely accepted in Hungary, with both the unions and the government recognizing “the right of workers to remuneration such as will give them and their
families a decent standard of living”. Indeed, the fight for decent minimum standards seems to be at the centre of union activity in Hungary. Research results suggest that, while the union wage gap is small in terms of average wages, low pay is significantly less frequent in unionized firms, holding other wage determinants constant (Neumann, 2001).

• **Promoting equity.** The minimum wage is customarily interpreted by both the trade unions and the government as an effective measure for reducing inequality and fighting poverty.

• **Making work pay.** In the early years of the transition, the welfare system (including unemployment insurance, means-tested social assistance, early retirement schemes and a generous parental leave programme) provided fairly high income replacement rates for the non-employed (Burda, 1995; Bardasi et al., 2001). Prior to 2001, successive governments tried to reduce the assumed disincentives, predominantly by tightening welfare programmes. Since 2001, the minimum wage has been used as an additional instrument to widen the gap between benefits and wages. Making work pay was one central argument for the 2001–02 hikes, as was making the minimum wage free of personal income tax (PIT) in autumn 2002.

• **Fighting tax evasion.** For reasons discussed later in the chapter, the minimum wage is also thought of as an effective instrument for “whitening” grey incomes. Taxes on the total labour income of workers who receive an official minimum wage plus additional “under-the-counter” cash payments can be increased at relatively low cost by raising the minimum wage. This consideration has played a central role in recent minimum wage policies.

Compared to the evolving policy objectives listed above, other possible arguments for the minimum wage have so far received little or no attention in Hungary.

Outside Hungary, the minimum wage is frequently mentioned in the context of migration. However, Hungary’s outward migration and migration potential are the lowest among the accession countries (for estimates see Haug, 2005; Krieger, 2004) and biased towards highly skilled workers. Inward migration has special features, explained by the presence of about 2.5–3 million ethnic Hungarians in the neighbouring countries. Hungary attracts
mainly the members of these communities, although Western Europe is becoming an increasingly important target area for them. Information on the wages and reservation wages of foreign workers is extremely scarce. Hárs (2004) presents results from a survey of ethnic Hungarians in Romania who planned to work in Hungary in 2002 and were asked about their wage expectations and reservation wages. Her data suggest that expected wages were well above the minimum wage, despite the fact that it had just increased from HUF (Hungarian forints) 40,000 to HUF 50,000 at the time of the survey. Wage expectations exceeded the minimum wage by 61–197 per cent among men and 32–76 per cent among women, depending on occupation. The acceptable minima fell closer to the minimum wage in the case of women (103–122 per cent of the minimum wage) than men (121–187 per cent), who represent the vast majority of immigrants.3

The minimum wage is also seldom interpreted as a benchmark for enterprise-level wage bargaining. This is probably explained by the fact that collective bargaining takes place predominantly in sectors in which the effective benchmarks substantially exceed the mandatory minimum wage. The role of the minimum wage in Hungary is likely to change in the future, however, with the introduction of different minima for skilled versus unskilled and experienced versus young workers in 2007.4

The “dynamic efficiency” argument, claiming that the minimum wage stimulates companies to earn profits by applying new technologies and opening up new markets rather than downward wage adjustment (as argued by Sengenberger, 2002, among others) is occasionally mentioned but has not been the focus of debate. The Hungarian experience provides a unique opportunity to study the effects, notably on employment, of such large minimum wage increases. Sections 8.3 and 8.4 attempt to identify such quantitative and qualitative effects of the minimum wage, discussing the aftermaths of the two exceptionally large minimum wage hikes of 2001–02, and concrete evidence of the experience is presented in the case studies in Section 8.5.

3. The Hungarian minimum wage (HUF 69,000) is almost twice as high as the Romanian (equivalent to HUF 37,000).
4. Workers with at least a secondary education and less than two years’ experience in a skilled job are to be paid 120 per cent of the base minimum wage, while the figure for those with two or more years’ experience is 125 per cent of the base minimum wage. The list of jobs requiring skills is issued by the Ministry of Labour and Social Affairs. Information on how the differentiated minimum wage works is scarce and purely anecdotal; this chapter is therefore limited to discussion of the regime prior to 2007.
8.2 MAIN CHARACTERISTICS OF THE MINIMUM WAGE

8.2.1 Target and coverage

The minimum wage relates to monthly pre-tax base wages, that is, total monthly earnings without counting overtime pay, shift pay and bonuses. Starting from 2007 weekly, daily and hourly levels are also determined. The minimum wage is legally binding and covers all wages, including those paid to the self-employed by their own businesses. For part-timers, who account for about 5 per cent of total employment, the wage floor is proportionately lower.

8.2.2 Level of the minimum wage

At its introduction, the minimum wage amounted to 35 per cent of the average wage, while in 2000 (just before the two major hikes) it stood at 29 per cent, below the European average but only marginally lower than in Spain, the laggard in the Western EU. Viktor Orbán’s government (1998–2002) doubled the minimum wage in 2000–01, from HUF 25,500 in December 2000 to HUF 40,000 in January 2001 and HUF 50,000 in January 2002. The two hikes raised the minimum wage to average wage ratio to 39 per cent and 43 per cent, respectively. The current rate (38 per cent) is higher than those rates which are characteristic of the United States, the United Kingdom and countries of the Visegrad group (Czech Republic, Poland and Slovakia), but lower than in the Benelux countries, Ireland, Bulgaria and Slovenia.

The indicators shown in Figure 8.1 (gross and net minimum wage to average wage ratio, minimum wage to median wage ratio and gross and net real minimum wage) unequivocally suggest that the minimum wage was falling prior to 1997–98 and slightly rising in 1998–2000. The developments during and after the big hikes, however, varied largely depending on which indicator was considered. The gross Kaitz index started to fall immediately after the second hike (2002) and currently stands at levels close to those characterizing the early years of the transition. By contrast, the net Kaitz index continued to grow as the minimum wage became free of PIT in 2002: it increased from a low of 33 per cent in 1998 to a high of 53 per cent in 2003–04. When measured against the median rather than the average wage, the 2001–02 rise in the minimum wage appears to be more pronounced but less permanent. The real gross minimum wage rose by as much as 75 per cent during the hikes and remained at this level until recently. The real net minimum wage was stabilized at more than twice its pre-hike level.

