Turkey
Country Economic Memorandum

Informality: Causes, Consequences, Policies

March 2, 2010
Poverty Reduction and Economic Management Unit
Europe and Central Asia Region

Document of the World Bank
# ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEEPS</td>
<td>Business Environment and Enterprise Performance Survey</td>
</tr>
<tr>
<td>BRSA</td>
<td>Banking Regulation and Supervision Agency</td>
</tr>
<tr>
<td>CEM</td>
<td>Country Economic Memorandum</td>
</tr>
<tr>
<td>CIT</td>
<td>Corporate Income Tax</td>
</tr>
<tr>
<td>DYMIMIC</td>
<td>Dynamic Multiple Indicator-Multiple Cause</td>
</tr>
<tr>
<td>EPDK</td>
<td>Energy Market Regulatory Authority</td>
</tr>
<tr>
<td>EPL</td>
<td>Employment Protection Legislation</td>
</tr>
<tr>
<td>ERF</td>
<td>Economic Research Forum</td>
</tr>
<tr>
<td>ES</td>
<td>Enterprise Survey</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>FTZ</td>
<td>Free Trade Zones</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>HBS</td>
<td>Household Budget Survey</td>
</tr>
<tr>
<td>HLFS</td>
<td>Household Labor Force Survey</td>
</tr>
<tr>
<td>ICA</td>
<td>Investment Climate Assessment</td>
</tr>
<tr>
<td>ICSE</td>
<td>International Classification of Status in Employment</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labor Organization</td>
</tr>
<tr>
<td>ISKUR</td>
<td>Turkish Employment Agency</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>KADIM</td>
<td>Struggling Against Informal Employment</td>
</tr>
<tr>
<td>LFS</td>
<td>Labor Force Survey</td>
</tr>
<tr>
<td>LSE</td>
<td>Labor Supply Elasticity</td>
</tr>
<tr>
<td>MIMIC</td>
<td>Multiple Indicator-Multiple Cause</td>
</tr>
<tr>
<td>MLA</td>
<td>Minimum Living Allowance</td>
</tr>
<tr>
<td>MOLSS</td>
<td>Ministry of Labor and Social Security</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
</tr>
<tr>
<td>OTV</td>
<td>Special Consumption Tax</td>
</tr>
<tr>
<td>PIT</td>
<td>Personal Income Tax</td>
</tr>
<tr>
<td>PJH</td>
<td>Programa Jefes de Hogar</td>
</tr>
<tr>
<td>POSS</td>
<td>Plan Obligatorio de Salud Subsidiado</td>
</tr>
<tr>
<td>RA</td>
<td>Revenue Administration</td>
</tr>
<tr>
<td>RA</td>
<td>Revenue Administration</td>
</tr>
<tr>
<td>SA</td>
<td>Social Assistance</td>
</tr>
<tr>
<td>SGK</td>
<td>Social Security Institution</td>
</tr>
<tr>
<td>SISBEN</td>
<td>Sistema de Identificación de Beneficiarios de Subsidios</td>
</tr>
<tr>
<td>SPO</td>
<td>State Planning Organization</td>
</tr>
<tr>
<td>TAPDK</td>
<td>Tobacco and Alcohol Market Regulatory Authority</td>
</tr>
<tr>
<td>TFP</td>
<td>Total Factor Productivity</td>
</tr>
<tr>
<td>TUIK/TURKSTAT</td>
<td>Turkish Statistical Institute</td>
</tr>
<tr>
<td>UI</td>
<td>Unemployment Insurance</td>
</tr>
<tr>
<td>VAT</td>
<td>Value Added Tax</td>
</tr>
<tr>
<td>VRR</td>
<td>Value Added Tax Revenue Ratio</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
</tr>
<tr>
<td>WB QFS</td>
<td>World Bank Qualitative Firm Survey</td>
</tr>
<tr>
<td>WBHHI</td>
<td>World Bank Household Informality Survey</td>
</tr>
</tbody>
</table>
### TABLE OF CONTENTS

EXECUTIVE SUMMARY ................................................................................................................................. I

1. INTRODUCTION ........................................................................................................................................... 1

