

## Chapter 5

# Informal Employment and Promoting the Transition to a Salaried Economy<sup>1</sup>

*“Informal” employment escapes taxation and regulation. Such forms of employment make it difficult to manage social protection; undermine tax collection, implying either high tax rates on those in formal employment or poor-quality government services; involve unfair competition and inefficient production methods; and facilitate illegal migration. To what extent does undeclared work include household production, work helping out friends, work by illegal migrants, undeclared wages, “black market” transactions, tax evasion by the self-employed, and the production of illicit goods? Do high taxes, red tape, poor-quality government services and strict employment regulations exclude workers from formal employment, and how can the transition to a salaried economy be promoted?*

Introduction . . . . .	226
Main findings . . . . .	226
1. Why is the informal economy a problem? . . . . .	229
2. Definition and measurement . . . . .	232
3. Causes of informal employment . . . . .	254
4. Enforcement, tax administration and tax incentives . . . . .	261
5. Delivering social protection in an economy with informal employment. . . . .	270
Conclusions . . . . .	272
Bibliography . . . . .	283

## Introduction

This chapter examines so-called “informal”, “undeclared” or “underground” employment, that is, employment which falls mainly outside the scope of taxation, social insurance and other regulations. In developing countries, often the majority of disadvantaged workers are in this sector, which means that the main instruments of labour market policy – employment regulation, social assistance and social insurance, and active labour market programmes – have difficulty in reaching them. For a number of middle-income OECD countries, informal employment and its consequences are more important labour market issues than unemployment *per se*. Among the main concerns raised by informal employment are: i) the weak social protection for the workers themselves; ii) the fact that informal employment is often a trap which offers few prospects to improve careers; iii) its consequences for workers in the formal economy, who suffer unfair competition and have to pay higher taxes than in the absence of informal employment; and iv) potential rewarding of tax evasion and corruption associated with government inability to enforce the rule of law. More generally, informal employment may lock the economy into a low level of development.

Section 1 discusses these and other reasons for concern about informal employment. Section 2 examines issues of definition and measurement. Background factors which may cause informal employment are addressed in Section 3. Section 4 reviews enforcement mechanisms and tax policies to bring undeclared workers into the salaried economy. Section 5 highlights issues for social protection and labour market programmes in economies with significant levels of informal work.

## Main findings

- *It is difficult to measure undeclared work.* Survey-based and national accounts estimates suggest that in many high-income OECD countries 5% or less of work is undeclared. However, in a number of OECD countries – some countries of Southern Europe, transition countries (except for the Czech and Slovak Republics), Korea and Mexico – the incidence of undeclared work appears to be several times higher. In a few OECD countries (Hungary, Korea, and Mexico), actual social security contribution receipts are about 30% short of what could be expected on the basis of scheduled contribution rates and ceilings, compared with total wages and salaries in national accounts which include estimates of undeclared incomes. Shortfalls in personal income tax receipts may be somewhat larger, reflecting lower effective tax rates on self-employment incomes. In less-developed non-OECD countries, statistical estimates usually include purely informal work, which is unregistered but is not hidden because there is no effective requirement for it to be declared. Formal employment with payment of tax and social security contributions becomes an “island” in a larger “sea” of informal work. The formal sector may still account for over 50% of GDP – due to its higher relative productivity – suggesting that the benefits from a long-term transition to a salaried economy through progressive expansion of the sector can be large.

- *Evidence for a trend increase in the size of the informal economy is mixed.* The low incidence of informal employment recorded in many high-income countries is probably the result of a long-term transition to formal employment which continued into the 1950s and 1960s. Rates of participation in the black economy reported in surveys from OECD countries in the 1970s and 1980s seem to have been similar to or perhaps slightly below those reported today. In central and eastern European countries, the informal economy grew rapidly during the first years of transition, but in several cases there is evidence of a declining trend in recent years.
- *Direct policy measures to reduce undeclared work include detection and enforcement.* Measures include information exchange (linking computer files); unique social security numbers; co-operation between labour, social security and tax inspectorates; administrative requirements for immediate declaration of new hires; making chief contractors responsible for tax compliance by subcontractors; encouraging employer and trade union denunciation of unfair competition; enforcing employees' rights such as protection against unfair dismissal, even within undeclared relationships; and strict sanctions. Detection is generally easiest in the case of wholly-undeclared work by employees, and more difficult in the cases of under-declaration of work and black-market work. Evidence about the overall effectiveness of these policies is mixed: they can have an impact, but at the same time, some countries attain low levels of undeclared work without significant use of detection and enforcement measures focused on labour inputs, focusing instead upon ensuring the accuracy of accounts and record-keeping among small businesses. There is a general issue of how far such direct measures are desirable, given that non-declaration is partly motivated by the administrative burden and red tape involved in business creation and the formal hiring of employees.
- *Red tape (e.g. requirements to obtain various licences before starting a business) is often thought to be the most important single cause of undeclared work.* However, regulations are also designed to prevent tax evasion and general fraud by fly-by-night operations. Research should focus on identifying not just the costs of regulation, but also the underlying needs for regulation and how to meet these needs at minimal cost.
- *High tax rates per se do not appear to influence levels of undeclared work in international (or time-series) comparisons.* On the other hand, methods of tax administration influence incentives for concealment of dependent employment. If assessed liability to tax is based on the observed volume of labour input (e.g. as detected by inspection visits which determine the number of employees working at a given work site) there are still incentives for under-declaring earnings per employee. To counter this, the tax authorities may appeal to employment regulations such as the minimum wage and restrictions on part-time and temporary work. This issue helps explain why countries with a large informal economy maintain *de facto* strict employment regulations, even though these regulations are seen by many analysts as a prime cause of informality.
- *The tax treatment of business profits, i.e. earnings from self-employment, in the case of unincorporated businesses vis-à-vis wages and salaries matters.* Labour costs (which include employer social security contributions as well as wages and salaries) are deducted from business value added in determining taxable profits, so if taxation is based on assessments of value added (i.e. sales less non-labour input costs) rather than assessment of labour inputs, there is usually little incentive to conceal dependent employment. In cases where effective marginal tax rates on profits (i.e. earnings from

self-employment, in the case of unincorporated businesses) exceed tax rates on labour incomes, there is a positive tax incentive to declare wages and salaries. But factors such as partial exemption from social security contributions and simplified tax regimes for self-employment incomes, or dividend tax reliefs and low corporate tax rates when combined with high social security contributions on wages and salaries, may to varying degrees reverse this incentive.

- *Several European governments have introduced tax concessions in sectors where the incidence of undeclared work is high (e.g. domestic staff, home improvement and repair services). Generous income tax credits and reductions in consumption taxes are costly, but increase incentives to declare work in these sectors. Service employment cheques in France have also achieved administrative simplification. But these sectors and the concessionary measures for them demand continuing attention by the tax authorities.*
- *The payment of adequate unemployment benefits combined with effective checks on fraud can reduce the incidence of low-paid informal work. By contrast, if benefit levels are below subsistence level and/or anti-fraud measures are ineffective, the payment of unemployment benefits may act as a subsidy to informal work. Therefore, outcomes depend on adequate funding and administrative capacity.*
- *Local authorities may tolerate undeclared work because it gives local small and medium-size enterprises a competitive advantage over similar enterprises in other regions of the country. Central government needs to ensure that tax collection is under control, and establish a consensus against this type of unfair competition. The authorities also must explain that heavy fines, which drive noncompliant firms out of business, do not reduce aggregate employment in the long run at the national level.*
- *The informal economy involves broad issues of the legitimacy of central government and its taxation and regulatory powers. If central government is viewed as corrupt, unresponsive and wasteful with money, or if local actors view central government as a foreign power, tax evasion may be socially valued. But in informal arrangements and verbal contracts, the risk of being cheated is considerable: if the government enforces contracts and protects property rights, economic actors often prefer to conduct arms-length business on a formal basis in spite of tax costs.*
- *Social protection systems in economies with a large informal sector are often relatively ineffective. Social insurance schemes provide less effective protection because of contribution evasion by low-risk groups, and the most disadvantaged working-age population groups may not be covered at all: thus for example a free health service financed from general taxation may be preferable to insurance-based health coverage. Minimum income and other unemployment benefits may not be viable because the government lacks accurate records of low income and unemployment, and because most unemployed workers are not registered the targeting of active labour market programmes on the registered unemployed is not viable either. Different delivery models must be used: one interesting example from Mexico is *Progresa/Oportunidades*, which pays social assistance to families conditional on their children attending school in poor areas. Another example is relief jobs, which pay below-market wages but provide an income of last resort when unemployed people cannot find any other work. However, further research into delivery models for basic social and employment services in countries with a large informal economy is needed.*

## 1. Why is the informal economy a problem?

The informal economy can be interpreted in a positive way, permitting individuals to escape from poverty, exploiting information and social relationships based on trust and allowing economic activity to escape from dysfunctional regulations or the demands of inefficient (or in some cases corrupt) government. However, here an assumption – realistic for OECD member countries – is made that these dysfunctions of government can be redressed in tandem with any strategy that reduces informal employment. In this context, negative consequences of informal employment come to the fore. EU integration has given a particular impetus to the struggle against undeclared work (Box 5.1).

### Box 5.1. Undeclared work in the context of EU integration

In the European Union, concern about the informal economy arises for a number of reasons:

- First, more than 50% of the EU budget is based on a schedule of contributions related to measured GDP (in fact Gross National Income, since 2002). In the mid-1990s, Eurostat launched a project to improve the exhaustiveness of national accounts in member countries, and involved the EU Candidate Countries in a Pilot Project aimed at improving the comparability and exhaustiveness of their accounts.
- Second, the informal economy, the fight against corruption and the effectiveness of tax collection are critical issues for many of the 10 countries (Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, the Slovak Republic, and Slovenia) joining the EU in 2004.
- Third, for the original members of the EU the large informal economy in the accession countries, especially insofar as it is associated with phenomena such as cross-border crime and illegal migration, may be a threat (Stefanov, 2003): it may justify a period of increased vigilance to counter importation of techniques or habits of undeclared work. Overall, both the original and the acceding members of an expanded EU have an interest in ensuring that undeclared work declines throughout the Union.

Finally, undeclared work undermines the policy objective of social cohesion, notably through its negative impact on the financing and coverage of social protection schemes; and measures against undeclared work may help in achieving targets for the employment rate set by the European Council in Lisbon.

### A. High tax rates and low spending capacity

In an economy with significant informal employment, several mechanisms operate to result in low actual tax and social security receipts coexisting with high scheduled tax rates:<sup>2</sup>

- Evasion of social security contributions (and any corresponding income tax) among individuals in paid (wage and salary) employment, through non-declaration of work and under-declaration of earnings.
- A high incidence of self-employment: its share in non-agricultural employment, which averages about 12% in OECD countries, exceeds 20% in Italy and exceeds 25% in Greece, Korea, Mexico and Turkey. In such cases, several factors combine to make the taxable capacity of earnings from self-employment relatively low.

- Selective rate reductions: where scheduled social security contribution rates are high but evasion is common, selective rate reductions (e.g. for low-paid workers, for hiring youths and the long-term unemployed, or for hiring workers with a permanent contract) are applied in an attempt at bringing more workers into regular declared employment. For example, Italy and Spain have long used reductions of this kind.
- Open toleration: at high levels, undeclared work is widely tolerated and has blurred boundaries with the broader concept of the purely informal economy, which is not taxed even in principle.

Low tax receipts exert pressure to raise tax rates on the formal sector, in order to fund spending programmes. This, in turn, reinforces the incentive to move activities into the informal sector, leading to a vicious circle (Box 5.2).

#### Box 5.2. **Vicious circles, dual equilibria and negative externalities**

Nearly all analysts highlight that high levels of informal employment strengthen the incentives to engage in informal employment, leading to a vicious circle: “The vicious circle of high tax and regulation burdens causes growth of the shadow economy, additional pressure on public finance resulting in higher tax rates, which, in turn, increase the incentives to evade taxes and to escape in the shadow economy and so on” (Enste, 2003); “The informal economy – dodging taxes and social contributions while taking advantage of public goods and services – increases the budget deficit and is an immediate cause for raising taxes and social contributions which are a heavy burden on lawful activities” (Marc and Kudatgobilik, 2003); “Black activities... [undermine] the tax base, which, *ceteris paribus*, means that an unchanged level of public expenditure will necessitate higher taxes... nobody wants to be ‘the last idiot in the street’ who keeps on paying his taxes regardless of the fact that everyone else is cheating” (Pedersen, 1999).

As a result of these mechanisms, countries can find themselves in self-sustaining equilibria of either low or high levels of informal employment. Johnson *et al.* (1998) concluded that economies in transition from communism had entered a downward spiral and most of the former Soviet Union “ended up in a ‘bad’ equilibrium with low tax revenue, high unofficial economy as a percentage of GDP, and low quality of publicly provided services”.

In this view, not only high tax rates but also poor governance (e.g. excessive regulation, or a poor rule of law) are caused by and are the cause of high levels of tax evasion. For countries in between the two extremes, any measure reducing the incidence of undeclared work has an externality or multiplier effect, leading to improved finances and better corruption control, which facilitates a further reduction in undeclared work. As the number of non-compliant enterprises in an economy shrinks, tax and labour inspectorates become able to visit the remaining ones more frequently, persuading many of them to comply as well.

### **B. Inability to effectively target and manage social protection**

A high incidence of informal employment complicates the task of social protection systems which seek to target assistance on the needy. Belev (2003) considers that in the EU accession countries, the beneficiaries of social protection programmes “are the same individuals or societal groups that are most often involved in the informal economy”. Similarly a review of the public employment service in Greece, Ireland and Portugal (OECD, 1998) noted that: “With self-employment widespread in the three countries, the

employment status of individuals is often unclear (individuals who are not formally employed are often family helpers), the government lacks reliable records of individual earnings and household incomes, and the PES has few local vacancies in wage and salary jobs for the low-skilled unemployed. These background factors have historically made it difficult to administer any system of unemployment benefits with broad coverage.”

In countries with significant informal employment, contribution-based benefits also suffer from moral hazard. It is difficult to make either assistance or insurance-type unemployment benefits effectively conditional on availability for work. These issues, discussed further in Section 5, mean that a shortage of funding for social protection is compounded by difficulties in delivering the funds reliably to those in need.

### **C. Unfair competition and incentives for unproductive activities**

Enterprises which pay taxes in full compete with other enterprises that evade taxes and thus have lower direct costs. In an economy without effective tax discipline, success in evading taxes without being caught becomes a major determinant of business success, diverting management from genuinely productive activity.

According to some surveys carried out by CEESP (*Centro de Estudios Económicos del Sector Privado*) among almost 500 companies located in several Mexican cities, between 30 and 40% of producers and retailers consider that the informal economy has a big presence in their markets and that they have been partially or totally wiped out of markets by informal business (Winkler, 1997). In Sweden, 16% of all companies agreed with the statement “Our company is to a great extent exposed to competition based on tax evasion by companies in the branch”, rising to about 40% for construction, restaurants and haulage contractors and 64% for hairdressers (RSV, 2002). Toleration of work by illegal migrants can have similar effects (Reyneri, 2003b).<sup>3</sup>

### **D. Inefficiency of informal economy production**

Abstracting from the issues of unfair competition, informality hampers productivity in various ways. Business needs to operate in a framework of property rights and enforcement of contracts, which is often not available in the informal economy. In EU accession countries, “[i]nformality comes at a cost too – these include the need to stay small, uncertainty in the prospects for the future, absence of safety nets, inability to tap formal credit channels and, more generally, the various types of SME assistance programs available to the private sector” (Belev, 2003). In EU countries, “[e]nterprises experience unfair competition, people enjoy less protection (e.g. worker’s insurance or pension coverage) than they are entitled to. They suffer from limitations in their ability to interact with the public sector, financial organisations, and each other. People engaged in the shadow economy enjoy lower status than they would as regular entrepreneurs or workers. Entrepreneurs, workers and the government alike waste considerable resources endeavouring respectively to hide or to unveil shadow activities” (Avignon Academy, 2002). In Mexico, “[t]hese costs of informality – the cost of lack of legal protection, the cost of being unable to apply to the courts, the cost of not having access to credit, the cost of lack of insurance, the cost of invasion, the cost of grafting and bribery, the cost of the definition of property rights, the cost of insecurity in contracts, etc. – are precisely those which argue the need to face the problem of informality as the principal one which the country is currently undergoing... A market cannot operate at its full capacity unless it has a ‘metamarket’ that reduces its costs, internalizes externalities, stabilizes contractual

relations, and guarantees property rights... Both formality and informality represent legal conditions of economic activities, not separate activities. In fact, the problem should be viewed from a different standpoint. It is the law that should be integrated; in other words, law must be adjusted to reality” (Winkler, 1997).<sup>4</sup>

### **E. Facilitating illegal immigration**

In Europe, the underground economy appears to be a prime determinant of the extent of illegal immigration. Reyneri (2003a) remarks that illegal migrants to Southern European countries do not come mainly by boat, and continues: “In Portugal the overwhelming majority of migrants who availed themselves of the last regularization are from Eastern Europe and entered the country having crossed at least five European land borders... about one out of five African migrants living in Southern Spain had previously migrated to other European countries. Most of them left those countries because they did not succeed in finding jobs, whereas they were sure that in Spain finding work was easy, although in marginal and undeclared jobs... Although few immigrants knew the difference between ‘regular’ and ‘irregular’ jobs before migrating, the prevailing view was that work is easy to come by in Italy, even without documents. Some migrants explicitly mention this state of affairs as an explanation for why they chose this country... Migrant workers entering Greece, Italy, Portugal, as well as Spain found a huge, firmly rooted and flourishing underground economy, which offered them a wide range of jobs without demanding any documents, either for working or for staying. This was not the case for France, where undeclared work is estimated at a medium-low level by the EU standards... unauthorized immigration is mainly caused by the well-rooted underground economy in receiving countries, not by too weak controls on the borders... the easy solution of tightening the border controls is destined to fail. On the contrary, to really fight migrants’ insertion in the undeclared work as well as unauthorized immigration, [there] should be implemented a set of policies mainly aimed at reducing the size of the domestic underground economy.”<sup>5</sup> Along the same lines, Tapinos (2000) notes that “the existence of a hidden economy that is broadly tolerated by society as a whole makes the recruitment of unauthorised migrants more likely, particularly as networks of migrants make it easier to hire undocumented workers in this sector”, and the OECD Secretariat (2000) concluded “[t]he employment of undocumented foreigners is just one element, and not necessarily the most important, of economic activity in the so-called ‘underground’ or ‘undeclared’ economy... whatever is done to combat the hiring of illegal immigrants must address the problem of undeclared work in general and not just the employment of illegal immigrants *per se*”.

More generally informal employment, being outside the reach of the law, makes other types of good government more difficult.<sup>6</sup>

## **2. Definition and measurement**

### **A. Definitional distinctions**

Terms such as the “shadow”, “hidden” and “informal” economy are used in such varied ways as to make statistics for it meaningless without some definitional clarification. OECD (1986) proposed to define “concealed employment” as “employment (in the sense of the current international guidelines on employment statistics) which, while not illegal in itself, has not been declared to one or more administrative authorities...”. The EU similarly defines “undeclared work” as: “any paid activities that are lawful as regards their nature but not declared to the public authorities, taking into account differences in the regulatory

system of member States. Applying this definition, criminal activities would be excluded, as would work not covered by the usual regulatory framework and which does not have to be declared..." (EC, 1998).

In the light of these definitions and the types of statistics that are available, some outstanding issues are:

- The definition of "undeclared work" remains imprecise: for example, is there concealed employment when the job itself is declared, but hours worked in the job are concealed? Is pure tax evasion, with concealment of earnings but without concealment of work, included?
- Estimates for undeclared work are frequently based on information about undeclared incomes and production.<sup>7</sup> National accountants distinguish a number of different categories of the "non-observed economy" (NOE) within gross domestic product (GDP) (Box 5.3). Relationships between the non-observed economy as seen from the income and production perspectives, and as seen from the employment perspective, need to be set out.
- "Undeclared work" and similar concepts are not used in analysis of developing countries, where some broader definition of the "informal" economy is preferred. A conceptual framework which encompasses the statistics available from both low- and high-income countries is needed to permit comparisons and potentially allow tracking of the transition process in which many middle-income countries are engaged.

To address these issues, Table 5.1 sets out a framework showing different categories of informal incomes, production and employment and the relationships between them. A number of subcategories are involved because, for example, hidden income does not always involve hidden production, and hidden production does not always involve hidden employment. The middle rows of the table show detailed subcategories of informal income, production and employment which together constitute the broadest definition of the informal economy. The top rows group these detailed subcategories to define categories of informal *income* such as underground production, and the bottom rows group the same detailed subcategories to define categories of informal *employment* such as undeclared work and black-market work.