Taken together, the basic indicators suggest that Hungary moved from the group of low minimum wage countries to the high minimum wage group in the course of only 12 months. While some indicators, such as the gross Kaitz
Figure 8.1 Basic indicators of the minimum wage in Hungary, 1992–2008

Notes: MW/AW – minimum wage to average wage ratio, MEDW – median wage.

Sources: Wage Survey and Central Statistical Office (CSO) (CPI).

index, suggested that this was only a short-term effect with a regression towards the pre-hike values in 2003–05, most other measures (real value of the minimum wage and proportion of workers paid at the minimum wage) hint at a permanent change.

8.2.3 Proportion affected

Despite its relatively low Kaitz index prior to 2001, Hungary’s minimum wage was effective before the major hikes. In 2000, the fraction of workers paid 95–105 per cent of the minimum wage amounted to 5 per cent – a ratio similar to those reported for Austria, Belgium, Denmark, the Netherlands and the United States (Dolado et al., 1996). The fraction of workers earning near the
minimum wage rose to a peak of 19 per cent in May 2002 in firms employing five or more workers and increased substantially in larger firms, too (Figure 8.1, panel E). By 2003, the level had fallen to 10–12 per cent. Recently, Hungary has been among the group of EU leaders (together with Lithuania and Romania) with the fraction of minimum wage earners being significantly higher than in Poland (4 per cent), the Czech Republic and Slovakia (2 per cent), not to mention Spain, the United Kingdom and the United States (below 2 per cent) (see Chapter 1).

8.2.4 Compliance

The available data on hours-adjusted monthly earnings suggest that sub-minimum wages (that is, not in compliance with the minimum wage) account for less than 1 per cent of all wages. Estimates based on personal income tax reports and pension fund data (Krekó and Kiss, 2007; Elek et al., 2008) hint at significantly higher rates, but these data do not allow proper adjustment for hours worked during the year or daily.

8.3 THE MINIMUM WAGE WITHIN GLOBAL WAGE TRENDS

The post-communist transition brought about a dramatic differentiation of wages, especially by education, with the Gini coefficient for gross monthly wages increasing from 0.30 in 1989 to 0.39 in 2000. The widening wage differentials can easily be observed in Figure 8.2, showing the distribution of monthly gross earnings in 1986, 2000, 2002 and 2005. The figure also draws attention to the increasing role of the minimum wage in shaping the distribution. Ironically, the wage distribution was almost precisely log-normal (that is, the distribution expected in an intervention-free competitive market economy) in 1986, three years before Hungary started on its way towards capitalism.5 Fourteen years later, just before the first minimum wage hike, the distribution was still close to the log-normal but with a spike at the minimum wage. Two years later, in 2002, the distribution was severely deformed with an exceptionally large spike at the minimum wage and remarkable deviations from the log-normal below and above the minimum wage. To a lesser degree, the patterns developed during the hikes could still be observed in 2005.6

5. In a free economy, where people can specialize in activities in which they have a comparative advantage the wage distribution is likely to have a “log-normal shape” (log wages are normally distributed). See Roy (1951).

6. Kernel density estimation is a way of estimating the probability density function of a random variable. Given some data about a population sample, kernel density estimation makes it possible to estimate a continuous density function for the entire population.
Still, the minimum wage had limited impact on overall wage inequality and this also applies to the exceptional hikes of 2001-02. The hikes implied tremendous change at the bottom of the wage distribution, as suggested by the P95/P5 ratio in panel A of Figure 8.3, but had a weaker effect on the share of low-paid workers and overall inequity. As shown in panel B of Figure 8.3 the share of low-paid workers (earning less than two-thirds of the median or average wage) followed increasing trends with only a transitory break at the time of the big hikes, while the Gini coefficient of gross monthly earnings was mildly affected, as suggested by the panel C. The figure shows the movements of the Hungarian labour market in terms of the minimum wage to average wage ratio and the Gini coefficient. Up until 2000, the market was moving towards higher overall inequity and a falling minimum wage to average wage ratio. The hikes reduced the Gini coefficient by 0.03 but subsequent wage developments (including a minor fall of the Kaitz index) brought it close to its pre-hike level. In 2005, the minimum wage to average wage ratio returned to its 1989 level but the wage-Gini was higher by almost 0.09 compared to its
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Figure 8.3 Employment, wages and wage inequality – selected indicators


pre-transition value. The income-Gini coefficient was practically unaffected by the hikes, as shown by panel D of Figure 8.3.7

Furthermore, the minimum wage had only a minor impact on the evolution of the wage share. The AMECO data (presented in Chapter 1 of this volume) suggest that in Hungary, in contrast to many EU countries, the wage share did not follow a continuous decreasing trend. The overall wage share was falling in 1995–99 but increased in 2000–05. These trends were, however, strongly affected by wages in the public sector, which employs roughly one-fifth of all workers. During the transition budget-sector wages were kept at low levels, while before and after the parliamentary elections of 2002 they were increased by two-digit percentages. Data relating to the business sector hint at an increasing wage share in 1996–99 and a basically constant level in 2000–05. The change of trend took place in 1999, that is, two years before the first min-

7. Note that the CSO and Tárki estimates come from different data sources (the Household Budget Survey and the Tárki Monitor Survey, respectively).
imum wage hike. The net contribution of the minimum wage to the shifts of the wage share has not yet been investigated, but a first glance at the data raises the question of whether or not there was a strong link between them.  

8.4 EFFECTS OF THE MINIMUM WAGE – LESSONS FROM THE 2001–02 HIKES

Research on the minimum wage has mainly focused on the effects of the hikes in 2001–02. There have been few minimum wage hikes of this magnitude in recent economic history, with Puerto Rico and Indonesia being noteworthy exceptions (see Freeman and Castillo-Freeman (1992) on the former, and Rama (2000) and Alatas and Cameron (2003) on the latter). The following sections give a brief overview of the research that resulted from the 2001–02 hikes.

8.4.1 Employment effects

Orthodox economic wisdom predicts that while most low-pay workers gain from a minimum wage hike in terms of wages, some of them may lose their jobs due to rising labour costs. In contrast to this prediction, the “new economics of the minimum wage” emanating from Card and Krueger (1995) expect positive and not negative employment effects in a variety of market structures. The best known example is that of monopsony, a single buyer in a labour market (see Ehrenberg and Smith (2000) and other textbooks on the monopsony setting, and Bashkar et al. (2002) on monopsonistic competition). Several contemporary theoretical models suggest that the minimum wage can raise the demand for labour if the minimum wage increases workers’ efforts (Rebitzer and Taylor, 1995), reduces search frictions (Ahn and Arcidiacono, 2003) or induces strong wage spillover effects (Cahuc at al., 2001; Bashkar et al., 2002).

