

Chapter 2

Declaring Work or Staying Underground: Informal Employment in Seven OECD Countries

Informal employment and undeclared work is a significant labour market problem for some lower- and middle-income OECD countries, prompting concerns about worker protection, making it difficult for governments to deliver high quality public services and hindering productivity and growth. Strong economic growth does not, per se, appear to guarantee a reduction in informal employment. What policies can countries adopt to address informal employment? The answer differs from country to country. Depending on the situation in each of them, incentives for employing workers formally may be improved by a combination of reducing labour costs when they are excessive, increasing flexibility in countries with stringent employment protection legislation and improving the design of social protection schemes to increase the benefits of affiliation to workers. Better incentives should be complemented by enhanced tax, social security and labour enforcement efforts. Improved governance standards would also encourage voluntary compliance.

Introduction

Informal employment, sometimes known as undeclared, hidden or grey employment, can be broadly described as employment engaged in producing legal goods and services where one or more of the legal requirements associated with employment are not complied with. There are many reasons why policy makers in OECD countries are concerned about informal employment. Fully informal employees lack social security coverage and some or all of the protections provided by labour contracts (i.e. minimum wages, employment protection or occupational health and safety standards), are often poorly paid and have less access to training and career advancement than formal workers. Complete or partial non-compliance with tax or social security regulations reduces government revenue and necessitates higher contribution rates for formal workers. This can lead to a vicious circle where informality pushes governments to raise labour taxes or reduce the quality, targeting or coverage of public services and thus reduce even further incentives to formalisation. Informality can also have broader productivity and growth effects: informal firms tend to stay small in order to avoid regulation and scrutiny and this may restrict their access to capital, new technologies and markets while also generating unfair competition for formal firms (OECD, 2004a).

Countries with higher levels of development tend to have less informality (see Perry *et al.*, 2007, for a recent discussion). However, it is less clear that economic growth within an individual country necessarily results in less informal employment. For example, despite strong economic growth in India and China over the past ten years, informality rates remain very high in India, and are increasing in China as more of the workforce moves into urban areas (OECD, 2007a). Thus, policies that promote economic growth alone will not solve the problem of informal employment: a more articulated policy solution is necessary. OECD (2004a) reviewed the impact of various policies on incentives for informal employment and undeclared work in OECD countries and highlighted differences in the approaches needed to combat informality in countries at various levels of development.

This chapter builds on OECD (2004a) by examining informal employment in detail for seven lower- and middle-income OECD countries where it poses particular challenges – the Czech Republic, Hungary, Korea, Mexico, Poland, the Slovak Republic and Turkey. Concentrating on a small number of countries rather than adopting a cross-country approach allows deeper analysis of the complex set of factors that influence informal employment. With the exception of Turkey, all the countries examined became OECD members during the 1990s and, generally due to data limitations, are often excluded from cross-country OECD analysis. The seven countries offer a range of economic and labour market conditions and have experienced difference performance over the past decade. The Czech Republic, Hungary, Poland and the Slovak Republic experienced rapid economic and institutional change during the transition to a market economy and, at least in the early 1990s, saw a rapid growth in informality and self-employment as workers struggled to find formal job opportunities. Turkey and Mexico are the lowest-income OECD countries

and continue to experience high levels of informality, even in the most recent years characterised by a significant pick-up in economic growth. Korea has also undergone a rapid transformation process over the past decades and provides a useful illustration of the process of implementing new institutions, such as social security schemes, in an environment previously characterised by widespread informality. This is not to say that other OECD countries do not experience informal employment. OECD (2004a) found that even high-income OECD countries face problems with tax and social security compliance, and that several southern European countries, in particular, also have relatively high levels of informality. However, the countries chosen provide useful insights on the links between economic transformation, labour market developments and informality, which may become increasingly central issues in labour market and social policy as the OECD considers expansion and enhanced engagement with large developing countries such as Brazil, China and India, Indonesia and South Africa.

The chapter examines several different types of informal employment – ranging from employees who are not registered for social security to those who declare only some of their income for tax purposes. Other groups of workers who may be particularly prone to informality, such as the self-employed or people with more than one job, are also considered. The chapter focuses on policies that affect the incentives for firms to employ workers informally and for workers to fail to declare income to tax and social security authorities. However, firm-level informality is also an important source of informal employment. If a firm is not registered or paying taxes, it is unlikely that its employees will be formally employed or paying taxes themselves. The costs and benefits of formal employment outlined in this chapter influence firms' decisions to operate formally, along with a range of other factors (such as business regulation and registration costs, access to finance and the quality of the legal system). However, a full discussion of firm-level informality is beyond the scope of the chapter.

Section 1 presents various estimates of the extent of informal employment in the seven countries featured in the chapter, along with a discussion of the characteristics of different types of informal workers. Sections 2 to 4 discuss the various policy factors influencing informality. Section 2 examines policies that increase the costs of formal employment. Section 3 examines how the benefits of contributing to social protection programmes or paying taxes can be enhanced. Section 4 discusses the role of enforcement in discouraging informal employment. The conclusion section presents a country-by-country synthesis of the main policy findings of the chapter.

Main findings

- *The nature and extent of informal employment varies substantially across the seven countries:*
 - ❖ *Informal employment is most widespread in Mexico and Turkey, where 40-60% of the workforce is employed without social security coverage or runs its own business, and tax evasion is common, even in medium and large formal firms. In these two countries, having a low level of education and being a woman or outside prime-working age increases the likelihood of informal employment.*
 - ❖ *In the Czech Republic and the Slovak Republic very few employees are completely informal, but up to 10% of the workforce has under-declared income. "False" self-employment may also be problematic, although this is difficult to quantify. Middle-aged workers with medium or high levels of education are the most likely to have under-declared income and be*

self-employed, suggesting that evading tax and regulation is the primary motive for informality, rather than survival.

- ❖ *In Hungary and Poland relatively widespread under-declaration of income is accompanied by other forms of informality.* Those with under-declared income work regularly in this manner and undeclared income accounts for a relatively large share of their total income. Around 20% of employees are not contributing to the pension system in Hungary and a similar proportion of employees in small firms in Poland do not have a written employment contract.
- ❖ *Korea has made significant inroads into informal employment, but 25% of the workforce remains unregistered for social security.* Older workers and those with low levels of education are particularly susceptible to informal employment.
- *Combating informal employment requires a comprehensive approach* to reduce the costs and increase the benefits to businesses and workers of operating formally and ensure that regulations are adequately enforced.
- *A high wage floor in Hungary and Turkey and high non-wage labour costs in all countries except Korea create incentives for informal employment or under-declaration of earnings among employees.* Reducing labour costs, particularly for low-wage workers, could encourage greater formalisation:
 - ❖ *In Hungary and Turkey, high labour costs result from the combination of binding minimum wages in the formal sector and high labour taxes, partly driven by generous pension systems.* In Hungary, while a small minority of minimum-wage earners probably under-report their income, further minimum-wage hikes designed, in part, to reduce tax evasion may reduce employment prospects for genuine low-productivity workers.
 - ❖ *In all countries except Korea (and Mexico for large businesses), labour taxes are relatively high compared with taxes on capital, providing few incentives for full declaration of wage earnings.* Given the limited room for manoeuvre in fiscal policy in these countries, granting labour tax relief would probably involve increasing other taxes. Property taxes could be a good candidate, as they are amongst the least distortive taxes.
- *Granting preferential tax treatment to the self-employed, notably through taxes on turnover instead of net income, tends to encourage false self-employment and under-declaration.* It is easier for the self-employed to evade taxes than for wage earners and it can be difficult for tax authorities to detect their true income accurately. Simplified taxes for small businesses may, however, be appropriate in countries, such as Mexico and Turkey, where many self-employed are not equipped to establish proper book-keeping procedures. However, simplified tax regimes should be designed so as to provide incentives to declare employees' wages.
- *Complex tax systems increase compliance costs for taxpayers and encourage under-declaration.* This is the case in Hungary, Poland, Mexico and Turkey, where a number of tax exemptions and credits remain in place in the personal and/or corporate income tax systems. While the Slovak Republic and Korea have relatively simple tax systems, handling the complex social contribution collection system – involving different funds, income bases/ceilings and payment periods – is costly for firms. Proposed reforms to contribution collection in Korea should go some way to alleviating this problem.
- *Relaxing restrictions on the use of temporary or fixed-term contracts and reducing firing costs for young or inexperienced workers would improve incentives for firms to hire formal workers.*

Informal employment is used by firms to increase internal flexibility for firms in Mexico (and probably Turkey), where regulations limit the use of temporary and fixed-term contracts. Introducing probationary periods for new workers on permanent contracts in Mexico and Korea and reducing requirements to make redundancy payments to workers with short tenure in the Czech Republic, the Slovak Republic and Mexico could reduce informality, especially among young workers. Existing retirement allowance schemes in Korea, Mexico and Turkey can also lead to early or forced retirement among older workers, who then often have little choice but to work informally.

- *Workers' perceptions of the value of the benefits they are likely to receive from social protection schemes may be a factor encouraging formal work or the full declaration of earnings if workers have some say in whether or not they are employed formally:*
 - ❖ *The design of the pension system can affect incentives for informality.* Some have argued that the closer the link between contributions and benefits, the less workers will perceive pension contributions as a tax, and thus the lower the negative effect of contributions on formal sector participation. However, cross-country data show no systematic relationship between the degree of redistribution and pension coverage. Very strongly redistributive systems, such as in the Czech Republic, may nevertheless favour under-declaration of earnings. Other characteristics of the pension system may also play a role. For example, systems with little link between contribution records and benefits, such as in Turkey, favour early retirement of workers and continued activity in the informal sector. Minimum contribution periods in countries where workers often move in and out of formal employment, such as for the minimum guaranteed pension in Mexico, also create disincentives to work in the formal sector.
 - ❖ *Easing somewhat access conditions for unemployment benefits, increasing the link between benefits and contributions (while being careful to preserve work incentives) and/or reducing contribution rates could improve incentives for formalisation.* In six of the countries studied, unemployment insurance schemes have strict access conditions, low benefit levels and very limited links to contributions, especially in Poland, the Slovak Republic and Turkey.
- *Improving trust in government and the quality of public services can play an important role in reducing informality by increasing the perceived benefit to taxpayers of paying taxes.* All seven countries examined perform below the OECD average on indicators of government effectiveness and corruption control, although progress has been made in recent years.
- *Combined with improving incentives for formalisation, effective enforcement of labour, tax and social security regulations is essential to combat informal employment.* Existing enforcement resources can be used more efficiently in all seven countries by implementing or increasing the use of risk-assessment processes to target inspections and increasing coordination and information-sharing between enforcement agencies. In many cases, detecting informal employment is not currently the primary focus of tax or labour inspectorate activities. Combating informality also requires broadening the focus of enforcement bodies from revenue maximisation (for tax authorities) and occupational health and safety (for labour inspectorates) to include formalisation by targeting new groups, such as small firms or the service sector, where informal employment is prevalent, providing advice and technical assistance to small firms and improving income detection for small firms and the self-employed.

1. Extent and characteristics of informal employment

1.1. Informal employment is difficult to define and measure

Despite a substantial literature, there is no universally accepted definition of informal employment (see OECD, 2004a; and Perry *et al.*, 2007, for a summary). For the purposes of this chapter, informal employment is defined as employment engaged in the production of legal goods and services where one or more of the legal requirements usually associated with employment (such as registration for social security, paying taxes or complying with labour regulations) are not complied with. Transforming this “ideal” definition into comparable cross-country statistics on informal employment is complicated by difficulties in measuring various aspects of informality. In practice, the definitions used in empirical work depend both on data availability and the focus of the research. One branch of the literature focuses on measuring the aggregate size of the informal sector, usually as a percentage of GDP (*e.g.* Schneider and Enste, 2000).¹ Other studies focus more on measuring the share of employment involved in informal activities. Unfortunately, no reliable estimates of the overall share of informal employment are available for most OECD countries. However, microdata can be used to examine different forms of informal employment. Existing studies of informality using microdata employ a range of proxies for informal employment, such as lack of social protection coverage, self-employment or work in a microbusiness (*e.g.* Bernabè, 2002; Gasparini and Tornarolli, 2007; Loayza and Rigolini, 2006).

From a labour market policy perspective, quantifying and understanding the many forms of informal employment is more important than simply assessing the overall size of the sector in the total economy, even if this does not allow a cross-country comparison involving many OECD countries. An emerging literature finds considerable variation in the characteristics, experiences and motivations of different types of informal workers (see Box 2.1). The policies shaping the different types of informality also vary considerably. For example, high average tax rates on low-paid workers may encourage both workers and firms to hide their employment from the tax authorities, whereas high marginal tax rates on high-income earners may create incentives to under-declare a proportion of their income. Making well-grounded policy recommendations to encourage formalisation depends on understanding the extent and characteristics of different types of informal employment and the ways policies influence firms’ and workers’ incentives. In order to best capture the diversity of informal employment, a range of measures of informal employment are examined, encompassing a continuum of informality from workers who are fully unregistered for social security to those who fail to declare only a portion of their income to tax or social security authorities.²

Table 2.1 provides estimates of informal employment and undeclared work in the seven countries examined in this chapter.³ Jobs without social security coverage or written employment contracts are used as a proxy for informality among employees, as is common in the literature. Non-farm own-account workers (*i.e.* self-employed without employees) are not necessarily informal, but previous research has shown that these workers typically have higher rates of tax and social security evasion than employees.⁴ In addition, some own-account workers could be considered *false self-employed*, in that they work every day for the same employer but are either forced or choose to be self-employed in order to bypass labour law or tax and social security obligations.⁵ Unpaid family workers are included because they provide a significant source of labour for informal family businesses

Box 2.1. **Informal employment: segmentation, choice or somewhere in-between?**

The informal employment literature is moving away from the traditional view of informality as evidence of labour market segmentation. Rather than seeing informal employment as a survival mechanism for low-productivity workers who are queuing until they can find a better-paid, formal job opportunity, recent empirical research argues that some informal workers “choose” informal employment. They do so because informal employment offers them the best financial return on their skills or experience, given other labour market opportunities and prevailing institutional settings, or because of the non-monetary benefits of informal work. Fields (2005) argues that the informal labour market is itself segmented, with some workers choosing to be informal and others, generally with low qualifications and living in rural areas, being trapped in low-paid informal jobs with few opportunities to move to formal jobs even if they wish. This dualism in the informal sector is backed up by evidence on the differences in wage and other outcomes for different types of informal workers.


There is clear evidence that some informal workers receive higher wages, or at least similar wages, than equivalent workers in the formal sector, suggesting that informal work may be a rational economic choice for some. For example, Maloney (1999) finds that movements from self-employment to formal salaried work are accompanied by a reduction in earnings in Mexico. A number of other studies find that the self-employed earn around the same as formal salaried workers in other Latin American countries (*e.g.* Saavedra and Chong, 1999, for Peru; Arias and Khamis, 2007, for Argentina). Köllö and Vincze (1999) find that the growth of self-employment in Hungary in the early 1990s was the result of relatively good labour market prospects for the self-employed rather than a form of disguised unemployment. Likewise, Earle and Sakova (2000) find, after controlling for personal and job characteristics, a small earnings premium for own-account workers in the Czech Republic and the Slovak Republic in the mid-1990s. However, this literature also highlights the heterogeneity of informal employment. Informal salaried workers, for example, generally earn less than they would in formal jobs (*e.g.* Maloney, 1999, for Mexico; Tansel, 2000, for Turkey). There are also a number of reasons, other than earnings potential, why workers may choose informal employment over a formal job. Informal self-employment, in particular, may offer flexibility and autonomy not available in a formal salaried job. Opportunities for tax or social contribution evasion, and thus higher potential net earnings, may be another motivation.

and derive utility from informal family businesses in much the same way as own-account workers. Multiple job holders, like own-account workers, are not necessarily informal, but have greater opportunities for failing to declare income or register for social security than workers with only one job. Under-declaration of income for tax or social security purposes is also considered in its own right, although the estimates presented probably represent a lower bound on the extent of undeclared income, due to the sensitivities of questions about tax evasion. While the range of informality examined is broad, it cannot be all-encompassing due to the difficulties in measuring a phenomenon which is, by definition, illegal in some senses. Nevertheless, the estimates help in understanding the relative importance of various types of informality and the characteristics of informal workers, informing the policy discussion later in the chapter. There may, of course, be substantial overlap between alternative definitions of informal employment. For example, employees who are not registered for social security are also likely to fail to declare all or part of their income to the tax authorities. Where possible,

estimates exclude the farm sector, which is typically declining in importance over time and makes up only a small proportion of total employment in four of the countries examined (the exceptions being Poland, Mexico and Turkey).

Table 2.1. **Alternative measures of informal employment and undeclared work**

Employees in informal jobs		Own account workers	Unpaid family workers	Multiple jobs holders	Undeclared income		
Employees not registered for mandatory social security	Employees without work contract	% of non-farm employment	% of non-farm employment	% of total employment	% of workforce typically not reported for tax purposes ^b	% of employees receiving wages cash-in-hand ^c	
% of non-farm employment ^a		(3)	(4)	(5)	(6)	(7)	
(1)	(2)						
Czech Republic	..	1.8	11.4	0.7	2.1	10	3
Hungary	19.4	2.6	6.4	0.3	1.8	9	8
Korea	25.8	..	17.1	4.7	1.7	7	..
Mexico	31.5	26.9	20.6	5.1	3.3	31	..
Poland	..	4.9	7.0	0.7	7.5	11	11
Slovak Republic	..	2.2	9.2	0.1	1.2	6	7
Turkey	21.7	..	16.6	3.3	3.1	25	..

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.. Data not available.

a) Data for Hungary for social security registration are as a percentage of total employment.

b) Based on answers to the following question: "Recognising the difficulties that many firms face in fully complying with labour regulations: what percentage of total workforce would you estimate the typical firm in your area of business reports for tax purposes?". Item non-response: Czech Republic: 3%; Hungary: 3%; Korea: 2%; Mexico: 12%; Poland: 1%; Slovak Republic: 16%; Turkey: 6%.

c) Based on answers to the following question: "Sometimes employers prefer to pay all or part of the regular salary or the remuneration for extra work or overtime hours cash-in-hand and without declaring it to tax or social security authorities. Did your employers pay you all or part of your income in the last 12 months in this way?".

Source:

(1) Hungary: Hungarian Finance Ministry estimates based on Elek et al. (2008); Korea: Korean Labor and Income Panel Study, 2005; Mexico: Encuesta Nacional de Ingresos y Gastos de los Hogares, 2005; Turkey: Household Labour Force Survey, 2006.

(2) Czech Republic: European Social Survey, 2004; Hungary, Poland and Slovak Republic: European Social Survey, 2006/07; Mexico: Encuesta Nacional de Ingresos y Gastos de los Hogares, 2005.

(3) Czech Republic, Hungary, Poland and Slovak Republic: Eurostat Labour Force Survey; Korea: Korean Labor and Income Panel Study; Mexico: Encuesta Nacional de Ingresos y Gastos de los Hogares; Turkey: Household Labour Force Survey. Data are for 2005.

(4) OECD database on Labour Force Statistics, 2005.

(5) Czech Republic, Hungary, Poland, Slovak Republic and Turkey: Eurostat Labour Force Survey, 2006; Mexico: Encuesta Nacional de Ingresos y Gastos de los Hogares, 2005; Korea: Korean Labor and Income Panel Study, 2005.

(6) OECD estimates for private sector firms using World Bank Enterprise Surveys, 2005 (2006 for Mexico).

(7) European Commission (2007).

The characteristics of informal workers differ across countries

The extent and characteristics of informal workers vary substantially, both within countries across different types of informal employment, and across countries. This section summarises the situation in each of the seven countries examined in this chapter.⁶

- **Czech Republic:** few employees in the Czech Republic are completely informal. However, partial informality – either false self-employment or under-declaration of income – affects a sizeable share of the workforce. Own-account workers are typically middle-aged, male and have moderate levels of education. Tax evasion is most common for the

self-employed and higher-educated, higher-income workers, but accounts for only a small proportion of the total income of evaders.