It may be noted that, in addition to using national accounting categories (income generated without production, household production that falls inside and outside GDP, illegal production), Table 5.1 distinguishes the subcategories of informal production and employment in terms of the *behaviour* that results in work and/or income from it being unregistered or unreported, particularly for tax purposes. Distinctions can also be made in terms of direct administrative status, i.e. the type of illegality involved (e.g. migrant work without a permit, or benefit fraud rather than tax evasion) and the rights of the workers (e.g. covered or not covered by social insurance). These may be seen as additional dimensions of informality, which can subdivide some subcategories in Table 5.1 (e.g. some wholly undeclared workers are also workers without a work permit; some self-employed black-market workers are illegally claiming unemployment benefits; some purely-informal workers nevertheless have health or other social insurance because the head of household has a formal job, or thanks to a universal insurance system). But they seem inadequate as criteria for distinguishing primary subcategories of informal employment.<sup>8, 9</sup>

The Rockwool Foundation has for some years conducted detailed questionnaire surveys to estimate the size of the "black economy" and some related concepts. The surveys give careful attention to the status in tax law of specific situations (e.g. if neighbours help each other to move house, or if a bricklayer does some work for his brother-in-law who in return

### Box 5.3. The non-observed economy in national accounts

Informal employment is often related to forms of income and production which are illegal, unregistered or otherwise non-observed. OECD (2002) distinguishes five main components of the “non-observed economy” (NOE) within GDP:

- Statistical underground production which is missed by the basic data collection programme due to statistical deficiencies. Viewed from the production approach to GDP compilation, the three main categories involved are undercoverage of enterprises in registers, non-reporting by enterprises which are in the sample, and underreporting of value added by enterprises (NOE Types 1 to 3).<sup>a</sup>
- Underground production, defined as those activities that are productive and legal but are deliberately concealed from the public authorities to avoid payment of taxes or complying with regulations (NOE Type 4, underreporting and NOE Type 5, not registered).<sup>b</sup>
- Informal sector production, defined as those productive activities conducted by unincorporated enterprises in the household sector that are unregistered and/or are less than a specified size in terms of employment, and that have some market production (NOE Type 6).
- Illegal production, defined as those productive activities that generate goods and services forbidden by law or that are unlawful when carried out by unauthorised producers (NOE Type 7).<sup>c</sup>
- Production of households for own final use defined as those productive activities that result in goods consumed (or major housing improvements which are capitalised) by the households that produced them (this may be included in NOE Type 8 “other”, which also includes tips and wages and salaries paid in kind).

The “statistical underground” reflects the deficiencies of particular statistical instruments, and its size will vary across countries or through time for reasons that do not correspond to differences in real economic activity. Therefore, only the latter four categories need to be taken into account in a framework relating informal production within GDP to informal forms of employment.

Two further categories of income and production which are identified by some authors as informal, but which do not contribute to GDP even in principle, are:

- Non-productive illegal activities such as social security fraud, pilfering, theft and extortion, which transfer incomes but without voluntary exchange.
- Household production of services for own use which (except for the imputed rent received by owner-occupiers) falls outside the “production boundary” that defines GDP.<sup>d, e</sup>

a) The “statistical underground” is described by Blades and Roberts (2002) in these terms: “It may simply be impractical to cover every producer in a survey so a cut-off point is used to exclude the smallest enterprises. In other cases, the problem arises from poor statistical practices. The business register used for the survey is out of date or incomplete; the questionnaires are not returned or come back with missing answers; informal activities such as street trading may not be covered by any survey; inappropriate methods are used to correct for non-response.”

b) Note that some American literature on the “underground economy” does describe this largely in terms of illegal activity (e.g. Lippert and Walker, 1997).

c) Estimates for illegal production (narcotics, prostitution and related, production and trade in counterfeit goods, fencing of stolen vehicles) for a few countries put its value at approaching 1% of GDP. Illegal production falls within the recognised definition of GDP (the “production boundary”), but the estimates are usually published separately and not included in regular tabulations of GDP (Blades and Roberts, 2002; UNECE, 2003).

**Box 5.3. The non-observed economy in national accounts (cont.)**

- d) When household production for own use, including services, is included in the concept of informal employment, it will often dominate the total. Low-income survey respondents in rural Canada report spending on average about 25 minutes per day on informal exchange with agents outside the household, but over 100 minutes on formal economy work and over 100 minutes on household (“informal”) production. For higher-income respondents, the balance tips further towards time spent in the formal economy, at the expense of informal exchange (Reimer, 2003).
- e) Do-it-yourself (DIY) home repairs and improvements are analysed by Brodersen (2002) for Denmark: “The combination of high taxes and the equalisation of pay rates between various groups in the labour market has meant that most people have to work four hours or more extra to pay for one craftsman hour, including VAT, from an organised firm. In previous surveys, we have illustrated this by the example of a doctor who, instead of working overtime at the hospital, hurries home to carry out repairs in the house.” Survey-based estimates indicate that in 2000/01 about 38% of home improvements by value were invoiced work by a firm, 57% were DIY work by the household, but only 5% were non-invoiced work by others: these proportions have not changed much since 1987/88. Brodersen (2003) extends this study to Norway, Sweden, Germany and Great Britain. DIY home repairs and improvements range in value from 1% to 3% of GDP, of which a part (major improvements) is in principle included in GDP, although it may not be captured directly (in the long term it increases the imputed rent from owner-occupied dwellings). Williams (2004) similarly reports that a list of 42 domestic, family and housekeeping tasks in a UK city were done 74% by domestic work, 3% by unpaid community help, 6% by cash-in-hand work and 17% by formal labour. The relatively low estimates for undeclared work suggests that the regulatory framework – which for example makes it difficult for undeclared workers to advertise and gives purchasers legal recourse against fraud in the case of declared work – frequently tips the balance in favour of either formal work or DIY work.

helps repair a car). These clarify the distinction between “purely informal” activities and “underground” or “undeclared” activities (rows 2 to 5 of Table 5.1) for high-income countries. In the United Kingdom, “black” hours worked are 1.2% of total hours, while in Denmark, Norway, Sweden and Germany the figures range from 2.3% to 4.1%. However, the low percentage in the United Kingdom is largely attributable to the fact that “one of the main criteria for liability to pay tax is that an activity can be regarded as being carried out for business purposes”. This definition allows exchanges between neighbours and friends to be treated as non-taxable, in the same way as exchanges within the household. As a result, “far more activities are considered non-taxable in Great Britain compared with the other countries... extra questions were included in the survey for Great Britain in an attempt to capture some of the activities that would be regarded as taxable in the Scandinavian countries... this would increase the size of the black economy in Great Britain to about 2.3% of GDP, i.e. about the same level as Norway and Sweden”. Thus, purely informal employment, in the form of barter or reciprocal exchanges between households which in principle enter GDP but are not liable to tax and are not registered, appears to be worth about 1% of GDP in Great Britain but it is probably close to zero in the Scandinavian countries owing to their stricter tax legislation.<sup>10</sup>

In low-income countries, where production and work may be liable to tax (or other regulations) in theory but hardly at all in practice,<sup>11</sup> the borderline between “purely informal” activity and “underground production” or “undeclared work” is blurred.<sup>12</sup> This explains why analysis in this case usually uses only a concept of “informal” production and employment which covers both categories.

The Rockwool Foundation surveys also distinguish “black activities” from “tax evasion” (Pedersen, 2003).<sup>13</sup> This too is a central issue distinction because, when estimates for undeclared work include the self-employed, they may account for half or more of the total.<sup>14</sup> When a distinction is made between undeclared work and pure tax evasion by the self-employed, as in row 4 of Table 5.1, it is seen that undeclared work is defined not only by *concealment* from government, but also by *collusion* between the employee and his or her

Table 5.1. Terms and concepts for main subcategories of informal income, output and employment and the relationships between them

1. GDP status <sup>a</sup>	Not included in GDP		Included in published totals for GDP, as far as possible				Included in principle, but often not in published totals		
2. Source of income	Social security fraud, VAT fraud, pilfering, theft, extortion	Household production of services for own use (except imputed rent)	Household production of goods for own use	Informal production/informal economy for exchange			Production of illegal goods and services for exchange		
		Not employed	Self-employed, family workers	Purely informal production/economy	Underground production/underground economy				
3. Typical employment status	Any	Not employed	Self-employed, family workers	Employees or self-employed	Employee in the main job		Employee or self-employed		
4. Form of concealment	Various	Production may occur inside the home: production may be difficult to value, in terms of its equivalent in the open market	Self-employed, family workers	No concealment, because no requirement to declare employment or earnings	Employment status and earnings concealed, in collusion with the employer	Work in a secondary job with earnings concealed in collusion with the purchaser	Earnings concealed in collusion with the purchaser	Earnings concealed from tax authorities, but not in collusion with the purchaser	Production, sale and consumption all concealed
					Wholly undeclared work	Under-declared work	Black market work		
5. Detailed subcategories of informal employment	(not usually regarded as employment)	Employment in household production for own use	Purely informal employment	Undeclared work				Employment in illegal production <sup>b</sup>	
6. Broader and narrower informal employment	(may be in a broad definition of the informal economy)	(may be in a broad definition of informal employment)	Informal employment (core definition)				(may be in a broad definition of informal employment)		

a) The "non-observed economy" within GDP, as defined in OECD (2002) and UNECE (2003) includes not only household production of goods for own use and purely informal production (T6: informal sector), underground production (T4 and T5: economic underground), and production of illegal goods and services (T7: illegal production) but also non-response to surveys and out-of-date registers, etc. (T1 to T3: statistical underground), which is not shown here.

b) The term "illegal employment" will frequently refer to the employment of immigrants without a work permit, and might also describe illegal work for profit by government employees, rather than employment in illegal production.

Source: Adapted by OECD Secretariat drawing on definitions of the non-observed economy used in national accounts (OECD, 2002) and definitions of the "shadow economy" and "black activities" used in the Rockwool Foundation's questionnaire surveys (Pedersen, 2003), and other sources cited in the main text.

employer, or between the self-employed person and the customer for his or her services. This explains why undeclared work is widely discussed and why it is seen as particularly threatening to the social fabric. Pure tax evasion, which involves concealment but not collusion is less visible, and may seem less contagious.<sup>15</sup>

As a practical matter income-based estimates derived from national accounts, discrepancies between financial aggregates, or grossing-up the findings from tax audits, include under-reporting of income so far as possible for any reason including pure tax evasion by the self-employed, so Table 5.1 specifies that “underground” production includes this. By contrast employment data – including total employment from labour force surveys and censuses, as well as many questionnaire surveys of black activities – may not capture pure tax evasion by the self-employed, who are likely to report their employment (or working hours) situation without seeing any connection between this and any tax evasion that may be occurring. From this point of view, income-based approaches are likely to give higher estimates for the level of informal activities than employment-based approaches because they have a broader coverage. However, this tendency will often be offset by further definitional issues (see Box 5.4).<sup>16</sup>

#### Box 5.4. **Definitional issues affecting the share of the informal economy in GDP**

The net hourly wage in undeclared work may be higher than it is in formal work, because the undeclared worker requires a premium to cover the risk of detection and reduced social insurance contributions; or it may be lower, if undeclared work is done by unemployed people who are unable to find formal work or illegal migrants who are barred from it, who lack market power. For illustrative purposes, we can first assume that the net hourly wage is the same in both sectors.

GDP is generally reported at market prices (with goods and services at prices after taxes and subsidies), not at “factor cost” (with wages, as well as interest, rent and profit, at their prices before tax and subsidies). This is essentially a convention, with no particular economic significance. If social security and income taxes make up 50% of labour costs for declared work (these are the scheduled rates in some countries), in an economy with 10 wholly-undeclared workers and 90 declared workers each earning USD 1 net, total net wages and salaries are USD 100, social security and tax receipts are USD 90, and total labour costs are USD 190. The share of the “undeclared” sector in total labour costs – which also, assuming low profit margins in all sectors, is roughly its share in GDP at market prices – is then only just over 5% ( $10/190 = 0.0526$ ): which is little more than half of the share of undeclared work in total work (10%). Also actual tax receipts (USD 90) fall 10% short of the amount calculated by applying the scheduled tax rate on net wages and salaries (100%) to true net wages and salaries (USD 100). Thus, statistics for GDP at market prices by definition understate the significance of the informal economy as compared to its importance as seen from the other two perspectives.

In an economy with a much larger informal economy, this phenomenon is attenuated: where 50% of work is undeclared, the share of the undeclared sector in GDP is one-third ( $50/150 = 1/3$ ), and the GDP share understates the relative importance of undeclared work and tax evasion by one third rather than a half. However, in developing countries with a large informal sector, net wages may be significantly lower in the informal sector, and this may also make the informal sector’s share in GDP lower than its share in total employment.

Total employment is conventionally measured on a head-count basis. However, statistics on a head-count basis will reflect only wholly-undeclared work. In non-OECD countries “informal” employment is often measured as the proportion of the population in employment that does not pay social insurance contributions or tax, which is a head-count concept. Failure to capture under-declared work is a major drawback, given that under-declaration is often a major feature in middle-income countries.<sup>17</sup>

Questionnaire surveys may mainly capture black-market work as defined in row 5 of Table 5.1, but not under-declared work or pure tax evasion.<sup>18</sup> In the case of wholly-undeclared work, parts of this may be captured, but coverage of work done by illegal migrants, who do not have a fixed address or telephone line and in some cases do not speak the national language, is likely to be low.

Another issue relates to the pricing of undeclared or informal work. Statistics for the share of the underground economy in GDP need to be interpreted with care. Particularly in countries with a relatively low incidence of informal employment and relatively high tax rates, GDP shares may be little more than half of either the informal work share in total hours worked, or the percentage of potential tax receipts that is lost to tax evasion (Box 5.4).

The ILO in 1993 passed a resolution concerning statistics of employment in the informal sector, but this left countries free to define informal employment in terms of a range of possible criteria. The focus was on employment in unregistered enterprises, but one of the permitted criteria (non-registration of employees for the purpose of taxation) is roughly consistent with definitional framework set out in Table 5.1. Several statistical compilations have been published, but few OECD countries are included and definitions and methods tend to vary across countries (Hussmans and du Jeu, 2001).

The harmonized definition applied in ILO (2003) refers to employment in “private unincorporated enterprises (excluding quasi-corporations), which produce at least some of their goods and services for sale or barter, have less than five paid employees, are not registered, and are engaged in non-agricultural activities (including professional or technical activities)”. On this basis, 11% of employment in Turkey in 2000 was in the informal economy. However because employment is only counted as being in the informal economy when the employing enterprise itself is not registered and is below a certain size, much undeclared work as defined in Table 5.1 (wholly-undeclared work within enterprises that are registered or have five or more employees, as well as under-declared work and black-market work) is excluded by definition from this figure.

In the national accounting approach to measurement, NOE Type 5 (intentionally not registered enterprises, or parts of a registered enterprise) and Type 6 (unregistered units) reflect the 1993 ILO guidelines, and in principle capture only employment in unregistered enterprises or parts of an enterprise. However NOE Type 4 (underreporting of production) should capture, in addition, production associated with wholly-undeclared and under-declared employment within registered enterprises. Unless NOE Type 4 is fully implemented, statistics from the production perspective (shown at the top of Table 5.1) could have a relatively restricted coverage as compared to those from the employment perspective (shown at the bottom of Table 5.1).

The 17th International Conference of Labour Statisticians in 2003 issued further guidelines, distinguishing “employment in the informal sector” based on the enterprise as unit of observation from “informal employment” based on jobs as the unit of observation. The latter concept in principle will fully cover wholly-undeclared work but still not include several of the other categories identified in Table 5.1.

## **B. The organisation of informal work**

In some economies with low rates of informal employment, many people know it mainly in the form of a few “black market” personal and household services, such as babysitting or gardening. The previous section described some other types of informal employment and this section mentions additional types or subcategories that often figure in the literature.

### ***False self-employment and chain subcontracting***

One type of work that is sometimes described as black labour (e.g. [www.be.ch/travailaunoir](http://www.be.ch/travailaunoir) ; SECO, 2000; EU, 2000) is false self-employment, i.e. relationships which are in fact dependent employment and thus normally carry certain responsibilities for the employer (including deduction of taxes and social security contributions at source), but are declared as a purchase of services from a self-employed person. Chain subcontracting (“en cascade”) can similarly obscure the link between the principal employer and the employee. At the bottom of the chain, recipients may be declared as self-employed and then escape taxation on earnings through disappearance or simply because tax authorities lack the time to cross-check individual returns systematically. Also, individuals who are declared as employees of a very small enterprise may claim to have already had social security contributions and tax deducted from their pay, while the very small enterprise has disappeared without handing the money over to the tax authorities. Semjén and Tóth (2002) suggest that the subcontractors can more easily *evade* some of their taxes and social security contributions, by over-reporting material costs and underreporting their own wage costs. Relatively few reports pinpoint how chain subcontracting leads to evasion, but authorities in many countries nevertheless regard it with suspicion and target policies against it.

### ***Illegal work***

“Illegal work” usually refers to work by people who are not legally allowed to work, and this should not be confused with the national accounting concept of illegal production (see Box 5.3 and Table 5.1). In terms of Table 5.1, illegal work will typically be wholly-undeclared work by migrants without a work permit, or work in second jobs by government employees who are legally banned from engaging in this.

Estimates for the extent of illegal work by migrants are controversial: Mateman and Renooy (2001) write: “There is an enormous lack of reliable data on the effectiveness of existing measures. This lack of data leads to myths, such as the myth that most undeclared work is carried out by illegal immigrants. This particular myth fosters xenophobia and seriously hampers European integration.” By contrast, OECD Secretariat (2000) claimed that “nationals engaged in the underground economy are almost always declared, while understating their hours of work and income, migrants are not”, i.e. wholly-undeclared workers are usually illegal migrants. The number of migrants in undeclared work clearly is significant in some countries: the United States has about 4.5 million illegal foreign workers, representing approximately 3.5% of the workforce (Fraser, 2000), and in Italy there were 460 000 undeclared immigrant workers 2001, two-thirds of them lacking a residence permit (estimates by Reyneri, 2003a). However, Italy also has many nationals engaged in wholly-undeclared work (see the citation below from Bàculo, 2002).

### ***Industry sectors***

National accountants often arrive at a relatively low estimate for the GDP share of the informal economy because they consider that the informal economy is restricted to a

certain sectors such as domestic service, home repairs, taxis and to varying extents retail trade, restaurants and construction. “In power generation, heavy industry, rail and air transport, government services, banking and telecommunications, for example, there is little scope for a ‘shadow’ economy” (Blades and Roberts, 2002).

Field-work reports seem to confirm that undeclared work in the manufacturing sector is relatively rare in most but not all OECD countries. Considering Southern Europe, Reyneri (2003b) reports: “Only in Italy a sizeable and increasing proportion of [illegal] migrants are employed in manufacturing. The most concerned sectors are plastics, ceramics, metalworking, tanneries, garment and cement factories... the insertion in manufacturing is scarce in Portugal as well as in Greece. It is a bit larger in Spain, but... concerns only the textile and garment industry.” Field-work in France also documented high levels of undeclared work in the garment industry.<sup>19</sup> Field-work in New York in the 1980s found a high incidence of informal work (often by migrants) in certain types of manufacturing, as well as services, construction and transportation (Sassen, 1988).

There is also evidence of undeclared work in parts of the public sector in some countries. Cash payments to doctors employed by the National Health Service are common in Greece (Yfantopoulos, 2003). In World Bank surveys, about 20% of patients in Albania and Bulgaria, rising to 60%-80% in the Slovak Republic, Moldova, Poland and the Russian Federation, report making payments (Marc and Kudatgobilik, 2003). These payments may be not only undeclared but illegal.<sup>20</sup> Undeclared work can also be significant in the education sector, particularly private tuition. Therefore, national accountants should not make overly-restrictive assumptions about the sectors involved.

### ***Hidden employment within medium-sized enterprises***

Where the incidence of undeclared work is high, much of it may take place within medium-size enterprises, which organise their business in ways that make this possible: “... [I]n the coastal areas of Campania and in the city of Naples, irregular, undeclared employment (*black wages*) is predominant: in this case, in companies with 3 or 4 declared employees, at least double or triple that number are actually employed. Another form of irregularity is concealed by the decentralisation of many workshops of different phases of production: in this way, a company with 4 declared employees is operating with 6 or 7 or more workshops, each of which can have an unspecified number of undeclared workers; whereas the first one is completely regular, the others are partially so...” (Bàculo, 2002).

### ***Other types of informality***

In high-income OECD countries, the non-registration or non-compliance which defines informality can usefully be interpreted in terms of tax compliance (other types of non-compliance merit investigation as a distinct topic). This perspective remains reasonably valid in transition countries, where social provision has generally remained significant, calling for high levels of taxation. In Latin America, non-payment of taxes is not always involved and there is some tendency to interpret informality, or irregularity, in terms of other regulations: for example, informality in the housing market (provisional settlements acquired or built without abiding by or contrary to legal requirements), in retail trade (street trading or traders in unlicensed markets), and transport (minibuses and taxies operating without a permit). Ghersi (1997) describes these forms of informality in Lima, Peru, and cites estimates that about half the housing, and 90% of the transport, clothing, shoe and furniture industry output is informal in these senses.

### **C. Estimates for the incidence of informal employment**

Much of the literature on informal employment centres around estimates for the size of the shadow, hidden, or informal economy based on proxy variables such as currency demand and electricity consumption – sometimes augmented with variables that are expected to influence informal employment, such as tax rates. However it should be stressed that the proxies are highly approximate and the concepts underlying resulting estimates for the size of the shadow economy are poorly defined (Box 5.5). Orthodox statistical concepts and instruments, based on questionnaire surveys and national accounting procedures, give a richer and more precise picture of the nature and extent of different types of informal employment and related problems such as shortfalls in tax receipts. Three main types of statistic are presented here: survey-based estimates, estimates emerging from the construction of the national accounts, and estimates based on tax revenues. At the national level, administrative data<sup>21</sup> and findings from tax audits<sup>22</sup> (or perhaps the work of labour inspectorates) may also be useful, but international comparisons based primarily on these sources have not been developed so far.