A series of empirical papers – including Card (1992a, b), Katz and Krueger (1992), Card and Krueger (1994, 1995), Machin and Manning (1994) and Dolado et al. (1996) – observed a close to zero or positive change in employment after minimum wage hikes in Europe and the United States. In Costa Rica, where a plethora of occupational and industrial minima exist, El Hamidi and Terrell (1997) found the impact of hikes to be positive at low levels of the minimum wage but negative in higher ranges of the industrial minimum wage to average wage ratios. Time series from industrialized countries also

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8. We have too few data points to calculate how annual changes in the Kaitz index and changes in the two wage share measures related to each other. The calculable correlation coefficients are low (0.22 for the whole economy and -0.14 for the business sector) and statistically insignificant.
suggested significantly weaker negative effects in the 1990s than those found earlier (Brown, 1999).

The decision to radically adjust the minimum wage in Hungary was undoubtedly motivated by some of these considerations: while the motives were presented in the form of popular slogans, these actually summarized some key arguments of the new theories. It was argued that, by widening the gap between wages and benefits, the government can create incentives for labour force participation, encourage job search, promote competition for job openings and stimulate work effort. The potentially negative demand-side effects might be offset by the gains from better incentives and falling transaction costs. These expectations were only partly supported by international experience. A whole array of empirical papers continue to identify some negative impact of the minimum wage, including Kim and Taylor (1995), Deere et al. (1995) and Neumark and Wascher (1994, 2002) in the United States, Abowd et al. (1999) in a US–France comparison, Bell (1997) and Maloney and Mendez (2003) in Colombia, Freeman and Castillo-Freeman (1992) in Puerto Rico, Pereira (1999) in Portugal, and Rama (2000) and Alatas and Cameron (2003) in Indonesia. Nevertheless, the effects found in these studies are often minor and restricted to certain segments of the market, such as teenagers and small enterprises.

The short-term implications of the 2001 minimum wage hike were studied in Kertesi and Köllő (2003) using micro-data on firms, workers and the unemployed. Effects on enterprise-level employment were analysed by examining simultaneously the effect of the minimum wage on labour costs and the effects of labour costs on employment, in a fashion similar to Machin et al. (2003). The data indicated a minor impact on medium-sized and large enterprises, but low-wage businesses were strongly hit in the short term: the small enterprise sector lost at least 3.5 per cent of its jobs in less than a year. Furthermore, small firms, which were the most strongly affected, reduced their share of unskilled workers, whose costs became too high.

Job retention probabilities (the chance of minimum wage workers remaining in their jobs) were analysed using Labour Flexibility Survey (LFS) panel

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9. It is worth adding that the stereotype of general support on the political left and opposition on the right does not apply in this case. The minimum wage hikes were introduced by a right-wing government committed to increasing the welfare of the middle class and promoting the competitiveness of domestic businesses, including exporters – an unusual candidate for aggressive minimum wage policies. The largest trade union federation of socialist orientation (MSZOSZ) was worried about the potentially adverse employment effects and openly opposed the first hike.

10. The effects of labour costs on demand for labour are usually hard to assess because of common unobserved factors driving employment and wages in the same direction. During a large minimum wage hike, exogenous variations in firms' wage increases help to identify the causal effect.
data relating to the period immediately following the first minimum wage hike. A treatment group (workers who were paid the new minimum wage) was distinguished from a control group (workers who earned slightly more than the minimum wage) and the two groups’ job-loss probabilities were estimated using a discrete time duration model and data covering March–December 2001. There was a large and statistically significant difference between members of the treatment and control groups in their probability of becoming unemployed in the second to fourth quarters of 2001. While the probabilities of exit to non-participation were equal in the two groups, minimum wage workers were twice as likely to lose their jobs and to try to get back to work through active job search than their slightly better paid counterparts.

The job finding probabilities of low-wage workers were studied using a panel of 172 labour offices observed between January 1998 and June 2002. Information was available on the starting stock and exit-to-job rates of low-wage and high-wage unemployment benefit recipients in each office and month. The same information was available for low-skilled and high-skilled workers. The paper looked at how the exit-to-job rates of low-wage benefit recipients related to the exit rates of low-skilled recipients before and after the minimum wage hike. The estimates indicated a 7–9 percentage point fall in the job-finding probability of low-wage unemployed relative to the unskilled unemployed in 2001, and a further 2–3 percentage point fall in January–June 2002.

8.4.2 Effects on income and consumption

According to an OECD study (OECD, 1998) about four-fifths of those on the minimum wage in the Member States were people living in households with medium or high per capita income. Likewise, in Hungary, only 18 per cent of the minimum wage earners live in the bottom income quintile and 26 per cent in the 4th quintile. Furthermore, even in the poorest one-fifth of the population, only 31 per cent of the wage earners are paid the minimum wage, while the respective shares are 23 and 11 per cent in the 2nd and 3rd quintiles, according to Household Budget Survey data for 2005.

Benedek et al. (2006) looked at the winners and losers from the 2001–02 minimum wage increase. They found that the income position of minimum wage earners living in poor households (bottom quintile) improved significantly, but this involved very few people: only 6.4 per cent of minimum wage earners. A large proportion of the winners (48 or 57 per cent, depending on categorization) were in the top three income quintiles. Where losers were concerned, in slightly more than 10 per cent of the cases the deterioration in the

11. The paper defined low-skilled workers as those with less than secondary education while pre-unemployment wages were identified on the basis of the (earnings-related) benefits.
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household’s income position was caused by the fact that the minimum wage earning family member lost his or her job between 2000 and 2001. Income loss without the loss of a wage earner was more frequent in the high-income brackets where “disguised” minimum wages are more likely to occur. For these households, an increasing minimum wage may have implied higher taxes and lower net income.