- *Hungary*: while relatively few Hungarian employees work without an employment contract, non-compliance with social security is sizeable, accounting for 19% of all employees. Unregistered employment is most common for prime-aged men and workers in the construction, personal service and transport industries. Under-declaration of income affects around 10% of the workforce. Almost half of all workers who engage in undeclared activities do so regularly. The likelihood of having undeclared income increases with education level and is highest for middle-aged workers and those in relatively skilled occupations.
- *Korea*: around one quarter of Korean employment is made up of employees without pension coverage, and a further 20% comprises own account or unpaid family workers. Informality is particularly high in small firms and in retailing, construction and hotels and restaurants. Almost all daily hire employees are without social security coverage, although informality is also widespread among employees with permanent contracts, so labour market duality explains only a relatively small proportion of informal employment. The likelihood of informal employment decreases with education level. One of the key groups affected by informal employment in Korea is older workers. They are more likely to work in informal jobs or as own-account workers than those of prime working age, even after controlling for their lower average levels of education. The earnings penalty associated with informal employment tends to increase with age, meaning that older workers are the group most disadvantaged financially by informal employment.
- *Mexico*: informal employment is pervasive in Mexico, with almost 60% of the non-farm workforce employed without social security coverage or as an own-account or unpaid family worker. Under-declared income is also common. Those with a higher likelihood of informal employment have characteristics typically associated with labour market disadvantage: they are women, low-skilled and either younger or older workers. The majority of informal wage employees earn less than they would in formal salaried jobs, suggesting that informal employment is, for many, a survival strategy, particularly in the absence of unemployment benefits. However, informality may be a choice for the upper tier of own-account workers.
- *Poland*: around one fifth of Polish employees working in small businesses do not have a written employment contract. Many of these are young, unskilled workers in retailing, construction and hotels and restaurants. Under-declaration of income is also relatively widespread and cash-in-hand payments account for a large proportion of the income of those who under-declare. While the incidence of multiple job holding is double the EU average, there is little evidence that multiple job holding stems from economic necessity or insufficient hours in the main job. Instead, it may be due to favourable contribution conditions for the farm-sector social security system compared to the general system.
- *Slovak Republic*: very few employees in the Slovak Republic are fully informal, but the incidence of own-account work has almost doubled in the past five years, albeit from a low base. Own-account work is common in the retail and construction industries. Around 5% of workers admit undeclared income, and they tend to be men with medium levels of education.

- **Turkey:** informal employment is widespread in Turkey. Over 40% of the workforce is either working in informal salaried jobs or as own-account or unpaid family workers. Informal workers tend to have relatively low levels of labour market bargaining power: they are young and older workers, women and those with relatively low levels of education. The earnings penalty for informal work is much higher for women than men. While fully-informal employment is concentrated mainly in small businesses, partial informality, in the form of under-declaration of earnings, is common even in larger businesses.

Despite continuing economic growth, informal employment has not fallen significantly in Mexico and Turkey. In Turkey, the proportion of employees without social security coverage has been increasing since the 1990s, while the level of own-account and unpaid family work has remained stable over time. In Mexico, the proportion of employees without social security coverage was stable during the 1990s, but rose steadily between 2000 and 2005 and since then has fallen marginally. The incidence of own-account and unpaid family work has remained relatively unchanged in the past decade, but tax compliance, at least among employees, appears to be improving. In Korea, the coverage rules for social security schemes have been gradually extended, accompanied by a steady increase in the proportion of employees registered for social security, although coverage is still far from universal. Own-account work remains relatively stable, although unpaid family work has been declining in importance. Most forms of informality appear to be declining in the central European countries. The incidence of informality among employees has fallen in Hungary and Poland, a trend likely to have been mirrored in the Czech Republic and the Slovak Republic. Own-account work, which grew in the early post-transition years in the central European countries, has fallen or stabilised more recently in all except the Slovak Republic. Tax and social security compliance measures based on comparing theoretical liability with actual receipts suggest that compliance is improving over time (see OECD, 2008a, for more details on trends in informal employment).

2. Reducing the cost of formal employment

Policies that increase the cost of operating or employing formally create incentives for firms and workers to operate outside the regulatory system. High wage and non-wage labour costs along with stringent regulations governing the hiring and firing of workers can make firms reluctant to employ formally. Some of the costs to firms could be perceived as benefits for workers employed formally (e.g. high minimum wages or enhanced job security resulting from strict employment protection legislation). However, to the extent that such costs limit the creation of formal job opportunities, they may also impose costs on employees, particularly those vulnerable to informal employment. In some cases, workers and firms may collude in order to reduce costs, such as by failing to declare income to tax or social security authorities. The costs of establishing or operating a formal firm can also influence incentives for firms to operate formally. While a full discussion is beyond the scope of this chapter, existing research shows that costly administrative procedures to set up a business, red tape and corruption all create incentives for firms to operate informally (e.g. Auriol and Walters, 2005; Djankov *et al.*, 2002). Reducing these costs can increase the level of formality among firms and increase the likelihood that employees are subsequently registered for and paying taxes and social security contributions.

2.1. Minimum wages

Binding minimum wages may encourage informal employment

Existing empirical evidence suggests that higher minimum wages are associated with lower formal-sector employment, at least in countries where the minimum wage is binding in the formal sector (e.g. Carneiro, 2004 and Lemos, 2004, for Brazil; Infante et al., 2003, for Chile; Jaramillo, 2005, for Peru; Hamidi and Terrell, 2001, for Costa Rica; Bell, 1997, for Colombia; Jones, 1998, for Ghana). In most cases, the fall in formal-sector employment due to higher minimum wages is accompanied by an increase in informal-sector employment so that, overall, higher minimum wages are associated with a higher share of informal employment. However, in countries where minimum wages are less binding in the formal sector, there appears to be little evidence of an impact on formal employment (Bell, 1997; Hamidi and Terrell, 2001).⁷

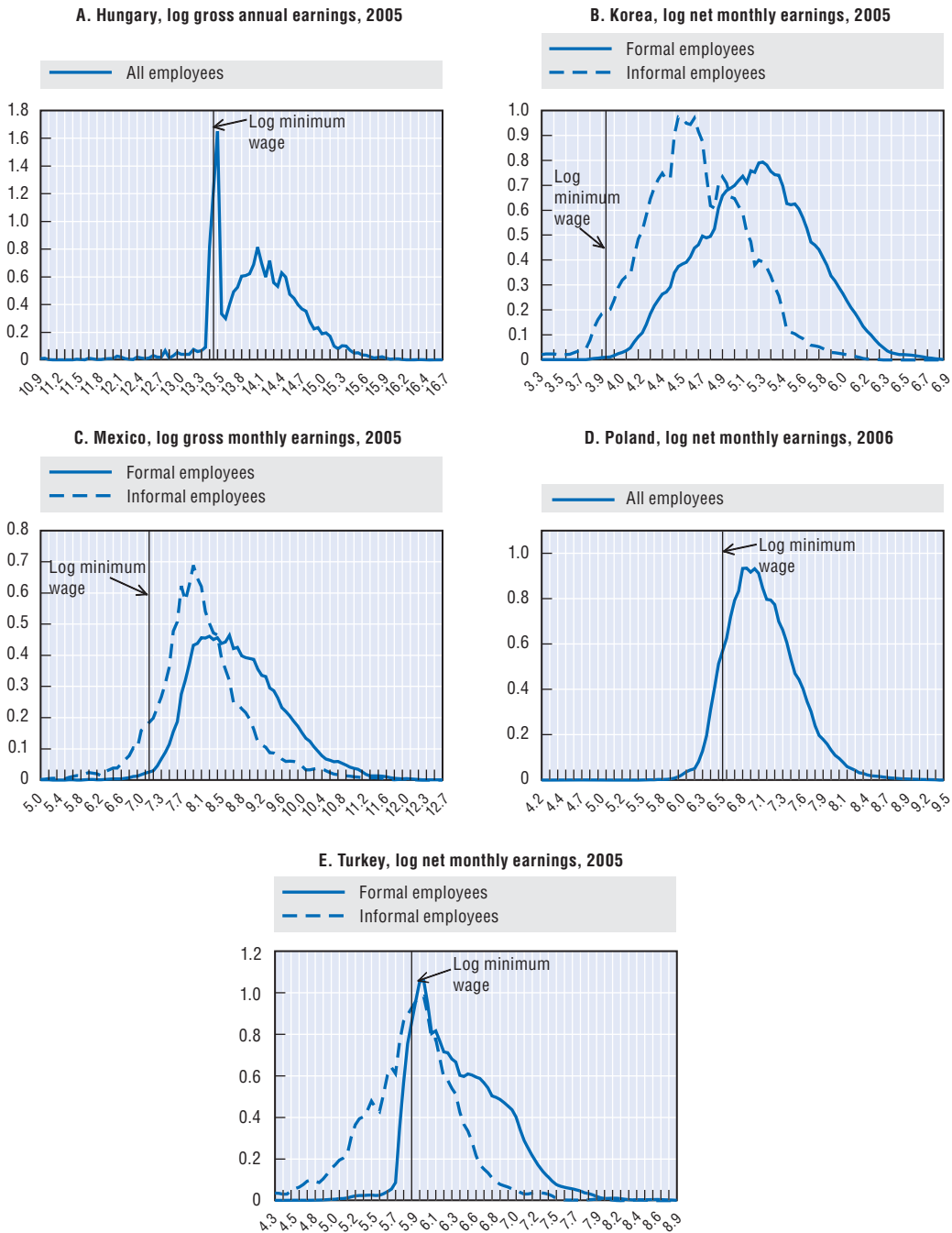
Examining the earnings distribution of formal and informal employees provides an indication of whether the minimum wage is binding for formal employees, a key determinant of whether minimum wages have an impact on informality. Figure 2.1 shows the estimated earnings distribution for formal and informal full-time employees in Korea, Mexico and Turkey and for all employees in Hungary and Poland.⁸ The vertical line in each chart represents the minimum wage. In Mexico and Korea, the minimum wage does not appear to be particularly binding on the formal sector, with very few formal employees and only a small proportion of informal employees earning less than the minimum wage. These results confirm existing evidence for Mexico (Bell, 1997). In Poland, a slightly larger proportion of employees appear to earn less than the minimum wage (although some of this may be due to measurement error),⁹ but the earnings distribution shows little sign of distortion around the level of the minimum wage.¹⁰ Thus, judging on this evidence, it seems unlikely that the minimum wage is a particularly important cause of informality in Mexico, Poland or Korea.

Employees in Turkey who earn less than the minimum wage typically have low earning capacity

In contrast, the formal earnings distribution in Turkey shows a clear spike around the level of the minimum wage. This suggests that the minimum wage is binding on the formal sector in Turkey and that compliance with the minimum wage is high: only 3% of full-time formal employees earn less than the minimum wage. In contrast, 44% of informal employees earn less than the minimum wage. While there is also a spike in the earnings distribution for informal employees at the level of the minimum wage, overall the minimum wage does not appear to be particularly binding in the informal sector. Regression analysis shows that being informal (not registered for social security) or having characteristics typically associated with low wages increase the probability of earning less than the minimum wage in Turkey (see Annex 2.A1 for details). Low levels of education, fewer years of tenure with the current employer and working in a small firm all increase the probability of earning less than the minimum wage. Casual and temporary workers are more likely to earn less than the minimum wage than those with permanent jobs, although some of this effect may be due to measurement error.¹¹ These results suggest that low productivity, rather than false reporting of income to avoid tax or social contributions, explains much of the distortion in the earnings distribution around the minimum wage.

Figure 2.1. **Earnings distribution of full-time, non-farm employees**

Kernel density function



StatLink <http://dx.doi.org/10.1787/347205683134>

Note: The horizontal axis represents log earnings. The vertical axis represents the scaled density (so that the area under each curve is equal to one). Informal employees are employees who are not registered for social security. The sample includes only employees working statutory standard weekly hours or longer (40 in Korea, Hungary and Poland; 45 in Turkey; 48 in Mexico). For Mexico, Turkey and Hungary, employees holding more than one job or who had earnings from a job in another country were excluded from the sample because of difficulties in distinguishing between earnings for different jobs.

Source: Korea, Mexico and Turkey: OECD estimates using data from the Korean Labor and Income Panel Study, 2005, Encuesta Nacional de Ingresos y Gastos de los Hogares, 2005 and Turkish Household Budget Survey, 2005. Hungary: Hungarian Finance Ministry calculations using data from the Hungarian Household Budget Survey, 2005; Poland: Polish Ministry of Labour and Social Policy calculations using data from the Polish Labour Force Survey, 2006.

Lowering the minimum wage (either for all workers or for particular low-productivity groups), or limiting further increases, could improve incentives for formalisation in Turkey. Workers aged 16 years and over must currently be paid the adult minimum wage, so consideration could be given to introducing a discounted minimum wage for young workers or new labour market entrants, as is common practice in a majority of OECD countries (ILO, Minimum Wages Database). Employees aged 15-18 years are 17-23 percentage points more likely to be earning less than the minimum wage than prime-aged employees in Turkey (see Annex 2.A1). Likewise, differentiating the minimum wage on a regional basis could improve the formal employment prospects of low-productivity workers in depressed regions given substantial regional variation in average productivity and living costs. OECD (2006a) estimates that the ratio of minimum wages to regional GDP per capita in 2001 ranged from 20-30% in western regions to 160% in the poorest regions in eastern Turkey. A large proportion of informal workers earn far less than the minimum wage, and quite substantial reductions in the minimum wage would be required to make much impact on informal employment. For example, a 10% reduction in the minimum wage would affect only 4% of informal employees. The impact of a lower minimum wage on informal employment could be amplified by reducing non-wage labour costs (such as income tax and social contributions – see Section 2.2) for low-productivity workers, as well as endeavouring to increase worker productivity levels by investing in education and training.

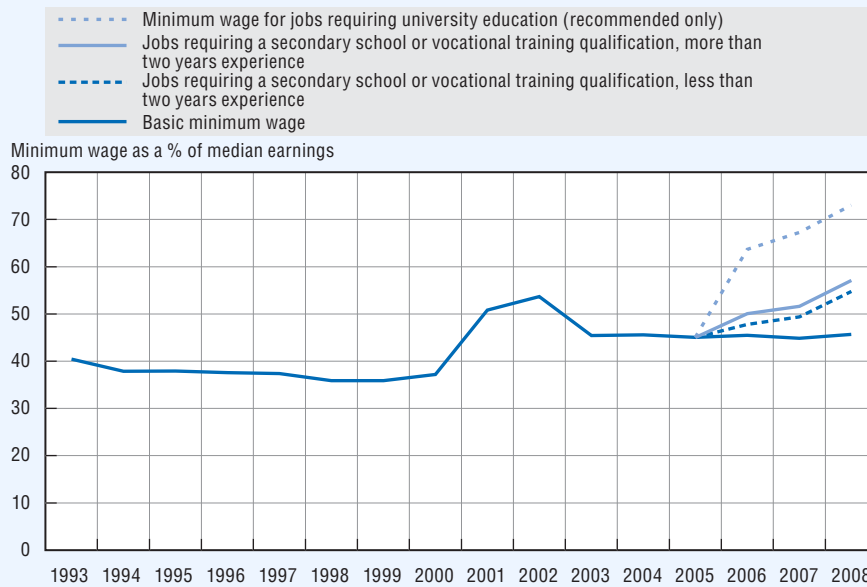
Under-declaration of income cannot fully explain the high incidence of minimum-wage earners in Hungary

For Hungary, the earnings distribution for all employees shows a clear spike at the level of the minimum wage. The same spike in the wage distribution is found using tax authority administrative data (Benedek and Lelkes, 2007) and firm-level survey data,¹² leading to a widespread view that a sizeable proportion of minimum-wage earners falsely report earning the minimum wage in order to minimise tax and social security contributions.¹³ This view has led, in part, to the use of minimum-wage increases as a tax-enforcement mechanism and to justify substantial rises in the minimum wage over the past five years (see Box 2.2). While at least some employees who report earning the minimum wage in Hungary are likely to be highly-educated workers in skilled occupations under-reporting their true incomes, available evidence suggests that many of those who report earning the minimum wage have characteristics associated with low pay and thus under-reporting is likely to account for a relatively small proportion of minimum-wage earners. Benedek *et al.* (2006) estimate that only 4% of minimum-wage earners have under-declared income, and that minimum-wage earners are not significantly more likely to have under-declared income than those who earn more than the minimum wage. Minimum-wage earners are more likely to be women than men and have relatively low levels of education. The likelihood of having under-declared income is higher for highly-skilled and prime-aged workers and the self-employed.¹⁴ Using firm-level data from 2003 (after two substantial hikes in the minimum wage), Köllő (2007) finds that the majority of minimum-wage earners have no secondary education, half work in firms with less than ten employees and about 50% are employed in low-wage manual or retail occupations. While a relatively large proportion of managers and freelance professionals (such as architects, artists, lawyers and tax accountants) report earning the minimum wage, these account for less than 10% of all minimum-wage earners.

Box 2.2. The minimum wage as a tax-enforcement mechanism in Hungary

Since 2001, the Hungarian Government has made a number of changes to the minimum wage, partly in response to concern about the number of minimum-wage earners with under-reported income. In 2001 and 2002, there were large increases in the level of the minimum wage. In 2006, a tiered system of minimum wages was introduced, whereby jobs requiring secondary or vocational qualifications are subject to a higher minimum wage. Proponents of the changes argue that, if many workers are falsely reporting income at the level of the minimum wage, a higher minimum wage will reduce the extent of under-declared income and increase tax and social security revenue.

Minimum wage as a percentage of median earnings in Hungary



StatLink  <http://dx.doi.org/10.1787/347420408422>

Source: OECD (2007b).

Tonin (2007) compares the earnings and food consumption of workers who earned between the old and new minimum wages in 2001 with a control group made up of those who earned more than the new minimum wage in 2001. He finds that, for workers who were employed in both years, those affected by the minimum-wage increase reduced their food consumption significantly compared with the control group. Lower food consumption indicates lower actual earnings as a result of increased declared income (and therefore higher tax payments). On the face of it, this suggests that increasing minimum wages reduced under-declaration among minimum-wage earners.

However, Tonin's (2007) analysis fails to take account of the employment impacts of the minimum-wage increase. Only workers who were employed both before and after the wage increase are included in the analysis. It could be argued that the fact that these workers remained employed indicates that their actual productivity is higher than the old minimum wage. While there was little evidence of an aggregate employment impact of the 2001 minimum-wage increase in Hungary (see Benedek *et al.*, 2006 for a summary of the literature), Kertesi and Köllő (2003) show that there was a negative employment effect among small businesses. Low-wage workers were more likely to lose their jobs after the wage increase and unemployment benefit recipients who had previously held low-paid jobs were less likely to exit from unemployment. The impact was worst in depressed regions. The negative employment impact of previous minimum-wage rises, along with evidence presented in the text that shows that a significant number of minimum wage workers appear to be working in low-productivity occupations, should caution against using minimum wages as a means to reduce under-declared income.

The existence of a sizable group of low-productivity workers clustered at the level of the minimum wage suggests that the minimum wage may provide an incentive for informal employment in Hungary. Increases in the minimum wage could force some low-wage workers to become fully undeclared, or, if they lose their job as a result, to take up self-employment, with more opportunities for tax and social security evasion. This casts doubt on the effectiveness of using minimum-wage increases as a means to reduce under-reported income and boost tax revenue (see Box 2.2). Lowering minimum wages (or restricting future increases) could reduce incentives for informal employment. In contrast with other central European countries, Hungary does not have a discounted minimum wage for workers aged under 18 years or those with limited labour market experience. As the chances of being employed informally are substantially higher for young workers, introducing a youth minimum wage could reduce informal employment for this group.