2. DEFINITIONS AND CONCEPTUAL FRAMEWORK ...................................................................................... 4
   2.1 DEFINING AND MEASURING INFORMALITY ............................................................................................... 4
   2.2 FRAMEWORK FOR ANALYSIS AND POLICY CONSIDERATIONS ................................................................. 5
   2.3 KEY CONCEPTS ......................................................................................................................................... 5

3. TRENDS AND PROFILE ............................................................................................................................ 6
   3.1 THE NATURE OF INFORMALITY IN TURKEY AND ITS MEASUREMENT ............................................................ 6
   3.2 TRENDS AND COMPOSITION OF INFORMAL EMPLOYMENT .................................................................... 9
   3.3 FIRM INFORMALITY .................................................................................................................................. 14

4. CONSEQUENCES AND COSTS .................................................................................................................... 18
   4.1 FISCAL COSTS OF INFORMALITY ................................................................................................................ 18
   4.2 THE IMPACT OF INFORMALITY ON FIRM PERFORMANCE AND GROWTH .................................................... 21
       4.2.1 An estimate of the productivity gap between formal and informal firms ........................................... 23
       4.2.2 Potential growth effects of a formalization policy ............................................................................ 27
   4.3 ECONOMIC AND SOCIAL VULNERABILITY ............................................................................................ 29

5. CAUSES ....................................................................................................................................................... 31
   5.1 STRUCTURAL AND NON-CORE FACTORS .............................................................................................. 32
   5.2 “CORE” FACTORS ..................................................................................................................................... 34
       5.2.1 The role of tax policy ....................................................................................................................... 34
       5.2.2 The role of the tax wedge ............................................................................................................... 38
       5.2.3 Labor market flexibility ................................................................................................................... 39
       5.2.4 Enforcement of tax, social security and labor legislation ................................................................. 44
       5.2.5 Institutional strength and control of corruption ............................................................................ 47
       5.2.6 Social Assistance programs ............................................................................................................ 48
   5.3 SOCIAL NORMS AND THE VALUE CHAIN ............................................................................................ 53

6. CONCLUSIONS: AN INTEGRATED POLICY RESPONSE ............................................................................ 54

7. REFERENCES ................................................................................................................................................. 61
TABLE OF FIGURES