Tonin (2007a) looked at changes in food consumption in households affected by the 2000–01 minimum wage hike compared to unaffected households of similar income. His paper found that food consumption fell in the treatment group relative to the controls. A possible explanation of why consumption fell in households positively affected by the minimum wage hike is that employers cut envelope wages in order to offset the rising tax burden associated with the increased minimum wage. Tonin’s results suggest that the typical minimum wage worker earns a “disguised minimum wage”, supplemented with cash payments. This is at odds with Szabó (2007) who found that the average minimum wage earner does not consume more relative to his or her reported income than do the members of other social groups, holding a series of individual and contextual variables constant. He also found that a decline in expenditure in 2000–02 was typical in the 4th and 5th income quintiles, while poorer households typically gained from the minimum wage hike, except for those which lost a wage earner.

8.4.3 Effects on budget revenues

Halpern et al. (2004) studied the impact of the 2001–02 hikes in a static general equilibrium framework, making it possible to test for the direct and indirect effects of the minimum wage on wages, prices, employment, budget revenues and budget expenditures. The model was calibrated assuming a broad range of the ratio of disguised to all minimum wages. Disguised minimum wages play an important role in the model. On the one hand, the higher the proportion of grey employers the larger the increase in the government’s revenue as labour costs, and hence the demand for labour, are less strongly affected. On the other hand, since higher contributions reduce the profits of businesses, they may react by increasing the proportion of grey employment. The paper was primarily concerned with the budgetary effect of the minimum wage.

12. Other possible explanations include group-specific differences in the food price index, or the price elasticity of demand for food.

13. At least a part of the employers who pay an official minimum wage (subject to tax) plus envelope wages may respond to the minimum wage shock by cutting the cash part of the wage in order to offset the burden of rising taxes, so that in the end labour costs should not increase significantly.
wage and concluded that the 2001–02 hikes had a negative net impact on the budget. More precisely, the budget deficit was expected to diminish only if the proportion of grey employers was assumed to be very low or very high (lower than 10 per cent or higher than 60 per cent). Under more realistic assumptions, the numerical simulations suggested that the effect of the minimum wage hike on the budget was negative.

To summarize briefly, Hungary’s shift from low to high minimum wages brought mixed results in the short term. The change of regime was undoubtedly successful, in that it raised the wage floor for those in employment in both absolute terms and compared to the average wage. The lowest-paid tenth of workers now earn 15 per cent of the highest-paid tenth, as opposed to 12 per cent before the hikes, thus showing some effect of the minimum wage in reducing wage disparity. The shift was less successful in terms of promoting overall equity, however. Since minimum wage workers typically live in middle-income rather than in poor households, the positive income effect was dispersed along the whole income distribution, implying a minor impact on overall income inequality. The effects on the poor were ambiguous, implying a rise of their labour income but potentially reducing their job opportunities. It is also questionable whether the minimum wage hikes brought Hungary closer to the goal of “making work pay”. There is no evidence that the higher minimum wage increased job search activity.\(^\text{14}\) Such an outcome is consistent with two expected but diverging effects: on the one hand, the minimum wage increase stimulates job search but, on the other hand, it reduces job offers from the employers’ side, so making such job search effectively less successful.

8.5 CASE STUDIES: FURTHER EVIDENCE OF MINIMUM WAGE EFFECTS

Case study 1: Firm survival and performance after large hikes

Several implications of a minimum wage hike can develop only in the longer term: investments to raise productivity, substitution between factors of production or learning how the job offer distribution is changing takes time for both firms and workers. While a comprehensive account of the long-term implications of Hungary’s 2001–02 minimum wage hikes is impossible, the

\(^{14}\) The Hungarian Labour Force Survey suggested that, in 2000, 13.3 per cent of the prime-age, low-skilled non-employed (those with primary education background aged 15–54) sought jobs actively. In 2001, 2002 and 2003 the shares were 13.1, 13.4 and 13.8 per cent, respectively, statistically equal to the pre-hike level, given the margin of error of the LFS data (author’s calculation).
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Data at hand allow a brief insight into how enterprises reacted to the minimum wage shock over a three-year period. This section uses enterprise-level data from 2000 and 2003 to study three aspects of the changes that followed the hikes. First, the effect of firms' exposure to the 2001 minimum wage hike on their probability of survival until the end of 2003 is examined. Second, the analysis attempts to determine whether any substitution for capital and skilled workers took place in response to the rising costs of unskilled labour. Third, the results show that, while the exposure to the minimum wage hike had a negative impact on both survival and unskilled employment, substantial variations existed in the responses of enterprises.

The analysis concerns medium-sized and large firms observed in the 2000 wave of the Wage Survey, a large matched employer–employee data set collected by the Employment Office each May since 1992. The survey covers all firms employing 50 or more workers and a random sample of smaller firms. Together with firm-level data, the enterprises report individual data on random samples of their employees. The 2000 wave covered 10,589 firms, of which 4,179 employed 50 or more workers. Combined employment in the latter group amounted to 1.101 million or 92 per cent of the Wage Survey target population (total employment including budget sector workers, micro-firm employees and self-employed amounted to 3.85 million in Hungary).

**Probability of survival**

Survival was measured in two ways. First, the firm was regarded as a survivor if it filed a tax return for 2003. Alternatively, it was considered to be a survivor if it reported data in the 2003 wave of the Wage Survey. While the first measure is more precise, the second yields additional information, since firms retaining fewer than 50 workers by 2003 automatically dropped out of the target population of the Wage Survey. The survival rates were 0.875 by the first and 0.727 by the second measure. The notion of “survival” refers to the legal entity, not the firm as a physical unit. In this sense, both survival measures are downward-biased due to break-ups, mergers and title changes resulting in the vanishing of the firm's ID but not the firm itself.