For the two countries where earnings distribution data are not available, the minimum wage is unlikely to be binding as very few employees appear to earn the minimum wage. Eurostat Labour Force Survey data show that only around 2% of full-time employees earned the minimum wage in 2007 in the Czech Republic and the Slovak Republic, similar to the level in Poland and compared with 8% in Hungary.

2.2. Taxes

Taxes affect informal employment in a number of ways. First, high taxes on labour may increase formal labour costs and incentives to hire or work (fully or partly) undeclared. Second, the tax structure, and in particular the taxation of self-employed income or business profits compared with labour, may provide incentives to under-declare wages or work as false self-employed. Third, a complex tax system increases compliance costs and incentives to evade taxes.

Other things equal, higher taxes on labour tend to increase incentives for undeclared work

Other things being equal, taxes on labour add to labour costs if they cannot be transferred back to workers in the form of lower wages. This depends on a number of factors, namely: i) the presence of a net wage floor (i.e. a binding minimum wage); ii) the extent to which workers value social protection or public services provided by taxes (see Section 3); iii) the relative bargaining power of employers and employees; and iv) the relative generosity of possible replacement revenues.¹⁵ In the traditional economic framework with no undeclared work, if higher taxes translate into higher labour costs, employment will fall. Introducing the possibility of working undeclared changes this picture. Higher taxes reduce the gains from formal work compared with informal work, leading to lower formal employment and higher informal employment.

Macro and micro empirical studies usually conclude that there is only a partial pass-through of taxes onto lower wages and an increase in the tax wedge (i.e. the difference between total labour costs and take-home pay as a proportion of labour costs), tends to increase labour costs (OECD, 2007a). But the empirical literature on the effects of labour taxes on informal employment is much less developed. Most existing studies consider the effect of taxes (not specifically labour taxes) on overall measures of informality. Using cross-country data for the 1990s, Friedman *et al.* (2000) find that higher taxes are associated with a smaller underground sector, but the relationship ceases to be significant once per capita income levels (and thus the possibility that richer countries have better-run administrations and higher tax rates) are taken into account. In fact, most of the literature

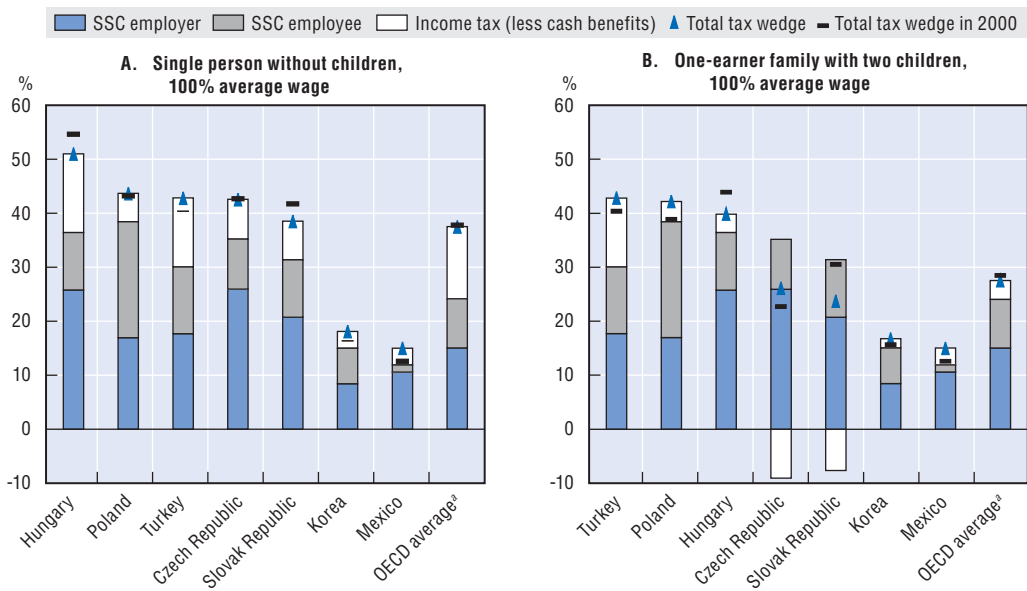
in this field concurs that while tax rates are important in explaining incentives for informality, the extent to which tax rates are enforced and the quality of governance also play a crucial role.¹⁶ Focusing on 19 rich countries in the 1990s, Davis and Henrekson (2004) nevertheless find that higher taxes are associated with a bigger shadow economy. A few micro-studies establish a more precise link between high taxes on labour and formal employment. Based on survey data for Quebec City, Lemieux *et al.* (1994) find that taxes distort labour market activities away from the regular sector to the underground sector. The effect is particularly large for low-income people who are more reliant on the transfer system. Looking at firm-level panel data for Colombia, Kugler and Kugler (2003) find that about 50% of important increases in payroll taxes were transmitted into lower net wages, and that this resulted in less formal employment.

The tax wedge is above the OECD average in all countries except Korea and Mexico

The average effective tax wedge provides a measure of the additional cost associated with declaring, rather than not declaring, an employee. Figure 2.2 shows that the situation is very different in the seven countries studied. Mexico and Korea have low tax wedges – by far the two lowest in the OECD – at 15% and 18% of total labour costs for a single worker at the average wage, respectively.¹⁷ The five other countries all have tax wedges above the OECD average, up to 55% for single workers without children in Hungary. The tax wedge is significantly lower for families in the Czech Republic, Hungary and the Slovak Republic, due to income tax, which leaves Turkey with the highest wedge at 42% for a one-earner couple with two children. In each country, social contributions are the main taxes on labour, accounting for about 70% of the tax wedge in Hungary and Turkey, and 80% or more in the other five countries, against 65% on average in the OECD.

Figure 2.2. Tax wedge level and composition, 2006

Percentage of labour costs (wages plus employer social security contributions)




Note: SSC = Social security contributions.

Countries are ranked by descending order of the total tax wedge in 2006.

a) Unweighted average.

Source: OECD (2006b).

StatLink  <http://dx.doi.org/10.1787/347220815455>

In general, changes in the tax wedge for a worker at the average wage have been relatively small since 2000.¹⁸ The main exceptions are the Slovak Republic and Hungary. The Slovak Republic made a radical shift towards a flat tax for personal and corporate income, effective in 2004. Combined with an increase in the basic tax allowance and child tax allowance, this leads to a significant reduction in the tax wedge for families (Figure 2.2). Hungary reduced employer social contributions and increased tax credits for low-income earners and introduced a 50% reduction in social contributions for employers hiring people from disadvantaged groups (long-term unemployed, parents returning from childcare, older workers or the low-qualified) in 2003. The Czech Republic made smaller changes to personal income taxes before 2007, in particular for low-income people and families, but reforms effective from January 2008 introduced a flat personal income tax and a ceiling on social contributions. The biggest impact is on high wage earners, particularly those above the contribution ceiling.¹⁹

High taxes on low-paid workers increase incentives for fully-undeclared work

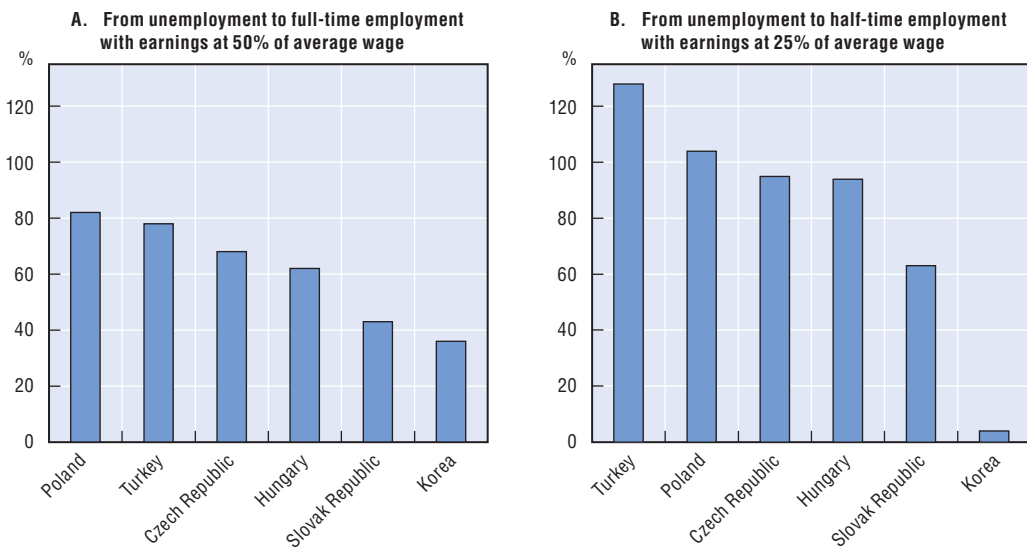
The role of the tax wedge as an incentive to hire or work fully undeclared is probably most important at relatively low wage levels, especially when benefits are also taken into account. In countries with relatively well-developed social safety nets, such as the central European countries, replacement incomes represent a relatively larger share of labour income for low-wage earners. But the tax wedge is also important for low-income earners in less developed countries with no or small safety nets, as the short-run need for subsistence overcomes the need to make longer-run investments in health and pensions and weakens the bargaining position of employees *vis-à-vis* employers. It was noted in Section 1 that many informal employees have low levels of education. Figure 2.3 shows the average effective tax wedge including benefits (such as unemployment, housing, social assistance) at income levels equal to 50% of the average wage. Despite the cut in labour taxes for low-income earners implemented in the Czech Republic and Hungary, taking up full-time, low-wage work for a person eligible for unemployment benefits implies an effective tax rate above 60% in the Czech Republic, Hungary, Poland and Turkey, with Poland having the highest rates. Sharp cuts in non-work social benefits implemented as part of the 2004 tax reform have significantly reduced the effective tax rate at low wages in the Slovak Republic.

Unemployed individuals facing high average effective tax rates may be more inclined to take up informal employment. With the exception of Korea, tax-benefit disincentives to taking up formal work are higher for those taking up part-time work than for those re-entering employment full-time (Figure 2.3).²⁰ In the Czech Republic and Hungary, this is due to complete withdrawal of unemployment benefits once earnings exceed a relatively low threshold. In Poland and Turkey, where access conditions for unemployment benefits are very strict (see Section 3.1 on benefits), no employment income is allowed. In Korea, on the other hand, the system allows a smooth reduction of unemployment benefit as employment income grows.

The relationship between labour tax progressivity and under-declaration of earnings is complex


While average effective tax rates on labour influence the volume of fully-undeclared salaried work, the progressivity of the tax system and the relative taxation of labour and capital affect incentives for under-reporting wage earnings. However, the relationship

Figure 2.3. **Average effective tax rates for short-term unemployed persons re-entering low-wage employment, 2005**



Note: No data available for Mexico.

Source: OECD Tax-Benefit models.

StatLink  <http://dx.doi.org/10.1787/347224056806>

between tax progressivity and under-declaration is not straightforward, and the theoretical literature on tax evasion is inconclusive. As noted by Spiro (2000), higher tax rates create incentives for evasion since the monetary gains are higher. However, the overall effect will also depend on the probability of being caught and the relative risk aversion of taxpayers. For example, if higher-income earners are more concerned about the risk of being caught and also face the highest tax rates, higher tax rates may not necessarily lead to higher rates of evasion. In addition, tax rates can influence income reporting and labour supply simultaneously. Pencavel (1979) finds that the effect of a change in the marginal tax rates on evasion is ambiguous when income is made endogenous through the labour-leisure trade-off. On the other hand, building on another branch of the tax-evasion literature which allows for different income sources, some of which lend themselves more readily to tax evasion than others,²¹ Trandel and Snow (1999) find that increasing tax progressivity causes the underground economy to grow. Elaborating on an efficiency-wage model, Goerke (2004) finds that increasing tax progressivity when there are opportunities to evade taxes will increase tax evasion but also employment. In empirical terms, Crane and Nourzad (1987), the first who explicitly introduced both average and marginal tax rates in a regression of tax evasion in the United States over 1947-1981, find that the average tax rate is negatively related to evasion while the marginal tax rate is positively related to evasion. Testing the elasticity of reported income to tax changes in the United States over the 1980s, Gruber and Saez (2002) find that it is significantly higher for high-income earners.

While lower tax rates on capital compared with labour can stimulate growth (Johansson, *et al.*, 2008), when enforcement is weak, significant misalignment of labour and capital taxation can encourage under-declaration of wages. OECD (2004a) and Grubb *et al.* (2007) argue that the declaration of wages is most effectively implemented through a “top-down” approach, combining efforts to detect business income by tax authorities and a tax structure with progressive taxation of labour income and relatively high taxation of profits.

If tax authorities can trace business income well, the fact that a higher tax rate applies to business owners' own revenues than to employees' wages provides an incentive to properly declare wages, as doing so will reduce the overall tax burden on the income generated by the business. Declared employees' wages are a deduction from taxable profits in incorporated businesses, the latter being subject to corporate income tax as well as personal income tax on any distributed dividends when paid out to owners. In the case of unincorporated businesses, declared employees' wages reduce the owner's income, which is typically higher than that of employees, and subject to higher taxation in progressive income tax systems. It remains unclear, though, what level of detection of business income by tax authorities could be considered sufficiently satisfactory for this proposition to hold. In some of the countries studied in this chapter, particularly Mexico and Turkey, tax authorities face substantial difficulties in detecting business income, especially for small and medium enterprises (SMEs).

In any case, as pointed out by Slemrod and Yitzhaki (2000), the optimal level of tax progressivity should be assessed simultaneously with enforcement capacity. If the capacity to detect business income is relatively low, for a given level of capital taxation, it is likely that high and progressive labour taxes will provide incentives for the under-declaration of wages by both employer and employee. If income detection and enforcement capacity are greater, some progressivity, together with a relatively high taxation of capital compared with labour income, is likely to improve the incentives to declare wages.

The progressivity of labour taxes is determined by income tax features – tax brackets, associated tax rates and tax allowances/credits – and by possible ceilings on social contributions. A useful way to illustrate the resulting progressivity is to examine marginal effective tax rates at different earnings levels. Figure 2.4 shows the tax and social contributions due on additional earnings (as a percentage of total labour costs) as workers' wages (as a percentage of the average wage) increase.

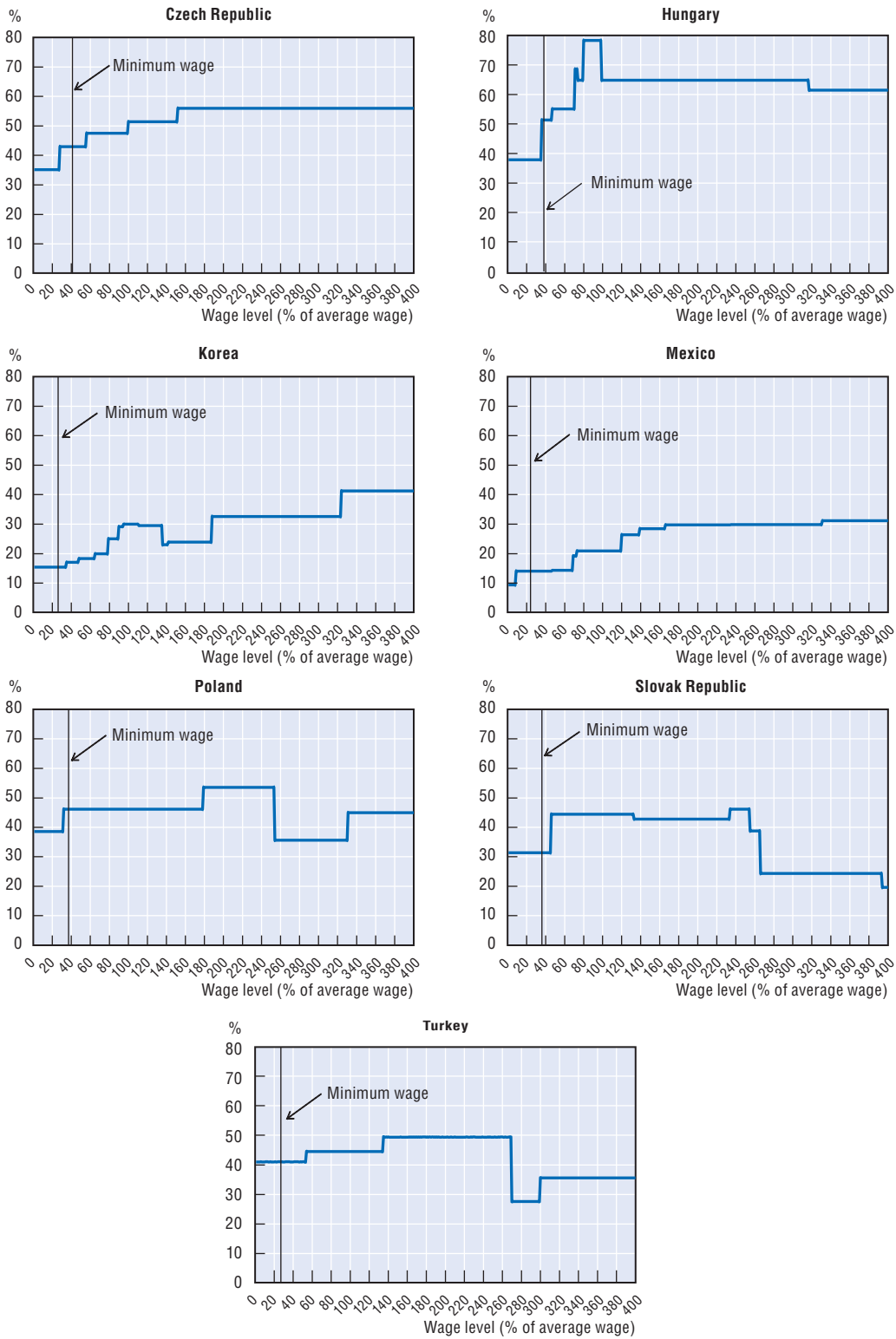
Significantly higher tax rates on labour than on capital favour informal employment

To assess the relative taxation of wages *versus* profits, tax wedges on labour use should ideally be compared with effective tax rates on distributed profits. Such measures are not available, however, and the assessment must be made based on statutory tax rates applying to distributed profits (*i.e.* the sum of the corporate income tax rate and the dividend income tax rate), shown in Figure 2.5, which are maximum rates.²² Based on these indicators, Korea appears to be an outlier among the countries examined in this chapter. Labour taxation is relatively low but progressive,²³ and clearly lower than capital taxation, so that the tax structure does not seem to provide incentives to under-declare wages. Mexico also has a relatively low and progressive labour income taxation – despite a reduction in the number of tax brackets and the top tax rate between 2004 and 2007 – but the absence of personal taxation of dividend income implies that labour and capital taxation are similar (both close to 30%).

In the five other countries, labour income taxation is high compared with capital income taxation. In Hungary, taxes on distributed profits are lower than those on labour; and the relatively strong progressivity of the tax wedge between the minimum wage (at 39% of the average wage) and the average wage provides incentives for under-declaration of wage earnings. This seems to be especially so at high income levels: Bakos *et al.* (forthcoming) find that the elasticity of taxable income to the tax rate is 0.3 for the upper quintile of taxpayers, while it is five times lower for those earning above the minimum wage.