#### **Survey-based estimates**

Recent Rockwool Foundation surveys are “based on completely identical questions in all countries. This means that, for the first time, it is possible to give a comparable picture of this part of the informal economy in northwestern Europe” ([www.rff.dk/ukhome.htm](http://www.rff.dk/ukhome.htm)). These surveys find that “black” hours worked are just over 1% of the total in Great Britain, 2-3% in Norway and Sweden and about 4% in Denmark and Germany (Table 5.2). An earlier study, based upon interpretation of national surveys with similar but not completely identical questions, also generated estimates for the Netherlands and Spain (Table 5.3). According to these estimates, the black economy in the Netherlands, Norway and Germany was close to 5% of GDP. They show a much higher level of 17% in Spain, in 1985, which “can be cautiously compared with a figure for Italy of 18% of GDP in 1982”. (Note that these are percentages of GDP when informal work is valued at formal prices and that valuing informal work at the actual prices paid by purchasers, percentages are much lower.) The authors concluded that: “[t]he shadow economy in these countries is thus probably smaller than presumed by many researchers. It is at a similar and fairly small level in the Northern European countries, and several times higher in the countries around the Mediterranean.” The finding of a large difference between Northern European and Southern European countries is consistent with field-work studies.<sup>23</sup> Certain questionnaire survey findings are also available for Australia (here, relatively few workers report receipts of cash payments)<sup>24</sup> and for the Czech and Slovak Republics (here the reported undeclared share in total hours worked is greater than in Northern Europe, but less than in Southern Europe).<sup>25</sup> Annex 5.A1 (see OECD, 2004b) provides some further discussion of survey methods.

#### **National accounts-based estimates for the incidence of undeclared work**

**Principles of national accounting.** According to international guidelines, GDP includes all types of value added in the economy as evidenced by voluntary transactions where payments are made, including illegal and barter transactions. (GDP also includes some production without transactions.)<sup>26</sup> For less-developed countries, the need for inclusion of unregistered and barter transactions has always been clear. Thus, the general principle that unregistered, illegal and barter transactions should be included has been present for many years in guidelines such as the SNA 1968 and the European System of Integrated Economic Accounts (ESA) 1979.

### Box 5.5. Macroeconomic proxy estimates of the size of the informal economy

There is an extensive literature on the estimation of the size of the informal economy using proxy indicators for economic activity. Recently Schneider (2002) presented estimates for 110 countries. The main proxies used are the demand for banknotes (which is used as a direct proxy for the size of the shadow economy) and electricity consumption (which is used as a proxy for true GDP, so that the *difference* between trends in this and in officially-reported GDP estimates the size of the shadow economy). These approaches can be made more sophisticated by econometric modelling. They assume a benchmark level of demand for cash, or electricity consumption relative to official GDP, that arises in an economy without an informal sector.

These methodologies have been criticised. Some authors find the estimates implausible.<sup>a</sup> Other authors note that estimated parameters are unstable, making estimates of changes in the size of the informal economy unreliable.<sup>b</sup> Finally, different methods tend to lead to diverging estimates for the size of the informal economy or its changes over time.<sup>c</sup> Thus, judgements are involved in deciding which proxies and econometric estimation methods and assumptions give plausible estimates: these judgements reflect diverse information, adding to the difficulty of defining the quantity that is being measured, and creating a risk that the results can appear plausible yet be biased in obscure ways.

Clearly, data for the amount of cash in circulation or the consumption of electricity may sometimes hint that an economy's true size (or its recent growth) is larger than it appears to be according to administrative sources (such as income tax returns). However, presenting such data even after econometric or other processing as an actual measure of some part of the true economy is misleading. In general, national accounts experts have already reviewed a variety of information sources relating to production and undeclared income, and it seems unlikely that proxy estimates based on one or two indicators can be systematically more accurate than national accounts.

- a) Pahl (1988) wrote: “[s]ome of these indirect macroeconomic measures may be mentioned since, however implausible, they are frequently referred to by those who do not understand them... In 1974 Feige's approach produced a peak of 22% of GDP, whereas Matthews... suggests that there was a trough in that year so that he estimates a black economy of a mere 2% of GDP...” Smith notes: “Some of the indicators that have been used to show a growing black economy in the United States appear to point to a rapidly shrinking one in the UK’... Smith tabulates the ratio of cash to consumers' expenditure in 1981 and whilst UK, USA and Canada are at the bottom of the table, Switzerland tops the table with 21% – three times that of the UK.”
- b) Hanousek and Palda (2004) reviewing the money use and electricity consumption [ECM] methods comment: “[t]he instability of parameters used in macro-methods may be such as to throw off estimates of the transition underground economies to the point where such estimates are nearly useless both as indicators of the absolute size of the underground economy, and, more seriously, useless as measures of the change in the size of the underground economy... [f]inancial products liable to affect currency demand grow at a much greater pace in transition economies than they do in mature western economies... [g]rowth in currency demand was related to factors that had nothing to do with the underground economy... [p]rice deregulation, and the introduction of long-overdue technologies move electricity demand in ways difficult to attribute to underground economy growth.” Similarly Zizza (2003) reports that the share of the informal economy in Italy, estimated by using Schneider's method but adding an index of petty crimes as an additional regressor, is about half of Schneider's estimate.
- c) Feige and Urban (2003) report that: “[u]pdated ECM estimates of the size of the unrecorded sector are not only highly sensitive to initial conditions, but they produce negative estimates of unrecorded income for many transition countries. Our findings are also compared to the new national accounting procedures that attempt to estimate exhaustive measures of the ‘non-observed economy’. Our disturbing results call into question many of the substantive conclusions reached by other scholars who relied on earlier ECM estimates to draw inferences about the transition process as well as the causes and consequences of underground economies in transition.” They suggest that estimates may nevertheless still be usable in time-series.

**Table 5.2. Black hours worked and the value of black activities**

Based on actual black prices from detailed questionnaire surveys in Denmark, Norway, Sweden, Germany and Great Britain, 1997-2001

Survey date	Proportion of population aged 18-74 who carried out black activities within the last year		Black hours worked as a proportion of "white" working hours	Black activities valued at actual black prices paid as a proportion of GDP	
	Yes	Don't know/refusal			
Per cent					
Denmark	2001	20.3	0.5	3.8	1.8
Norway	1998/2002	17.3	0.4	2.6	1.1
Sweden	1997/98	11.1	0.5	2.3	1.0
Germany	2001	10.4	2.8	4.1	1.3
Great Britain	2000	7.8	1.0	1.2	0.6

Note: Estimates based on further questions about average weekly hours worked in black activities (these ranged from about 3 to 8 hours per week) and average hourly earnings in black activities. About half of the earnings reported are non-cash (i.e. on a barter/*quid pro quo* basis) with a cash-equivalent value estimated by the respondent.

Source: Pedersen (2003).

**Table 5.3. The shadow economy in Denmark, Norway, Sweden, Netherlands, Germany and Spain**

Estimated from questionnaire surveys

		Size of the shadow economy	Adjusted size of the shadow economy (value in the formal market)
Denmark	1994-98	c. 1.4% of GDP	2.6-3.4% of GDP
Norway	1980-83	..	4-6% of GDP
Norway	1988/89	1.3% of GDP	5-6% of GDP
Sweden	1997	1% of GDP	2.5-2.6% of GDP
Netherlands	1983-84	1-3% of GNP	4-5% of GDP
Germany	1984	0.6-1.2% of GDP	4-6% of GDP
Spain	1985	Not estimated in relation to GDP	16.9% of GDP

Note: The Norwegian figures for 1980-83 were already adjusted in the analyses. The figures for Norway (1988/89), Sweden, Netherlands and Germany are calculated in black prices in column three. In column four, an attempt is made to adjust for differences in the values of black activities used and for differences in the definition of black activities. For example, neither the German nor Dutch researchers include black transactions or payments in kind. This does not apply to the Swedish figures, however, which are based on the Rockwool Foundation Research Unit's question, and which are thus directly comparable with the Danish figures. For Spain, the same valuation method as for the Danish figures has been used. See Pedersen (1998) for a fuller explanation of the adjusted figures.

Source: Pedersen (1999).

**The nature of national accounts adjustments.** National accountants have traditionally sought to incorporate undeclared incomes, expenditures and production by reconciling income, expenditure and output estimates of GDP. For example, Canada's submission to the UNECE (2003) survey of statistical practices claims that: "[b]ecause GDP is measured from all three approaches in Canada and balanced through an annual Input-Output Table, much of the hidden economy is unearthed in the balancing process and accounted for in the final estimates." Submissions by several other countries echo this idea. "Balancing" involves comparing different estimates for particular components of GDP. Where there are discrepancies between income, expenditure and production-based estimates of economic activity, typically the highest estimate is retained on the assumption that the lower figures (e.g. declarations of self-employment income, from income-tax records; spending on alcohol and tobacco, as reported in household budget surveys) suffer under-reporting.

“Balancing” at a more disaggregated level allows a higher proportion of under-reporting to be corrected.<sup>27</sup> The construction of a detailed input-output table, which allows consistent and detailed disaggregation, is an important part of national accounts procedures partly for this reason.

Statisticians also undertake a range of other measures to account for specific types of hidden or informal activity.<sup>28</sup> On this basis, statisticians in some countries have identified the adjustments they have made to “basic” sources (such as business register or income tax information) to arrive at a final estimate. However statisticians in some other countries argue that the concept of hidden or underground economic activities is not clearly defined, and that given the important role of methods such as balancing, national accounting methods do not allow separate identification of the “non-observed” components of GDP.<sup>29</sup> Therefore, although GDP statistics do include the informal economy to a considerable extent, specific methods need to be developed in order to be able to report the size of the informal economy that is included in GDP for a wider range of countries.

**Sectoral analysis.** In this chapter, a first approach to this problem involves examining sectoral differences in the mark-up of labour costs over wages and salaries. To the extent that child-minders or bartenders are paid in cash and without social security contributions, the difference between the employer’s labour costs and the employee’s wage or salary in these sectors is relatively small. Relative non-wage labour costs in the “hotels and restaurants” and “private households with domestic staff” sectors are shown in Table 5.4.<sup>30</sup> In the “domestic staff” sector – which will include undeclared cleaning ladies, child carers, etc. employed by households – non-wage labour costs are less than one-third of the all-sector average in seven countries, less than two-thirds in a further three countries, and above two-thirds in only six countries.<sup>31</sup> This suggests that in the domestic staff sector, undeclared employment frequently accounts for more than half of total employment.

Since the “hotel and restaurant” and “domestic staff” sectors account for about 4% of total labour costs, national accounts appear to imply that undeclared employment in these sectors alone exceeds 2% of total employment (in terms of earnings) in Belgium and Italy, where non-wage labour costs in these sectors are less than half the economy-average level. It may exceed 1% in a number of other countries. At the same time, variation across countries (particularly in terms of the amount of dependent employment in the domestic staff sector, and the undeclared share within it)<sup>32</sup> invites scepticism about the degree of consistency across countries of national accounting practices – as regards recording either formal or informal income in this specific sector.

**Aggregate estimates.** As mentioned above, statisticians in some countries have identified the share of the non-observed economy in their GDP estimates. The estimates shown in Table 5.5 correspond so far as possible to the NOE Types 4 to 6 although for the high-income countries little or nothing is reported under Type 6 (purely informal production). They confirm the general picture of a somewhat bipolar cross-country distribution, where informal (including underground) production is about 5% of GDP, or in some cases perhaps as low as 1 or 2% in many high-income OECD countries, but reaches about 15% in Italy and in many transition countries.<sup>33</sup> In line with the survey evidence cited above, informal production in the Czech and Slovak Republics is estimated at not much above 5% of GDP.<sup>34</sup>

Table 5.4. **Relative non-wage labour costs in the industry sectors “hotels and restaurants” and “private households with domestic staff”, 2000<sup>a, b</sup>**

	Sectoral non-wage labour costs relative to economy average		Sector share in total economy labour costs (%)
	Hotels and restaurants (1)	Private households with domestic staff (2)	Private households with domestic staff (3)
Austria	76.4	12.8	0.42
Belgium	42.0	3.0	0.95
Canada	64.9	..	..
Czech Republic	92.9	0.0	0.03
Finland	84.2	66.7	0.23
France	70.0	62.3	1.27
Germany	78.5	31.4	0.24
Greece	92.7	81.1	1.21
Hungary	89.0	..	0.00
Ireland	118.1	130.1	0.19
Italy	48.7	16.1	1.76
Luxembourg	92.9	46.1	0.80
Netherlands	82.9	69.5	0.01
Norway	78.7	70.0	0.20
Poland	86.8	..	0.00
Portugal	90.1	26.2	1.08
Spain	65.1	11.7	1.96
Sweden	89.7	107.4	0.02
United Kingdom	89.6	89.6	0.71
United States	81.7	19.0	0.24

a) The labour cost markup is measured as  $(LC/WS-1)$  where LC is labour cost (compensation of employees) and WS is wages and salaries, both as reported in OECD National Accounts. Columns (1) and (2) are markups for the sector shown as a percentage of the markup for the economy as whole.

b) Australia, Denmark and New Zealand are omitted because compulsory employer social security contributions are zero or low in these countries. For other OECD countries that are not shown, data were not available.

Source: OECD National Accounts database.

### ***Inferring the size of the informal economy from theoretical tax liability calculations***

Nearly all research into the informal economy emphasises that it erodes the tax base. If this is correct, the extent of erosion should be relatively easy to document in those countries where GDP estimates include large amounts of untaxed production. In 2000, according to scheduled tax rates, income tax plus employee and employer social security contributions (as reported in *OECD Taxing Wages*) for a single person at the Average Production Worker level of earnings totalled over 50% of labour costs in a few OECD countries. Actual tax receipts for roughly comparable categories of tax as a percentage of GDP (as reported in *OECD Revenue Statistics*) were lower (some components of GDP are usually taxed at lower rates, or not at all), but to quite varying degrees. Relatively low tax receipts plausibly do reflect the extent of undeclared work and the existence of a large self-employed sector where income is taxed at relatively low rates, among other things. However a wide variety of factors influence any comparison between aggregate tax receipts and scheduled tax rates, making it difficult to pinpoint the role of any particular factor.

In general, theoretical tax liability calculations will be more accurate for a proportional tax with few concessionary rates. Thus, theoretical tax liability calculations for value-added tax (VAT) have been used as a possible indicator for the size of the informal economy

Table 5.5. National-accounts-based estimates for the share of economic underground (hidden) output and informal economic activity in GDP

		Per cent of GDP <sup>a, b, c</sup>
Australia	2000-01	3.0 <sup>d</sup>
Armenia	1997	28.9
Belgium	1997	3.5
Bulgaria	2000	11.1
Canada	1992	3.0 <sup>e</sup>
Czech Republic	1998	5.6
Hungary	1997	15.4
Italy	2000	16.0 <sup>f</sup>
Kazakhstan	2000	26.8
Kyrgyz Republic	1999	47.9
Latvia	1998	14.1
Lithuania	1998	14.8
Poland	1998	13.3
Slovak Republic	1998	7.3
United Kingdom	2002	1.5

a) Mid-point of range if a range is cited.

b) Estimates differ from NOE shares charted by Blades and Roberts (2002) because so far as possible only underreporting of production, intentionally not registered production, and unregistered units in the informal sector (NOE Types 4 to 6) are included. The “statistical underground” is not included, nor is illegal production and “other” production. In Kyrgyz Republic, only 9.2% from the 47.9% reported is hidden, the remainder is informal production complying with regulations.

c) Among the countries not shown, Finland estimates that about 5% of gross output in construction, 6% of value added in hotels and restaurants, and 23% of value added in personal services is hidden. The implied share in GDP as a whole is low (possibly below 1%). The United States makes adjustments for under-reporting in income tax returns which amount to 4.8% of GDI (gross domestic income) but only 1.2% of GDP (since GDP is mainly estimated from the output side). The former figure might represent economic underground production defined in terms of non-reporting of the corresponding income for tax purposes, but the US report does not use this terminology.

d) This is an approximate estimate by the Secretariat, based on the discussion in ABS (2004) which estimates that missing income due to underground activity could be 4.8% of GDP as an upper limit, but more realistically it could be 3.0% of GDP. Of this 3.0%, 1.3% is currently included in GDP through adjustments to the base data.

e) This is an approximate estimate by the Secretariat, based on the detailed discussion by Gervais (1994), who estimated that underground production already included in GDP could amount to 1.5% as an upper limit, and underground transactions not included in GDP could amount to 2.7% as an upper limit.

f) This is a revised and updated figure from ISTAT (2003), but on the same basis as figures reported in UNECE (2003).

Source: As cited, UNECE (2003) and UK National Action Plan for Employment (EC, 2003).

(Box 5.6). Another approach along these lines is to estimate theoretical tax liability for compulsory social security contributions, based on wages and salaries in the national accounts. This seems a promising approach because theoretical liability in this case is:

- Based on earnings without personal deductions and allowances (although some countries provide rebates on employer contributions for special target groups).
- Often proportional to earnings.<sup>35</sup>
- Unrelated to the individual’s household status (except in the Netherlands).

So a calculation of theoretical liability for compulsory social security contributions is easier than it is for general income taxes.

Table 5.6 compares calculations of the theoretical liability to compulsory employee and employer social security contributions (based on detailed contribution schedules as reported in OECD *Taxing Wages*, taking account of contribution floors and ceilings, in cases where contributions are not exactly proportional to earnings, as described in the note to the table) with actual receipts of contributions (reported in OECD *Revenue Statistics*).

### Box 5.6. Theoretical tax liability calculations for VAT

Nam *et al.* (2001) have proposed theoretical tax liability calculations for value-added tax (VAT) as an approach to measuring the extent of “tax evasion and the shadow economy”. They estimate the extent of evasion of value-added taxes using mainly national accounts data for private and intermediate consumption (and with some supplementary information for the state sector) as the tax base to calculate expected VAT revenues, taking account of lower-rate VAT and exemptions applying to certain types of spending and tax collection lags. The actual amount of VAT revenues, compared with the calculated expected revenues, then gives an estimate for the extent of VAT evasion. This method suggests VAT evasion rates varying from 5% or less in several EU countries up to 20% in Belgium, Spain and Greece and over 30% in Italy.

HM Customs and Excise (2002) estimated that in the United Kingdom overall losses were about 14% of VAT theoretical tax liability in 2001-02, and complemented this “top-down” estimate for aggregate VAT evasion with “bottom-up” estimates. These suggest that “general non-compliance” – which includes “deliberate mis-declaration of input or output tax on tax returns [by VAT registered businesses]” – and failure to register for VAT by enterprises which should register accounted for 30 to 45% of the tax losses. Thus the losses from this cause were 6% of theoretical tax liability or less. Part of this could be associated with black market transactions, and part could be pure tax evasion, but no further estimation was attempted. Other reasons for VAT revenue shortfalls were legitimate or near-legitimate tax avoidance, issues such as the late submission of VAT returns and late payments, and “missing trader” frauds where enterprises collect VAT and then disappear.

Theoretical liability is calculated first on the basis of national accounts figures for wages and salaries, which approximates the true tax base, then on the basis of labour costs (with corresponding adjustments to the theoretical calculation) so as to be able to provide some results for countries where OECD *National Accounts* do not report wages and salaries.

In most cases, actual social security contribution receipts for wages and salaries as a whole are below this (relatively simplistic) calculation of theoretically expected amounts. A possible general reason for this – not in all countries, but no list of the detailed situation by country has been identified – is that some government employees do not pay contributions to the main social security scheme. The last three columns of Table 5.6 therefore estimate the ratio of tax receipts to theoretical tax liability for the non-government sector alone. Unfortunately, this involves combining figures for the government share from two publications (OECD *Revenue Statistics* and OECD *National Accounts*) where the definition of government (in terms of coverage of sectors such as education and state-owned or semi-privatised enterprises) may not be consistent.