Exposure to the minimum wage hike was also measured in two ways. The first measure is the fraction of employees paid below the May 2000 value of the 2001 January minimum wage, while the second is a minimum wage shock variable defined in equation (8.1),

\[
\omega = \frac{w^MF + w_h(1-F)}{w^F + w_h(1-F)}
\]  

(8.1)

15. For a description of the data and evaluation of representativity, see http://econ.corc.hu/english/serv/data.html [accessed 9 June 2009].
Table 8.1 Exposure to the 2001 minimum wage hike and subsequent changes, Hungary

<table>
<thead>
<tr>
<th>Models and dependent variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Mean (st. dev.) of dep. var.</th>
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<tr>
<td>Proxy of exposure: fraction affected</td>
<td>-0.0531***</td>
<td>-0.1479***</td>
<td>0.8703</td>
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<td></td>
<td>(2.66)</td>
<td>(2.74)</td>
<td>(0.3306)</td>
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<tr>
<td>Proxy of exposure: log MINIMUM WAGE shock</td>
<td>-0.1133***</td>
<td>-0.3276***</td>
<td>0.7272</td>
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<td></td>
<td>(4.24)</td>
<td>(4.44)</td>
<td>(0.4454)</td>
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Survival probits estimated for all firms observed in 2000 (N = 4,179)

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<tr>
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<th>Model 1</th>
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<tr>
<td>Filed tax return in 2003</td>
<td>-0.0531***</td>
<td>-0.1479***</td>
</tr>
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<td>(2.66)</td>
<td>(2.74)</td>
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<tr>
<td>Reported data in the 2003 Wage Survey</td>
<td>-0.1133***</td>
<td>-0.3276***</td>
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<tr>
<td></td>
<td>(4.24)</td>
<td>(4.44)</td>
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Multivariate regressions for firms observed in both 2000 and 2003 (N = 2,704)

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<td>Log change in real output</td>
<td>0.0924**</td>
<td>0.2857**</td>
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<td></td>
<td>(2.34)</td>
<td>(2.49)</td>
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<td>Log change in employment</td>
<td>-0.0764**</td>
<td>-0.2725***</td>
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<tr>
<td></td>
<td>(2.13)</td>
<td>(2.61)</td>
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<tr>
<td>Log change in real value added per worker</td>
<td>0.1704***</td>
<td>0.4941***</td>
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<tr>
<td></td>
<td>(3.48)</td>
<td>(3.47)</td>
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<tr>
<td>Real average wage</td>
<td>0.3411***</td>
<td>0.9798</td>
</tr>
<tr>
<td></td>
<td>(16.44)</td>
<td>(16.19)</td>
</tr>
<tr>
<td>Log change in fixed assets per worker</td>
<td>0.1926***</td>
<td>0.4892***</td>
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<td></td>
<td>(3.65)</td>
<td>(3.18)</td>
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<td>Change in the share of workers with primary education</td>
<td>-0.0341**</td>
<td>-0.1176**</td>
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<td>(2.21)</td>
<td>(2.62)</td>
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<td>Change in the share of men</td>
<td>-0.0006</td>
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<td></td>
<td>(0.05)</td>
<td>(0.70)</td>
</tr>
<tr>
<td>Change in average age (years)</td>
<td>-0.8578**</td>
<td>-3.3429***</td>
</tr>
<tr>
<td></td>
<td>(2.32)</td>
<td>(3.19)</td>
</tr>
<tr>
<td>Mean of the exposure proxy</td>
<td>0.1735</td>
<td>0.0432</td>
</tr>
<tr>
<td></td>
<td>(0.2756)</td>
<td>(0.0895)</td>
</tr>
<tr>
<td>Mean of the exposure proxy (standard deviation)</td>
<td>0.0432</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Significant at the * 0.1, ** 0.05, *** 0.01 level.
(a) Only firms reporting positive financial variables. Selection for this group from among the 3,039 survivors is discussed in the text.
(b) Changes in sales and value added are PPI-adjusted on the one-digit industry level. Wages are CPI-adjusted.

Estimation and test statistics: Stata dprobit, Stata mvreg. Z-values and t-values in brackets, respectively.

Controls: All estimations were controlled for the base-period values of the following variables: average wage, after-tax profit per sales, log fixed assets per worker, log number of employees, dummy for firms employing 50-74 workers, three ownership dummies, 55 industry dummies, shares of three educational categories (primary, vocational and secondary), share of males, average age of employees. The survival probits were also controlled for a dummy denoting negative value added in the base period.
with $F$ denoting the fraction of low-wage workers (employees affected by the minimum wage hike), $w_F$ being their average wage, $w_H$ standing for the average wage of high-wage workers and $w^M$ denoting the new minimum wage. The equation (analogous to one used in Machin et al., 2003) is a hypothetical benchmark measuring the average wage gap to be filled, under the assumption that sub-minimum wages rise to the level of the new floor and no further wage and employment adjustment takes place.

The effect of exposure on survival was estimated with probit regressions controlled for firms' average wages and profitability in 2000, industry, ownership and regional effects and composition of the firm's labour force. The coefficients show how the two measures of exposure to minimum wage hikes affected the probability of survival, holding other explanatory variables constant at their mean. As shown in the first two rows of Table 8.1, both measures of exposure had a significant negative effect on the probability of survival: firms hit hard by the minimum wage hike were less likely to operate in 2003 than similar firms affected mildly or not at all. The survival probability of a firm with $F = 0.5$ (half of the workers paid below the 2001 minimum wage prior to its introduction) was lower by 2.5 per cent than a firm with $F = 0$ (no worker paid below the 2001 minimum wage). According to the second survival measure, a firm with $F = 0.5$ was 5.5 per cent less likely to be in the year 2003 Wage Survey sample than an otherwise similar firm with $F = 0$. The effects were stronger for the second measure of survival, hinting at drop-outs from the survey's target population due to downsizing. (It should be borne in mind that survival by the second measure meant that the firm existed in 2003 and had more than 50 employees.)

**Impact on performance and substitution effects**

Further rows of Table 8.1 look at how a unit difference in exposure to the minimum wage affected some key indicators of the surviving firms reporting data in both the 2000 and 2003 waves of the Wage Survey. The results suggest that exposure to the minimum wage hike had a weak positive effect on sales, a negative impact on employment and a positive effect on productivity. The elasticity of actual wage increase with respect to $\omega$ was close to unity, suggesting that wage spillover effects were not particularly strong. Higher exposure to the minimum wage was conducive to higher increases in the firm's capital to labour ratio and substitution for skilled labour and younger workers.
Table 8.2 Selected indicators of firms exposed to the 2001 minimum wage increase and surviving until 2003, Hungary

<table>
<thead>
<tr>
<th>Type</th>
<th>Unweighted</th>
<th>Weighted with base-period employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Employment</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Productivity</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Distribution of firms and workers (%)</td>
<td>21.1</td>
<td>14.9</td>
</tr>
<tr>
<td>Mean log change in:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>employment</td>
<td>0.236</td>
<td>-0.184</td>
</tr>
<tr>
<td>real sales</td>
<td>0.357</td>
<td>0.179</td>
</tr>
<tr>
<td>real value added</td>
<td>0.430</td>
<td>0.351</td>
</tr>
<tr>
<td>value added per worker</td>
<td>0.194</td>
<td>0.535</td>
</tr>
<tr>
<td>real average wage</td>
<td>0.325</td>
<td>0.308</td>
</tr>
<tr>
<td>fixed assets per worker</td>
<td>0.314</td>
<td>0.514</td>
</tr>
<tr>
<td>primary education*</td>
<td>-0.4</td>
<td>-3.6</td>
</tr>
<tr>
<td>average age**</td>
<td>2.29</td>
<td>2.96</td>
</tr>
</tbody>
</table>

Notes: * Change in percentage share; ** Change in years.
Sample: A total of 1,252 large and medium-sized firms affected by the minimum wage increase in 2000 and observed in both the 2000 and 2003 waves of the Wage Survey.