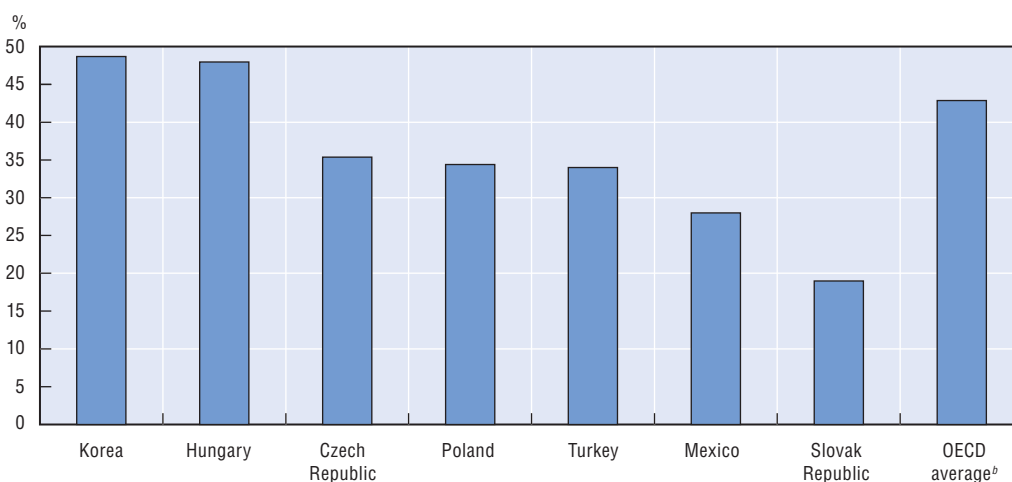
Figure 2.4. **Marginal tax wedge for a single worker with no children**
 (% of labour cost)

Percentage of labour costs (wages plus employer social security contributions)



StatLink <http://dx.doi.org/10.1787/347235716567>

Source: OECD (2008b).

Figure 2.5. **Tax rates on distributed profits,^a 2007**

StatLink  <http://dx.doi.org/10.1787/347278255426>

a) Statutory corporate income tax rate and dividend income tax rate.

b) Unweighted average.

Source: OECD database on Tax.

In the Slovak Republic, the flat tax reform has reduced taxes on labour but also taxes on capital, so that the tax rate on distributed profits (below 20%) remains much lower than taxes on labour. The significant upward step just after the minimum wage might also provide incentives for under-declaration. The situation is likely to be similar in the Czech Republic after the flat tax reform, as social contributions are also left untouched. Finally, in Turkey, effective tax rates on wage income are high, only slightly progressive (even regressive at high wage levels) and higher than tax rates on distributed dividends, except at high income levels.

Preferential tax treatment for the self-employed may spur tax evasion and false self-employment

Self-employed workers and small businesses often receive preferential tax treatment compared with dependent employees (Table 2.2).²⁴ This can be provided in four forms:

- The self-employed can benefit from reduced personal income tax rates, as in Poland.
- Small unincorporated businesses are sometimes given access to simplified taxes and/or to presumptive taxes. Simplified taxes differ from the standard regime only in relatively minor matters (such as the use of cash rather than accrual accounting, of lump-sum expenses, or the frequency of payments), and are in use in Mexico, Poland and the Slovak Republic. Presumptive taxes use a different tax base, most often turnover which it is easy to monitor, and can substitute more than one type of taxes (income, VAT, etc.). The Czech Republic, Hungary, Mexico and Poland have presumptive tax regimes in place. Access is given to firms on the basis of turnover thresholds. Countries using both types of preferential regimes provide a presumptive tax to smaller businesses and a simplified tax to somewhat larger ones.
- Corporate income can be taxed at lower rates up to a certain threshold, as in Hungary and Korea.
- The self-employed sometimes face more favourable conditions for social contributions, as in the Czech Republic, Hungary, Korea and Poland.

Table 2.2. **Taxation of SMEs' business income, 2007**

	Specific/presumptive tax regimes for unincorporated businesses			Simplified tax regimes/accounting rules/ payment process for unincorporated businesses	Corporate income tax rates
	Existence and access criteria	Taxes/revenues covered	Tax base/rate		
Czech Republic	Own-account workers with annual turnover below CZK 1 million over the last 3 years qualify for a lump-sum tax.	–	The base is equal to gross income less a percentage of gross income in place of actual expenses. The percentage varies according to income source: 80% for agriculture, forestry and fishing; 60% for a technical enterprise; 50% for a non-technical enterprise, 40% for copyright and 30% for rental.	–	24%
Hungary	Businesses with annual sales of a maximum of HUF 25 million (EUR 100 000) including VAT qualify for presumptive tax (EVA).	VAT, PIT, company's car tax, tax on dividends	25% on turnover	–	10% on the first HUF 5 million (conditional on not receiving tax allowance and paying contributions on at least 1.5 times the minimum wage per employee), and 16% for amounts above that plus a solidarity surtax of 4%.
Korea	–	–	–	Taxpayers with earnings below KRW 48 million are allowed not to maintain bookkeeping as long as they keep a reliable record of business transactions.	13% on the first KRW 100 million and 25% above that.
Mexico	Taxpayers with business income or sales (plus interest from previous year) not exceeding MXN 2 million and selling goods and services to the public qualify for REPECOS (Regimen de Pequeños Contribuyentes).	VAT and PIT	2% of gross income (turnover, cash flow basis), with a tax credit of four minimum wages.	Business with income not exceeding MXN 4 million qualify for the "intermediate regime" in which they pay the same rate as incorporated businesses, but on a base estimated on a cash flow basis instead of an accrual basis, and where they can deduct personal expenses (<i>e.g.</i> medical expenses, health premiums).	28%
Poland	Taxpayers whose turnover does not exceed EUR 250 000 ^a in previous year can choose between PIT taxation under general terms, taxation at a flat 19% rate and a presumptive taxation, called the "lump-sum" taxation. Some specific businesses (<i>e.g.</i> small shops, restaurants and transportation business; child care services, small scale education services, liberal professions) can choose the "tax card", where the tax rate varies according to the form and scope of the activity, the number of employees and the size of the city/place where the activity is performed (no accounting requirements).	PIT	The tax base of the presumptive regime is turnover. Tax rates vary according to activity (20% for liberal professions, 17% for car rents, hotels, agency in wholesale trade, 8.5% on service activities, 5% on construction and production activities, 3% on services such as trade and catering).	Small taxpayers and unincorporated businesses choosing the "lump-sum" tax have lower accounting requirements (tax book of revenues and expenses). Since 2007, taxpayers with turnover not exceeding EUR 800 000 are classified as "small taxpayers" and are entitled to quarterly (instead of monthly) tax advanced payments and more generous tax depreciation.	19%
Slovak Republic	–	–	–	Unincorporated businesses calculate the tax base with a single-entry bookkeeping system, and can use lump-sum records of income or tax expenses.	19%
Turkey	–	–	–	Businesses with rental, or annual sales and purchases, or turnover (etc.) below a certain amount can determine, with the help of tax offices, their taxable income on a cash-flow basis.	20%

a) Since January 2008, the threshold for the lump-sum tax has been reduced to EUR 150 000.

Source: OECD Secretariat based on OECD survey on the taxation of small and medium-sized enterprises, Galuščák and Pavel (2007) and 2007 Korean Taxation.

There are two possible justifications for providing preferential tax treatment to the self-employed. First, the costs of compliance are greater for smaller firms, due to significant fixed costs involved in paying taxes.²⁵ Second, from the tax authorities' point of view, collecting tax from small firms is relatively costly: the revenue potential of small businesses is low, while the time spent collecting taxes is largely independent from the amount due (monitoring small business income might even be more difficult).

However, the case for preferential taxation of small businesses is far from clear (ITD, 2007). There is considerable empirical evidence that the self-employed or small businesses are more prone to tax evasion than wage earners (see OECD, 2008a).²⁶ Unlike for employees, for whom employers withhold taxes on their wages, no third party exists to withhold taxes on behalf of entrepreneurs. The self-employed can more easily hide part of their incomes and inflate their expenditures to reduce taxation or fully evade taxes. In terms of incentives for formalisation, providing preferential tax treatment to the self-employed might thus be a "double-edged sword" (Schuetze and Bruce, 2004). On the one hand, by reducing costs, it may improve small businesses' compliance. But it increases the marginal benefit of self-employment for those whose intent is tax avoidance or evasion (Schuetze and Bruce, 2004). The overall effects of preferential treatment on tax evasion are thus ambiguous. But the literature concurs that authorities should in any case be cautious not to provide too preferential a tax treatment to avoid i) significantly distorting the incentives towards self-employment activities, ii) encouraging tax evasion and false self-employment; and iii) discouraging small business growth. ITD (2007) argues that the aim of preferential tax regimes for small businesses should be to improve the inclusion of small businesses in the tax net.

The situation differs in this respect among the countries studied. While compliance and monitoring costs are always higher for small businesses than for larger ones, costs might be particularly large for illiterate or low-educated self-employed in countries such as Mexico and Turkey, who cannot be expected to fully record their activities. In low-income countries, ITD (2007) argues that a single simplified regime, in the form of either turnover or cash-flow income tax, is likely to be the best approach. Determining whether the treatment is too preferential is not always easy. But effective tax rates need to be high enough not to discourage transition to the standard regime. The fact that firms stay on the regime year after year may provide a signal that the regime is too preferential (ITD, 2007; Bird and Wallace, 2003). This seems to be the case in Hungary where most businesses planned to remain lump-sum taxpayers even after the increase in the tax rate from 15% to 25% in 2007 (Semjen *et al.*, 2008). Indeed, the presumptive tax (EVA) seems to be used extensively by engineers, lawyers and bookkeepers, who operate with low cost/income ratios, implying that EVA reduces their tax burden. Some entrepreneurs, though, use EVA even if it entails a higher tax burden, because it reduces their administration costs (Semjen *et al.*, 2008).²⁷ In Mexico, the 2% tax rate on turnover is also low compared with the 28% rate on net income that the self-employed face if they switch to the intermediate regime. Simplified tax regimes are preferable to presumptive ones in this regard because they ensure a smoother transition to the standard regime. Finally, reduced corporate income tax rates on business income below a certain level for all businesses, as in Hungary and Korea, provide few barriers to growth.

Another problem with presumptive tax regimes is that they provide few incentives for small business owners to declare eventual employees, since (wage) expenses are not deductible, as noted for Mexico in OECD (2007c). Specific features of presumptive tax

regimes might also appear undesirable. Experience suggests that having a large number of different rates or bases according to industry sector, as is the case with the lump-sum tax in the Czech Republic and Poland, is likely to create difficulties for multi-activity businesses and is more vulnerable to gaming and abuse (ITD, 2007). Varied enrolment criteria which are assessed by the administration, as for the simplified tax in Turkey, can leave scope for arbitrary decisions and collusion between taxpayers and officials.

Preferential treatment for social contributions raises the same type of trade-off as for other taxes. In economies with low social security coverage, subsidising the contributions of the self-employed, who are generally much more difficult to reach than wage earners, might be a way to extend social protection coverage. This was the case in Korea in 1989, when health insurance coverage was extended to the self-employed. Table 2.3 shows that today, health contributions for the self-employed in Korea are still based on a system of contribution classes, determined on the basis of an individual's property, car ownership and income. However, with increased coverage and improvements in assessing self-employed income, aligning their contributions with those of wage earners would appear both efficient and equitable. In Mexico, where the self-employed are not required to contribute to social security, the question arises as to whether contributions should be compulsory for the self-employed above a certain income level. Self-employment is quite heterogeneous, and it is difficult to justify excusing professionals, who have registered businesses, from contributing to the social protection system.

In richer countries with higher social security registration, the rationale for providing preferential treatment for social contributions to the self-employed is much weaker. Given the difficulty in properly assessing business income, the Czech Republic, Hungary and

Table 2.3. **Coverage by social protection schemes and contribution conditions for the self-employed**

	Social protection coverage			Do conditions differ from those for employees?	
	Pension	Health	Unemployment	Rates	Base
Czech Republic	M	M	V	=	Minimum of 1/2 average wage; maximum equivalent to 1.9 average wage.
Korea	M	M	V	≠ ; pension based on classification of contributors according to 45 levels of monthly income; health contribution rates calculated on basis of personal factors (property ownership, income, age and gender) with no reference to the standard contribution rate of 4.48%; lower rates than employees for unemployment.	
Hungary	M	M	M	= except slightly lower for unemployment; minimum contribution of 15% of the minimum wage.	Minimum wage.
Mexico	V	V	NA	= except slightly lower for health.	
Poland	M	M	NA	=	Minimum of 60% of the average wage.
Slovak Republic	M	M	V	=	
Turkey	M	M	NA	≠; 20% for health and 20% for pensions.	Contributions paid on a notional income chosen in a 24 step scale.

M: mandatory; NA: no access; V: voluntary. = means that rates are identical for the self-employed and employees.

Source: OECD Secretariat.

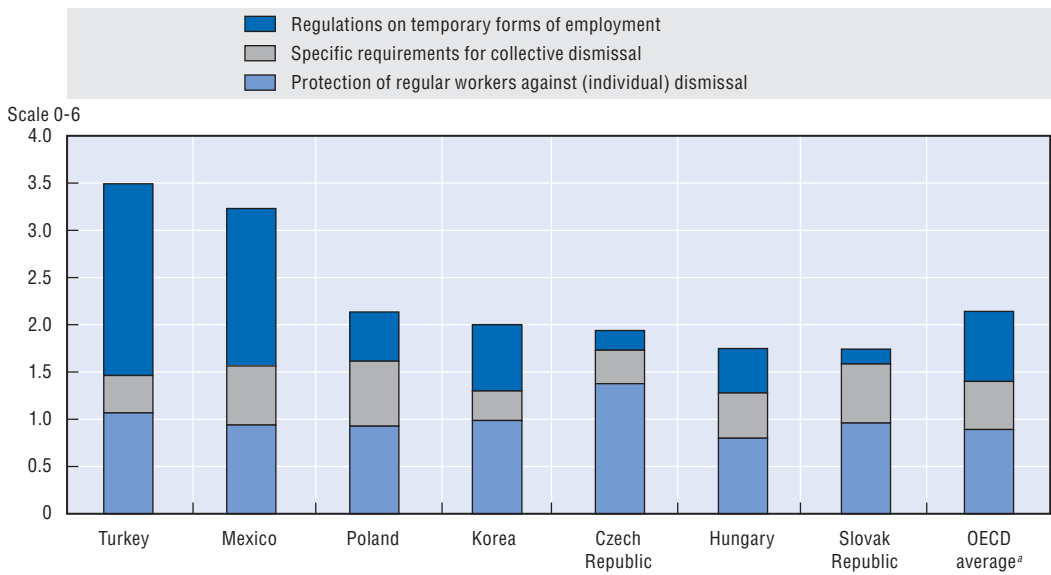
Poland have introduced minimum contributions or a minimum contribution base (Table 2.3). Scharle (2002) found that the number of self-employed fell significantly as the minimum social contribution was raised in Hungary between 1996 and 1999. OECD (2008a) also shows that the number of own-account workers in the Czech Republic ceased to grow when, together with other measures including the introduction of a minimum income tax, the minimum contribution base for the self-employed was raised from the subsistence minimum to half the average wage (which amounted to doubling their contributions) in 2004. However a maximum contribution base remains in place for the self-employed (equivalent to about twice the average wage in 2007, to be doubled in 2008). In Poland, despite numerous attempts to reform the social protection insurance scheme for farmers (KRUS), contribution conditions have not been changed (KRUS affiliates pay flat-rate contributions unrelated to their actual income) and the scheme remains strongly subsidised. Chlon (2000) found that the average contribution of KRUS affiliates was five times lower than the contribution of non-farm self-employed to ZUS, the alternative social security institution. There is indirect evidence that this preferential treatment induces people to hold onto small plots of land even when they are not really active in farming (World Bank, 2001) and may be inducing higher-than-average rates of multiple job holding in Poland (see OECD, 2008a). This is still likely to be the case despite some tightening of access to KRUS. Favourable contribution conditions for KRUS were also identified by the World Bank as impeding the movement of workers into formal non-farm employment while increasing informal employment in rural areas.


2.3. Employment protection legislation (EPL)

Strict EPL increases incentives for informal employment in countries with limited enforcement capacity

If EPL hinders firms' ability to adjust their workforce in response to business-cycle fluctuations, firms may hire workers informally to avoid severance costs and increase flexibility. In this case, stricter EPL would be associated with higher rates of informal employment. While the indicators of informality and EPL used in empirical studies vary considerably, the general consensus is that stricter EPL is associated with higher rates of informality (Almeida and Carneiro, 2006; Botero *et al.*, 2003; Krebs and Maloney, 1999; Loayza *et al.*, 2006; Marshall, 2007). This relationship is moderated by strong enforcement of labour regulation and good governance. For example, in countries with high-quality governance, Loayza *et al.* (2006) do not find a significant relationship between EPL and informal employment, while Almeida and Carneiro (2006) find that Brazilian firms in regions with stronger labour law enforcement employ fewer informal workers, even though EPL is the same across all regions. However, in these regions stronger law enforcement leads to higher unemployment, rather than higher formal employment.

Using the OECD's index for the strictness of EPL for 2003 (the most recent year available), Figure 2.6 shows that Mexico and Turkey stand out as having among the strictest overall EPL in the OECD, while the Czech Republic has very stringent regulation for regular workers.²⁸ Six of the seven countries examined – the sole exception is Mexico – have made some changes to EPL since 2003. Changes are likely to have resulted in an increase in EPL strictness for regular employment in the Czech Republic, a reduction in the stringency of regulation on regular employment in Turkey and Korea, an increase in the stringency of regulation on temporary employment in Hungary and Poland and an easing of the stringency of regulation on temporary employment in the Slovak Republic and Turkey. The

Figure 2.6. **Employment protection legislation index in selected countries, 2003**

StatLink  <http://dx.doi.org/10.1787/347343736724>

a) Unweighted average.

Source: OECD (2004a).

changes, however, were relatively minor and are likely to have had only a small overall impact on the index (see Annex 2.A2).

Lifting restrictions on temporary employment in Mexico and Turkey would increase flexibility in the formal sector, reducing the need to resort to informal employment

Regulation of temporary forms of employment is particularly strict in both Mexico and Turkey, where fixed-term and temporary workers can generally only be hired in exceptional circumstances. This could increase informality because businesses may recruit informally if they require additional flexibility to deal with fluctuations in consumer demand or seasonal production schedules. If informal employment is used to increase flexibility, it could be expected that informal workers have less job security than formal workers, particularly during economic downturns. The limited empirical evidence on informal-sector dynamics suggests that this is the case in Mexico. The probability of separation into unemployment or out of the labour force is much higher and more cyclical for informal employees than formal employees in Mexico, so much so that most of the increase in the unemployment rate during a recession comes from informal employees (Bosch and Maloney, 2007). The level of informal salaried employment in Turkey between 1988 and 2007 was almost twice as variable as the level of formal salaried employment.²⁹

The design and operation of EPL can also affect firms' decisions to grow larger. Turkish businesses with less than 30 workers are exempt from the application of EPL. While an exemption based on business size recognises the additional compliance burden for small businesses, it can also create an incentive for firms to stay small, or at least fail to register all their employees, in order to qualify for the exemption. Even in the absence of such exemptions, small businesses may be less hindered by strict EPL than larger businesses in countries with limited enforcement capacity because they are less likely to attract the

attention of enforcement agencies. Pierre and Scarpetta (2006) find that medium and large employers are more likely than smaller firms to report that EPL is an obstacle to business operations in countries where EPL is strict.

Specific features of EPL make it difficult for youth and older workers to find formal jobs in some countries

The Czech Republic, Mexico and the Slovak Republic are among only seven OECD countries that have severance pay for workers with less than one year of service (two months' pay in Slovak Republic and three months' pay in Czech Republic and Mexico). There is also no legislative provision in Mexico or Korea for probationary periods for new hires. Such policies can be a disincentive for firms to formally hire young or low-skilled workers, increasing their chances of being offered or accepting informal jobs. In Korea, Mexico and Turkey, mandatory payments of 12-30 days of pay for each year of service apply in some cases of voluntary termination, such as upon retirement or after marriage for women in Turkey. Large retirement allowances, combined with a relatively low pension replacement rate, may lead older workers in formal jobs to retire early with pension and health benefits and then re-enter the workforce in informal jobs or self-employment with very little incentive for making further social contributions.³⁰ In all three countries, workers aged 55 years and over have a significantly increased chance of being informal employees or own-account workers. While severance payments in Mexico operate as a substitute for unemployment insurance, reducing the cost of severance payments was one of the key motivations for the introduction of unemployment insurance in Turkey in 1999. However, pressure from unions to retain severance pay, along with strict eligibility requirements to receive unemployment benefits, has led to the retention of the severance payment system. This means that firms that hire formally currently pay both unemployment insurance contributions (employee and employer contributions combined are 3% of the wage bill) and severance payments (estimated to cost 8% of the wage bill) (OECD, 2006a).