Also, a number of particular factors which make actual receipts of social security contributions differ from the theoretical schedules used in OECD *Taxing Wages* have been identified (Box 5.7).<sup>36</sup> If the results for Austria, Canada, Denmark, Greece, Switzerland and the United Kingdom are discounted on grounds of these identified factors, results for the non-government sector are:

- Actual social security receipts in the non-government sector are close to or over 100% of theoretical liability in six countries: Czech Republic, Japan, Luxembourg, Netherlands, Norway and Slovak Republic. One possible explanation for figures slightly over 100% is that

Table 5.6. Total receipts of compulsory social security contributions, compared with theoretical liability arising on wages and salaries as recorded in national accounts, 2000<sup>a, b</sup>

	Ratio of actual receipts to theoretical liability <sup>c</sup>						Government share in:		Column 6 re-estimated for non-government sector <sup>f</sup>
	Based on wages and salaries <sup>d</sup>			Based on labour costs <sup>g</sup>			Social security contributions <sup>h</sup>	Labour costs	
	Employee	Employer	Employee plus employer <sup>e, f</sup>	Employee	Employer	Employee plus employer <sup>e, f</sup>			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
	Ratios								
Austria	0.86	0.77	0.81	0.84	0.75	0.79	5.9	21.2	0.94
Belgium	0.84	0.67	0.72	0.83	0.67	0.72	6.9	22.3	0.86
Canada	1.04	1.26	1.16	0.97	1.17	1.08	11.3	21.9	1.23
Czech Republic	0.88	0.90	0.89	0.90	0.91	0.91	10.0	16.8	0.98
Denmark	0.33	1.39	0.37	0.31	1.30	0.35	2.6	31.8	0.50
Finland	0.84	0.90	0.89	0.84	0.90	0.88	23.0	27.5	0.94
France	0.80	0.74	0.76	0.81	0.75	0.76	9.4	26.0	0.93
Germany	0.82	0.91	0.87	0.78	0.87	0.82	6.6	15.1	0.90
Greece	1.00	0.76	0.84	0.98	0.74	0.83	1.4	34.9	1.26
Hungary	0.52	0.67	0.64	0.55	0.71	0.68	21.4	24.4	0.71
Ireland	0.85	0.68	0.73	0.88	0.70	0.75	10.1	19.7	0.84
Italy	0.82	0.83	0.82	0.80	0.80	0.80	25.8	26.0	0.80
Japan	0.86	1.08	0.97	0.81	1.02	0.92	0.0	12.5	1.05
Korea	..	..	..	0.89	0.54	0.70	..	15.9	..
Luxembourg	0.80	0.83	0.82	0.79	0.82	0.80	0.0	16.4	0.96
Mexico	..	..	..	..	..	0.65	49.6	27.5	0.45
Netherlands	0.99	1.03	1.00	0.89	0.92	0.90	3.1	19.6	1.08
Norway	1.02	1.08	1.06	0.95	1.00	0.98	21.3	28.7	1.09
Poland	0.00	1.28	0.67	0.00	1.31	0.68	11.7	26.5	0.82
Portugal	0.77	0.55	0.62	0.75	0.53	0.60	1.9	30.4	0.84
Slovak Republic	0.65	0.69	0.84	0.68	0.71	0.87	11.9	21.0	0.97
Spain	0.84	0.76	0.78	0.85	0.77	0.78	..	20.8	..
Sweden	1.16	0.84	0.89	1.15	0.83	0.87	27.6	28.2	0.88
Switzerland	..	..	..	0.55	0.55	0.55	10.2	13.1	0.57

**Table 5.6. Total receipts of compulsory social security contributions, compared with theoretical liability arising on wages and salaries as recorded in national accounts, 2000<sup>a, b</sup> (cont.)**

	Ratio of actual receipts to theoretical liability <sup>c</sup>						Column 6 re-estimated for non-government sector <sup>d</sup>		
	Based on wages and salaries <sup>d</sup>			Based on labour costs <sup>g</sup>					
	Employee	Employer	Employee plus employer <sup>e, f</sup>	Employee	Employer	Employee plus employer <sup>e, f</sup>			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
	Ratios						Per cent	Ratio	
Turkey	..	..	..	0.81	0.77	0.79	..	..	..
United Kingdom	0.80	0.80	0.78	0.75	0.75	0.74	7.5	12.9	0.78
United States	0.79	0.94	0.86	0.72	0.85	0.78	6.1	16.1	0.88

a) Figures in this table are derived by combining data sources whose detailed coverage is not always consistent, for reasons which vary by country. See the main text for information about these data issues in general and Box 5.7 for information about data issues in particular countries.

b) Australia and New Zealand are absent from this table because they levy no social security contributions.

c) Social security contribution receipts are net of transfers from other social security funds (e.g. contributions paid on behalf of unemployed people by the benefit fund) except in Italy, the Netherlands (where data for transfers from other social security funds are not published) and Spain (where published data for these transfers are implausible).

d) Theoretical liability is calculated as total wages and salaries multiplied by the distribution-average scheduled rate of contributions. Where social security contributions are not proportional to earnings, the distribution-average scheduled rate of contributions is estimated assuming a distribution of earnings with 400 people in the range of 0 to 0.5 times average production worker (APW) earnings, 500 in range 0.5 to 1x, 350 in the range 1 to 1.5x, 175 in the range 1.5 to 2x, 75 in the range 2 to 2.5x, 25 in the range 2.5 to 3x, 10 in the range 3 to 4x, 4 in the range 4 to 6x and 2 in the range 6 to 10x. In individuals within each earnings range are assumed to have earnings at the mid-point of the range. This distribution implies average earnings across all employed people are 99.1% of the APW level. The distribution average scheduled social security contribution tax rate is between 90% and 100% of the rate at the APW earnings level, except in Canada (74%), Germany (88%), Ireland (85%), Mexico (106%), Netherlands (68%), and Turkey (76%). These countries cap social security contributions at a certain earnings level, except for Mexico which has a progressive contribution schedule (higher rates above a certain earnings threshold).

e) The column "employee plus employer" includes receipts which were not allocated to either subcategory in Hungary, Mexico, and Slovak Republic.

f) For Mexico, total social security receipts (paid by employees, employers and self-employed) are used in calculating the "employee plus employee" column. Data for Poland may also relate to these three categories of receipt (see main text).

g) Theoretical liability is calculated by assuming that total wages and salaries are total labour costs divided by (1 + ter) where ter is the distribution-average scheduled rate of employer contributions, and then proceeding as for the calculations based on wages and salaries. The actual mark-up of labour costs on wages and salaries is higher than the scheduled employer social security contribution rate in countries where employer voluntary contributions are significant (e.g. pension and health care contributions in the United States). But in a few countries (Czech Republic, France, Hungary, Ireland, Poland, and Slovak Republic), it is lower.

h) Published data for the "government share in total contributions" for Korea and Turkey are implausible, and are not shown.

i) Column 6 multiplied by (1 - col. 7) and divided by (1 - col. 8).

Source: OECD Taxing Wages 2000-2001, and Excel files which implement the tax models in this publication; OECD National Accounts database; OECD Revenue Statistics database, tables for "Details of Tax Revenue", "Financing Social Benefits" and "Social Security Contributions and Payroll Taxes Paid by Government".

### Box 5.7. National differences in the scope and coverage of social security contribution rate and revenue data

The comparison in Table 5.6 is approximate for various reasons, for example because when contributions are not exactly proportional to earnings the impact of contribution ceilings and similar factors is estimated using simplified assumptions. There are also some specific national factors which make actual receipts of social security contributions differ from what is implied by the theoretical schedules used in *OECD Taxing Wages*, as follows.

In Austria, the theoretical contribution rates (as modelled in *Taxing Wages*) apply for blue-collar workers. Rates for salaried employees are marginally lower (by 0.7-1.6 percentage points, for employee and employer contributions combined). Also revenues corresponding to 1.5 percentage points of the theoretical contribution rate (contributions for the promotion of residential buildings and to the chamber of labour) are counted as payroll taxes in *Revenue Statistics*. Given that the theoretical combined contribution rate is about 42%, these factor approximately explain the whole shortfall below 100% shown in column 9 of Table 5.6.

In Canada, theoretical employer contributions (as modelled in *Taxing Wages*) do not include contributions to sickness and work injury insurance, which are determined at provincial level. Receipts (reported in *Revenue Statistics*) probably do include these contributions.

In Denmark, theoretical employee contributions (as modelled in *Taxing Wages*) include unemployment insurance contributions which are paid to union insurance funds. Receipts (as reported in *Revenue Statistics*) probably do not include these contributions.

In Greece, some pension funds offer a good return on contributions and there is some evidence that individuals make contributions to pension funds on the basis of fictitious or fictitiously high reported earnings – this form of “tax evasion” works in the opposite of the usual direction.<sup>a</sup>

In Switzerland, data for receipts appear to omit contributions paid into private pension funds (*caisses de pension*). Excluding these contributions the combined employee and employer contribution rate is 13.1%, rather than 23.1%.

In the United Kingdom, some married women still pay social security contributions at reduced rates, and contribution rates are lowered for “contracted out” employees (when the employer is contributing to an employer-based pension scheme on their behalf).

Targeted exemptions (e.g. for employment of apprentices and trainees, hiring the long-term unemployed, reduction of working time, conversion of temporary contracts into permanent contracts) reduced receipts of employer contributions in a number of European countries. In 2000, the shortfalls for this reason may have been around 14% in Belgium (the low level of employer contribution receipts in Belgium probably reflects this factor), around 5% in France, Italy (where there were also general rate reductions in the South of the country), and the Netherlands, and an unreported but probably significant amount in Spain.<sup>b</sup>

a) OECD (1997b) reported that in Greece “for the largest fund (IKA), declared earnings for contributions fall far short of the respective total earnings data from the national accounts... little collaboration exists with the income tax authorities to verify if contributions are consistent with declared income” and yet at the same time “the total number of contributors across primary funds exceeds total employment – as measured by the labour force survey – by about 20%... the number of primary pensioners exceeds the population aged over 65 years by a wide margin”.

b) Eurostat (2002) reports that transfers to employers for labour market programmes were about € 2.5 billion in Italy, € 2 billion in France and € 1.5 billion in Spain. These may not all have taken the form of reduced employer contributions. Marini and Bourdin (2003) report contribution reductions of € 2.9 billion in Belgium (for older workers, youth, reduction of working time), € 7.6 billion in France (for reduction of working time) and € 1.1 billion in the Netherlands (for the long-term unemployed). However, it is clear that they had difficulty in obtaining precise information.

contributions are levied on a wider tax base than national accounts wages and salaries e.g. they are paid on certain non-wage company benefits, on some types of business profits,<sup>37</sup> or in some cases on a voluntary basis by people with no earnings. This explanation remains uncertain, because contributions by the self-employed and non-employed, and transfers from other social security funds such as unemployment insurance should in principle be reported under separate headings in OECD *Revenue Statistics*.

- In six more countries, Belgium, Finland, France, Germany, Sweden and the United States, the apparent shortfall in receipts is 6% to 14% (in Belgium most of the shortfall can be explained by reductions in employer social security contributions, as mentioned in Box 5.7).
- The shortfall in receipts is 16% in Ireland and Portugal and about 20% in Italy, Poland<sup>38</sup> and (in figures for the whole economy) Spain and Turkey.
- The shortfall in receipts is 30% or more in Hungary, Mexico and (in figures for the whole economy) Korea.

It is not possible to draw strong conclusions for individual high-income countries because so-far-unidentified data comparability issues and quirks of national systems<sup>39</sup> appear to be causing variations of up to 10% in revenues, relative to theoretical liability, that are unrelated to undeclared work. However, the list of countries with (unexplained) social security revenue shortfalls of 20% or more seems to correspond quite well with other measures of the size of the informal economy. Revenue shortfalls in percentage terms seem to be larger than informal economy shares in GDP (Table 5.5) which seems plausible (see Box 5.4) but smaller than the share of wage earners not contributing to social insurance.<sup>40</sup>

This comparison suggests that the extent of non-reporting of wage and salary income for contribution purposes, as identified by this type of theoretical tax liability calculation – although work is needed to identify data issues and non-standard contribution arrangements in particular countries – can be used as an indicator for the extent of informal employment for a wide range of countries. This indicator also seems suitable for use as a policy objective, i.e. the objective can be to reduce the extent of non-reporting for contribution purposes, except where it is explicitly allowed. It remains true that this indicator at best reflects wages and salaries that have been included in the national accounts even though they are not reported by enterprises and workers for social security contribution purposes (cf. the findings in Table 5.4). It is not an independent source of information as compared with Table 5.5.

### ***Trends in the incidence of undeclared work***

In Denmark, the discrepancy between personal incomes in tax statistics and according to the national accounts was between 15 and 20% in 1947 to 1955, and then declined, first falling below 5% in the early 1970s (Viby Mogensen, 2003, here quoted by Pedersen, 2003, Figure 1.2).

The pattern has probably been similar in most of today's high-income OECD countries, which in the past had large numbers of non-agricultural self-employed, unregulated domestic servants, day labourers paid in cash, etc. and yet by about 1970 often had undergone a process of transition to a salaried economy which at the same time transformed informal into formal work, with always a certain amount of hidden employment as the formal coverage of tax and other regulations increased. Self-employment by 1979 was typically around, often below, 10% of total non-agricultural

employment, although since 1979 the previous downwards trend in self-employment has been slightly reversed (OECD, 2000a, Table 5.1). But to varying extents, in Greece, Italy, Portugal and Spain this process never went so far and current self-employment shares in non-agricultural employment are around 20% (higher in Greece). It seems important to reflect upon the reasons for this and how it may be linked to the phenomenon of undeclared work.

In Denmark, surveys report an increase in the incidence of “black activities” from 1980 to 1994 and a decline thereafter. These surveys report a monotonic decline in the incidence of carrying out black activities in 1998 with age, from 44% among 18-19 year-olds to 16% among 50-59 year-olds. Also, 81% of 20-29 year-olds were assessed as having an “overall positive attitude” to black activities, declining to 50% for 50-59 year-olds (Pedersen, 1999). Although this age distribution suggests that tax morality has collapsed between one generation and another, it seems possible that the younger generation will become more conservative with age (*e.g.* because health and pension entitlements are increasingly valued).

Pedersen (1998) summarizes five “anthologies on the shadow economy in various countries” published from 1982 to 1992, and OECD (1986) surveyed evidence on the size and growth of concealed employment. Various individual-country estimates based on surveys or expert judgement cited in OECD (1986) seem similar to those cited here, although it was then emphasised more strongly that there was “little evidence or *a priori* argument... that concealed employment is especially important among those recorded as unemployed in the regular economy”. Also, although no estimates are tabulated, OECD (1986) cites national-accounts-based estimates according to which “4% seems to be at the upper limit of the plausible range for most countries... For certain countries, notably the southern Mediterranean countries, the proportion may well be much higher”. Today, the “upper limit of the plausible range for most countries” (excluding both Southern Europe and new OECD members) is perhaps slightly higher (according to Table 5.5). In some countries there are clear signs of increase, *e.g.* in Belgium “since the beginning of the 1990s, the inspection services have observed a sharp increase in social fraud” (*i.e.* contribution evasion: Pacolet and Marchal, 2003a) and in France “clandestine employment has led the list of grounds for conviction on employment law violations since 1993, far surpassing ‘health and safety’ which led at the beginning of the decade” (Marie, 2000).

In transition economies, in the early 1990s “adequate regulation was missing and parallel to the flourishing private enterprise informality underwent an explosive expansion... the capacity of the states in the region to interact with private business had to be built practically from scratch, the opportunities for informal activities were abundant. In spite of the growing efforts of governments to get a grip on the economic activities, the informal sector reached a size of over 30% of GDP in some CEE countries” (Belev, 2003). However, there is evidence that the informal economy shrank after 1993 in Croatia (Ott, 2002), after 1995 in Poland, after 1997 in Lithuania, after the mid-1990s in Hungary (Semjén and Tóth, 2002; Belev, 2003), and recently in some other transition countries (UNECE, 2003). Survey evidence for the Czech and Slovak Republics, however, shows an increase since the mid-1990s.<sup>41</sup>

In Latin American countries often less than 40% of the economically active population are contributing to social security systems: estimates for nine countries from 1980 to 1999 show a decline in this proportion in some countries and an increase in others: in Mexico this proportion has been relatively stable at about 30% (Packard *et al.*, 2001).

### *Undeclared work among the unemployed and benefit recipients*

Rates of undeclared work among unemployment benefit recipients are frequently reported to be lower than among the general population. This was a theme in the European Commission's 1988 series of national reports on the Black Economy: the UK report characterised black economy work as mainly self-employment (including "moonlighting" by those with an employee main job) adding: "Quite clearly unemployed people play a negligible role in the black economy and do not merit any further discussion" (Pahl, 1988). However, this was not the view of the UK government and its ministers at the time.<sup>42</sup> More recently, Grabiner (2000) reported that extrapolating from samples of claims by the Benefits Agency about 120 000 people are fraudulently working and claiming at any one time, with about one-third of them on Income Support and two-thirds on Jobseeker's Allowance, which suggests an incidence of 7 or 8% among recipients of the Jobseeker's Allowance.<sup>43</sup> Personal Advisors in Employment Zones even estimate that "between one in six and one in four of those referred to the programme [adult long-term unemployed] had been working at the time they were signing on, at least to some extent" (Hales et al., 2003).

Viby Mogensen (1999) reports for Denmark that: "people on cash benefits, early retirement pensions and old age pensions are less active in the black sector than the population as a whole. On the other hand, the unemployed are just as active in the black sector as the population in general (22.5%), and they work considerably more 'black hours' than the others, who, of course, also have a job to do in the formal economy." Pedersen (1999) notes that "in recent years... [t]he Directorate of the Unemployment Insurance System has even exposed quite sophisticated cheating involving false pay slips, enabling persons to receive unemployment benefit for a longer period than they were entitled to while at the same time working in the black sector", and that the unemployed (and recipients of cash benefits) may more often fail to report black work in the survey.

The incidence of black activities among the unemployed, reported in recent comparable surveys, is about the same as among employed workers in Denmark, Norway, Sweden and Great Britain, but about twice as high (20% compared to 10%) in Germany (Pedersen, 2003, Table 3.3). Surveys in Czech and Slovak Republics also find that the incidence of informal working by the unemployed is nearly twice as high as it is among employees, but it is still not as high as among entrepreneurs (Hanousek and Palda, 2003a). In Spain, Miguelez Lobo (1988) reported that according to other studies, at least 30% of those officially (counted as) unemployed in Andalucia and Catalonia were working but only 12% of the unemployed with a benefit were working (less than the irregular share in employment generally which was about 20%). Mateman and Renooy (2001) more recently reported that undeclared work in Spain is carried out mainly by unemployed people and illegal immigrants.

Overall, it seems that the incidence of undeclared work can be high among individuals who are unemployed (according to some measure of unemployment that does not exclude workers by definition, e.g. self-classification) without benefits. For those on unemployment benefits the incidence may be lower, related to the lesser need for income and increased fear of detection and sanctions. It makes sense for government policy to target benefit fraud, because this involves not only short-term loss of tax revenue and overpayment of benefit, but also incentives for long-term growth in the beneficiary caseload at the expense of formal employment. However, undeclared work is a much broader problem.

Although unemployment beneficiaries are in principle the benefit category that is most often available for work, reports of undeclared work by people in other benefit categories, such as early retirees who in some countries are subject to a strict earnings test, are quite common. In the Netherlands, according to a survey in 2002 “8% of invalidity benefit claimants, 11% of unemployment benefit claimants and 13% of social assistance claimants admitted having failed to declare work... only 50% of the people approached wish to take part in the survey which suggests that the actual percentages are probably higher” (EC, 2003). In Sweden, RRV (1998) was particularly worried by its finding that about 23% of students with study support (i.e. a student allowance) perform illicit work, which is a much larger proportion than among the population in general: “those who establish themselves on the informal labour market at an early stage, albeit on a temporary basis, are likely to accept the idea of doing illicit work later on in life.”

### 3. Causes of informal employment

A wide range of background factors influence the level of informal employment. Many of them – notably tax rates and employment regulation – primarily address other policy objectives, so that they can only partly be used as instruments to tackle informal employment.

#### A. Tax, social security and regulatory burden

##### *High tax rates*

The immediate motive for non-declaration of work is often tax evasion. However, international and historical comparisons do not necessarily support the idea that high tax rates are associated with high levels of undeclared work. The historical development process has typically involved a gradual shift from self-employment into salaried employment, yet also increasing tax rates, so that now many high-income OECD countries combine high tax rates with a relatively low incidence of undeclared work.<sup>44</sup> Friedman *et al.* (2000) find that high tax rates are actually associated with lower unofficial activity as a percentage of GDP – they argue that entrepreneurs go underground not to avoid official taxes, but in order to avoid bureaucracy and corruption. However a number of countries, particularly the former socialist economies, do now combine high scheduled tax rates (mainly in terms of social security contribution rates) with a high incidence of informal employment, so the safest conclusion is that there is no clear cross-country relationship between tax rates and the size of the informal economy.<sup>45</sup>

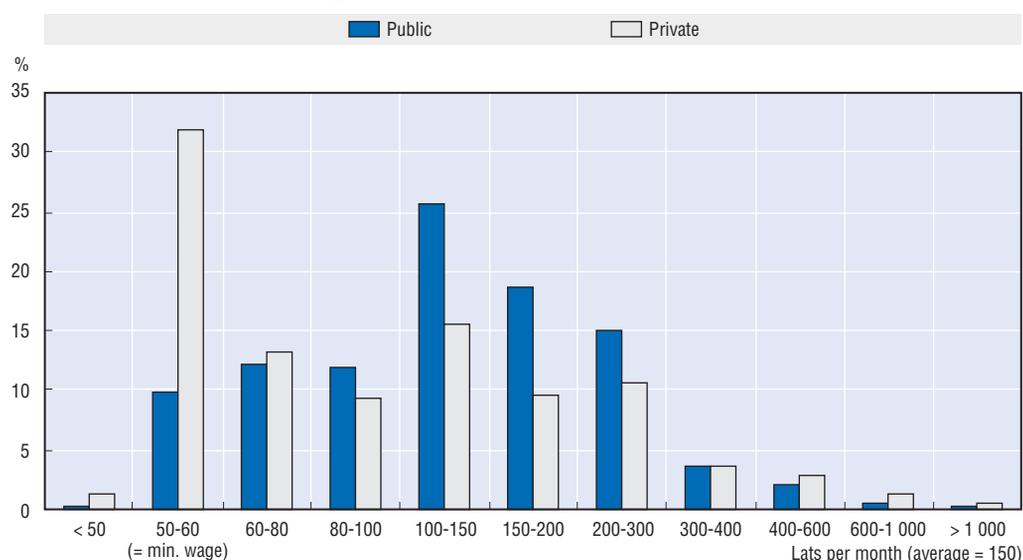
Some mechanisms can mitigate the negative impact of high tax rates on compliance. When tax rates are high, honest citizens and enterprises have a greater incentive to denounce tax evasion and unfair competition, and governments can spend more on services (some of which are unavailable to irregular enterprises) and on monitoring compliance. At the same time, as with many economic relationships, reverse and joint causality mechanisms enter into the correlation. Government spending can only rise to high levels in countries with good levels of tax compliance, and this may obscure any negative impact that an exogenous increase in tax rates has on compliance.