The different strategies followed
Table 8.2 attempts to provide a typology of reactions to the minimum wage hikes using the indicators considered in Table 8.1. Firms affected by the minimum wage hike and surviving until 2003 (1,215 enterprises) were assigned to one of four groups distinguished by changes in employment and productivity.

By far the largest group of firms (Type 4, 50 per cent) cut both employment and output so that productivity fell, too. In the case of these firms, a large disparity between changes in sales and changes in value added is evident. This suggests that many of these firms were either outsourcing part of their operations or substituted labour for materials and intermediate products. Type 2 firms (15 per cent) increased labour productivity, with the productivity gains coming from decreases in employment rather than increases in output. A distinctive feature of this group was a remarkable growth of the capital to labour ratio – about 1.5 times higher than in the rest of the sample. Substitution away from low-educated workers was also more intense here than in other groups. Type 3 (14 per cent) comprises firms increasing employment and decreasing...
productivity. Similar to Type 4, outsourcing might explain at least part of this paradoxical outcome. Finally, Type 1 firms, accounting for one-fifth of all enterprises, followed an expansionary path, with growing employment and productivity. This group does not display stronger-than-average substitution away from unskilled labour, or labour in general.

Data on the composition of firms across types reveal part of the “secret” behind the Type 1 reaction, which can be of particular interest for minimum wage policies. First, the probability of such a reaction depended strongly on age: a firm with a 25-year-old labour force was, on average, twice as likely to belong to this group as a firm with a 50-year-old staff, holding other variables – such as size, ownership, industry, composition by gender and education – constant. Firms employing a young labour force are expected to increase workers’ wages in any case, so they are less exposed to the minimum wage shock. Financial institutions and insurance companies were almost three times as likely to be Type 1 than industrial firms, five times as likely as retail and construction firms, and 20 times as likely as farms and agrifood enterprises. Given that these services employ large numbers of agents and solicitors, who are typically paid the minimum wage plus brokerage, a rise in the minimum wage probably had a minor impact on their total labour costs. The probability of being Type 1 was also positively related to the starting capital to labour ratio, suggesting that capital-intensive firms were less exposed to changes in their labour costs. Type 1 firms not only had a younger than average labour force but they also increased the share of young workers in 2000–03, as indicated by small changes in the average age of their workforce. Other variables, including firm size, ownership (foreign versus private domestic and state-owned) and coverage by collective agreement did not affect the likelihood of Type 1 reaction.17

Policy lessons
To summarize briefly, in the first three years following the 2001–02 minimum wage shocks one could observe predominantly adverse changes in enterprises with the greatest exposure to minimum wage hikes. These firms had a lower probability of survival and also cut employment. Traces of substitution away from labour in general and low-wage workers in particular were also detected. Only a minority of firms could increase employment, productivity or both.

In evaluating the effects of Hungary’s experiment, one should consider that the move from a low to a high minimum wage regime was unexpected and occurred exceptionally quickly. It seems that the minimum wage shock entailed losses in low-wage enterprises and low-wage jobs. It promoted

17. These estimates are available on request.
restructuring and induced employers to move towards higher-skilled labour and more capital-intensive technologies. In other words, the hikes made the low-costs competitive route harder to follow for Hungarian enterprises, and gave impetus to the higher value-added competitive route. The reason why most Hungarian analysts consider the balance of changes as rather more negative than positive in general terms is due to specific concerns about unskilled unemployment. While the employment level of the total Hungarian prime-age population is only slightly lower than the EU average, the employment prospects of the unskilled are meagre by any standards. In 2005, 69.3 per cent of the 15–59-year-olds (excluding students) were employed in Hungary, below the European mean (72.3 per cent). But if the overall gap with the EU (for all younger workers) was only 3 per cent, for the unskilled (ISCED 0–2 qualification) it was 13.2 per cent (levels of 43.9 versus 57.1 per cent).18 Although the minimum wage hikes will certainly lead to potential long-term gains and contribute to changing the country’s development path, the manner and speed of the hikes represented immediate losses of unskilled job opportunities, an outcome wholly undesirable in a country in which the majority of the low-educated remain out of work.

Case study 2: The problem of “fake minimum wages”

The discussion of minimum wage policies would not be complete without reference to the problem of “envelope wages”. The minimum wage is usually thought of as an anchor, preventing employers from paying unskilled workers and young people unfairly. However, throughout Europe (see Chapter 1) tax evasion frequently takes the form of paying workers a registered minimum wage subject to taxation and an “under-the-counter” cash supplement or “envelope wage”, unobserved by the tax authorities. Cross-country data suggest a positive correlation between the size of the spike of the wage distribution at the minimum wage and the estimated size of the informal economy (Tonin, 2007b). The fact that several new accession countries, including Latvia, Lithuania, Hungary and Romania, have high shares of minimum wage earners, while their Kaitz indices are in the middle range (Eurostat, 2005) suggests that fake minimum wages may be particularly widespread in the former socialist countries.