3. Increasing the benefits of formalisation

In many cases (especially in Mexico and Turkey), informal employment is not a voluntary choice, either because workers cannot find an employer willing to declare them or because they are self-employed or low-productivity wage earners at the margin of subsistence and contributing to social security schemes would deepen their poverty. However, if workers have some say in whether or not they are employed formally, the perception that they receive less in benefits (from social protection schemes or public services financed out of general taxation) than they pay in contributions or taxes may be a factor in encouraging informality or under-declaration. This highlights an important role for governments in increasing awareness of the benefits of social protection and public services. There are a range of benefits to firms of operating in the formal sector. While a full discussion is beyond the scope of this chapter, to the extent that formal sector institutions (such as banks and the legal system) operate effectively, they can provide incentives for formalisation of small informal firms, overcoming some of the costs of operating in the formal sector and promoting business growth in the longer term (Perry *et al.*, 2007; Johnson *et al.*, 2000; Straub, 2005).

3.1. Social protection delivery and financing

The seven countries rely mostly on social contributions linked to having a formal job to finance social protection. Access to social protection is thus a benefit of working formally, so, for those workers financially able to contribute and provided with the choice to work formally or not, incentives for formalisation may be improved by increasing the link between contributions and benefits. This may be particularly pertinent in the case of pensions and, to a lesser extent, unemployment insurance, which can be considered deferred wages. The benefits to workers of contributing to pension and unemployment insurance will depend on both the ease of access to benefits (*i.e.* the eligibility conditions) and on the *value* of benefits (*i.e.* the replacement rates). Different groups of workers may have different perceptions of the benefits of contributing to social protection. For example, young workers may prefer current consumption to making contributions to a pension scheme that will have little pay-off until many years into the future. The benefits to workers of contributing to other social protection schemes, such as health or disability insurance, may also influence incentives for formalisation. However, increasing the link between contributions and benefits is not relevant in the case of health, as, given the nature of the risk covered, it would amount to excluding the most vulnerable groups from protection. There might be other factors influencing incentives to contribute for health, notably the quality of healthcare provision, but a full discussion falls outside the scope of this chapter.

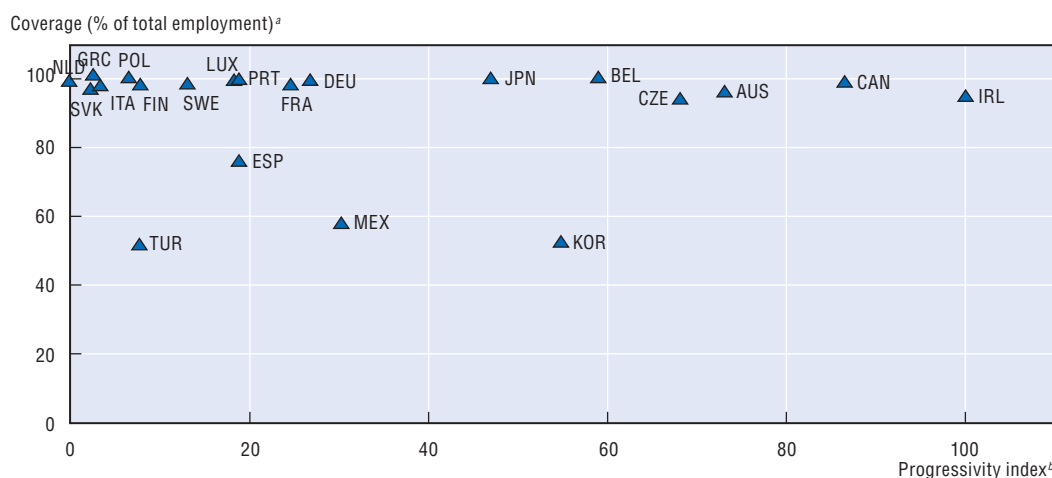
The design of pension systems can affect incentives for formal employment

Pensions financed out of social contributions represent an inter-temporal transfer of income, with a more-or-less explicit link between what is paid and what will be received. If they were strictly deferred wages, employees might not perceive pension contributions as taxes at all, and that would come close to what is meant by actuarially fair pension schemes.³¹ Following the analysis developed in Section 2.2, it is often argued that the higher the “tax” component (*i.e.* the share of pension contribution on which the individual receives no return), the greater the incentives to evade (under-report income from work). Disney (2004) found some evidence supporting this relationship across OECD countries, but for women only. However, focusing on countries relying on social contributions to finance their pension system, Figure 2.7 suggests that less redistributive pension systems are not systematically associated with higher pension coverage. Nevertheless, very progressive pension systems might induce under-declaration of earnings rather than full evasion.

The degree of redistribution is not the only parameter describing the link between contributions and benefits and possibly influencing workers’ willingness to participate. A weak link between pension rights and contributions may induce early retirement and continued activity in the informal sector. Minimum contribution periods in countries with low coverage (*e.g.* Turkey) and where workers often move in and out of the formal sector (*e.g.* Mexico) may also prevent workers from meeting eligibility criteria. The relative weights of these factors vary across the seven countries studied.

Important reforms of pension systems, aimed at improving financial sustainability in the face of population ageing, have been implemented in Hungary, Poland, Mexico and the Slovak Republic. All have increased the link between contribution and benefits, but to various extents. In Hungary, although the redistributive component is almost nil (the progressivity index for Hungary is 1.3), the pension system is left with a major problem of financial sustainability due to a high replacement rate and a high implicit rate of return

Figure 2.7. **Less redistributive pension systems do not systematically lead to higher pension coverage**



StatLink  <http://dx.doi.org/10.1787/347358608603>

Note: Data for Hungary on pension coverage are unreliable and have been omitted. OECD countries financing pension systems exclusively out of general taxation are excluded from the sample.

- a) Number of persons who contributed or accrued pension rights in any of the major mandatory pension schemes divided by the number of persons in employment. Data refer to 2002 for Mexico and Turkey, 2003 for the Czech Republic and the Slovak Republic and 2005 for the other countries. For Japan and Mexico, the denominator of the coverage ratio is dependent employment because the self-employed are not covered by the scheme in Japan and covered only on a voluntary basis in Mexico.
- b) The progressivity index is designed so that a pension system paying the same value of benefits to all individuals would score 100; or paying the same replacement rate to all people would score zero. Data refer to 2004.

Source: World Bank Pension Database; OECD (2007e).

compared with most other OECD countries (OECD, 2008b). In fact, the absence of redistribution partly explains the high replacement rate: if redistribution is precluded, a high replacement rate is needed to avoid pensioner poverty. Such characteristics make it difficult to explain the relatively low coverage of the system – around one-fifth of workers are estimated to not be contributing to the pension system (Elek, *et al.*, 2008; Köllő, 2007) – since employees should be willing to join it. However, the high overall level of social contributions and taxes (at 38% of the labour cost for a worker with average earnings), which are jointly collected by the tax authority, may be leading employers to offer undeclared jobs (OECD, 2008c). The Czech Republic has the most progressive pension system of the seven countries studied (Figure 2.7). Coverage is good, but high progressivity, combined with rather high pension contribution rates (and lower taxation of capital than labour) may induce under-declaration of earnings at higher income levels (Section 2.2). In addition, in countries where minimum pensions are higher than the entitlements that low wage workers can expect to accumulate over their working life, minimum pensions, while achieving the desirable objective to reduce old-age poverty, are *de facto* loosening the link between contributions and benefits for low-wage workers.

Pension coverage is relatively low in Korea, Mexico and Turkey

The Korean pension system was created in 1988, and should, in principle, have covered all types of workers since 1999. Yet in 2005, only 61% of the employees were covered³² and coverage is lower amongst the self-employed (Kim, 2006). The system has not yet matured, and pension income still plays a minor role in sustaining the elderly: only

14% receive a (small) pension benefit (OECD, 2007d), partly explaining high workforce participation rates of older workers. The system is quite redistributive, as benefits are equally based on the average wage and individual earnings, but benefits increase with contributions, even for older workers (OECD, 2008b). Despite increases in contribution rates, the financial sustainability of the scheme is still not ensured (OECD, 2007d). Low coverage implies that average contribution periods are short and thus pension benefits low, probably leaving few options to the elderly other than to continue working undeclared. A means-tested old-age pension was introduced recently, but at 5% of the average wage, recipients may still have to work, most likely in undeclared jobs.

Pension coverage is also low in Turkey and Mexico. In 2005, 68% of employees and about half of own-account workers were contributing to at least one Turkish social security institute, and 31% of private sector employees were contributing to the social security institute (IMSS) in Mexico.³³ While other factors also play a role in explaining low coverage in these countries, some features of the pension system may contribute, particularly in Turkey. In Mexico, the transformation of the system into a fully-funded scheme with individual accounts has helped restore the link between contribution and benefits. However, workers must contribute for a minimum of 25 years to qualify for the minimum guaranteed pension, the amount of which for the majority of workers – i.e. low-wage earners – would be higher than the benefits from their individual accounts (OECD, 2007c). Workers moving in and out of the formal sector (not uncommon in Mexico, see Perry *et al.*, 2007) can thus hardly qualify for this benefit. On the other hand, low-wage workers who have reached the 25-year contribution period have few incentives to keep contributing. In part, this results from the fact that returns from pension savings have been rather low, due notably to high administration/management costs. As a result, many workers choose to start a small informal business instead of saving in pension accounts. The 2007 reform of the individual savings accounts may nevertheless help to increase net returns and make pension accounts more attractive (OECD, 2007c).

In Turkey, the very low, means-tested pension – equivalent to 6% of the average wage – is available only to workers not affiliated to social security. But, more importantly, the contributory pension scheme is itself a barrier to formal employment (Brook and Whitehouse, 2006). A very low eligibility retirement age (46 in 2006, to be gradually increased in the future), short contribution period (15 years) and the absence of benefit reduction in case of early retirement, together with the availability of a severance payment on retirement, serve to boost the number of middle-aged pensioners working in the informal sector. Anecdotal evidence suggests that it is common for workers to retire officially and then continue to work informally (often for the same employer), an inference that is consistent with available data.³⁴ To some extent, 2006 reforms further increased the incentives for pensioners to shift to the informal sector, since they eliminated lower social contribution rates for pensioners continuing to work. Pension parameters, including very high replacement rates, also lead to high pension contribution rates, driving up labour costs and making it difficult for the low-skilled, in particular, to be hired formally (Section 2.2).

Unemployment insurance can give unemployed workers time to look for a formal job...

By giving the unemployed a replacement income while they search for a formal job, unemployment insurance might be important in preventing informality. If no (or very little) replacement income is available, formal workers who become unemployed and do not find another formal job immediately may have no other choice than working informally. On the

other hand, in countries with significant informal employment and weak monitoring of eligibility conditions, workers may also draw their maximum entitlement to unemployment benefits while working informally. In all the countries studied apart from Mexico, salaried workers should, in principle, be contributing to unemployment insurance.

... but few unemployed receive benefits in the countries studied

Table 2.4 shows that eligibility conditions tend to be rather strict and benefits relatively limited in all the countries under analysis. The schemes were introduced only recently in Korea (1995) and Turkey (2000). The qualification period for unemployment benefits is particularly long in the Slovak Republic and Turkey, restricting access significantly. Only 9% of the unemployed were receiving unemployment benefits in the Slovak Republic in 2005 and 5% in Turkey in 2007. In Turkey, this results, in part, from the fact that the share of informal workers, who are obviously not eligible for unemployment insurance, is large. But the long qualification period and the fact that few job separations result from dismissal (a condition for eligibility) also limits access (World Bank, 2006).³⁵ Qualification conditions are also tight in Poland, where only 12% of the unemployed were receiving benefits in 2005. Benefit generosity is relatively low in all seven countries, due to the combination of short duration and low benefit levels, which reflect previous earnings and thus previous contributions to only a rather limited extent.³⁶ Limiting the generosity of unemployment benefit preserves the incentive to seek and accept job offers. A number of empirical studies find that generous benefits tend to raise unemployment levels or duration (OECD, 2006c), and the reduction of net replacement rates in Hungary in 2006 was explicitly aimed at increasing employment incentives. However, weakening the link between what workers contribute and their unemployment benefit entitlement may also weaken the incentive to be declared and, even more so, the incentive to declare earnings fully. In addition, low benefit levels, as in Poland in particular, may leave the unemployed with little alternative other than working undeclared to supplement their income.

A combination of more generous benefits and activation policies may allow governments to reap some of the efficiency gains that unemployment benefits are found to create, in particular by allowing workers to seek higher productivity jobs in the formal sector, while off-setting a significant part of the potential labour supply disincentives (OECD, 2006c). In 2007, the Czech Republic reduced the generosity of the ceiling on benefits for the unemployed not actively co-operating with labour offices. However, some activation measures may be difficult and expensive to administer and the costs may outweigh the benefits when benefit duration is relatively short. Another possibility would be to reduce contribution rates. In the Slovak Republic and Turkey, the unemployment insurance schemes have shown structural budget surpluses amounting respectively 79% and 86% of the contributions in 2006, which are difficult to justify.³⁷ In Poland, unemployment benefits represent around one quarter of contributions.³⁸ Reducing contribution rates, while preserving the financial viability of the schemes, would go some way towards better aligning contributions and benefits and reduce the tax wedge, thus reducing incentives for informality or under-declaration of income.

Mexico has no unemployment insurance scheme. Mexican workers who have individual pension savings accounts can draw 10% from these every five years, if non-employed, but they provide limited support in case of job loss. Developing individual unemployment savings accounts together with some solidarity funding, as was done in Chile (Box 2.3), is often presented as a good way to provide some compensation in case of

Table 2.4. Unemployment insurance schemes: contribution requirements, benefits and coverage

	Contributions		Benefits					Share of unemployed receiving benefits ^a
	Rates (% of gross wage)	Entitlement period	Initial replacement rate	Minimum (% of AW)	Maximum (% of AW)	Duration	Permitted employment	
Czech Republic 2006	E: 1.2% W: 0.4%	12 months in 3 years.	50% of net earnings, 45% after 3 months.	–	56% for a single without children (2.5 times the Minimum Living Standard).	<ul style="list-style-type: none"> ● 6 months for age under 50. ● 9 months for age 50-55 and 25 years of contribution. ● 12 months for age over 55. 	Half of the minimum wage is allowed without losing entitlements to unemployment benefits.	34%
Hungary 2007	E: 3% + fixed amount W: 1.5%	365 days in 4 years.	60% of the average gross wage over past year for 91 days.	22% (60% of the minimum monthly wage).	44% (120% of the minimum monthly wage).	One day of benefit for every 5 days of insurance with a maximum of 9 months.	Benefits are suspended for short-term (<90 days) employment.	37%
Korea 2006	E: 0.7-1.3% W: 0.45%	6 months in 18 months.	50% of the average daily wage in the 3 months preceding unemployment.	23% (90% of the minimum wage).	47%	3 to 8 months increasing with age and contribution period.	II earnings divided by number of days entitled is over 60% of UI benefit then excess deducted.	27%
Poland 2007	E: 2.45%	365 days in 18 months and earnings > 1/2 minimum wage.	Fixed amount equivalent to: <ul style="list-style-type: none"> ● 17% AW if less than 5 years of contribution. ● 21% AW if 5 to 20 years of contributions. ● 25% AW if more than 20 years contributions. 	–	–	6 to 18 months according to unemployment rate in region of residence, contribution period and family status.	No benefits if employed	12%
Slovak Republic 2006	E: 1% W: 1%	3 years in 4 years, except if previous entitlement to rights has not been completely drawn up.	50% of gross wage	–	87%	6 months.	No benefits if employed.	9%
Turkey 2007	E: 2% W: 1%	600 days in 3 years, and 120 days of continuous contributions.	50% of average net wage, based over the last 4 months.	15%	30%	6 to 10 months according to contribution period.	No benefits if employed.	4%

AW= average wage; E: employer; W: worker.

a) Data refer to 2005 except 2004 for Turkey.

Source: Based on OECD database on Benefits and Wages, PECD database on Active Labour Market Policies, Grubb *et al.* (2007) and World Bank (2006).

unemployment in countries with limited financial resources and limited administrative capacity to run an unemployment insurance scheme. In Mexico, it could also replace the severance payment system. Individual savings accounts draw a clear link between contributions and benefits and avoid moral hazard problems inherent in traditional unemployment insurance schemes, which may be of particular value in countries with limited administrative ability to enforce job search requirements. The main problem lies in the limited risk pooling across workers with different risks of dismissal. Workers who are most likely to become unemployed will be relatively less covered. As a result, the introduction of individual accounts is unlikely to increase the incentives of low-skilled informal workers to work formally when possible.

Box 2.3. Chile's job-loss compensation scheme: improving incentives to be formal?*

An insurance job-loss compensation scheme was introduced in Chile in October 2002. The scheme departs from traditional unemployment insurance in that it is based on a combination of individual savings accounts managed by a private firm and a solidarity fund from which a worker can draw under certain conditions should individual funds be insufficient. Workers can access the solidarity fund only once they have depleted their own account. The scheme covers all workers over 18 years of age employed in private sector salaried jobs. Participation is compulsory for those who start a new job after the introduction of the scheme and voluntary for others.

A fixed percentage of worker's wage (0.6% for the employee and 1.6% for the employer) is deposited in each worker's individual account. These funds and their return can be withdrawn according to a predetermined schedule at the end of the employment relationship. The contingency fund is financed by an additional contribution by the employer of 0.8% of the workers' wage and a government subsidy. To benefit from the unemployment compensation scheme, the worker must: i) have contributed for 12 months (not necessarily continuously) for permanent workers or 6 months for fixed-term contracts; and ii) have been unemployed for at least 30 days. If accumulated savings are more than two monthly wages (which would require about five years of contribution), the sum is provided to the worker in five progressively-decreasing monthly installments. Workers previously on fixed-term contracts or those with less than 18 months contribution can withdraw the sum in one installment. If the unemployed person has been dismissed for unjust reasons and has accumulated less than two monthly wages, he/she is entitled to a top-up from the solidarity fund and will receive five monthly payments decreasing progressively from 50% to 30% of their previous average wage. If workers change jobs, they can either withdraw the accumulated funds or leave them in the account. The same happens with the remaining sum if an unemployed person finds a job within the five month period.

Acevedo *et al.* (2006) underline that by making the fund belong to the worker, the system preserves incentives to actively search for jobs and accept job offers, largely avoiding moral hazard problems leading to overuse of unemployment insurance by employers and workers in industrial countries. Moral hazard problems in the use of the redistributive pillar are also limited by a number of factors, including the low level of benefits, short duration and lack of access to the solidarity fund until workers have depleted their own-account.

What is the effect of the scheme on incentives for informality? On the one hand, given the clear link between contributions and benefits, contributions should not be perceived as taxes by the worker. Compared with a more traditional unemployment insurance scheme, it may limit the incentives to work informally. However, the relatively restrictive access conditions raise some doubt. Job turnover is very high in Chile, as shown by the fact that only 27 months after implementation, about 80% of the salaried labour force was affiliated because they had started a new job (affiliation is mandatory in that case). Thus, the 12-month contribution period might *de facto* preclude most of the unemployed from benefiting from the scheme. For these workers, the scheme may just provide forced savings. Given that informal workers are often low-educated and low income, and more likely to have precarious jobs and be at the margin of subsistence, the value of the scheme might thus appear limited (or even negative) to them.

* This box draws extensively on Sehnbruch (2004) and Acevedo *et al.* (2006).