Hanousek and Palda (2003a) compare trends since the Czech and Slovak Republics split in 1993 and find that evasion is more common in Czech Republic. They claim this is because “the Czech Republic decided to keep taxes low and enforced their payment laxly”, i.e. “the most important determinant of tax evasion... is not a divergence between tax rates, but rather the difference in opportunities for tax evasion in each country”.

### Employment protection and the minimum wage

Employment protection legislation (EPL) is one of the reasons most widely cited by employers for avoiding hiring, and expert observers often see deregulation as a key precondition for tackling undeclared work. This proposition is probably correct in general terms,<sup>46</sup> but the problems that are also faced by a policy of deregulation in economies with high levels of informal employment also need to be recognised. Undeclared work is liable to take the form not only of wholly-undeclared (unregistered) employment but also of under-declaration of earnings in respect of registered employees. Indeed, reports from some countries indicate that this is much the largest component of undeclared work. OECD (2003b) recently noted: “In Latvia in 2000 – when the minimum wage there was 50 LVL – no less than 32% of the private employees earned 50 to 60 LVL per month according to official statistics... This result is not very plausible, considering that the average wage was 150 LVL and that the *public-sector* wage distribution did indeed show the expected bell-shaped normal distribution around the average”. Thus, the minimum wage for many employees is not actually a constraint on true earnings but, as Chart 5.1 suggests, the lowest amount of earnings that can be declared for tax purposes.<sup>47</sup> Not surprisingly then, the minimum wage may tend to be increased not for reasons of employment policy, but in order to increase tax receipts.<sup>48</sup>

Chart 5.1. **Latvia: wage distribution in the public and private sectors**



Source: OECD (2003b).

This type of policy may take a variety of forms, with a primary focus on the minimum level of tax to be paid, or a mixed focus on the minimum wage and the payment of tax corresponding to the minimum wage:

In Hungary, during the 1990s, “when the early transition crisis was over economic growth started to pick up and the number of registered businesses stabilized, the government began to send signals indicating the expected level of declared income; most of the entrepreneurs got the message and stated income just above this expected level. The result was a gradual increase of the portion of formally declared income.

Another element of this strategy has been raising the level of minimum social security contributions every year” (Belev, 2003, summarizing Kallay, 2003).

In Italy, under the “realignment agreements” of the late 1980s and 1990s, “at a provincial level the Trade Unions of each sector and the corresponding Employers’ Associations agree to a starting wage and the way in which it will be realigned to the wage in the National Collective Agreement for that sector... The execution and the subsequent transfer of the agreement at the corporate level makes it possible to consider wages resulting from the provincial agreements as minimum wages for the calculation of the Social Security contributions. Furthermore, these wages are progressively adjusted within 36 months from the execution to 100% of the minimum wages according to the national collective agreements...” (Mateman and Renooy, 2001).

If many employers do pay taxes only on the minimum wage, the level of the minimum wage that maximizes tax revenues will exceed worker productivity levels at the bottom of the distribution. The social partners, if they mainly represent large employers and their employees, may not object to minimum wage levels that exceed those prevailing among small and non-unionised firms.<sup>49</sup> In Lithuania, employees “are often officially hired for the statutory minimum wage and receive the remaining portion as undeclared payments” and yet at the same time increases in the minimum wage have “ousted low-skilled workers from the official labour market and inhibited the creation of low-productivity jobs” (Renooy *et al.*, 2004). This combination of forces may explain why many – probably most – middle-income countries appear to be locked into, or tend to revert to, levels of regulation of the formal sector that make continuing informality inevitable and depress the overall employment rate.

Until quite recently, OECD labour markets with high levels of employment protection often also had a low incidence of part-time work. While this has sometimes been explained in terms of union hostility to part-time work, it may also be related to measures targeted on under-declaration. Pirenne (2003) lists the main forms of black work in Belgium as the undeclared employment of foreigners without work permits, workers who are receiving unemployment benefits, and seasonal workers, and “infractions concerning part-time work. This mainly involves the lack of a part-time work contract that defines the time schedule and work regime and, when hours are variable, failure to display the rota”. The main instrument available to labour, social security, or tax inspectorates to detect undeclared work is the unannounced visit to a work site, which determines the identity of all persons found there. This instrument is often effective enough to ensure that the majority of workers are registered, but the authorities cannot continuously observe worksites in order to check whether a worker declared as part-time is in fact working full-time. Few countries seem to attempt direct enforcement of accurate reporting of actual hours worked in the way that Belgium does. Specifying minimum rates for social insurance contributions (corresponding to a full-time minimum wage) seems to be a more common strategy, but this discourages workers from engaging in work that really is part-time within the formal economy.

Another characteristic until quite recently of rigid labour markets (*e.g.* in Italy and Spain) has been strict limitation of temporary work, except in defined cases of “objective” need. When only work under a permanent contract is legal and there are heavy costs to dismissals and quits, the tax authorities can expect to receive year-round payment of taxes from each work-site in line with the number of staff found at work during a single

inspection visit. By contrast, if temporary contracts are unrestricted, employers and workers can, for example, agree to work under temporary contracts, and after these expire (with no inspection having occurred) destroy the contracts and omit the earnings from tax declarations. As an alternative to strict regulation of temporary contracts, rules about frequent reporting of withholding taxes and the immediate declaration of new contracts (see Section 4.A) enforced through unannounced inspection visits, can help minimise this type of evasion.

### ***Other business regulation and red tape***

OECD (2001) surveyed the costs to business of compliance with regulations. Among the main conclusions were:

- Administrative compliance costs represent around 4% of Business Sector GDP across the countries surveyed. The estimates varied from less than 2% in Finland to 7% in Spain.
- A dramatic “regressive effect”, seen in other surveys, is confirmed. Regulatory and formality costs have an increasingly disproportionate impact on smaller companies. Small SMEs (with 1-19 employees) spent USD 4 600 per employee per year, medium-sized SMEs USD 1 500, and large SMEs (with 50-500 employees) only USD 900.
- Companies used a mix of internal and external resources to comply with regulations. Approximately 44% of these costs were internal to the company, and around 56% were external, usually contracted out to experts.
- The great majority of compliance costs relate to tax (46%) and employment (35%) regulations.
- Employment regulations were reported, in particular, to increase non-wage labour costs; create difficulties in making staff reductions; and create difficulties in hiring new staff.

In a study using proxy-based estimates of unofficial activity for 69 countries,<sup>50</sup> Friedman *et al.* (2000) conclude “every available measure of over-regulation is significantly correlated with the share of the unofficial economy and the sign of the relationship is unambiguous: more over-regulation is correlated with a larger unofficial economy”.<sup>51</sup> Referring to Central and Eastern Europe, Djankov *et al.* (2003) formulate policy recommendations in this regard including “a reduction of the number of business licenses, permits and approvals, streamlining administrative procedures, adopting uniform taxes and enhancing access to capital, easing operating constraints on existing micro-finance institutions, reforming banking regulations to encourage lending to small firms, avoiding state-sponsored financial intermediation, etc.” (Belev, 2003).

Nevertheless, like employment regulations, business and tax regulations have some rationale. In particular, the costs of regulatory barriers to starting up a new business which are frequently decried need to be balanced against the costs to third parties when businesses go bankrupt with business debts, and the cost to taxpayers when small enterprises disappear with tax debts. This occurs at the bottom of subcontracting chains and it is central in VAT “missing trader” frauds (see Box 5.6). Restrictions on who can start a new business, and conditions to be met before trading can start, may be necessary to minimise these problems. Once again, research should, as well as documenting the costs of regulations, focus on identifying the needs for regulations, and what form regulations can take so as to meet these needs at lower cost.

## **B. Broader economic environment**

### ***Social security benefits as an incentive for declaration of work***

A link between social security entitlements and contributions improves the incentive to declare employment relationships. However, social insurance is not actuarially neutral for individuals for a number of reasons:

- It redistributes across incomes, *i.e.* contributions typically increase with income more than benefits do.
- It redistributes across risks, *e.g.* low-risk employers pay the same UI contributions or accident insurance contributions as high-risk employers.
- Contributions towards pensions to be received forty and more years ahead are subject to a large financial discount and the risk of changes to the pension entitlement rules.
- Entitlement rules incorporate various non-linearities, thresholds and kinks, creating a high individual return to additional contributions at the margin in some areas, offset by low individual return in other areas.
- The employment of the head of household in some cases provides health insurance coverage for dependent relatives (spouses and adult children), and disability and old age pensions with supplements for dependents and continuing entitlements for survivors. As a result, secondary family members can often get relatively little additional return from social security contributions that are paid if they enter formal-sector jobs.<sup>52</sup>

So even though the return to social insurance contributions at the margin may be positive for some individuals, it inevitably is negative (in the same sense as it is for income tax payments, *i.e.* the contributions may be socially justified, but they finance public goods) on average. Even where many workers place a high value on social insurance entitlements, there are many others who would prefer not to pay the contributions. Effective social security systems cannot tolerate voluntary non-payment rates of 20%, 40% or more, and it is only by enforcing the payment of social contributions in the same way as for other income taxes that lower rates of non-payment can be achieved.

By contrast, the payment of (insurance-based or assistance-based) benefits during unemployment may reduce incentives for undeclared work. In the absence of unemployment benefits, unemployment is not a long-run option and many workers can only choose between regular work and undeclared work. If unemployment benefits are paid with lax controls on combining these with undeclared work, the benefits promote undeclared work. But if controls are rigorous, the payment of benefits may discourage undeclared work among those who are temporarily unable to find regular work and facilitate its detection:

- Because of the reduced incentive for undeclared work, its volume is reduced and therefore more intensive inspection of the remaining amount of undeclared work is possible.
- The coverage of administrative records become more complete, and this may permit identification of individuals (*e.g.* prime-age males who are neither in work nor claiming benefits) who are working irregularly.
- In some countries without benefits, social security contributions and tax rates on low earnings are low and the tax authorities may have relatively little institutional incentive to investigate undeclared work. When benefits are paid, the benefit administration has a strong institutional incentive.

### **C. General governance**

#### ***An effective legal framework for transactions in the formal economy***

Djankov *et al.* (2003) cite the theory (Johnson *et al.*, 2002) that the enforcement of property rights within the formal sector is the most important factor promoting formal work. “The services of the courts or the police are only at the disposal of legally operating companies. In countries where the courts and the police are inefficient and corrupt anyway, there is really no recourse for entrepreneurs of any kind, formal or not. However, in countries with reasonably functioning law and justice systems, entrepreneurs have a lot to lose by operating informally. The obvious channels for enforcing contracts and defending their property rights against competitors and government bureaucrats are not available to them. This suggests that one of the most powerful ways, perhaps the most powerful, to reduce informality is to improve the functioning of law and justice.”<sup>53</sup>

This is a second counter-point to the argument that over-regulation of the formal economy is the primary cause of the informal economy. Regulations and bureaucracy which secure property rights and counter corruption make the formal economy attractive. Again, any drive to simplify and reduce regulation must carefully distinguish regulations which have these positive functions from those which are burdensome for no good reason.

#### ***Centralisation and local government***

SECO (2000) found that one of the main problems facing the struggle against black economy work in Switzerland was the lack of political will among the cantons which are mainly responsible for applying the existing legislation. Most cantons had no specialized personnel working on this function. The main reason suspected apart from lack of resources, was that “many cantonal governments particularly fear the direct negative consequences of the struggle against black-market work in the branches where the phenomenon is most widespread”. If local governments grant local firms even a 5% cost advantage over their competitors elsewhere in the country by turning a blind eye to undeclared work, this in the long run is likely to greatly increase both local employment and revenues from local (*e.g.* property) taxes: but this behaviour reduces total tax and social security revenues.

Local tax collection agencies are usually in principle organs of national government, but there is nevertheless evidence that local governments influence the collection of national taxes in some countries.<sup>54</sup> Tax collection agencies need help from other local actors in order to work effectively: for example, local governments usually manage land-use and business zoning registers, which identify local work sites. The perceived political legitimacy of central government’s fiscal demands, and incentives such as allowing local levels to keep a share of tax revenues, may influence its ability to suppress undeclared work.<sup>55</sup>

#### ***Social consensus in favour of suppressing black economy***

Meldolesi (2003) concludes that in the fight against irregular work in Italy: “What matters is finding the collective strength to isolate (and overrun) the many administrative, economic and social forces that, *de facto*, oppose regularization. I am thinking of those inspectors who do not look into firms; of those politicians and operators who see regularization as a new occasion for the old patronage politics; of those planning officials who take pleasure in the questions of all those who are still trying to cheat the State; and

so on. More generally, this kind of battle can be fought effectively only if we are aware of the thousands of forms of connivance and inertia that have so far protected the underground economy.” Even in Nordic countries, often regarded as models of tax morality, there is no clear consensus for measures to suppress undeclared work. RSV (2002) reports for Sweden in 1998 that 27% “agree” and 42% “don’t agree” with the statement. “It is reasonable that the person who buys black work, i.e. work on the summer house, also gets punished.” In Denmark, two-thirds of survey respondents either had carried out “black activities” or would be willing to do so (Viby Mogensen, 1999). Hanousek and Palda (2002) report on the basis of attitudinal surveys “strong evidence that indicates that citizens will avoid taxes if they do not believe they are getting quality government services for the taxes levied on them”.

Despite political controversy in relation to illegal migration, attitudes in practice may be ambiguous. Illegal migrants provide cheap labour, increasing the real incomes of nationals and contributing directly or indirectly to the competitiveness of the legitimate economy. Moreover, since rich countries need to impose high costs in some form on immigration in order to limit its volume, the process of illegal migrants starting off exploited and then gradually being allowed to integrate mainstream society may be seen as fair. Countries which in practice tolerate the use of migrant labour might be able to define a legal framework which better recognizes these considerations.

Unions and employer organizations might be expected to favour the suppression of undeclared work for a range of reasons, including unfair competition. However the social partners may be reluctant to recognise the informal economy because they do not manage or represent employers and workers in this area, and because effective policies will involve giving government (*e.g.* tax) inspectors key powers in workplace. Perhaps related to this, the ILO and its supervisory organs have over the years been quite cautious about analysing policies towards the informal sector, as described by Bangasser (2000).

### **General social norms**

Prevailing social norms can make it difficult to collect taxes on the basis of objective evidence, limit petty corruption and suppress the informal economy:

“Rural post-communist societies have never reached a stage of full modernization and their administrations never achieved the degree of impartiality, impersonality and fairness characteristic of modern bureaucracies. Thus, corruption often manifests itself not just in the use of public position for personal gain, but more broadly as widespread infringement on the norms of impersonality and fairness. Providing discriminative public service, as a general rule, may not be motivated by a pursuit of financial gain only, but stem from the norms of status-based societies. Pippidi argues that ‘the slow, modest, often contradictory or ill-aimed reforms in post-Soviet or South-East European countries since 1990 have been unable to pin down this structural problem and address it fully and this is the main reason why so many of them failed miserably to achieve any difference’” (Belev, 2003).

“... almost everywhere in Bulgaria it is a common practice that people use connections, patronage, family and friends networks to deal with everyday problems. Kinship and friends networks are seen more as moral support than functional” (Marc and Kudatgobilik, 2003).

Such social norms can probably change slowly with factors such as good national leadership, increasing education and a successful introduction of impersonal social insurance schemes. But in the short to medium term, they mean that given policies may work differently in different countries – in the same way that policies in Italy produce rather different results in the North as compared to the South.

#### 4. Enforcement, tax administration and tax incentives

A limited number of countries have undertaken a general review of policies towards informal employment and undeclared work, focusing on potential changes in legislation and administration. Recommendations have generally emphasised labour market enforcement mechanisms and tax measures: additional themes include influencing public attitudes and simplifying red tape to facilitate entry to the formal economy. Annex 5.A2 (see OECD, 2004b) briefly summarises these policy reviews.

##### A. Enforcement measures

Some expert observers criticise enforcement: “it does not make much sense to fight illicit work with intensified controls and higher fines. The tendency to engage in shadow economic activities should be perceived as a warning signal by politicians” (Enste, 2003). However, some framework of enforcement measures and sanctions is certainly necessary to counteract tax evasion. SECO (2000) notes that the DIY and self-help sectors of the economy engage in a form of competition with the official economy which provides flexibility and competitiveness, and goes on to argue that the availability of this safety-valve undermines the case for tolerating any other form of the underground economy.

Enforcement measures focusing on the detection, observation and reporting of work plausibly may succeed in reducing the size of the category “wholly-undeclared work by employees”. There will be some exceptions in cases where work is not done at an easily-visible work-site (which is commonly the case for black-market work) and, as already discussed above, these measures will tend to be less effective in tackling the under-declaration of work by employees who are correctly registered.

##### Workplace inspection visits

Workplace inspection visits are the basic procedure used by inspectorates to identify undeclared work. Tax inspectorates are concerned with many forms of tax and tax evasion and owing to the low earnings involved in undeclared work often give it low priority, so labour, social security, and benefit fraud inspectorates often play a key role in workplace inspections.<sup>56</sup>

According to Mateman and Renooy (2001), surveying developments in seven EU countries, in general terms “control activities are intensified in almost all countries”. In Germany, there was a “huge increase in control efforts” with 2 800 employees in the Labour Offices and 1 100 in the Customs police (to be increased to 2 500) devoted to undeclared work.<sup>57</sup> In Belgium, staffing of the labour and social security inspectorates increased from about 800 in 1995 to 1 200 in 2003 – which remains about 20 times lower than it is for the tax inspectorate (Pacolet and Marchal, 2003a).

For small firms, it is practically impossible to conduct systematic checks and inspectorates have to rely upon a strategy of deterrence, *i.e.* unannounced inspection visits, imposing sanctions and requiring regularization of employment when undeclared employment is detected. Mateman and Renooy (2001) report increases in legal maximum

finances for illegal employment in most countries surveyed, although time-series data on this point are not available. Nevertheless, Pirenne (2003) notes that in some sectors, particularly hotels, restaurants and horticulture, in Belgium the same employers are often sanctioned several times, showing that the penalties are no longer dissuasive.

### **Requirements for immediate declaration of businesses and employment relationships**

Many European countries have recently introduced requirements on employers to immediately declare new employment relationships:

- In France, since 1993, employers are obliged to declare an employee (currently via the *déclaration unique d'embauche*, DUE) to the social security body URSSAF before work starts.
- In Belgium, since 1 January 2003 employers must declare employees immediately (*Dimona*).
- In Italy “The INAIL counter required individual insurance of workers, by name, as soon as they were hired. This was a major step forward, but it also had the effect of swelling the number of accidents reported on the first or second day at work (that is, many workers were insured only after they had accidents)” (Meldolesi, 2003).

This requirement seems to be far from universal. OECD (1998) reported that in Ireland (where administrative cross-checks between receipt of benefits and payment of employee contributions were lacking), “There is an obvious incentive for people who start work to ‘forget’ to inform the benefit authorities for as long as possible. In order to tackle this problem, Ireland has introduced regulations requiring employers in construction, forestry, road haulage, contract cleaning, security, catering and the bar trade to send in a Notification of Employment form to DSW within one month of a new employee or subcontractor being taken on. DSW issues notification receipts, which can be checked by inspectors visiting the workplace.” However there was still no general requirement for declaration of new hires. This is a typical example of a regulation which some countries find necessary in order to tackle tax evasion, while others feel the need for it, but nevertheless consider that the regulatory burden involved is not justified.

A related issue is the frequency of employer remittances of withholding tax, with lists of the employees concerned, to the tax authorities. If the frequency is monthly, work-site inspections should find that, on any work contract that has been in existence for more than a month, withholding taxes have already been paid. This will make it difficult to evade taxation on temporary contracts that are longer than this.

In a similar move, in the United Kingdom as from 2000 new businesses have been required to register with the Inland Revenue as soon as they are set up, whereas previously registration could take place up to 18 months later (Mateman and Renooy, 2001). Many European countries have a requirement for businesses to register before they can start trading.

### **Legal responsibility for the actions of subcontractors**

To combat chain subcontracting (described above), many European countries have now made the chief contractor of a chain legally responsible for compliance with regulations, including tax liabilities, by subcontractors:

- In France in 1995, six professional organisations in the building industry and civil engineering adopted a new standard contract for subcontracting. This contract includes a provision requiring the company that subcontracts to make sure when concluding a contract that the subcontractor exercises the activity within regular conditions, excluding all kinds of undeclared work.