A process at the core of Hungary’s policy debate

In Hungary, a country with a large hidden economy, a high fraction of minimum wage earners and recurrent fiscal crises, the issue of envelope wages,
The minimum wage revisited in the enlarged EU

Table 8.3 Employees at the minimum wage, Hungary, May 2003

<table>
<thead>
<tr>
<th>Firm size (number of employees)</th>
<th>Fraction paid the MW</th>
<th>Composition All MW earners = 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>33.8</td>
<td>29.9</td>
</tr>
<tr>
<td>5-10</td>
<td>34.8</td>
<td>22.0</td>
</tr>
<tr>
<td>11-20</td>
<td>25.6</td>
<td>17.1</td>
</tr>
<tr>
<td>21-50</td>
<td>12.1</td>
<td>16.1</td>
</tr>
<tr>
<td>51-300</td>
<td>4.5</td>
<td>10.4</td>
</tr>
<tr>
<td>301-1,000</td>
<td>1.6</td>
<td>4.0</td>
</tr>
<tr>
<td>&gt;1,001</td>
<td>0.3</td>
<td>0.5</td>
</tr>
<tr>
<td>Total</td>
<td>9.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Occupation**

- Top managers: 11.9, 1.6
- Managers (heads of department, foremen, etc.): 4.7, 3.2
- Managers of small firms: 27.4, 3.4
- Engineers: 3.4, 1.0
- Architects and construction technicians: 17.9, 0.5
- Professionals in health, education and social services (private): 2.1, 0.1
- Other professionals: 3.6, 0.6
- Lawyers, business and tax advisers, accountants: 14.9, 1.5
- Freelance cultural occupations (musicians, actors, writers, artists, etc.): 15.8, 0.5
- Technicians: 6.8, 2.8
- Administrators: 5.0, 5.2
- Agents, brokers: 17.7, 1.2
- Office workers: 9.0, 4.9
- Blue-collar workers in trade and catering: 25.2, 16.3
- Blue-collar workers in transport: 3.0, 0.5
- Services A (other than B and C): 7.2, 1.1
- Services B (health and social services, private): 0.4, 0.0
- Services C (personal services): 22.0, 1.0
- Farmers and farm workers: 10.4, 3.4
- Blue-collar workers in heavy industry and engineering: 5.4, 6.9
- Blue-collar workers in light industry: 9.5, 10.3
- Blue-collar workers in construction (structural construction, house building): 20.6, 10.8
- Blue-collar workers in construction (civil engineering): 4.3, 0.2
- Assemblers, machine operators: 2.6, 4.0
- Truck drivers: 17.5, 4.6
- Porters, guards, cleaners: 13.6, 8.4
- Unskilled labourers, casual workers: 23.1, 6.3
- Total: 9.4, 100.0
and the forgone taxes associated with them, are at the centre of public debate. Even a first glance at the incidence of the minimum wage, the composition of minimum wage earners and the within-occupation wage distributions suggests that fake minimum wages exist on a large scale.

**The evidence: most categories affected**

Table 8.3 shows that, in Hungary in 2003, the highest fraction of minimum wage earners (27 per cent) was found among small firm managers and about one in ten top managers in larger firms also earned the minimum wage. Fairly high shares are observed in freelance occupations, such as architects, lawyers, accountants, business and tax advisers, agents and brokers, artists, writers, film-makers, actors and musicians (15–17 per cent). The fraction is high in personal services (22 per cent), trade (25 per cent) and house-building, occupations in which cash transactions frequently occur. In several low-wage occupations, the fraction of workers paid the minimum wage fell short of the above-mentioned figures. The lack of dense concentration of minimum wages in the low-educated groups and young age cohorts provides further support to the conjecture that disguised minimum wages exist. The second column shows that about 30 per cent of minimum wage earners are employed in low-wage occupations (labourers, porters, assemblers and blue-collar workers in light industry), and about 50 per cent if we include retail workers. About 15 per cent

<table>
<thead>
<tr>
<th>Firm size (number of employees)</th>
<th>Fraction paid the MW</th>
<th>Composition All MW earners = 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>7.9</td>
<td>21.7</td>
</tr>
<tr>
<td>Vocational training school ( uncertified)</td>
<td>11.5</td>
<td>38.7</td>
</tr>
<tr>
<td>Vocational secondary school</td>
<td>9.2</td>
<td>18.8</td>
</tr>
<tr>
<td>General secondary school (gymnasia)</td>
<td>10.0</td>
<td>9.7</td>
</tr>
<tr>
<td>Technical high school</td>
<td>8.8</td>
<td>4.6</td>
</tr>
<tr>
<td>College, university</td>
<td>8.9</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td>9.4</td>
<td>100.0</td>
</tr>
<tr>
<td>15–20</td>
<td>31.2</td>
<td>0.4</td>
</tr>
<tr>
<td>21–25</td>
<td>13.2</td>
<td>6.9</td>
</tr>
<tr>
<td>26–30</td>
<td>10.8</td>
<td>15.1</td>
</tr>
<tr>
<td>31–49</td>
<td>9.6</td>
<td>49.8</td>
</tr>
<tr>
<td>50–55</td>
<td>6.9</td>
<td>17.8</td>
</tr>
<tr>
<td>56–60</td>
<td>6.0</td>
<td>8.1</td>
</tr>
<tr>
<td>&gt;60</td>
<td>11.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>100.0</td>
</tr>
<tr>
<td>Men</td>
<td>10.1</td>
<td>65.0</td>
</tr>
</tbody>
</table>

are found in house-building and services, where cash transactions with customers are common. While the fraction of minimum wage earners is very high among managers and freelance professionals, they account for less than 10 per cent of all minimum wage workers. The remainder of the minimum wage employees are more or less evenly distributed across occupations.19

19. It should be remembered that, despite the existence of fake minimum wages, the 2001–02 hike had a stronger-than-average effect on unskilled employment.

Figure 8.4 Size distribution of earnings in three occupational groups, Hungary, 2003 (enterprise sector, full-timers)

Note: The log of the minimum wage was 10.82 in 2003.

Distributional effect differs at lower end

Similarities in the proportion of workers paid the minimum wage do not imply that the underlying wage distributions are similar, too. This is illustrated in Figure 8.4. In the case of engineers and natural scientists, the minimum wage plays a minor role: the wage distribution is close to the log-normal. In the case of unskilled labourers and casual workers, the distribution is strongly skewed at the minimum wage, with only a small number of workers earning substantially more than that. The wage distribution of top managers has a completely different, bi-modal shape, with one mode located at the minimum wage and another at five times the minimum wage. This shape clearly points towards a minority under-reporting their wages, while we have no reason to suspect similar practices among unskilled workers.

Estimates of the phenomenon

While there is general agreement in Hungary that fake minimum wages exist, very little is known about the magnitude of the practice. Determining who earns a fake minimum wage is tantamount to predicting the “genuine” wages of workers and identifying cases in which the prediction is significantly higher than the minimum wage but the worker actually earns the minimum wage. In their ongoing research, Elek et al. (2009) use the double hurdle model for this purpose.20 Their estimates suggest that over half of minimum wage earners receive informal side payments, but that the vast majority of them earn only slightly above the minimum wage. Substantial side payments and a high probability of cheating are characteristic of high-skilled groups.