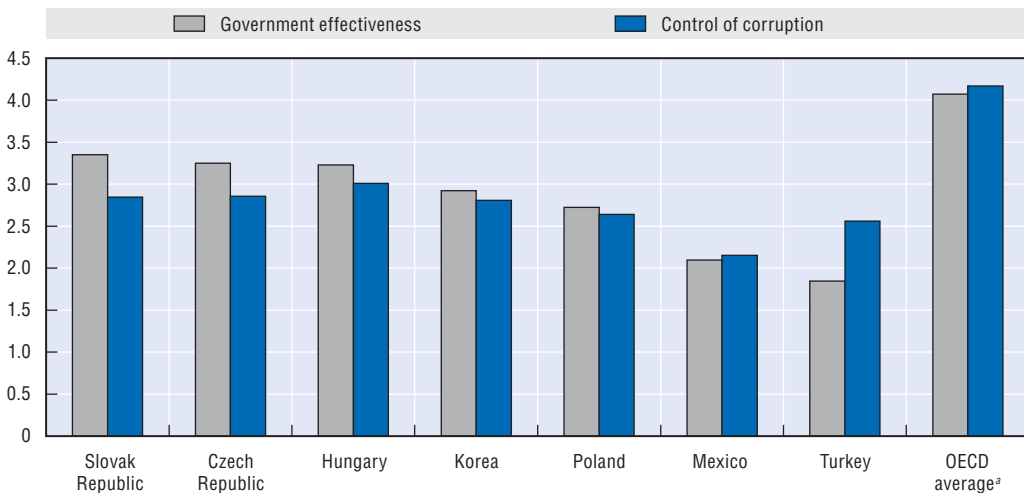
3.2. Encouraging tax compliance through better governance


Perceptions about the quality of government services can influence tax compliance (Slemrod, 2007). Taxpayers feel less guilt about evading taxes if they think that tax revenues are being misused, either through corruption or incompetence. A number of empirical studies find a negative link between trust in government or governance quality and tax

evasion behaviour or informality (e.g. Friedman *et al.*, 2000; Frey and Torgler, 2007; Hanousek and Palda, 2002). Improving governance standards and combating corruption can play an important role in reducing informality by increasing the perceived benefit to taxpayers of paying taxes. Frey and Torgler (2007) also find that people are less likely to evade taxes if they think that others are paying their fair share, suggesting that publicising good tax behaviour could play a role in a strategy to improve compliance.

The World Bank's Worldwide Governance Indicators rate countries on various aspects of governance using data from a large variety of qualitative and quantitative sources.³⁹ Figure 2.8 shows that all seven of the countries examined in this chapter perform below the OECD average on indicators of government effectiveness and corruption control. Mexico and Turkey, and to a lesser extent Poland, are particularly poor performers. There has been some progress in recent years: the Czech Republic, the Slovak Republic and Turkey have all improved government effectiveness and Korea and the Slovak Republic have improved control of corruption. In countries where governance is improving, such as the Czech Republic and Korea, publicity about improvements could help change previously low public opinion about the effectiveness or trustworthiness of government. Improvements in governance could create a virtuous circle by improving tax compliance and increasing government revenue, making it easier for governments to deliver quality services.

Figure 2.8. **Government effectiveness and corruption control**
Rated from 0-5 (worst-best), 2006



StatLink  <http://dx.doi.org/10.1787/347361366534>

a) Unweighted average.

Source: World Bank Worldwide Governance Indicators Database, 2006.

4. Improving enforcement

In countries such as Mexico and Turkey, where much informal employment is a survival strategy for those with few other labour market opportunities, it is important to make sure that vulnerable workers do not have their livelihoods put at risk by overly vigorous enforcement activities. Instead, improving incentives for formalisation and enhancing educational outcomes and labour market opportunities should be the primary objective of policy-makers in combating informality. That said, effective enforcement of

tax, social security and labour regulation must be a fundamental component of a policy package aimed at reducing informal employment in all countries. Strengthening enforcement capacity is particularly important in cases where informal employment and undeclared work are the result of workers and firms choosing to bypass regulation or tax requirements.

Enforcement effectiveness can be improved in a number of ways. First, well-designed regulation and transparent administration makes it easier for firms and individuals to comply with legal requirements and should increase voluntary compliance. Second, sufficient resources, including well-trained inspectors or auditors and resources to support their work, should be allocated to enforcement activities. Third, risk-assessment methods should be used to identify firms or individuals who are most likely to be informal and allow limited resources to be used most efficiently. Finally, if the cost of complying with enforcement activities is too high, this can become a disincentive to formalisation. Compliance costs can be reduced by improving coordination between enforcement agencies (Coolidge, 2006).

4.1. Tax administration and enforcement

Tax administration has an important role to play in reducing incentives for businesses to avoid or evade taxes, including by partly or fully failing to declare their employees (tax should be understood in a broad sense here to include social contributions). Tax administration may be complicated, in part, by tax policy. In particular, complex tax systems are likely to reduce the efficiency of tax administration and increase tax evasion. Other organisational features of tax administration also determine how easy it is for taxpayers to comply with tax law.

Complex tax systems increase incentives to go underground

Simplifying the tax system has long been established as essential to enhance the effectiveness and efficiency of tax administration. The main complexities in the tax system arise from the definition of the tax base rather than the rate structure (OECD, 2006d). Complex tax systems have three undesirable effects: i) they increase compliance costs for taxpayers; ii) they create opportunities for exploiting loopholes and avoiding taxes; and iii) they increase monitoring costs for the tax administration. Tax systems with relatively few taxes, a limited number of rates for each tax, a broad base and limited exemptions have proven to be much easier to administer and result in higher compliance levels than complex tax systems (Silvani and Baer, 1997).

Most OECD countries, including the seven countries featured here, have implemented some reforms in this direction. However, the Czech Republic, Hungary, Mexico, Poland and Turkey still have many exemptions and deductions in place in personal income and/or corporate income tax regimes. In Mexico, although their number has been reduced, some sectors still benefit from preferential tax regimes. Bakos *et al.* (2006) also identify the large number of minor taxes in Hungary as increasing administration costs. In Poland, four different taxation regimes exist for the self-employed. In Turkey, personal income tax is very complex, and exemptions are provided according to very detailed criteria (*e.g.* small farmers with size thresholds defined for every type of crop; street vendors not using motor vehicles; self-employed working at home making carpets, lacework, plastic flowers, etc.). Reforms to corporate income tax have, on the other hand, simplified the payment of taxes significantly in Turkey (World Bank and PricewaterhouseCoopers, 2007). Korea in the 1980s

and the Slovak Republic in 2004 undertook substantial reform of their personal and corporate income tax regimes, which have made them much simpler. However, the payment of social contributions remains complicated. In the Slovak Republic, social contributions are paid 12 times a year to five different funds, with different ceilings on contribution bases updated at different dates. In Korea, contributions are still paid to four different social institutions, with three different contribution bases. A law is pending though, which should unify the collection system (see Section 4.3).

Frequent changes to tax law also add complexity. In Mexico, the presumptive tax for small taxpayers has been modified continuously. Initially, the tax had different rates according to turnover level. In 2004, a 2% rate was adopted with two tax allowances and, in 2006, the allowance was modified to four minimum wages. The Centro de Estudios de las Finanzas Publicas (2006) notes that there were 11 legislative changes to the scheme between 2004 and 2006, causing legal uncertainty for taxpayers as well as non-compliance. However, the introduction in 2007 of a minimum income tax (IETU) on firms and professional activities should reduce the administrative burden of paying taxes and improve incentives for firms to declare both income and workers.

Simplifying registration, return and payment procedures is important to reduce compliance costs. In general, registering new businesses or employees for tax or social security is relatively simple, taking less than a day. However, in Mexico, registration for social security takes 2-5 days on average, and up to a week in some circumstances (World Bank Doing Business Database). In all seven countries, taxes are withheld at source by the payer on wages, dividends and interest. In Hungary, compliance costs have been reduced by the availability of tax calculation software, which can be freely downloaded from the tax authority's website, and by the introduction of electronic tax returns (Bakos *et al.*, 2006). Korea also allows electronic registration for social insurance (World Bank Doing Business Database). Since 1998, the Turkish tax authorities have invested in electronic declaration and payment, which are now used by a large majority of taxpayers. Turkish tax authorities also provide information and advice to taxpayers through call-centres in a number of regions. More generally, providing small taxpayer-specific services might be a way to increase the benefits of formality. This is difficult because small taxpayers are numerous and diverse, tend to have poor knowledge of tax laws and obligations, have less access to information technology and may thus require face-to-face services or other means of information (ITD, 2007). A cost-benefit assessment is thus required, which should take into account both the benefits from increased formalisation and increased tax revenues.

Properly detecting business revenues and individual income is central to reducing tax evasion

Over the past decade, tax authorities in a number of countries have implemented third-party reporting to facilitate taxpayers' preparation of their tax returns. Employers are required to report (and withhold) on wages, banks on dividend and interest income and the sale of shares, and notaries on real estate sales, etc. The Turkish tax authorities have also started active co-operation with the banks to detect large movements of funds.⁴⁰ In Korea, businesses using double-entry bookkeeping and highly-qualified self-employed such as lawyers and doctors are required to use a business bank account for business transactions, notably the payment of personnel.

Korea has also been quite active at improving income detection for the self-employed (the most likely to evade) through other means. Professionals have been required to use

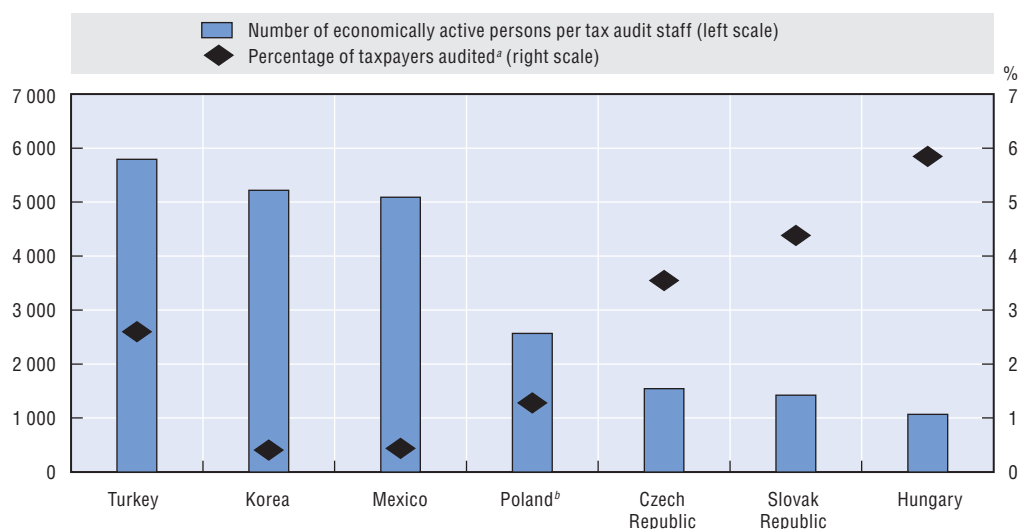
double-entry bookkeeping and an expansion of business account requirements irrespective of size is planned. Business owners with annual income above a certain level making transactions with consumers are required to issue a cash receipt that will automatically transmit sales information for tax authorities. Individuals making payments to a self-employed person and receiving a cash receipt for it can claim a tax credit, thus providing a strong incentive to request a receipt. Mexico is also using tax incentives to improve tax compliance: starting in mid-2008, financial intermediaries will levy a 2% tax on cash deposits for accumulated amounts exceeding MXN 2 500 per month, recoverable by the taxpayer conditional upon respecting tax obligations.

Perceptions about the likelihood of audit and the size of penalties affect compliance behaviour

It is widely recognised that taxpayers' perception of the probability of being audited strongly determines their degree of compliance. The importance that a tax administration assigns to the audit function thus affects its ability to enforce compliance. Figure 2.9 provides an indication of the level of audit staffing and the probability of being audited. In three of the seven countries – Hungary, Mexico and the Slovak Republic – audit staff account for more than 30% of all tax administration staff, a ratio that countries with effective audit operations have found to be necessary to ensure adequate audit coverage (Silvani and Baer, 1997). In Turkey, Korea, Mexico and, to a lesser extent, Poland, the number of registered taxpayers per tax auditor is high. In Korea and Mexico, this results in a very low share of registered taxpayers being audited.⁴¹ With the exception of Hungary, where tax auditors are also in charge of social contributions, the auditing offices of social security institutions also play an important role in enforcement, but information on staffing and activities of these organisations is not available.

In addition to the probability of being audited, the level of the penalty incurred also affects compliance. Ideally, penalties should increase with the length of non-payment, to

Figure 2.9. **Audit staffing and activity, 2004**



StatLink  <http://dx.doi.org/10.1787/347372518564>

a) Number of completed audits divided by the number of registered taxpayers.

b) Data refer to 2003.

Source: Based on OECD (2006d); and Tax Administration and Tax Systems in Poland, *Tax Information Bulletin* 2004.

encourage quick settlement of arrears, and be higher than the interest rate plus a spread, but not excessive to avoid legal challenges (Silvani and Baer, 1997). The size of the penalty should also vary according to the seriousness of the offence. For example, tax evasion would attract a higher penalty than an error. Penalty rates can vary up to 100% in Mexico and Turkey, but the criteria used to decide on the penalty rate do not seem to be clearly defined. This may leave too much room for tax auditors, and increase corruption opportunities. In order to reduce the risk of corruption, some countries use independent committees to review audit cases before and after completion to ensure that the correct penalty has been imposed.

Even the most developed countries have relatively low direct audit coverage, which is exacerbated in countries with limited auditing resources. The effectiveness of the audit programme can be improved by publicising planned auditing activities and results, which may influence taxpayers' perceptions of the probability of being audited and the consequences of tax evasion.

4.2. Labour inspection and enforcement

Labour inspection services play a vital role in combating informal employment because, in many countries, they are the only government bodies with the authority to investigate breaches of labour regulations in workplaces. Labour inspectors can also play an important educative role by working with firms and workers to encourage compliance. International studies of best practice highlight a number of characteristics of high-quality, well-functioning labour inspection services.⁴² These include adequate resources (both staff and infrastructure); recruitment and training policies designed to attract and retain high-quality inspectors; central administration to improve consistency and reduce duplication; preventative targeting of firms based on risk; integration of different types of inspections to reduce the inspection burden on business; and a focus on prevention and education as well as enforcement (Schrank and Piore, 2007; ILO, 2006; Treichel, 2004).

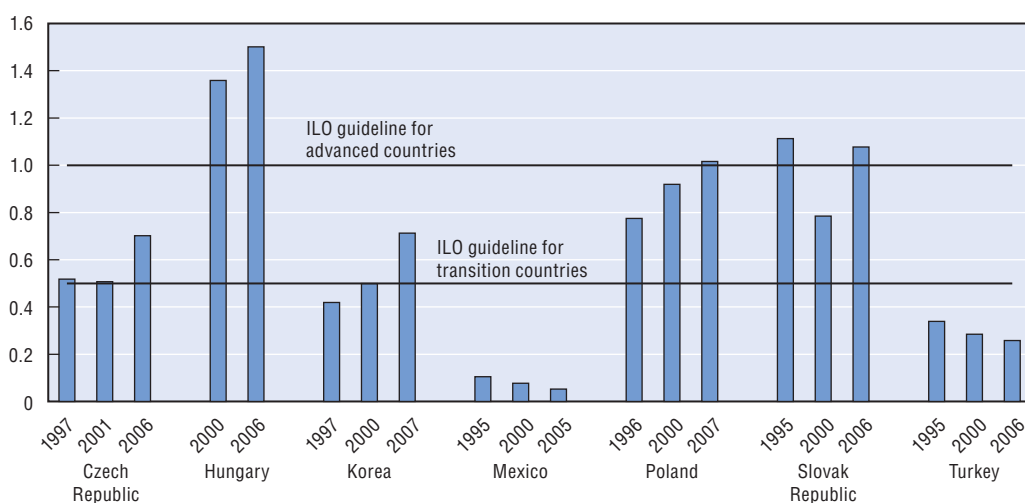
In order to gather key information about the operation and performance of labour inspectorates, which is not available elsewhere for most OECD countries, a questionnaire was submitted to the main labour inspection organisation in each of the seven countries.⁴³ The organisations are generally responsible for enforcing regulation of employment contracts and working conditions, employment protection provisions, minimum wages and occupational health and safety (OHS), although other bodies may share these responsibilities. Labour inspection bodies in Hungary, Poland and Turkey are also responsible for supervising regulations governing work permission for foreign workers. Uniquely among the seven countries, federal labour law enforcement responsibility in Mexico is shared between federal and state/local governments. The responses reported for Mexico refer only to the Federal Labour Inspectorate, covering enforcement in "strategic" industries (including manufacturing, food, mining, energy and banking industries) and for firms operating in a federal zone or in more than one state. The Federal Labour Inspectorate also has responsibility for enforcement of OHS and training regulations in all firms in Mexico, in which it is aided by state/local inspectors in some "non-strategic" industries.

Labour inspectorates should be adequately resourced and trained

The ILO (2006) recommends that advanced countries have at least one labour inspector per 10 000 employed persons, while transition countries should have one

inspector per 20 000 employed persons. There should be sufficient additional funding for training and infrastructure, such as cars and computers, to ensure that inspectors can do their jobs effectively (Treichel, 2004). The quality of labour inspectors can be improved by having competitive entrance examinations to screen applicants for aptitude, ensuring job security and independence from government interference and providing ongoing training. Training should focus on increasing technical capabilities (e.g. new legislation) and more generic skills (e.g. negotiation and communication skills) (ILO, 2006; Schrank and Piore, 2007). Figure 2.10 shows that Hungary, Poland and the Slovak Republic meet the recommended number of inspectors for advanced countries, while the Czech Republic and Korea meet the transition country guidelines. All these countries have seen increases in the number of inspectors over the past five to ten years. In contrast, the number of inspectors in Turkey is well below the recommended level and has fallen over the past decade. While the figures for Mexico reflect only a proportion of all labour inspectors, they show that the number of inspectors in the Federal Labour Inspectorate has been falling over the past decade.

Figure 2.10. **Labour inspectors per 10 000 employed persons, 1995-2006**



StatLink  <http://dx.doi.org/10.1787/347376803461>

Note: Figures for Mexico are for federal labour inspectors, who have responsibility for enforcing labour regulations in only a proportion of Mexican firms. No data are available on the number of state and local labour inspectors.

Source: Country responses to OECD labour inspection questionnaire.