- Germany, from 2002, introduced in the construction sector the principle of general contractor's liability for the social security contributions of the contracted firm (EC, 2003).
- In the Netherlands, the *Law on Ultimate Responsibility in the clothing industry* came into force of 1994, allowing the authorities to claim tax and social security debts of subcontractors (usually clothing workshops) from contractors.
- Under the UK *Inland Revenue Construction Industry scheme* introduced in 1999, building industry contractors may only pay their subcontractors gross if they hold a particular certificate from the Inland Revenue. This measure is one of the most recent in a long line of initiatives that have attempted to regulate casual labour in the construction industry.

In Sweden, the National Tax Board in 1998 set up a "subcontractor chain analysis" project group aimed at the building industry. The procedure is that *e.g.* a big building company is asked to submit information on what subcontractors it uses. These subcontractors are subsequently asked what subcontractors they use, etc. Having identified all parties and levels within a building project, the information from the companies and from the tax authorities database is linked. If strange proportions between contract value and salaries arise from this analysis, undeclared work is most probably involved (Mateman and Renooy, 2001).

### **Exchange of information and unique social security numbers**

Another trend identified by Mateman and Renooy (2001) is a steady increase in co-operation between control bodies, meaning chiefly the exchange of information. In Germany, "[t]he exchange of data between authorities, mainly intended to reveal benefit fraud, has been improved. Since the beginning of 1998 the social assistance offices have been integrated into this automatic data exchange". And in the Netherlands, "on 1 July 1998 the so-called *Koppelingswet* (literally: Linking law) came into force. [This] allows for the extensive linking of client files from *e.g.* social security institutions, social services, Inland Revenue and health insurers. This link is made possible by the Social Fiscal Number, which should be registered in all these files." National Action Plans for Employment (EC, 2003) report further measures. In Ireland, individuals not recorded on the tax system are identified among other things by information on rent subsidy payments, purchases of property, etc. In Greece, the labour inspectors and OAED (the Public Employment Service) are developing computer infrastructure to allow widespread exchange of information within OAED and with social security records. In the United Kingdom, "the Social Security Fraud Act (2001) set out new stronger powers allowing Authorised Officers to access information from certain organisations, including banks, building societies, utilities and educational establishments, to help combat social security fraud... The UK experience indicates that the key to successfully addressing the problem of undeclared work lies in developing a co-ordinated strategy linking the work of all the public agencies which have an impact on illegal working."

In some countries, steps to link data have been challenged on grounds of data protection and privacy. Another concern is that existing registers have uneven coverage, and the use of them to detect irregularities may unfairly target particular social groups. This may argue for approaches based on a unique social security number for each person, which is used to match data across a fairly wide range of functions and registers in an explicitly-defined and transparent way. Belgium introduced a social security card (SIS) in 1998, with a requirement on all employees to have the SIS card with them at the workplace: this allows for faster and more foolproof controls by the social inspectors of the Labour Administration (Bruyninckx, 1998). Related to the exchange of information are measures to prevent people from obtaining false

identities: the United Kingdom has tightened procedures for checking birth certificates and issuing new National Insurance numbers (EC, 2003).

One data match which seems to be lacking or sporadic in most countries is a real-time link between the records of social security contributions (paid on behalf of an employee by the employer) and social security benefits paid to the same person. In Switzerland, SECO (2000) recommended exchange of data from unemployment insurance records with old age and survivors (AVS) contribution records.

### ***Employer denunciation of unfair competition and collective agreements***

Some countries actively encourage employers to denounce competitors who are not complying with regulations.<sup>58</sup> Collective agreements may commit both parties to denounce black-market work. In Belgium, a recent agreement with the Labour Ministry commits the cleaning and transport sectors to informing the public about the quality and guarantees offered by enterprises which respect the law, to notify illegal practices to public authorities and themselves take cases to court (Pacolet and Marchal, 2003b). In Switzerland, collective agreements in construction, plasterwork, painting, hairdressing, heating, ventilation, plumbing, metalwork and carpentry contain measures against black-market work, and have been extended to all employers in these sectors (SECO, 2000).

### ***Employee rights as an incentive for denunciation***

Employee rights to social security benefits or employment protection can create an incentive for employees to inform the authorities when they are laid off, even from undeclared work:

- In Japan, “the PES accepts claims for [unemployment] benefit even when the employer has not actually paid insurance contributions. An enterprise that does not pay insurance contributions thus runs a risk of detection when a former worker applies for benefit. A system of insurance benefits, although it may lead to some fraudulent claims, can make a significant contribution to suppressing undeclared work in the economy as a whole if workers losing jobs are actively encouraged to claim” (OECD, 1993, p. 74).
- In France, a leaflet gives the following example “Following a disagreement between Madame Y and her undeclared employee, the employee is fired. She then goes to the workers’ tribunal. Madame Y is sentenced to pay her lump-sum compensation equivalent to 6 months of salary” (URSSAF, 2003).

However, although rights enforceable against the employer help in regularizing employment relationships once they have started, they also make employers reluctant to hire employees who have these entitlements. This approach may lead employers to prefer illegal migrants, who will not bring any complaints because they do not have a work permit.

### ***Sanctions and amnesties***

As in other policy areas, in a theoretical view low rates of detection need to be accompanied by strict sanctions in order to enforce compliance. However, there are practical objections to this: heavy sanctions on an employer may lead to closure of their business with the loss of its regular as well as its irregular jobs; the self-employed who previously were only concealing some work may be driven wholly underground; and when undeclared work reflects genuine difficulty in complying with complex regulations, heavy fines seem contrary to natural justice.

Grabiner (2000) considered the option of a general amnesty but concluded based on experience from several other countries that they were perceived as unfair, tended to create an expectation of future amnesties, and generated little revenue. However according to Tapinos (2000), experience in Europe with illegal migrants shows that the only choice is between repeated amnesties and discreet amnesties carried out on a case-by-case basis. This is certainly true if non-compliance has been tolerated in a particular sector for years. Legislation will typically require that all evaded taxes are repaid. If this is enforced, even businesses which want to register will be deterred from doing so, whereas governments will want to reward rather than punish the first firms in the sector that regularize their activities. Against this background, it is easy to understand why Italy's policies have long included amnesties in various forms (the principle is inherent in "re-alignment agreements"). However, this underscores how essential it is not to tolerate undeclared work in the first place. If the problem is kept limited in size, the principle of repayment of all evaded taxes can be maintained even when this drives existing businesses into bankruptcy, with discreet amnesties existing at most in the form of regularization by the back door (*e.g.* closing and reopening the firm while keeping production facilities unchanged, as described by Meldolesi, 2003).

### **B. Tax administration and tax structure**

There is not necessarily a political consensus for reducing the total tax burden specifically in order to reduce the size of the informal economy, which would in any case be long term strategy. *Methods* of tax administration and the *structure* of tax rates are little-analysed and probably more feasible areas for policy action.

#### **Methods of tax administration**

Avoidance, evasion and administration are central, not peripheral, concepts in public finance (Slemrod and Yitzhaki, 2000). Although incomes are the most appropriate base for much of the tax burden in principle, taxes are frequently levied in practice on more readily-monitored indicators of taxable capacity.<sup>59</sup> For small manufacturing, retail and service businesses, the most visible indicator of taxable capacity may be the number of people found at work during work-site inspections. As explained above, to tackle under-declaration tax authorities have to also enforce various regulations which put a floor on the amount to be paid per registered worker, and businesses and households then have an incentive to employ prime-aged males working long hours and a disincentive to employ lower-productivity workers such as part-timers and secondary family members on a registered basis.

As an alternative tax collection strategy, administrations can attempt to assess the value added (sales, less allowable non-labour inputs) from a business directly. This method starts by checking total sales. Typically, tax authorities will require all but very small firms to implement accounting procedures (*e.g.* for retailers, require the use of secure tills with daily recording of till receipts), and check on a sample basis whether sales are correctly recorded in the accounts.<sup>60</sup>

In the United Kingdom, "Catch teams" make observations of cash transactions and check whether business owners are registered and whether their declared income appears to be reasonable in relation to the number of customers, opening hours, etc., where there is any suspicion of illicit income the authorities can present themselves and check all the transactions made in the course of one day; these transactions are then compared with sales on other days. This method results in a substantial increase in declared income...

experience... is that it is necessary to work in the field, that observations are often more rewarding than the information contained in computers and that it is necessary to operate without warning at any time during business hours” (RRV, 1998).

Once a business’s value added has been determined, then – regardless of whether the level of value added so determined is actually accurate – there may be no tax incentive to conceal labour input, because value added that is not reported as labour costs becomes taxable as net profit, which often (see below) is subject to a similar or higher overall rate of tax.<sup>61</sup> In some OECD countries such as Australia the tax collection strategy clearly does focus on business record-keeping and accounts, rather than the detection of work and employment relationships or the enforcement of employment regulations,<sup>62</sup> yet there is little evidence of any general tendency in the economy to conceal labour inputs (though cases of concealment do arise when additional incentives come into play, such as illegal migrants who will work for low wages, or informal suppliers who are concealing most or all of their sales). Rates of tax evasion can be high in some areas,<sup>63</sup> but nevertheless these strategies are found mainly in countries with a relatively small underground economy.

In order to assess taxable capacity in terms of gross business income and value added, tax authorities need to have discretionary powers that allow them to promote reliable accounting, *e.g.* allowing a high tax liability to be estimated or fines to be imposed when a business presents incomplete or implausible accounts, and does not promise to introduce more transparent and verifiable accounting procedures. At the institutional level, the tax administration which has responsibility for taxing profits would have the prime responsibility for taxes on labour costs as well. The tax administration would also need a remit and adequate staffing to allow assessments of small businesses, and not only tackle cases of large-scale evasion while smaller businesses are left to the labour inspectorate or social insurance authorities.

The possibility of focusing tax administration on assessing total value added, rather than labour input, is relevant mainly for wholly-undeclared work and under-declared work. It does not solve the problem of “black market” work where, as defined in Table 5.1, the final sale itself is concealed, typically through payment in cash with simultaneous concealment of earnings. However, field work can aim to ensure that when black-market work expands to the point of becoming a regular business activity which engages in arms-length trading, a business is registered and starts to keep accounts.

### **Relative tax rates and tax schedules**

The incentives generated by tax rates and tax schedules can be analysed by considering the change in total tax payments when a business distributes a given amount of pre-tax value added by different methods or to different economic actors. In a small family business, decisions on whether value added takes the form of profits or wage and salary income and whether the wage and salary income is paid to two employees or just one can be made almost at will. In other small businesses, the employer and employees may also co-operate to use the most tax-efficient method, irrespective of how the after-tax earnings are finally distributed between the different parties. In the economy more broadly, the same incentives will affect more substantive decisions on whether an individual works as self-employed or does similar work as an employee, and on hours worked by different members of a household. In general, the incentive response is likely to consist of a change in the declared situation, part of which is a change in the real situation, while conventional statistics have limited ability to distinguish between the two.

**Average tax rates on self-employment.** Relatively high or low effective average tax rates on incomes from self-employment as compared to wages and salaries may influence the share of self-employment in total employment. For Hungary, where the self-employed could pay a fixed minimum social security contribution, Scharle (2002) explains that in the early 1990s a large proportion of unincorporated firms were established to evade taxes on wages (a conclusion based on analysis of their cost structure), but since then improved tax enforcement and increases in relative tax rates on self-employment have led to a declining trend in self-employment.

Cullen and Gordon (2002) estimate using US individual tax return data that the tax rates on business versus wage and salary income have a large effect on behaviour, such that a shift to a 20% flat tax on all income would virtually triple the self-employment rate. This highlights the great extent to which tax rates on distributed profits (the sum of corporate tax rates and taxes on dividend income, in the case of incorporated enterprises) are higher than they are on wages and salaries in the United States. It seems likely that this structure of taxation plays a role in achieving a situation where most labour income in the economy is paid in the form of wages and salaries.

Some reasons that it might be good policy to keep self-employment at a relatively low level include:

- This reduces aggregate tax evasion because rates of tax evasion on declared wages and salaries are very low (due to tax withholding and the possibility of matching personal income tax returns with employer returns).
- Record-keeping and accounting, to accurately determine the net income from self-employment, involve high monitoring costs for tax authorities and high compliance costs for the worker.<sup>64</sup>
- Where self-employment is high in high-income countries, many of the self-employed resemble dependent employees. For example in Italy positions as “collaborator” are commonly advertised and the business which advertises will usually have an existing management strategy, business premises and customer base, while the collaborator gets good idea of his/her likely earnings before agreeing to join the business. There are wide variations in the proportion of self-employed who have no employees (OECD, 2000a, Table 5.4), so the technical or efficiency costs arising when this proportion is kept fairly low do not appear to be large.

**Tax rates on profits earned by business owners as compared to wages and salaries paid to their employees.** The tax incentive for small businesses to declare the wages and salaries of their employees depends upon the effective marginal tax rate on business profits,<sup>65</sup> as compared to the average or marginal tax rate on labour incomes, which are deductible from business profits. If this tax rate on profits is relatively low, there is a direct incentive for undeclared work, i.e. the payment of wages wholly or partly in cash. In a simple tax system, assuming that the business owner’s true earnings exceed those of his or her employees, distributed profits from a small business do tend to face a higher marginal tax rate than wages and salaries within the same business because:

- In the case where the business owner is self-employed (also including owner-managers of incorporated businesses who take profits as wage and salary)<sup>66</sup> the profits are taxed as personal income of the business owner, and face a higher marginal tax rate than wages and salaries owing to the progressivity of the personal tax schedule.

- In the case where the business is incorporated under a “classical” tax system, business profits are subject to corporation tax and dividends distributed to the business owner are subject in addition to personal income tax.

After about 1980, tax rates on distributed corporate profits are likely to have fallen relative to those on labour costs in many countries. There were substantial reductions in top marginal rates for personal income taxes and reductions in corporation tax rates (Leibfritz *et al.*, 1997), and many tax systems were changed to mitigate the double taxation of dividends.<sup>67</sup> These changes would have weakened although not necessarily removed tax incentives for declaring wages and salaries, in the incorporated case.

Various situations where effective marginal tax rates on business profits are below those on labour costs can arise:

- If personal income taxation is regressive (*i.e.* marginal rates are lower on higher incomes) owing to a ceiling on social security contributions whose impact is not offset by progressivity in the personal income tax.
- If scheduled social security contribution rates for the self-employed are lower than for employees.<sup>68</sup>
- If profits of small businesses are assessed using simplified tax reporting procedures and benchmark ratios. An extreme example would be taxation of shopkeepers on the basis of square metres of the shop and other observable characteristics.<sup>69</sup> In this case, the effective *marginal* tax rate (on the profits of the business owner, when they vary as a function of compensation paid to employees) is actually zero.
- If income distributed as wage and salary is subject to high rates of social security contributions which are not payable on dividend income, and profits distributed as dividends to the owner of a small incorporated business are not heavily taxed (*e.g.* because corporate tax rates are low and/or because dividends are relieved from double taxation).

It is difficult to determine in detail in which countries one (or more) of these situations arises, but some relevant information is available relating to the situation in 1999 and 2000:<sup>70</sup>

- Ceilings on social security contributions, which make this component of the personal tax system regressive, are a significant feature in Austria, Canada, France, Germany, Greece, Ireland, the Netherlands, Spain and Turkey. However in several cases they apply only to certain categories of contribution, and the schedule for social security contributions combined with personal income tax may remain progressive.
- The self-employed in Czech Republic, Greece and Portugal were allowed to pay lump-sum contributions or lower contribution rates than employees, and the self-employed in Hungary, Mexico and Spain had access to special simplified tax regimes (Chen *et al.*, 2002).
- A number of OECD countries gave full relief from double taxation on profits distributed as dividends (Chen *et al.*, 2002, Table 2). However, the majority of these countries have other unusual features which tend to prevent marginal tax rates on distributed profits from falling below those on wages and salaries: no social security contributions are payable on wages and salaries in Australia and New Zealand; social security contributions and personal income tax are payable at the margin on profits of small businesses in Finland and Norway,<sup>71</sup> and there is an additional tax on profits in Germany (trade/franchise tax). Three other countries that taxed dividends only as personal income (*i.e.* with no corporate tax, net of arrangements for relieving double taxation) in 1999 were Greece, Italy and Mexico.<sup>72</sup> This resulted in a relatively low maximum tax

wedge on distributed corporate profits in these countries (Joumard, 2001, Figure 9) where, with the partial exception of Mexico, wages and salaries are subject to relatively high social security contributions.

In general it appears that countries with high levels of informal employment may often have at least one route through which the marginal tax rate on profits received by a business owner can be less than it is on the wages and salaries paid to his or her employees. This is less often the case, or only to a slight extent and when social security contributions are counted as a pure tax, in high-income countries with low levels of informal employment.<sup>73</sup> These countries when they have reformed corporate taxation, have often remained attentive towards the risks of this form of tax arbitrage of this kind.<sup>74</sup> And undeclared work is hardly an issue in some high-income non-EU countries – particularly Canada, the United States and Japan – which have a strong tax bias towards declaration in the corporate case.<sup>75</sup> The situation in CEE countries seems similar to EU countries, as regards corporate and personal income tax schedules, but is characterised by high social security contributions on wages and salaries, with lower social security contributions and weak assessment regimes for self-employment incomes.<sup>76</sup> So cross-country comparisons seem consistent with the idea that this factor influences undeclared work. Further research is needed although, owing to the complexity and variety of taxation (and social security) systems, no simple statistical assessment of the tax incentives for under-declaration can be expected.

It is probably not practical for low-income countries with high rates of self-employment to avoid some use of simplified tax reporting and assessment procedures for self-employment incomes in the short term. The tax administration and the administered population are not able to put practices of record-keeping and checking audit trails into place overnight and the process must be seen as one of longer-term transition, rather than only certain legislative requirements and tax rates. Middle-income countries nevertheless need to pay careful attention to these issues of administration and rate structure in order to keep moving towards a situation where fiscal incentives – rather than tight surveillance – are the main proximate factor motivating the declaration of labour incomes.

**Incentives for declaring a larger number of employees.** A further tax issue which arises is that, for a given total amount of wages and salaries paid, a progressive system of taxation of individual earnings creates a tax incentive, for firms and households, to declare a larger number of employees. For example, the United Kingdom in 2000 had a zero rate of social security contributions on about the first GBP 4 200 (USD 7 500) of annual earnings, and a 22.2% rate (employee plus employer contributions) on higher earnings. So a switch of wage and salary from a higher-earning employee to a new employee (in a small business, this might be a secondary family member working part-time) provided a net tax saving of about GBP 1 000 (USD 1 700) per year (over 5% of an average full-time wage) while also creating some social security entitlements for the part-time employee. The tax system in Nordic countries is similar insofar as income taxation is high and is a progressive function of individual rather than household income.<sup>77</sup> Since savings or costs of this kind are both large and permanent, they are likely to influence employment patterns in international comparison more than formal labour market programmes, which offer hiring subsidies or social security concessions on a temporary basis and involve much less money.<sup>78</sup> Tax incentives for declaring part-time or part-year workers may in the long run also cause the regulatory framework, as determined in collective agreements and legislation, to adapt to the needs of these forms of employment.

### **Tax incentives and concessions targeted on sensitive sectors**

A number of European countries have reduced tax rates in sectors where undeclared work is widespread. Measures include Service employment cheques in France and the *Haushaltsscheck* in Germany (allowing some of the employer's spending on domestic staff to be deducted from taxable income), and rebates on personal income tax for construction work on owner-occupied houses and apartments in Sweden.<sup>79</sup> One risk with these measures is that incentives may arise for new forms of collusion, *e.g.* false invoices for work that has not really been done, up to the limits on tax deductions.<sup>80</sup>

Smaller but uncapped tax rate reductions include reductions in VAT rates on rebuilding works in France (1999-2002, but subsequently prolonged) and Italy (from 2000), a reduction in VAT on various labour-intensive services (bicycle repair, barbers, housing renovation, clothing repair and shoe repair) from 17.5% to 6% in 8 EU countries (from 2000) (RRV, 1998; Mateman and Renooy, 2001). In addition to VAT measures, in Italy social security (other than pension) and workers compensation contributions in the building sector were, from 1995, reduced for full-time blue-collar workers (amount varies from year to year). Two risks with this approach are:<sup>81</sup>

- A sector where effective tax rates have been reduced to low levels may get less attention from tax inspectorates, so that lower rates of detection offset the reduced financial incentives for evasion.
- The tax system is made more complex and this in general opens up new possibilities for evasion, *e.g.* by running two businesses and booking sales so far as possible to the category that enjoys reduced VAT rates.

## **5. Delivering social protection in an economy with informal employment**

### **A. Social insurance and social assistance**

#### **Social insurance**

Social insurance systems in economies with informal employment are often relatively ineffective, owing to gaps in coverage and high contribution rates relative to benefits.<sup>82</sup> Unemployment insurance benefits are relatively short in duration (often up to one year) in Greece and Italy, some other OECD countries such as Portugal in the past, and the Baltic states: but as compared to Canada, Japan, and the United States (other OECD countries with relatively short UI durations) these countries have a high incidence of long-term unemployment. Apart from the problem that the most disadvantaged unemployed will exhaust benefits, two other problems with such systems are:

- With short-duration UI and often few job openings in the formal sector, authorities are likely to consider that intensive job-search monitoring and assistance is not justified since the resulting benefit savings are limited. The United States seems to be the only country with short-term UI benefits that engages in significant job-search monitoring.<sup>83</sup>
- Contribution-based UI is open to abuse when informal-sector employment is available. In Italy, “workers combine spells of unemployment, funded by state benefits, with periods of formal or informal employment. A common pattern is for construction firms to hire workers on the books for the minimum number of weeks legally required for benefits and then to dismiss them and rehire them informally through subcontractors. Similar findings have been reported in Greece and in Northern Ireland” (Portes and Haller, 2002).