Policy answers

Governments facing fake minimum wages in certain segments of the economy might be tempted to raise revenues by: (i) increasing the minimum wage and (ii) increasing taxes on the minimum wage. The doubling of the minimum wage in Hungary in 2001–02 was an example of the first case: the desire to “whiten the grey economy” was one of the justifications given for this unique decision. Several years later (in 2006) a minimum social security contribution base equal to 200 per cent of the minimum wage was introduced; similar practices exist in Bulgaria.

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20. If envelope wages exist the “genuine” wage of a worker is observable only if (i) the worker’s productivity is higher than the minimum wage and (ii) the worker receives no envelope wage. In all other cases we observe the minimum wage instead of the genuine wage. The double hurdle model allows for both selection processes. The double hurdle was proposed in Cragg (1971) and developed further in Blundell and Meghir (1987).
The potential budgetary gains from whitening the grey economy in this way seem modest. Under the naive assumptions that: (i) all minimum wage earners cheat; (ii) their actual net remuneration is equal to the net wages paid to non-minimum wage earners in each occupation; (iii) enforcing full reporting is costless; and (iv) the labour cost elasticity of demand for labour is zero, Köllö (2008) estimated that the potential gain from the full reporting of "genuine" wages could amount to about 1.3 per cent of GDP in Hungary. The expected net increase in budget revenues should be substantially lower than this estimation, given that: (i) genuine minimum wage workers do exist; (ii) they predictably earn less on average than do non-minimum wage workers; (iii) enforcement incurs non-negligible costs \(^{21}\) and (iv) the demand elasticity is significantly negative. \(^{22}\) The expected gain is probably far below 1 per cent of GDP, but governments in financial trouble might find that a gain of even this magnitude is desirable.

However, reducing the underreporting of wages by means of substantially increasing the minimum wage, or the taxes imposed on it, is a poorly designed alternative to presumptive taxation. Presumptive taxation (Musgrave, 1981; Tanzi and Casanegra di Jantscher, 1987) put into practice in many developing and developed countries (IFA, 1998) and proposed for the Central and Eastern European countries (Pashev, 2006; Wallace, 2002) tries to tax the hard-to-tax by estimating the expected minimum income of firms using a set of proxies and (simple or sophisticated) statistical evidence on how these proxies affect incomes in the particular sector (see Arachi and Santoro (2007) on the Italian experience, for instance).

Presumptive taxation has a number of advantages when compared to high minimum wage policies. First, it is potentially better targeted. Governments using the minimum wage as a fiscal tool implicitly assume that tax evasion typically takes the form of combining registered minimum wages with envelope wages. However, evidence on the Baltic countries presented in Chapter 4 suggests that envelope wages occur throughout the observed wage distribution

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\(^{21}\) In 2005, the Tax Office had to deal with 1.6 million applications for exemption from paying increased contributions after the minimum wage. See http://www.mkogy.hu/rom/01559/01559-0001.pdf. This opportunity was made available in order to avoid overtaxing genuine minimum wage earners and workers who did not work all year around.

\(^{22}\) The wage elasticity of demand for unskilled labour is significantly negative in Hungary. Köllö (2001) and Halpern et al. (2004) suggest that the constant-output own-wage elasticity of demand for blue-collar workers (people without certified secondary school attainment) is in the range of \(-0.4/-0.5\). Similarly, Commander and Köllö (2004) estimated elasticities of between \(-0.4\) and \(-0.5\) for unskilled and skilled blue-collar workers. The research results also suggest that unskilled labour can be easily substituted for capital, with the cross-price elasticities being in the range of \(0.5/0.7\). A higher minimum wage or a higher minimum tax base is likely to reduce unskilled employment and, hence, budget revenues.
so there is no reason to restrict presumptive taxes to minimum wage earners. Second, presumptive taxation allows a distinction between genuine and fake low-wage firms and sectors, so preventing the pricing out of low-productivity industries, unskilled labour and young people. Third, presumptive taxation can be applied in a discretionary way without automatically enforcing tax payment after estimated income. This approach is followed by the Italian practice of “analisi di settore”: if actual income falls short of expected income, then the entrepreneur faces a greatly increased risk of independent checks. The minimum wage is thus probably not the main instrument for reducing tax evasion, a target that should not monopolize the attention of minimum wage policy to the detriment of other – more probable – positive effects, such as on low pay, wage disparity and fairer distribution of growth.

8.6 CONCLUSIONS

The Hungarian experience draws attention to at least three issues relevant for minimum wage policies in Europe.

First, the Hungarian data confirm that, similarly to most developed countries, the impact of the minimum wage on poverty is weak – an outcome explained by the fact that many minimum wage earners live in medium- and high-income families. The effect on wage inequality seems much stronger, even if the outcomes vary according to chosen indicators. The decile ratio is relatively responsive to changes in the minimum wage and the Gini is also affected, albeit less strongly. The big hikes of 2001–02 clearly compressed wages at the lower tiers of the distribution but had a limited impact on the share of low-wage workers and the relative earnings of the low-wage group as a whole.

Second, consistent with the bulk of the empirical evidence, the Hungarian data suggest that a huge, unexpected increase in the minimum wage is likely to have negative effect on unskilled employment. The policy context may play a role, however. In contrast to Hungary’s “big bang” approach, gradualist policies, even if they set a high minimum wage target, can leave time for adjustment (by means of training and mobility), consequently mitigating the adverse impact of the minimum wage on labour demand.

Third, as in other countries facing massive tax evasion, the government is tempted to use the minimum wage as a fiscal instrument. The literature and the experience of some countries suggest that properly designed presumptive taxation can tackle the problem of tax evasion more successfully than minimum wage reforms. The adoption of best practices is highly desirable in the new Member States where tax authorities lack the experience of fine-tuning the fight against tax evasion, while often being under severe pressure to raise budget revenues.
More generally, exchange of best practices on minimum wage policy at EU level could be extremely useful in helping governments to tackle this issue, as well as in improving the efficiency of minimum wages with regard to several central policy issues, such as low pay and overall wage disparity.

BIBLIOGRAPHY


Hungary