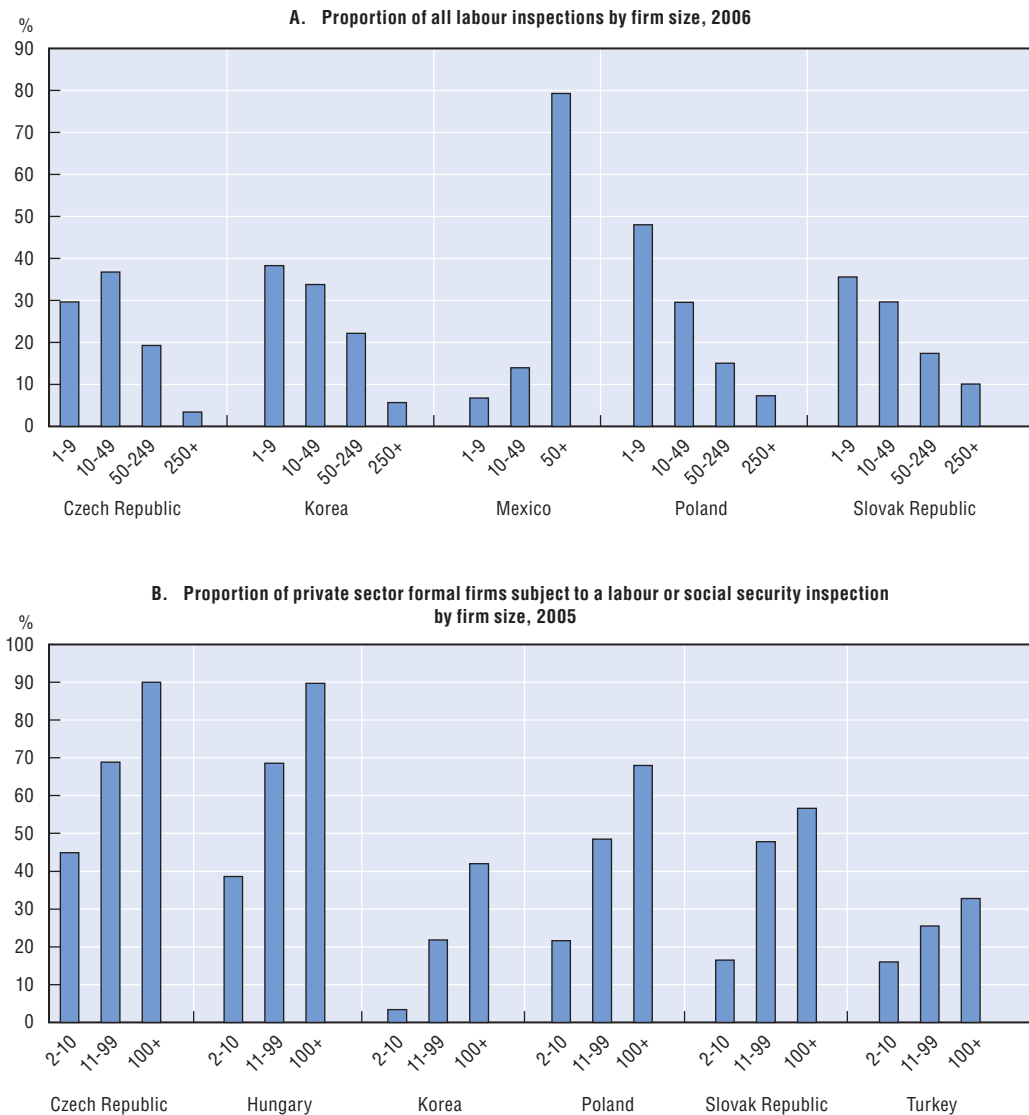
Targeting inspections can improve efficiency


Various mechanisms are used to target inspections. Generally, all complaints about possible breaches of labour regulations are investigated. Around 30% of inspections in Poland and Korea in 2006 were made in response to complaints (no data are available for other countries). While it is important for complaints to be investigated, sufficient additional inspections should be undertaken, particularly as inspections not based on a complaint are typically less confrontational and provide opportunities for information dissemination (Schrank and Piore, 2007). Efficiency can be improved by using risk-assessment techniques to identify firms with a high probability of non-compliance with labour regulations (Coolidge, 2006). All the countries examined in this chapter except Hungary systematically use risk evaluation to target at least some inspections. For the

Czech Republic, Hungary, Mexico and Poland, where there is some random targeting, efficiency gains could be made by increasing the use of risk-assessment methods.

Informality is overwhelmingly concentrated in small firms (see OECD, 2008a), implying that targeting inspections at small firms could yield good results in detecting informal employment. While Figure 2.11 shows that in all the countries for which data are available except Mexico, the majority of labour inspections take place in firms with less than 50 employees, this largely reflects the distribution of firms by firm size.⁴⁴ Indeed, small firms have a much lower chance of being subject to an inspection than large firms, particularly in Korea. In general, the chances of being inspected, regardless of firm size, are

Figure 2.11. Labour inspections by firm size



StatLink  <http://dx.doi.org/10.1787/347408601770>

Source:

Panel A: Country responses to OECD labour inspection questionnaire. No data are available for Hungary or Turkey. Columns may not sum to 100% because in some countries, the size of firms is not known for all inspections.

Panel B: OECD estimates using data from World Bank Enterprise Surveys, 2005. No data are available for Mexico.

relatively low in Turkey and Korea. In Hungary, labour inspectors require less documentation from small firms and the maximum fine imposed for breaches of labour laws by small firms is half that for larger firms. The Czech Republic began targeting firms with 100 or less employees in 2008 based on previous findings that poor legal awareness in small firms leads to more frequent breaches of labour regulations.

In the two countries for which data are available (Korea and Hungary), OHS inspections make up around three-quarters of all labour inspections. OHS is ranked as the most important or equal most important role of the labour inspectorate in the other five countries. This is reflected in the industry concentration of inspections, which tends to focus on the manufacturing and construction industries. Informal employment is heavily concentrated in a small number of industries: typically construction, retail trade, hotels and restaurants and transport. Targeting inspections in these industries could be a useful strategy for combating informality, and may not necessarily conflict with some aspects of current inspection strategies. For example, the construction industry accounts for 10-15% of current labour inspections (except in Hungary, where over half of inspections are in construction), so current inspection programmes in the construction industry could be expanded in scope to focus more on informality. Increasing the number of inspections in service industries such as retail and hotels and restaurants could also be effective at combating informal employment in these industries.

Sanctions should be large enough to act as a deterrent

Penalties imposed for breaches of labour regulations should act as a deterrent, but the application of sanctions should also take into account the need to protect workers' jobs and the ongoing viability of businesses (Daza, 2004). Table 2.5 shows that the maximum fines for breaches of labour regulations tend to be higher in the central European countries (with the exception of Poland) than in Mexico, Korea and Turkey. While the table shows maximum applicable fines, in many cases employers are subject to substantially lower fines. For example, in Poland the average fine imposed in 2006 was 20% or less of the maximum penalty. While some level of discretion in imposing fines is desirable to protect jobs and businesses, fines will provide little deterrence if the risk of receiving a fine is very

Table 2.5. Maximum fines imposed for breaches of selected labour regulations

Maximum fine as a proportion of average annual wage

	No employment contract	Wages below minimum wage	Employment of illegal migrants
Czech Republic	–	8.0	–
Hungary ^a	1.4-9.4	2.3-9.4	4-8 times wage paid, with minimum fine of 0.2-0.4
Korea	0.2	0.6 or imprisonment of up to 3 years	–
Mexico ^b	0.2	0.03-0.1 or imprisonment of 0.5-4 years	0.2
Poland	1.0	1.0	0.2
Slovak Republic	4.1	4.1	4.1
Turkey	–	0.01	0.3

a) In Hungary, the maximum fine is generally half that shown in the table for businesses with less than 20 employers and a quarter when the infringement is in connection with an employee employed by a private household (natural person) who is not a private entrepreneur. Maximum fines are lowest for first-time offences involving only one employee and increase with the number of employees and for repeat offenders.

b) In Mexico, the maximum fine for payment of wages below the minimum wage depends on the length of time that wages below the minimum wages have been paid.

Source: Country responses to OECD Labour Inspection Questionnaire. Average annual wage from OECD Taxing Wages.

low. Very few firms found in breach of labour regulations were fined in the Czech Republic (9%), Korea (3%) and the Slovak Republic (10%). Combined with data on maximum fines, this suggests that in Korea, and possibly Mexico, Turkey and the Czech Republic, sanctions play little role in preventing labour law breaches. For the Czech Republic, this view is backed up by Kux and Kroupa (2006), who state that the system of penalties introduced by the new labour code appears to be largely ineffective, as in practice fines imposed on companies are very low and symbolic in nature. Kus (2006) also argues that penalties in Poland for infringements of labour or tax law are relatively ineffective.

4.3. Better inter-agency coordination

Efforts to increase efficiency and effectiveness within individual enforcement agencies can be amplified by improving coordination between tax, social security and labour inspection agencies, and with other agencies with responsibilities for policing informality, such as police, customs service or business registration offices. A coordinated approach can reduce the compliance burden, prevent duplication of effort, capitalise on opportunities to cross-check information from different agencies and signal to the public that the government is serious about combating informality.

Integration of tax and social contribution collection can increase efficiency and cut compliance costs

Tax and social security contribution collection are the areas where the most obvious synergies for coordination exist. Anusic (2005) finds that countries with integrated tax and social security collection have higher contribution collection and compliance rates. The degree of coordination can range from information sharing, to joint audit or reporting activities to full outsourcing of social contribution collection to the tax authority. Barrand *et al.* (2004) argue that full integration should be a long-term goal because it maximises efficiency savings and takes advantage of the core competency of tax authorities in revenue collection and auditing. However, if the tax authority does not have the capacity to properly administer tax collection, extending its responsibilities could exacerbate compliance problems. In this case, improving coordination between existing tax and social security agencies could still bring significant efficiency savings and improve compliance.

Co-operation between tax and social security agencies can be enhanced by harmonising various aspects of tax and social security administration. A single, unique taxpayer identification number (for each employee and employer) should be used to increase agencies' ability to cross-check information on individual taxpayers. Firms' compliance burden can be reduced by streamlining reporting requirements and auditing activities to reduce the number of times each year that firms need to report to collection agencies or are subject to inspections or audits, adopting a common definition of income for tax and social security purposes and ensuring that rules relating to coverage for employees or the self-employed are the same for tax and social contributions (Barrand *et al.*, 2004; OECD, 2004a; Ross, 2004). Such reforms may require legislative change, so the difficulties of simplification should not be underestimated.

Hungary is the only country here to have achieved some degree of integration in tax and social contribution collection activities.⁴⁵ Since 1999, the national tax authority (APEH) has been responsible for collecting basic pension and health care contributions.⁴⁶ While there are separate auditing bodies for different types of tax, audits for personal income tax and social security contributions are undertaken jointly. Since 2006, social contributions have

been collected electronically on a monthly basis for all employees, allowing APEH to identify individuals who are using healthcare services without paying contributions. Barrand et al. (2004) suggest that, while some aspects of the reforms have been successful, coordination and record-keeping deficiencies remain. The existence of separate auditing bodies for different types of taxes suggests that further reductions in compliance costs could be achieved by improving coordination of audit activities and reducing the number of business visits.

A comprehensive reform of tax and social security collection is also proposed for Korea. If implemented, the changes would hand responsibility for collection of social security contributions to a new collection agency within the tax authority, although social contributions from the self-employed would be collected separately by regional social security agencies. In order to facilitate central collection, the income base and payment period for insurance will be harmonised. Other changes have already been made to increase co-operation between tax and social security authorities in detecting non-compliance. From 2008, if the National Pension Corporation suspects under-reporting of the income base for contributions, it can notify the tax authority, which will investigate using tax records. Korean employers are now also required to report the wages of all their employees, including low-wage earners who were previously exempt from reporting requirements. A new earned income tax credit will increase incentives for low-income employees to be registered for tax. Both these measures should increase the number of taxpayers who can be identified by the tax authority (Jang, 2007; Korean legislation).

In the six other countries examined, less progress has been made in coordinating tax and social security collection. In Mexico in 2005, an agreement was reached between IMSS, the National Tax Administration and state tax administrations to exchange information to enable better identification of non-compliant businesses. However, there is little evidence that concrete measures to improve coordination have been taken in the meantime. In Turkey and the Slovak Republic, many employees are not required to file a tax return and so remain unregistered for tax purposes. The ratio of registered individual taxpayers to the number of people in the labour force is very low (19% in the Slovak Republic and 13% in Turkey), limiting the usefulness of taxpayer identification numbers for cross-checking information (OECD, 2006e). There is reportedly little co-operation between tax and social security agencies in Turkey. For example, tax auditors are not required to notify social security agencies if they find undeclared workers.

Coordination between tax/social security, labour inspection and other agencies is vital

Labour inspectorates, tax and social security collection agencies and other government agencies with an interest in deterring informal employment should collaborate and share information as much as possible to improve detection efforts and reduce business compliance costs. Co-operation between government agencies and social partners can also be useful, particularly in industries where traditional enforcement efforts have been ineffective.

In Poland, the scope of the National Labour Inspectorate's tasks was broadened in 2007 to require the labour inspectorate to inform employment offices of the employment of unemployed persons and allow the use of tax, business registration and social insurance data to help in its work. Kus (2006) argues that the database of ZUS (private sector social security organisation) should be used as the basic source of information about undeclared work in Poland, but is only weakly accessible. Labour inspectors are also required to inform

the relevant authority (tax office, social security institution, police or border guard) if they identify infringements of tax or social security law or illegally-employed foreign workers. As the change in legislation is relatively new, little information is available about its effectiveness in reducing informal employment.

In Hungary, the Labour Inspectorate (OMMF) carries out workplace inspections to detect informal employment with colleagues from the tax authority, the Board of Customs and Excise, consumer protection authority, frontier guards and the police. Inspections are targeted in industries where informal employment is known to be most problematic (construction, agriculture, trade, catering and security) and focus on detecting employees working without legal employment documents, unregistered employees, non-payment of the minimum wage, illegal employment of foreign nationals, child work and unlawful employment of young people. OMMF reports that co-operation between enforcement agencies is getting stronger and more effective in detecting informal employment.

The KADİM project in Turkey aims to engage the social partners in dialogue about the need to tackle informal employment. In a pilot project based in three regional areas, employers, trade unions and government agencies made joint recommendations on policies needed to combat informal employment, such as reducing labour costs, improving the benefits of social protection and supporting SMEs. A number of actions were also taken at a regional level including increasing awareness among employers and the general public about the desirability of formal employment and recognising best-practice employers (Heyes, 2007). Further progress appears to be limited. Tekinarslan (2007) reports that the first priority for the national-level KADİM project is information campaigns and inspection activities focused on reducing employment of undocumented migrants, with the stated aim of creating more job opportunities for Turkish citizens currently employed informally. Given that the government's own figures estimate that undocumented migrants make up only 1% of all informal employment, this focus appears to be misplaced.

Conclusion

The findings presented in this chapter show that informal employment and undeclared work is not necessarily concentrated among low-skilled or low-paid workers, but that the characteristics informal workers vary considerably, both within countries, across different types of informal employment, and across countries. While informal employment may provide a buffer for some workers who have few alternative labour market opportunities, particularly in Mexico and Turkey, there is a clear case for policy-makers to encourage workers and firms to move into the formal labour market. Informal employment often leaves workers with little protection against old age, sickness, unemployment or economic downturns, reduces tax and social security revenues making it harder for governments to provide high-quality public services, increases contribution rates for formal workers and hinders firm expansion and economic growth. Combating informal employment requires a comprehensive approach that reduces the costs and increases the benefits to businesses and workers of operating formally and ensures that regulations are adequately enforced (see Box 2.4 for country-specific policy proposals). As reform across a range of policy areas is necessary, a whole-of-government approach to tackling informality should be adopted. In particular, increasing enforcement effort is likely to be ineffective, and could actually put jobs and livelihoods at risk, if measures to improve incentives are not taken simultaneously.

In countries such as Mexico and Turkey, where there may be limited formal job opportunities and average productivity levels are low, growth-enhancing policies and, in particular, further efforts at enhancing human capital for youth and adults alike, would in the longer-term improve prospects for employment in the formal labour market. The incidence of low pay among some informal workers is likely to be a significant barrier to improving social protection coverage. In some cases, governments could consider expanding coverage through other means (*e.g.* delinking health insurance from formal labour contracts and financing it out of general taxation) in countries where informality rates are particularly high. Other policies aimed at improving the welfare and income of low-paid workers may also play an important role in overcoming informality. However, more research is needed on the employment impacts of policies designed to prevent in-work poverty.

Identifying suitable policy recommendations to combat informal employment relies on having an in-depth understanding of the extent and nature of informal employment. Almost by definition, this is hindered by a lack of consistent, comparable data on different aspects of informality. For example, European household surveys generally do not collect information on social protection coverage, making it difficult to assess the extent of non-compliance and understand the characteristics of those who are not covered. Existing research comparing administrative data on social protection coverage with labour force data on employment suggests that the extent of non-compliance in central Europe may be non-negligible, particularly in Hungary, and is certainly worthy of further investigation. While accurately measuring under-declaration of income is difficult, new survey methods have been developed that give greater insights into this phenomenon than previously available (*e.g.* European Commission, 2007a). More widespread adoption of such methods would greatly increase understanding of the motives for income under-declaration. More generally, analysis of household survey data to examine different types of informal employment could be more useful in understanding the extent to which the results in this chapter are relevant to higher-income OECD countries than further refining macro estimates of the extent of informality.

There are a number of areas warranting further research on informal employment, but three in particular would be useful in furthering knowledge relevant to OECD countries' experiences. First, more extensive and rigorous evaluation of recent tax policy reforms, such as the introduction of a flat tax in the Slovak Republic, would improve understanding of the links between tax policy and under-declaration and add substantially to existing evidence, much of which is based on theoretical or experimental studies. Second, understanding the dynamics of informal employment – how workers move between formal and informal jobs and the consequences of such moves – would allow policy reforms to be targeted at workers who face the biggest barriers to formalisation and are most vulnerable to remaining informal for long periods of time. Dynamic analysis could take advantage of the growing availability of micro-level panel data for lower-income countries, while a country-specific focus would allow for institutional factors to be taken into account. Finally, there is scant empirical evidence on the impact of specific enforcement measures on informality. A number of OECD countries (including some of those examined in this chapter) are currently undertaking measures designed to improve detection of informal work. Evaluation of the impacts of these policy changes should be undertaken in order to extend knowledge on how enforcement resources can be best used to discourage informality.

Box 2.4. Encouraging formalisation: a country-by-country synthesis

Czech Republic

The combination of high taxes on labour income compared with those on capital income, and quite progressive labour taxes may be providing incentives for under-declaration of earnings. The recent tax reform will not significantly affect the tax wedge at average income levels, but incentives for under-declaration at higher income levels are likely to be reduced.

The removal of minimum income tax for the self-employed as part of recent tax reforms could, in the absence of increased income detection and enforcement effort, lead to increased tax evasion by the self-employed.

Reducing or removing severance pay for workers with short tenure might encourage firms to hire young workers formally, rather than without contracts or as false self-employed.

The number of labour inspectors should be increased and there should be greater emphasis on risk-assessment procedures in targeting inspections. Very low prosecution rates for labour law infringement suggest that current sanctions may not have much of a deterrent effect.

Hungary

Labour costs for low-wage workers should be cut by further reducing income tax and social contributions for low-income earners and limiting further minimum wage increases. The use of minimum-wage hikes as a mechanism to increase tax revenue would seem to be misplaced and could damage the formal employment prospects of genuine minimum-wage earners.

Preferential tax treatment through the presumptive tax regime favours self-employment and could contribute to false self-employment. The tax environment should be simplified by reducing exemptions, deductions and frequent changes in tax administration, reducing compliance costs for taxpayers and monitoring costs for tax authorities.

Further improvements in tax and labour enforcement capacity could be made by merging auditing units for different types of taxes and introducing risk-assessment methods to target firms for labour inspections.

Korea

Removing retirement allowances and the seniority based wage system and limiting early retirement would increase incentives for firms to hire and retain older workers, who are particularly prone to informal employment.

Planned integration of tax and social contribution collection and recent changes to tax administration should provide a strong impetus to further increase social security coverage and make it easier for authorities to identify unregistered employees and accurately trace the income of the self-employed.

Enforcement efforts should be enhanced by employing more labour inspectors and improving their training, increasing fines for labour law infringements and increasing the concentration of inspection efforts on small firms.

Mexico

Relaxing strict rules on the use of temporary or fixed-term contracts, introducing a probationary period for new hires, removing the requirement to make redundancy payments for workers with little experience and simplifying redundancy procedures could reduce incentives to hire informal workers and make it easier for youth to enter the formal labour market.

Box 2.4. Encouraging formalisation: a country-by-country synthesis (cont.)

To reduce formal labour costs, some benefits which are not accessible to many Mexican households but require contributions (e.g. housing, childcare) should be either financed by general tax revenue or made voluntary. Improving the efficiency of management of pension accounts, and thus net return, would increase the attractiveness of this saving which is mandatory when working in the formal sector. For those workers who are in a position to choose between formal and informal activity, introducing individual savings accounts as done in Chile and other Latin American countries may also improve the attractiveness of a formal status.

Further changes to the simplified tax system for small businesses should be limited and information and assistance provided to small businesses to help them understand new rules. More generally, the tax system should be simplified to remove loopholes.