Marc and Kudatgobilik (2003) conclude that: “In the poor countries of Southeast Europe, in which potential for large savings is limited and informal activity is widespread, financing social protection and health insurance through payroll taxes does not seem to be appropriate. It can only increase the rigidity of the labour market, be very costly in terms of tax collection and ineffective in mobilizing savings. It also contributes to social exclusion by not covering people employed in the informal sector – this is particularly relevant for health insurance. A major effort in this area is needed by governments and donors to find more effective ways of financing social programs.”

### **Social assistance**

OECD (2003b) analyses the problem of delivering social assistance in the Baltic States at some length: information about individuals is lacking, and either individuals are able to claim full benefits by reporting no incomes, or some combination of “categorical” benefit criteria with partial assessment of more particular needs is used with social workers usually responsible for assessing the likely level of the actual incomes. While some form of social assistance in the sense of municipal assistance which may be highly discretionary exists in most countries, many OECD countries have difficulty in administering guaranteed minimum income schemes:

- In Greece, “problems in under-reporting income for tax purposes mean that it is unlikely that any government initiative will be taken in this direction, as it would result in many, who have income from other sources, being subsidized” (quoted in Eardley *et al.*, 1996).
- In Italy, “Two serious obstacles seem to be blocking the road to a full implementation of the minimum income scheme: the weak institutional capabilities of local administrations and the specific socio-economic environment of the Italian South... RMI is demanding in terms of institutional capabilities and managerial skills. Moreover, there is a risk of functional overload: rather than a programme of last resort, RMI tends to become ‘the only game in town’” (Moreno *et al.*, 2003).
- In Portugal and Spain, where minimum incomes have been introduced in the 1990s, these schemes “remain frail”, although Portugal’s scheme (first introduced in 1997) is continuing with fairly minor changes after being renamed in 2002 (Moreno *et al.*, 2003).
- The Slovak Republic, which seems to be one of the few transition countries to have a general entitlement to social assistance, had in 1999 a very high reciprocity rate for this benefit, and the highest overall ratio of beneficiaries to the working-age population yet recorded (OECD, 2003a).

Thus, OECD countries where according to Tables 5.3 and 5.5 the informal economy is about 5% of GDP seem usually to be able to administer social assistance as a minimum income system, with means-testing based on declared incomes; the Slovak Republic with an informal economy share between 5% and 10% of GDP has a national scheme, but has found it difficult to administer; and countries with informal economy shares above 10% of GDP rarely implement a minimum income scheme, at least not at national level (in Spain the situation varies by region since the regions finance and define the schemes). Where there are difficulties in setting a general minimum income, restrictions such as time limits (if the time limit is quite short) or a very low benefit level do not really improve the welfare trade-offs involved.<sup>84</sup>

Despite potential difficulties, minimum income schemes may as discussed in Section 3 above contribute to discouraging and detecting undeclared employment.

Through vigorous efforts to detect and suppress benefit fraud, countries such as Portugal and the Slovak Republic can both ensure the viability of the benefit system and favour the transition to declared employment.

### **B. Targeted conditional transfers and labour market programmes**

Targeted conditional transfer (TCT) programmes give cash grants to poor families with children on the condition that they visit health centres and/or keep their children in school. TCTs were introduced in the early-mid 1990s in the form of *Bolsa Escola* in urban Brazil, and subsequently *Progresa* (now renamed *Oportunidades*) in Mexico and PETI in rural Brazil, and similar programmes are being created in Honduras, Nicaragua and Ecuador.

In the case of *Progresa*, which began in 1997, targeting was accomplished by first selecting communities using a marginality index based on census data, then conducting a census of all households in the selected marginal localities, to calculate household per capita income. The first criterion alone (targeting on marginal localities) allows targeting of the poor with far less error than was the case in earlier milk and food subsidy programmes (Skoufias et al., 2001). PETI instead chooses the localities with the highest incidence of the worst forms of child labour. In implementing these schemes, local schools and health centres are important stakeholders and various agents of civil society are actively involved in monitoring and enforcement and this promises better success for these programs than other social protection programs (Sedlacek et al., 2000). Evaluations show a relatively strong positive impact from *Progresa*. In 2002 its name was changed to *Oportunidades* and it received a USD 1 billion loan – the largest ever – from the Inter-American Development Bank to extend it to urban areas.

In countries without unemployment benefits, receipt of unemployment benefits cannot be the main basis for targeting of labour market programmes as it is in many other OECD countries. Participation in programmes is voluntary, the authorities do not generally have records of participants' labour market status prior to participation or after participation, and spending on active programmes remains relatively low. Relief work schemes are a traditional way to deliver poverty relief on an assistance basis, with targeting on need: relatively low wages ensure that only those really in need apply for the work. In Mexico, spending on the *Programa de empleo temporal* (PET) peaked in 1999. This and the training programme *Probecat*, which provides small grants to participants, are the main items of spending on active labour market programmes.

## **Conclusions**

Although levels of informal employment in a majority of OECD countries are fairly low, keeping them low is an important policy objective. In other OECD countries, where informal employment is moderately high, action is needed across a wide range of policy areas. This section discusses key policy issues and strategic recommendations which might be used for the reassessment of the Jobs Strategy.

First, this chapter recommends a definitional framework which links the production and employment perspectives on the informal economy, and encompasses the types of informality that characterise high-income, middle-income and low-income countries. Particular policies are likely to be more effective against some types of informality than others. Because of the multidimensional nature of informal employment, the use of different types of measurement methodologies is recommended (e.g. self-standing

interview surveys, national accounts estimates of the non-observed economy, and theoretical tax liability calculations, supplemented by field-work research).

Second, an overall strategy to reduce informal employment should include governance issues such as providing an effective legal framework for transactions in the formal economy; adequate pay for public servants; and improving the administrative capacity of central government, particularly the tax authorities, across the country.

Third, the strategy needs to take into account the complex interactions between employment regulations, tax collection and informal employment. Although overly strict regulation of declared work tends to drive workers into informal or wholly undeclared work, the chapter also considers that tax authorities often rely on the regulatory framework to improve tax collection among declared workers. For example, if some employers only declare the minimum wage, paying the rest of wages in cash, tax revenues will be maximised at a relatively high level of the minimum wage which excludes the least-productive workers in the economy from formal employment. This example may help in understanding why middle-income countries often seem to be locked into a combination of strict regulation of formal work alongside high levels of informal employment. Therefore, though “deregulation” may sometimes be appropriate, the general need is to devise better-quality regulation which promotes tax-collection and other objectives effectively, but with low compliance costs. Enforcement measures such as work-site visits that directly detect undeclared work and requirements on employers to immediately report new hires can be effective particularly in minimising wholly-undeclared work, and this approach can be enhanced by measures of co-ordination and exchange of information between different government services. However some of these measures impose additional costs on employment relationships, and are not so effective in countering under-declaration of work. Therefore, economic incentives for the declaration of work should be created where possible. Where an incentive approach is working, regulatory and tax-related barriers to low-paid, part-time, or temporary employee work can be relaxed allowing higher rates of formal dependent employment, particularly as measured on a head-count basis, to be attained.

Fourth, tax authorities should strive to accurately assess the value added (i.e. sales less purchases) that is generated in small businesses. This creates an incentive for the declaration of wages and salaries. For example, if business owners do not keep true accounts and are taxed in a “presumptive” way – based on simple indicators such as the floor area of their shop – they face a zero true marginal tax rate on profits, and in this case the business will minimize declared wages and salaries and pay its employees in cash, so far as possible. Where business owners are taxed on the basis of true profits and the marginal tax rate on profits is higher than it is on wages and salaries, there is a positive incentive to declare a maximum amount of wages and salaries.

Fifth, policies need to be kept in line with current realities. In low- and middle-income economies, the self-employed are typically independent workers without employees, with low earnings, and are not expected to pay significant amounts of tax. In high-income economies with low levels of undeclared work, there are fewer self-employed, but they typically have relatively high earnings and have responsibility for declaring the wages and social security contributions of their employees, as well as keeping sales records and other accounts as the basis for an accurate determination of profits. Policies cannot promote an overnight switch to this second type of situation, so the focus needs to be upon promoting a longer-term transition to it. Existing regulations and reporting requirements need to be enforced with sanctions, but

at the same time possible opportunities for relaxing “bad” regulations and red tape need to be kept in mind. A comprehensive and in some respects gradual policy strategy is needed.

Finally, in countries where the incidence of informal employment remains high, social and labour market policies need to be designed and delivered differently as compared to the prevailing models in high-income countries. Social assistance benefits to help the needy cannot be targeted mainly using administrative records of household income, and active labour market programmes cannot be targeted mainly on the registered unemployed. However, in general well-managed social programmes can contribute to tackling informality: for example, the payment of adequate unemployment benefits combined with effective checks on fraud can reduce the incidence of low-paid informal work, and public placement services can promote job vacancies in the formal economy.

## Notes

1. Jacques Charmes, Søren Pedersen, Margit Schratzenstaller and Peter Birch Sørensen are thanked for comments, and advice contributed to this chapter.
2. OECD (2003b) – studying the three Baltic states Estonia, Latvia and Lithuania – notes that: “social spending amounts to 15 to 17% of GDP in the three countries, of which 10 to 13% represent income transfers to households... This is substantially less than in most EU countries, and also less than in Poland, though comparable with the spending in the United States, Canada and Australia. Much of the difference in public social spending compared with EU countries concerns the two biggest items: health care and pensions. Spending on labour market programmes also appears modest by international standards... Notwithstanding these apparently moderate spending levels... the rates of income tax and social security contributions charged on employment are among the highest in the world. This situation... appears to be largely a result of underreporting of incomes, work in the informal sector and, in Latvia and Lithuania, the fact that many self-employed persons do not need to contribute more than small amounts to social insurance.”
3. “Foreigners realize at once that everything is relative in Italy. We don’t allow anyone to enter to work, but then we reward the transgressors by legalizing them all [a reference to Italy’s 5 waves of regularization between 1986 and 2002]. From their point of view, our contradictions are seen as an unreliable attitude, which makes them not very confident in legal behaviour and favours exploiters” (Reyneri, 2003b, citing a social worker).
4. By contrast, in the Emilia-Romagna region of northern Italy, informal production seems to be quite efficient: “Workers are hired informally, but are paid reliably and are treated as apprentices who would be eventually able to set up their own firms... Many small firms concentrated on performing certain manufacturing operations or on producing certain manufacturing operations or on producing certain parts of the machine... Thus a subsystem of enterprises gradually evolved in which there was no leading firm. The factory that produced the final good did not necessarily constitute the centre of the system because its role was often only that of assembling various parts produced by other firms” (Capecchi, 1989, cited by Portes and Haller, 2002). However, this apparent efficiency probably survives only thanks to partial toleration on the part of the authorities, a feature which creates many other problems.
5. Southern European countries became countries of mass immigration only in the late 1980s and 1990s. Greece, Portugal and to some extent Italy and Spain introduced regularisation measures, stronger employer sanctions and other legislation mainly in the latter 1990s and 2000s, and these measures may have taken effect more recently.
6. For example, it will be easier for trade in stolen cars to flourish in an economy where garages are already unregistered enterprises with undeclared employees.
7. EC (1998), after giving the definition of undeclared work cited above, immediately reports that the undeclared economy is between 7% and 16% of EU GDP.
8. Work that is illegal in terms of absence of a work permit or other factors usually also involves non-payment of tax, i.e. cases of tax evasion include other cases of significant illegality. Social insurance entitlements can be retained despite under-declaration of work or work in a concealed secondary job, and can be absent in entirely formal jobs (due to minimum contribution requirements, and the omission of the self-employed from some schemes, etc.), so insurance entitlements cannot be used to define informality and formality.

9. Renooy *et al.* (2004) suggest a distinction between “linked”, “semi-autonomous” and “autonomous” undeclared activities, where “linked” activities take place within a regular firm but off the books, and “autonomous” activities consist of the sale of goods and services direct to the consumer. Household, barter and reciprocal work are proposed as a final category.
10. Unregistered work in a family business could also be described as “purely informal”: the authorities hardly check whether the declared employees are the real ones.
11. Subsistence incomes may not be taxed partly because taxable capacity is low: in the Baltic states “qualitative poverty conditions are incomparably different from those found in richer countries, as illustrated by much higher food shares in household consumption. In 2000 and 2001, the poorest quintile (i.e. the poorest 20%) of Latvian households and the three poorest deciles (the poorest 30%) of Lithuanian households spent over half of their total incomes on food alone” (OECD, 2003b).
12. “The informal sector in the country is neither entirely legal nor completely illegal; it operates extensively in a grey area ranging from fully within the law to entirely outside it. A number of assessments carried out through direct surveys or indirect methods show a level of informal sector presence in the economy oscillating from 30 to 40 or 45% of the GDP. Thus, we have a rather large informal sector, but the depth of informality is quite different in various economic activities. The informal sector in Albania appears in some typical forms: the activity of rural families; individual or familiar micro-business, mainly temporary and almost entirely not registered; registered businesses, small, medium or large in size, which operate at different levels and forms of informality; illegal and criminal activities, such as money laundering, smuggling, for instance, which in certain cases can be disguised as legal businesses” (Ruli, 2003).
13. “With regard to normal under-declaration and fraud with tax deductions and interests received, only the one party (the doer) knows that the activity in question is not declared to the authorities. Black activities in a narrow sense thus cover those cases where the buyer and seller of the activity concerned are aware of, or suspect, that the activity is not declared to the tax authorities. Here, both buyer and seller share, so to speak, the tax and VAT saved” (Pedersen, 2003). To clarify and implement this definition, Rockwool Foundation questionnaire surveys incorporate an introductory text which is read out to respondents: “... large parts of the population accept black activities and non-invoiced transactions, i.e. activities which are kept outside the tax system, where all parties benefit because they save on tax and VAT, etc.”
14. Pahl (1988) concludes: “The UK’s irregular economy is almost entirely a problem of tax evasion by those, mainly the self-employed, who are in work.” RRV (1998) concludes that: “The largest groups of illicit workers are self-employed persons and students. Salaried employees and pensioners are under-represented.”
15. Tax evasion by shopkeepers which involves underreporting of gross sales without collusion on the part of the customer is not naturally described as “undeclared work” because there is no concealment of work (the hours of shop opening are visible, and not in any way concealed). Kesselman (1997) sees the “underground economy” and “pure tax evasion” as the two main types of informal economy.
16. “Underground production” may however be a concept with narrower coverage than “undeclared work” if businesses declare their sales correctly, but without declaring employee incomes as a deductible expense, paying employees in cash instead. This is illegal but in some circumstances it can allow a tax saving as discussed in Section 4.B.
17. Under-declaration, i.e. situations where employers declare only part of the wages that are paid to employees, is not always recognised in the literature. However, there is extensive evidence for its importance. In Italy: “in areas in Campania, we encountered semi-informal workers, under a formal contract of employment, but paid for a smaller period of time than put in. This type of what is known as ‘light’ or ‘white’ wages, which is widespread also in Puglia and in Basilicata is, as we discovered, made easier in part by certain policies geared to the formalise the economy” (Bàculo, 2002). In Bulgaria: “There are plenty of cases in which the terms of the written labor contract do not correspond to the real working conditions, particularly with regard to payment and hours worked. Companies might declare official wages to be lower than the real ones. In this way a part of the value added is not officially declared... According to another non-representative survey of small and medium-size businesses in Bulgaria, the number of people employed without a labor contract made up only 2.2% in 1998... Work on a fake labor contract is a much more common and significant way to participate in the informal sector of the economy. Its share is relatively high – 22% of all contracts according to the 1996 national survey. In a 1999 survey nearly two-thirds of the participating managers replied that this practice was common for most firms...” (Chavdarova, 2003). Cash payments are called “envelope salaries” in Estonia (UNECE, 2003) and other Baltic states (OECD, 2003b), and according to Renooy *et al.* (2004) these exist in practically all of the CEE

- countries, though sometimes only in particular sectors (see also Section 3.A). Bernabé (2002) describes a different phenomenon of “left-hand work” which “is usually done during working hours, using state tools equipment and means of transport”, which was widespread in the Soviet Union and has continued in Georgia and Russia after the transition.
18. The Rockwool Foundation questionnaire – in particular the text read out to respondents (see note 13 above) – specifically evokes black market transactions, and not pure tax evasion or under-declaration of earnings from the main job or pure tax evasion. In Sweden, RRV (1998) attempted to include pure tax evasion by the self-employed in its questionnaire survey but this was exceptional. Under-declaration of employee earnings in the main job may involve black market transactions by the employer, not by questionnaire respondents. The questionnaire approach could be modified to include direct questions about pure tax evasion and cash payments of employee earnings, so that coverage is closer to that of the concept of underground production in Table 5.1, but there may be additional doubts about response accuracy for such questions.
  19. In the French garment industry, undeclared work takes place in two different forms. At the top end of the market, the workshops themselves are visible to public authorities but “[f]ull-time workers are routinely declared as part-time, others are hired under temporary contracts (that often last less than a week) every time an order comes in, some are ‘borrowed’ from other firms, and still others are classified as ‘freelance’”. In the “low-road production methods” sector, “[m]any of [the] sites fit the traditional profile for homework production set-ups, with one or more family members producing garments for a contractor directly out of a family home... [T]hese arrangements are concealed from easy public view: they are tucked away in basements or living rooms of suburban houses, squeezed into extra bedrooms or kitchens of crowded city slum apartments, or hidden in tool shacks at the edges of overgrown vegetable gardens. Perhaps the most important reason why these production spots are covert is their complete reliance on undeclared labour. Their employment arrangements are uniformly and wholly undeclared...” (Iskander, 2000).
  20. Yfantopoulos (2003) explains that: “[i]n the middle of the 1970s, Spain, Portugal, Italy and Greece introduced laws aiming to create a new National Health Service. The British model was taken as a template, but without taking into account the necessity for a simultaneous structural and organisational reform.” He reports that in Greece, doctors work for the National Health Service in the morning and for private clients in the afternoon and evening, although this is legally forbidden. In Jamaica in 1983, employer withholding taxes fell short of scheduled rates for over 90% of higher-paid public sector employees, probably related to a pervasive practice of treating earnings as overtime even though overtime was illegal in the public sector (Alm et al., 1990).
  21. ILO (2002) reports informal employment in total non-agricultural employment for many countries, estimated by the residual method, i.e. comparing population census data with establishment survey data: but the only OECD country covered is Mexico, where an estimated 55% of non-agricultural employment is informal. Meldolesi (2003) argues that administrative statistics by themselves are useful for policy purposes: the aim of regularization policy can be to increase employment, as measured by administrative statistics for payments of social security contributions, towards the EC objective of 70% of the working-age population. Additional statistics are not essential, when it is already clear what actions need to be undertaken. Indeed, high-income economies historically achieved their transition to a salaried economy despite a lack of large banks of comparable data. Pacolet and Marchal (2003b) by contrast argue that adequate statistics are a necessary precondition for the struggle against black-market work.
  22. Konijn (2003) explains that although random tax audits could in principle provide relatively direct estimates for the extent of hidden incomes, this approach has given few results because most countries undertake tax audits only in cases where there is prior suspicion of evasion and the results cannot be grossed up.
  23. Borghi and Kieselbach (2000), citing irregular employment rates of 30% and more for Greece, Italy and Spain, report that their interview research for the YUSEDER (youth unemployment) project: “basically confirms the general hypothesis that the submerged economy plays only a limited role in the lives of long-term unemployed young people in *northern European* countries. For example, the submerged economy appears very sporadically in the results of the study conducted in Belgium... The submerged economy seems to be of equally limited importance to the phenomenon of youth unemployment, as is in fact shown by a study conducted in Sweden... the submerged economy seems to play a greater role in Germany... Nevertheless, in the German case the effects of the submerged economy were relatively limited... The situation in the three *southern European* countries is very different, however. National estimates of the consistency of the submerged economy in each of the three countries in question show a socio-economic reality that is strongly conditioned by this phenomenon... Our field research has confirmed these differences between the northern and southern European countries involved in the study.”

24. In Australia 6% of survey respondents reported receiving cash-in-hand payments, with an average value of about AUD 2 000, over the last 12 months (Schneider *et al.*, 2001).
25. For Czech and Slovak Republics between 1995 and 2002, Hanousek and Palda (2003a, 2003b) report a steady increase in the proportion of survey respondents who “often” or “sometimes” engaged in the undeclared sector between 1995 and 2001, from 15.8% to 23.9% in Czech Republic and from 9.1% to 16.6% in Slovak Republic. Average weekly hours, when reported, were 3.2 in Czech Republic and 5.7 in Slovak Republic so the findings do not imply particularly high total hours of undeclared work.
26. GDP includes imputed rents and household production of goods for own use. Within the income analysis of GDP, labour costs include imputed contributions to pay-as-you-go pension schemes.
27. For example if family budget surveys correctly state spending on food but understate spending on drink, while excise tax records understate spending on food but correctly report spending on drink, the items “food” and “drink” need to be balanced separately, to give a correct estimate.
28. Other methods used to improve “exhaustiveness” of the national accounts include special estimates based on surveys of household spending and the commodity balance for construction materials to estimate income from home repairs and improvements; estimation of gross rental income from a household survey of rents paid multiplied by official estimates of the number of rental units in the housings stock, to avoid reliance on tax reporting of rental income; using the survey of household spending to impute income from childcare services; using findings from tax audits which have estimated the extent of understatement of incomes; and using labour force surveys, population censuses and industry surveys to estimate the proportion of employment that is not covered in the register of enterprises (which is often a principal source for the production and income estimates of GDP).
29. See the German submission to UNECE (2003). Konijn (2003) similarly warns: “National accounts concentrate on including non-observed income in their measure of GDP. They do not, in principle, attempt to separately estimate the size of the non-observed economy (because that would have no economic significance). Usually they do not try either to explicitly measure undeclared income. Although this is an interesting aggregate, it is difficult to achieve in practice. It would imply breaking each part of the accounts down into a declared part and another undeclared part. There simply do not exist statistical sources allowing this operation to be done.”
30. Employer social security contributions are less than half of non-wage labour costs in some countries, including Canada, the Netherlands, the United Kingdom and the United States (1996 data from OECD *National Accounts*, 1984-96, Vol. II).
31. Non-wage labour costs for domestic staff may be high if declared expenditure on child-care is heavily subsidised (creating an incentive for declaration). Also, food and lodging for domestic staff might be counted as a non-wage labour cost.
32. Value added in the domestic staff sector appears only as compensation of employees in Germany, but is mainly included with gross operating surplus in the Netherlands.
33. Renooy *et al.* (2004) come to a similar conclusion, citing for example a figure of 3-4% of GDP for Belgium, which has been credited with a share of over 20% in some other EU sources (see EU, 2000).
34. The share of underground production in GDP at market prices seems to be about the same as survey-based estimates for the share of black activities in total employment. However, the latter is well above the share of black activities when valued at actual purchaser’s prices. This could be correct because, as noted in Section 2, underground production is a broader concept than black activities. Implementing both approaches to measurement can give fairly robust aggregate estimates for the size of the informal economy. The surveys give information about demographic and related characteristics of respondents.
35. As shown in OECD *Taxing Wages*, the social security contribution rate is the same at 67%, 100% and 167% of APW earnings in 16 of the 28 countries where rates are non-zero.
36. Another quirk is that in Poland, receipts reported as employer contributions (*i.e.* this is their attribution in *Revenue Statistics* 1965-2001, Table 63) are also described as the joint receipts of the “social insurance fund, labour fund and farmers’ insurance fund”. This suggests that the reported figure in fact includes employee contributions. This issue does not affect the total for employer plus employee contributions.

37. In Norway the business profits of closely-held corporations – roughly speaking, those where the working managers are also the main shareholders – above a fixed rate of return on invested capital are treated as earnings of these working managers subject to social security taxes as well as personal income tax (see <http://odin.dep.no/fin/engelsk/> – direct taxes).
38. A possible explanation for the large shortfall in Poland is that some nonfarm employees pay (low) contributions to the (heavily subsidised) KRUS agricultural fund, rather than the general fund (ZUS). In principle, this is allowed when the employee is a member of a farmer household and the non-farm activity is related to the agricultural land, but lax interpretation of these criteria is a suspected abuse. This might be counted as a form of undeclared work.
39. The “quirks” in high-income countries include some affecting the national accounts: some countries may be attributing the exhaustiveness adjustments entirely to the income category of gross operating surplus, when they should appear partly in compensation of employees; and some appear to include in their regular tabulations only part of the underground economy that studies have identified (see the notes to Table 5.5 concerning Australia and Canada).
40. Blakemore *et al.* (1996), extrapolating from a detailed investigation of a sample of 875 firms in Illinois in 1987, estimated that US employers failed to report 13.6% of their workers resulting in loss of 4.2% of the theoretical take for UI taxes. Evasion was often done by treating employees as independent contractors for tax purposes. Pacolet and Marchal (2003a) estimate based on audit information that about 6% of social security contributions in Belgium in 1995 were not collected (they also list some higher estimates by other authors). Tansel (2000) cites estimates for Turkey, relating to 1989, 1994 and 1996, according to which either 25% or 35% of wage earners do not have social security coverage, and thus work in the informal sector. In Korea in 1999 when UI coverage was extended to most sectors apart from government regardless of firm size, about 35% of those covered by law were not actually registered in the Employment Insurance database (Hur, 2000). In Mexico nearly 70% of the economically active population (including the self-employed) does not contribute to social security (Packard *et al.*, 2001).
41. See note 25 above: however, the time-series information is based on retrospective recall in a single survey so its reliability is unclear.
42. In the United Kingdom, a 1981 official report estimated that 8% of those on unemployment benefit were unlawfully working. In the Restart programme, from 1986, many benefit claimants failed to turn up for interviews and lost benefits, and this was interpreted by ministers and senior officials in terms of the programme’s effect in deterring undeclared work (Price, 2000).
43. In financial terms, social security fraud in the United Kingdom is estimated to cost about GBP 2 billion each year, of which around 60% relates to claims for Income Support, Jobseeker’s Allowance and Housing Benefit ([www.targetingbenefitfraud.gov.uk](http://www.targetingbenefitfraud.gov.uk)) (this is about 3% of amounts paid out under these headings). However, these seem to be lower estimates, because based on cases with a strong suspicion of fraud but without actual proof, there are (or were) strong indications that a further GBP 3 billion is lost each year (Darling, 1999).
44. In some historical or international comparisons, a high overall tax burden may tend to arise in situations where tax rates on distributed profits are even higher than those on employee incomes. If there is good compliance with these higher rates a positive effect on the declaration of employee incomes is predicted, as discussed in Section 4.B.
45. At the microeconomic level, Pedersen (1999, 2003) reports that average and marginal tax rates are on average slightly lower for those who carry out black activities. Carillo and Pugno (2002) argue that the regions in the South of Italy are characterised by lower development and a more widespread underground economy, even though they are subject to broadly the same tax system and regulations as in the North. However, regional estimates for irregular employment suggest that its incidence is high even in the North of Italy (Muratore, 2003).
46. When employment regulations are implemented on an all-or-nothing basis, stricter regulations seem likely to increase the incidence of wholly-undeclared work. But when there is a grey area of partial compliance, enforcement measures may reduce its size. Fraser (2000) argues that enforcement of minimum wage requirements in the United States can reduce employers’ incentives to hire illegal migrants with falsified work documents.
47. A system where taxes must be paid on a single minimum wage fails to fully exploit the taxable capacity of above-minimum-wage earners. However, some countries with high levels of informal employment have a complex structure of minimum wages related to one or more of the variables industry, occupation, skill level, job tenure and marital status. In Latin America, multiple minimum wages are not uncommon (Gindling and Terrell, 2004). In six out of thirteen countries surveyed, more than 10% of all workers earn below the minimum wage (IADB, 2004). Situations

where employers pay tax on the minimum wage for their formal-sector workers, who are actually paid either more or less than this with relatively little attention from the authorities, cannot be ruled out in some countries. This interpretation may help to explain findings that wages at higher levels react to changes in the minimum wage (even where a structure of wages relative to the minimum is not officially specified, tax authorities and firms assume this as a basis for tax negotiation) and why wage levels in informal employment rise when the minimum wage rises (findings by Maloney and Nuñez, 2001).

48. In Hungary, tripartite negotiations over the minimum wage from 1990 to 1998 resulted in a steady decline in its real value, which was dramatically reversed in 1999-2002 when the government set the minimum wage unilaterally (Kertesi and Köllö, 2003). The government is currently maintaining a fixed rate of employer health contributions (17% of the minimum wage) for fiscal reasons (OECD, 2004a).
49. Italy's "realignment" contracts concerning "on-the-books" underground employment (*i.e.* jobs that are formally declared but with salaries not actually paid in full) are "spontaneous agreements between business and unions" (Meldolesi, 2003).
50. As noted in Box 5.5, the meaning of the proxy-based estimates used is unclear.
51. Torrini (2002) finds that self-employment rates are generally related to product market regulation (as well as tax and social security contribution rates, in countries in countries with a high "perceived corruption" index). An example of such regulation is granting incumbent (small) retailers powers to prevent large chain stores from entering local markets.
52. The incentive in terms of social security entitlements for secondary workers to work informally is noted for Spain by Ahn and de la Rica (1997). Diamond and Gruber (1997) estimate that in the United States the effective payroll tax (contributions, net of the expected social security benefits related to the contributions) is much higher for the secondary worker than for the primary worker in a married couple.
53. Similarly Marc and Kudatgobilik (2003) report that in poorer countries of Southeast Europe the creation and growth of enterprises is severely constrained by poor and arbitrary enforcement of legal, regulatory and administrative rules. Citing examples from the the United States, Portes and Haller (2002) argue that in the absence of supervisory agents: "Isolated arms-length transactions may still occur among strangers, such as the quick sale of a contraband good, but the activities that require greater resources and a longer-time perspective are subject to every kind of uncertainty and peril."
54. Tapinos (2000) in a survey of work by illegal migrants writes: "In reality, there is usually quite a gap between being found breaking the law and being found guilty in a court of law. It is hardly surprising, therefore, that the legal process comes to a halt somewhere between the two as a result of local considerations and political pressures that highlight the difficulties that enterprises would face if they had to pay for labour at the current market rate and the risks that a cessation of activities would have on the employment of nationals." Treisman (2000, 2003) presents a model where subnational governments can "compete to offer 'protection' to enterprises against the central government's tax collectors, regulators, or bankruptcy agency" by allowing them to cumulate tax arrears. Treisman finds that in Russia "fiscal decentralization" – where regional governments are given a proportion of the taxes collection in their region – has been associated with a reduction in tax arrears.
55. Interestingly, the most specific factor identified by Viby Mogensen (2003) as a cause of Denmark's long-term fall in under-declaration is the progressive increase in the skills of tax authorities at the expense of locally-elected politicians. The more general factors he identifies are increasing acceptance of taxation and recognition of the benefits that it provides, and development from an agricultural and barter economy towards a more sophisticated and regulated economy with larger companies and fewer self-employed.
56. Tax authorities give low priority to undeclared work both in Spain (Mateman and Renooy, 2001) and the United Kingdom (Grabiner, 2000). "During the OECD's site visits in Latvia and Lithuania, it emerged that labour inspectors visited many of the larger firms regularly, imposing fines on employers when employment contracts were lacking... Estonia's labour inspectorate until recently checked the legality of all new contracts reported to them, a practice currently being reconsidered... The collection of taxes and social security contributions falls under tax authorities, not the labour inspectorates. In Latvia, however, a labour inspectorate visited by the OECD co-operated with tax authorities, making joint inspections in enterprises to check tax payments and employment conditions at the same time" (OECD, 2003b).
57. One innovation reported by Germany is the hiring of private detectives to catch shadow economy workers (EC, 2003).

58. In France “Employers may denounce individuals who supply undeclared work (generally in cases of unfair competition)” (Mateman and Renooy, 2001). In Quebec, a website for plumbing professionals sets out how they can denounce black-market competitors ([www.cmmtq.org](http://www.cmmtq.org)). In the United Kingdom the government set up a business anti-fraud hotline in 1998 which claimed immediate success ([www.dwp.gov.uk/mediacentre/dss/](http://www.dwp.gov.uk/mediacentre/dss/), January and February 1998). The front page of the Australian Tax Office website ([www.ato.gov.au](http://www.ato.gov.au)) invites all callers to report suspected tax evasion.
59. Countries with low literacy rates tend to rely on highly distorting but (relatively) easily collectable import and export taxes; developing countries generally make pervasive use of “presumptive” taxes, where the presumed tax base is a formula based on readily-monitored items, e.g. taxation of taxi drivers on the basis of accumulated mileage of the taxicab (Slemrod and Yitzhaki, 2000). Taxation also took the form of import and export tariffs, road tolls, window and hearth taxes etc. in European countries at earlier stages of development. Jenkins and Khadka (2000) give a striking general description of tax administration in low-income countries, its impact on economic relationships and possible modernisation strategies.
60. In Sweden, the government is considering whether to introduce approved cash registered in sectors where direct sales to the public take place, i.e. secure systems for preserving information and preventing manipulation (EC, 2003). The use of electronic methods of payment such as credit cards also facilitates tracking of sales.
61. The converse does not hold: even if the tax authorities assess labour input, they need to assess value added as well. Given limited resources for assessment, it may be most efficient to concentrate them all on assessing value added, although it might also be argued that assessment at both points can achieve lower overall rates of tax evasion.
62. Tax enforcement strategies in Australia, described in some detail in ATO (1998; 2003) focus on failure to register a business or lodge a tax return and the existence and regularity of a business’s financial records, with essentially no attention to the detection and reporting of labour input.
63. Extrapolations from the US Taxpayer Compliance Measurement Program, which audited a random sample of income tax returns, suggest that in 1992 nonfarm sole proprietors reported about 68% of their net business income. Informal supply (e.g. home and auto repairs, domestic services, for cash) accounted for about 21% of aggregate net income under-reporting by all tax filers (Erard, 1997). The aggregate impact of tax evasion in self-employment in the United States is partly limited by its low employment share (about 7%, outside agriculture).
64. The costs of complying with tax reporting and other accounting requirements are substantial, as documented *inter alia* by OECD (2001), cited above. Because economies of scale and the division of labour can reduce these costs, a dependent employment status – leaving the employer to handle these issues – will be preferred by most workers if there is no tax advantage or evasion opportunity in self-employment. The salaried economy is maintained by business owners (with employees) who handle paperwork, accounting and tax affairs as well as bearing business risk: but the business owners need to be rewarded as a scarce productive resource rather than through concessionary tax rates.
65. The term “effective” is used here in the sense of “truly applying” rather than “statistical mean”. The term “marginal” refers to how tax changes when taxable profits change, in contrast to certain tax literature where this term refers to calculations about the return on a marginal investment (which is affected by accelerated depreciation allowances, etc.). And “business profits” refers to “pure profits” which include the return to entrepreneurial effort and effectiveness, not “normal profits” (the market rate of return on invested capital) which in some countries are taxed separately.
66. Owner-managers of incorporated businesses (OMIBs), who may take income from their business either as dividends or as wage and salary, are the most important borderline case in defining self-employment. Their propensity to report themselves as self-employed is not known. Surveys in some countries ask the self-employed further questions to identify OMIBs who are then reclassified as employees, and this in some cases sharply reduces the reported level of self-employment. Usually about 20% to 50% of the self-employed have employees (more in Denmark and Germany, fewer in Belgium and Italy) (OECD, 1992).
67. “Double taxation of dividends at the company and the personal level was the rule in the industrialised countries up to the 1970s. Although the EU Commission failed in its program to harmonize corporate income tax systems... all but one of the 15 member countries have meanwhile adopted measures to reduce the double taxation of corporate profits” (Genser, 2001).
68. The personal income tax schedule usually applies to self-employment incomes in the same way as wage and salary incomes. OECD (1992) documented that social security contribution rates for the self-employed in 1990 were about the same as the employer and employee rates combined for

dependent workers in Australia, New Zealand and Denmark (countries with rates near zero) as well as Finland and the United States, but in other countries were often about half as high. In some non-OECD countries rates for the self-employed, especially marginal rates, can be minimal e.g. in Latvia and Lithuania, “many self-employed persons do not need to contribute more than small amounts to social insurance... Non-agricultural self-employed persons in Lithuania are mostly enrolled in social insurance, though seldom contributing for more than the minimum wage. This is a condition for licensing in the business register, which is compulsory for them but not for farmers” (OECD, 2003b).

69. Grabowski and Smith (1995) argue as a compromise solution for transition economies (but they do not consider the implications for the self-employed who have employees) for making “the maximum possible use of presumptive and lump-sum taxes, set broadly in line with the average tax burdens that the activities covered would incur if taxed ‘properly’”.
70. The tax structures involved in reducing double taxation have changed considerably in recent years (Hamaekers, 2003).
71. “Small businesses” here refers to “closely held” corporations: see note 37 above and literature on “dual income tax” systems for further details. In this case, low tax rates on dividends apply to a fixed rate of return on capital invested in the business but not to a marginal change in profits.
72. France also gave full relief from double taxation, but had a relatively high top tax rate on distributed profits for other reasons.
73. The combined corporate and personal income tax wedge on distributed profits for top earners was lower than the average tax rate on labour incomes (for the case of a single person at 100% of the average production worker earnings level, including social security contributions) in 1999 and/or 2002 in the four OECD transition countries (Czech Republic, Hungary, Poland and Slovak Republic), in dual-income-tax countries where closely-held corporations are taxed very differently (Finland, Norway and Sweden) and by small amounts in Belgium, Italy, Germany and Greece (tax rates from OECD *Taxing Wages*; Joumard, 2001; and Schratzenstaller, 2003). Taxes on distributed profits will be lower in cases where the business owner’s income is below the top tax-rate band, and marginal rates on labour incomes will often be higher than average rates: so in these countries in a range of small business scenarios, tax savings could arise from paying employees wholly or partly in cash. In other OECD countries (including Korea, Mexico, Portugal, Spain and Turkey) top rates on distributed corporate profits are commonly 10 to 35 percentage points higher than average rates on labour incomes, suggesting that there is no general incentive for non-declaration of wages and salaries in the corporate case.
74. In Germany the principle that the corporate tax on retained profits should not be below the top marginal rate of the personal income tax has been a prime political constraint through many changes in tax policy (Ganghof, 2000).
75. Lee and Gordon (2003) find, using binned time-series data from 1972 to 1998 for 87 countries, that social security tax revenue (which reflects wage and salary income) is positively correlated with the top corporate tax rate and negatively correlated with the top personal income tax rate, i.e. they find that relative statutory tax rates on wages and salaries vs. corporate profits influence whether the value added generated by businesses is paid out as wages and salaries, or channelled into corporate profits. Italy in 1985 had a lower statutory top corporate tax rate than any other OECD country except Switzerland, in their data. They argue that low corporate tax rates encourage “entrepreneurial activity”, but the data are consistent with other mechanisms including a shifting volume of “envelope wages”, i.e. cash payments to employees from the business owner, in lieu of declared wages and salaries.
76. Employer plus employee social insurance contribution rates are 45% and more in Czech Republic, Hungary, Poland and Slovak Republic, and 33% or more in other transition countries (those with data in Dabrowski and Tomczynska, 2001 and OECD, 2003b). Limited administrative resources and other factors which magnified the difficulty of assessing small business incomes in transition economies are described by Grabowski and Smith (1995).
77. OECD (1990), Chart 6.8, showed a cross-country correlation between a tax variable – the tax saving (in 1974-78) when the husband’s salary falls from 1.33 to 1.00 times the average production worker (APW) level, while the wife’s salary increases from zero to 0.33 times the APW level – and the female part-time labour force participation rate. Denmark, Norway, Sweden, the United Kingdom and Australia showed relatively high values for both variables. A general argument that the participation decision – more than the hours decision – is responsive to such incentives especially among the lower skilled is advanced by Roed and Strøm (2002).

78. Germany has a partly-similar tax provision which gives low-wage jobs (for some years, jobs paying less than DEM 630 per month; since 2003, those paying less than € 400) exemption from employee contributions and reduced employer contributions. This is seen partly as a measure for promoting employment in its own right, but also as a measure that allows a portion of shadow economy activities to be done legally.
79. In France, the use of Service employment cheques exempts the employer from administrative formalities attached to hiring and employing employees: the cheque is a means of payment which also functions as an employment contract for a fixed-term or part time job. Employers pay substantial social security contributions, but 50% of the total labour cost up to a ceiling can be claimed as a tax credit. The number of employers registered for the scheme rose from 250 000 at end 1995 to nearly 800 000 in 2002, employing over 400 000 employees, each working an average 400 hours per year (Adjerad, 2003). In Germany the Haushaltsscheck has been relatively little used owing to a low (10%) rate of tax incentives for the employer, restrictive conditions that applied up to 2003, and more recently the lack of additional social insurance entitlements for workers in “minijobs” (Jaehrling, 2003).
80. RRV (1998) suggests a generalisation of the principle of tax deductions for household maintenance services. “Taxpayers could be granted a basic deduction up to a certain amount, provided that they present receipts and invoices...” or this system could be simplified by allowing taxpayers to “submit a list of the invoices and receipts that established their eligibility for tax rebates or deductions, and the tax authorities could then carry out spot checks”. This would encourage purchasers to ask for invoices and reduce the tax bias in favour of DIY production. But it would also create paperwork and new possibilities for evasion.
81. Pacolet and Marchal (2003b) argue against the general principle of removing tax liability in cases where tax is more difficult to collect.
82. OECD (2003b) cites several examples of this from the Baltic states.
83. Sanction rates for 14 countries (Gray, 2003, Table 1) show that Canada and Japan had the lowest rates of sanction for failure to seek work and refusal of suitable work: these are two of only three countries in the table that had an unemployment benefit duration below a year (not counting Australia and the United Kingdom which have indefinite-duration assistance benefits).
84. Time limits on social assistance face problems similar to time limits on social insurance, noted above. As Grabowski (2003) notes, very low benefits which do not really relieve poverty create incentives for taking informal jobs.

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