Policy efforts to improve incentives for formalisation should be accompanied by further investments in enforcement capacity. Existing enforcement capacity could be enhanced by improving co-operation and information sharing between various levels of government and between enforcement agencies and increasing the use of risk-assessment techniques to target inspections. Further efforts to improve governance, increase regulatory certainty and reduce corruption would contribute to increasing confidence in government and the willingness of both firms and workers to pay taxes.

Poland

Taxes on labour income are relatively high in Poland compared with taxes on capital income, providing strong incentives for informality, particularly at low wage levels. Recent tax reforms will somewhat reduce the tax rate on labour income but disincentives for full declaration will remain.

The self-employed receive preferential tax treatment, which is likely to favour false self-employment and tax evasion. In addition, the number of tax regimes available to small businesses should be cut to reduce opportunities for tax avoidance or evasion. The simplified tax should allow for the deductibility of employees wages to improve incentives to declare workers.

While being careful to preserve job-search incentives, consideration could be given to increasing the link between unemployment insurance contributions and benefits and/or reducing contribution rates. Unemployment benefits are currently very low and have no link to previous earnings. Access conditions are also strict, so that only a minority of the unemployed receive benefits, leaving the unemployed with few other options than to work informally.

Increasing the emphasis of labour inspections on service industries, such as retail, hotels and restaurants where informal employment is common, could yield good results in detecting informality. Extending the current programme focusing on occupational health and safety in small businesses to include information about informal employment could also provide an efficient means to target businesses where the incidence of informal employment is high.

Slovak Republic

High social contributions increase labour costs, despite recent tax reforms. The unemployment insurance scheme is in structural surplus, so contribution rates could be cut and/or access conditions eased in order to reduce the cost or increase the benefit of contributing to the scheme. Administration of social protection schemes could be simplified to reduce compliance costs for businesses. Social contributions are currently paid to five different funds, often with different ceilings and at different times.

Severance payments for workers with less than one year of service should be reduced or abolished to encourage firms to hire more young workers in formal jobs.

Box 2.4. Encouraging formalisation: a country-by-country synthesis (cont.)

Co-operation between various enforcement agencies should be increased and the spread of tax-payer identification numbers broadened to allow tax and social protection information to be cross-checked. Coverage of small businesses by labour and tax inspections is currently very low. Consideration could be given to introducing compliance programmes aimed specifically at small businesses.

Turkey

The minimum wage is binding in the formal sector whereas almost half of informal employees are paid less than the minimum wage. High replacement rates for the pension system along with a deterioration of the tax base have kept taxes and social contribution rates high. To encourage formal employment, labour costs should be reduced by a combination of a lower minimum wage and lower tax and contribution rates.

Lifting current prohibitions on temporary employment could provide businesses with more flexibility, reduce incentives to hire informally and improve the working conditions of temporary workers, very few of whom currently have social security coverage. Administrative arrangements for registering temporary workers for social security should also be simplified to reduce compliance costs for employers.

The current severance payment scheme should be phased out as it encourages informal employment, particularly among older workers and women. The introduction of the unemployment insurance scheme in 2000 was designed to replace the severance payment system, but very few unemployed people receive benefits, contributing to employee resistance to removing severance payments. The unemployment insurance scheme is currently operating in structural surplus, so there is scope to relax eligibility criteria, increasing the benefit to employees of contributing.

In combination with improving incentives for formalisation, more resources should be allocated to enforcement. The number of labour inspectors is low, given Turkey's population and level of development, and has fallen in recent years. Only a small proportion of formal firms are subject to tax or social security inspections each year and compliance costs are relatively high. Increasing co-operation and information sharing could be one way to reduce costs and increase efficiency. Fines for breaches of labour regulations may be too low to provide much deterrence.

Notes

1. Perry *et al.* (2007) compare official estimates of the size of the informal sector in Mexico with aggregate estimates generated using regression methods and find considerable disparities between the two.
2. The chapter focuses on *informal employment* rather than *employment in informal firms* because the emphasis is on worker-level rather than firm-level informality. Hussmanns (2004) discusses the development of international statistical definitions of both informal employment and employment in the informal sector. In reality, most workers in informal firms are likely to be included in the measures of informal employment used in this chapter. However, by focusing on informal employment, other forms of informality common in formal-sector firms, such as undeclared income, are also considered.
3. As most of the estimates in Table 2.1 are derived from country-specific household surveys or firm-level surveys covering a limited range of countries, it is not possible to replicate these measures for all OECD countries in order to provide OECD average indicators. It would be misleading to produce an overall measure of the extent of informal employment by aggregating the figures in Table 2.1 due to overlaps in the groups incorporated in each measure and the fact that some of the indicators are only proxies for informal employment.

4. Except for Turkey, no data are available to assess self-employed workers' informality (e.g. registration to social security schemes).
5. In some countries (e.g. Hungary, Czech Republic) self-employed foreigners are not required to have a work permit to work legally, so self-employment might be used by firms or workers as a means of by-passing regulations on the employment of foreigners.
6. This section draws on analysis of the characteristics of informal employment using a variety of data sources presented in OECD (2008a).
7. The limited evidence on the impact of minimum wages on self-employment suggests that minimum wage increases that adversely affect the employment prospects of formal workers have a similar impact on the self-employed (Hamidi and Terrill, 2001; Jaramillo, 2005; Maloney and Mendez, 2004). Possible explanations include increased competition from displaced formal employees driving the self-employed out of business, or improved wage prospects in the formal-sector inducing some "voluntarily" self-employed workers to seek formal jobs.
8. Earnings distributions are estimated using a kernel density estimator with an Epanchnikov kernel function. The shape of kernel density estimates is less sensitive to the choice of bin-width than a simple histogram, particularly in cases where data are clustered. However, kernel density estimates should not be interpreted in the same way as a histogram. Each distribution is scaled so that the area under the curve is equal to one. The vertical axis is the (scaled) density, rather than the proportion of observations at each level of earnings.
9. Data for Poland are from the Labour Force Survey, which is not the preferred source of data on earnings for Poland. However, alternative data sources were not directly comparable with the data used for other countries in Figure 2.1. The Structure of Earnings Survey, the official source of earnings data in Poland, is a firm-level survey of firms with ten or more employees, so is likely to exclude a large proportion of informal workers, who tend to be concentrated in small firms. The Household Budget Survey, the most comparable with other data sources used in Figure 2.1, does not allow for farm-sector employees to be excluded from the sample and does not include data on hours worked to allow employees working 40 or more hours per week to be identified accurately. The estimated earnings distribution using data from the Household Budget Survey for Poland and limiting the sample to those who say they work "full-time" (not defined) is very similar to that shown in Figure 2.1.
10. While the overall earnings distribution is not distorted around the level of the minimum wage in Korea, Mexico or Poland, this does not mean that the likelihood of informal employment for some groups of employees is not affected by the minimum wage. For example, in some regions of Poland, the earnings distribution is distorted around the level of the minimum wage.
11. Full-time employees were identified by their weekly hours: some casual and temporary workers may not work every week, meaning that their monthly earnings would be lower than the minimum wage, even if they were paid the hourly minimum.
12. The earnings distribution using unpublished data from the Wage Survey on the earnings of full-time employees in businesses with five or more employees was provided by the Hungarian Ministry of Finance.
13. It could be expected that a household-level survey like that used to derive Figure 2.1 might more accurately capture true earnings. However, Tonin (2007) notes that surveyors in Hungary are required, where possible, to use tax records to verify earnings data collected in the Household Budget Survey. To the extent that this occurs, the data collected will reflect any under-reporting to tax authorities, rather than the true earnings of under-reporters.
14. The methodology adopted by Benedek *et al.* (2006) would tend to underestimate the extent of under-declared income because it does not consider workers whose expenditure and income differed by only a small amount to be informal, even if they had under-declared income. The analysis was also undertaken using data from 2000, before the largest of the recent minimum-wage increases, when only around 5% of workers reported earning the minimum wage (Tonin, 2007).
15. For an extensive discussion of the employment effect of labour taxes, see OECD (2007a).
16. See Ihrig and Moe (2000), Johnson *et al.* (1998), Kuehn (2007), Lackó (2006) and Loayza (1997).
17. Including the mandatory contributions to the private pension scheme (8.65% of gross wage) would put Mexico's tax wedge at about the same level as Korea's.
18. The OECD maintains tax wedge calculations on a consistent basis back to the year 2000.

19. All incomes will be taxed at 15% in 2008, instead of 12-32% in 2007. The rate should be brought down to 12.5% in 2009. Social contributions will no longer be deductible.
20. Although it is not included in the OECD *Benefits and Wages* indicators, the situation in Mexico is probably similar to that in Korea, because of the low level of the tax wedge and the absence of unemployment benefits or any other significant non-work transfers.
21. These are often called models of the “underground economy”. They have two sectors, one in which income is fully known by the tax authorities and the other where evasion is possible.
22. In calculating these rates, it is assumed that the business owner’s income will be taxed at the top marginal rate, which may not always be the case.
23. The downward step observed at 140% of the average wage stems from the pension contribution ceiling.
24. Specific VAT regimes for SMEs, although they are not direct taxes on labour income, can also influence evasion, but are not examined here due to time/space constraints.
25. European Commission (2004), for example, cites a survey indicating that compliance costs for VAT and corporate tax are around 0.02% of turnover for larger enterprises, but 2.6% for small businesses.
26. For a review of non-compliance estimates by small businesses, also see Schuetze and Bruce (2004).
27. As outlined in Bakos *et al.* (2006), another problem with EVA is that it may encourage evasion of VAT payments, since an EVA taxpayer is less motivated to ask for tax receipts than a firm which takes into account the gross value of inputs and service costs to calculate its tax liabilities (for VAT and income tax).
28. The OECD’s EPL index measures the strictness of legal provisions on hiring and firing workers. The strictness of EPL *in practice* may also be influenced by judicial practices, provisions in collective agreements and the degree to which regulations are enforced, which are captured to only a small degree in the index (OECD, 2004a). Section 4 shows that labour law enforcement capacity is particularly limited in Mexico and Turkey. This may imply that the high values of the EPL index shown in Figure 2.6 over-estimate the costs imposed on businesses in these countries by the operation of EPL in practice.
29. The variability of employment is measured using the coefficient of variation (standard deviation divided by the mean) of a series of six-monthly employment figures from the Turkish Household Labour Force Survey. The coefficient of variation is 29% for employees not registered for social security compared with 17% for employees registered for social security.
30. In addition to the retirement allowance and pension systems, a number of other factors reduce formal employment prospects for older workers in Korea. First, while Korea’s EPL is around the OECD average (see Figure 2.6), in practice it can be difficult for firms to fire workers except in the case of serious misconduct. Such restrictions do not apply to workers who have reached mandatory retirement age, so a majority of firms have mandatory early retirement policies in place. Second, seniority-based pay schemes, along with the requirement to pay retirement allowances based on years of tenure, mean that labour costs increase dramatically with age, increasing incentives to fire older workers. Third, age-based discrimination is common and older workers have lower average educational attainment than younger cohorts, making it difficult for displaced older workers to find new formal jobs (OECD, 2007d; OECD, 2004b).
31. For a discussion of the concepts of actuarial fairness and actuarial neutrality and their relevance in the pension debate, see Queisser and Whitehouse (2006). Increasing the link between contributions and benefits involves: i) making accrued pension rights proportional to contributions; ii) making rates at which pension benefits accrue reflect differences in life expectancy for different population groups; and iii) better linking first age of receipt of public pension to differences in expected longevity (OECD, 2007a).
32. OECD estimates using data from the Korean Labor and Income Panel Study.
33. OECD estimates using data from Encuesta Nacional de Ingresos y Gastos de los Hogares and Turkish Household Labour Force Survey.
34. Brook and Whitehouse (2006) note that out of 2.9 million men aged 50-59, only 0.6 million were contributing to social security. Around 1.6 million were receiving a pension, when only 0.9 million stated in the THLFS that they were not participating in the labour force due to retirement. This implies that around 700 000 in that age group were working informally.

35. World Bank (2006) notes that the small share of lay-offs in total job separations is surprising given the slack of the labour market and the relative scarcity of formal jobs in Turkey, and may reflect the fact that the substantial severance obligations (Section 2.3) create incentives for firms to induce resignation rather than formally lay-off workers.
36. In Poland, the amount of the benefit is not related to previous earnings but fixed, varying only according to the contribution period (Table 2.4). In the other countries, initial replacement rates are close to 50% of previous earnings, which is rather low compared with most other OECD countries, and benefits are capped by rather low ceilings. For comparison with other OECD countries, see Table 1.1 of OECD (2007f).
37. The ratio of contributions-minus-benefits to employees' compensation amounted to 0.8% in the Slovak Republic and 1.5% in Turkey in 2006 (Source: National Accounts).
38. While unemployment benefits are only a small proportion of receipts in Poland, the unemployment insurance scheme operated at a small deficit in 2007. This is because, in addition to paying benefits to the unemployed, the scheme funds active labour market programmes and early retirement schemes.
39. For more information, see www.govindicators.org.
40. Since 2004, using the banking system for payments over TRY 8 000 (about USD 5 600) is compulsory.
41. In Mexico, total tax staffing levels are very low, and were reduced in the first half of the 2000s. To some extent, this reflects the relatively low rates of taxes compared with the other countries.
42. There is very little empirical evidence on the links between labour inspection and informal employment. In the absence of more concrete empirical evidence, the discussion in this section relies on studies of best practice in labour inspection, typically produced by practitioners or international bodies.
43. Responses were received from the following organisations: Czech Republic: State Labour Inspection Office; Hungary: Hungarian Labour Inspectorate; Korea: Ministry of Labor; Mexico: Federal Labour Inspectorate; Poland: National Labour Inspectorate; Slovak Republic: National Labour Inspectorate; Turkey: Labour Inspection Office of the Ministry of Labour and Social Security.
44. As mentioned above, data for Mexico in Figure 2.21 refers only to the inspection activities of the Federal Labour Inspectorate, which are concentrated in industries where firms tend to be larger.
45. Among European OECD countries, Finland, Hungary, Iceland, Ireland, the Netherlands, Norway, Sweden and the United Kingdom are the only countries with integrated collection of tax and social contributions (Anusic, 2005).
46. Contributions for the voluntary tier of the pension system are collected directly by pension agencies.

ANNEX 2.A1

Characteristics of Employees who Earn Less than the Minimum Wage in Turkey

A probit model is used to determine which characteristics affect the likelihood of earning less than the minimum wage in Turkey. The sample, from the Turkish Household Budget Survey, includes only full-time employees working 45 hours per week or more (standard weekly hours). The dependent variable is a dummy variable equal to one if the respondent earns less than the net monthly minimum wage and zero otherwise. Three alternative measures are tested to determine the sensitivity of the model to the definition of earning less than the minimum wage: earning 99%, 95% or 90% or less of the minimum wage. The results (Table 2.A1.1) show that there is little difference in the size or significance of the estimated coefficients between the three measures.

Independent variables included in the model are: gender; age (in ten-year categories, where 35-44 years is the omitted category); educational attainment (primary school or less is the omitted category); occupation (manager or professional is the omitted category); contract type (permanent contract is the omitted category); size of business (less than ten employees is the omitted category); weekly hours of work; a dummy equal to one if the respondent is the household head; and a dummy equal to one if the respondent is registered with any social security agency.


Table 2.A1.1. **Factors affecting the probability of full-time workers earning less than the minimum wage in Turkey**

Marginal results from a probit regression^a

	Earning 99% or less of minimum wage	Earning 95% or less of minimum wage	Earning 90% or less of minimum wage
Female	0.028** [2.03]	0.029** [2.17]	0.023* [1.91]
Aged 15-18	0.225*** [4.95]	0.217*** [4.84]	0.169*** [4.26]
Aged 19-24	0.039** [2.08]	0.036** [1.98]	0.016 [1.10]
Aged 25-34	-0.02 [1.60]	-0.021* [1.73]	-0.024** [2.26]
Aged 45-54	0.006 [0.35]	0.005 [0.30]	0.005 [0.36]
Aged 55+	0.045 [1.34]	0.045 [1.37]	0.047 [1.50]

Table 2.A1.1. **Factors affecting the probability of full-time workers earning less than the minimum wage in Turkey (cont.)**Marginal results from a probit regression^a

	Earning 99% or less of minimum wage	Earning 95% or less of minimum wage	Earning 90% or less of minimum wage
Lower secondary education	-0.024** [2.10]	-0.025** [2.26]	-0.026*** [2.78]
Secondary education	-0.056*** [6.25]	-0.053*** [5.95]	-0.040*** [4.98]
Post-secondary education	-0.070*** [6.92]	-0.067*** [6.74]	-0.052*** [5.23]
Years with current employer	-0.004*** [4.88]	-0.004*** [4.98]	-0.003*** [4.46]
Clerks	0.037 [1.13]	0.036 [1.13]	0.021 [0.77]
Service workers	0.04 [1.49]	0.039 [1.47]	0.034 [1.41]
Tradepersons	0.017 [0.74]	0.019 [0.83]	0.013 [0.65]
Plant and machine operators	-0.037** [2.05]	-0.039** [2.27]	-0.036** [2.36]
Elementary occupations	0.055* [1.77]	0.048 [1.63]	0.035 [1.37]
Casual employee	0.045** [2.07]	0.041* [1.94]	0.050** [2.40]
Temporary employee	0.043** [1.96]	0.044** [2.01]	0.046** [2.23]
Weekly hours	-0.001*** [3.28]	-0.001*** [3.49]	-0.001*** [2.93]
10-24 employees	-0.032*** [3.49]	-0.029*** [3.21]	-0.024*** [2.93]
25-49 employees	-0.038*** [3.37]	-0.038*** [3.46]	-0.040*** [4.36]
50+ employees	-0.058*** [5.37]	-0.058*** [5.44]	-0.054*** [5.66]
Head of household	-0.087*** [6.00]	-0.082*** [5.77]	-0.082*** [6.11]
Registered for social security (d)	-0.235*** [14.26]	-0.233*** [14.20]	-0.213*** [13.39]
Pseudo R-squared	0.41	0.411	0.41
Sample size	4 006	4 006	4 006

StatLink  <http://dx.doi.org/10.1787/347455370080>

*, **, ***: statistically significant at the 10%, 5%, 1% level, respectively.

a) Robust t-statistics in brackets. For dummy variables, the marginal effects represent the change in probability when the dummy variable is increased from zero to one. For continuous variables, the marginal effects represent the change in probability for a one-unit increase in the variable. The reference categories are aged 35-44 years, primary school or lower education, manager or professional, permanent contract, business less than ten employees.

Source: OECD calculations using data from the 2005 Turkish Household Budget Survey.

ANNEX 2.A2

Recent Changes in Employment Protection Legislation

Changes in employment protection legislation since 2003 are as follows:

- *Czech Republic* increased regulation on regular employment by increasing redundancy payments for regular workers from 2-3 months' average earnings and introducing severance payments equal to 12 months' average earnings for workers who lose their jobs because of permanent incapacity due to an industrial injury or illness. The Czech Republic also imposed a limit of two years on the maximum length of consecutive fixed-term contracts with the same employer and removed restrictions preventing young workers and school-leavers from being employed on fixed-term contracts. The overall impact of these changes on regulation of temporary workers is not clear.
- *Hungary* increased regulation on temporary employment by tightening the definition of temporary agency work.
- *Korea* relaxed somewhat regulation on regular workers by shortening the notice period for dismissal of regular workers from 60 to 50 days.
- *Poland* increased regulation on temporary employment by tightening the definition of temporary agency work and imposing a limit of two renewals for fixed term contracts.
- *Slovak Republic* tightened the definition of temporary agency work and extended the circumstances in which fixed-term contracts can be renewed over the maximum limit of three years, including by agreement in a collective agreement, in a range of specific occupations and in firms with less than 20 employees. The overall impact of these changes is unclear, but is likely to have relaxed somewhat regulation on temporary employment.
- *Turkey* relaxed regulation on temporary and regular employment by increasing the size threshold for the application of EPL from ten to 30 workers.

(Note: there have been no significant changes in EPL in Mexico).

Source: National legislation; World Bank Doing Business database.

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