FIGURE 1: DEFINING INFORMALITY ..................................................................................................................... 4
FIGURE 2: CONCEPTUALIZATION OF THE TYPES OF INFORMALITY ................................................................. 5
FIGURE 3: INFORMAL ECONOMY AS % OF GDP – CROSS COUNTRY COMPARISON ........................................ 8
FIGURE 4: PERCEPTIONS OF TAX REPORTING .................................................................................................. 8
FIGURE 5: LONG-TERM TRENDS IN INFORMALITY RATES .............................................................................. 9
FIGURE 6: 2001-2008 NON-AGRICULTURE INFORMALITY ............................................................................. 9
FIGURE 7: COMPOSITION OF INFORMAL EMPLOYMENT IN TURKEY .......................................................... 10
FIGURE 8: INFORMALITY RATES AND EMPLOYMENT COMPOSITION BY EMPLOYMENT SECTOR IN TURKEY (2001 – 2006) ........................................................................................................ 10
FIGURE 9: CHANGE IN INFORMALITY BY SECTOR AND RELATIVE WEIGHTS .............................................. 11
FIGURE 10: INFORMALITY BY EDUCATIONAL ATTAINMENT ............................................................................ 12
FIGURE 11: INFORMALITY RATES AND EMPLOYMENT COMPOSITION BY EMPLOYMENT STATUS ........ 13
FIGURE 12: INFORMALITY BY AGE GROUP AND GENDER ALL WORKERS ...................................................... 13
FIGURE 13: INFORMALITY BY AGE GROUP AND GENDER NON-AGRICULTURE SECTOR ................................ 14
FIGURE 14: INFORMALITY RATES AND EMPLOYMENT COMPOSITION BY FIRM SIZE IN TURKEY (2001 – 2006) ...................................................................................................................... 15
FIGURE 15: ARE INFORMAL PRACTICES WIDESPREAD? .............................................................................. 16
FIGURE 16: INFORMAL BUSINESS PRACTICES ............................................................................................... 17
FIGURE 17: BUSINESS TRANSACTIONS ........................................................................................................... 18
FIGURE 18: VAT REVENUE RATIO .................................................................................................................... 20
FIGURE 19: ESTIMATES OF REVENUE LOSSES FROM TAX EVASION .......................................................... 21
FIGURE 20: NON-REGISTRATION OF FIRMS WITH THE TAX OFFICE, CHAMBERS OF COMMERCE/INDUSTRY AND SOCIAL SECURITY ................................................................................................ 22
FIGURE 21: TOTAL FACTOR PRODUCTIVITY GAP .............................................................................................. 23
FIGURE 22: TOP TWO OBSTACLES FOR DOING BUSINESS .............................................................................. 25
FIGURE 23: PERCEPTIONS – ARE INFORMAL PRACTICES WIDESPREAD? ....................................................... 26
FIGURE 24: PERCENTAGE OF FIRMS FACING INFORMAL COMPETITION 2005 VS 2008 .............................. 26
FIGURE 25 A AND B: SIMULATION RESULTS OF A FORMALIZATION POLICY ........................................... 27
FIGURE 26: EMPLOYMENT EFFECTS OF FORMALIZATION SIMULATION RESULTS ........................................... 28
FIGURE 27: SURVEY RESULTS: HOW LONG WOULD YOU BE ABLE TO SUSTAIN YOUR LIVING IF YOUR INCOME WAS CUT OFF? ........................................................................................................ 29
FIGURE 28: SURVEY RESULTS: ARE YOU SATISFIED WITH THE CURRENT ECONOMIC CONDITION OF YOUR FAMILY? ........................................................................................................... 29
FIGURE 29: THE IMPACT OF THE GLOBAL ECONOMIC CRISIS – BREAKDOWN OF A POTENTIAL INCREASE IN POVERTY ......................................................................................................... 30
FIGURE 30: THE COVERAGE OF THE INFORMAL WORKERS ............................................................................ 30
FIGURE 31: RETURNS TO EDUCATION IN THE FORMAL AND INFORMAL SECTORS ......................................... 30
FIGURE 32: HOW MUCH OF THEIR TAX LIABILITIES DO YOU THINK TURKISH PEOPLE ARE PAYING? .....................................................................................................................................................................................35
FIGURE 33: VAT RATES IN OECD COUNTRIES, 2007........................................................................................................37
FIGURE 34: TAX WEDGES IN OECD COUNTRIES..............................................................................................................38
FIGURE 35: SEVERANCE PAY PARAMETERS-INTERNATIONAL COMPARISON ..................................................41
FIGURE 36: GOVERNMENT EFFECTIVENESS AND CORRUPTION CONTROL ....................................................45
FIGURE 38: INFORMALITY AND HOUSEHOLD INCOME PER CAPITA ...............................................................50
FIGURE 39: IMPACT OF HIGHER GREEN CARD EXPENDITURE IN THE SIZE OF THE INFORMAL SECTOR ..................................................................................................................................................................51
FIGURE 40: THE FORMAL/INFORMAL WAGE DIFFERENTIAL IN TURKEY SO LARGE THAT GREEN CARD TRANSFERS (ALBEIT GENEROUS) MAY NOT INFLUENCE WORKER’S SECTOR CHOICE ........52
FIGURE 41: PRODUCTION CHAIN AND INFORMALITY ...............................................................................................54
FIGURE 42: INTEGRATED POLICY APPROACH ...........................................................................................................57
ACKNOWLEDGEMENTS

This Country Economic Memorandum was co-task managed by Kamer Karakurum-Ozdemir (ECSPE) and Mark Roland Thomas (ECSPE). The core team consisted of Diego Angel-Urdinola (ECSHD), Jose Guilherme Reis (LCSPF), Cristian Quijada Torres (LCSPF), Ana Maria Oviedo (CICRA), Erol Taymaz (consultant) and Necdet Kenar (consultant). Francisco Haimovich (ECSHD), and Monica Robayo (ECSHD) contributed to the background paper on social assistance and informality. The field surveys for the study were conducted and the reports on their results prepared by Frekans Research Ltd and a team of consultants comprising Ali Carkoglu, Fikret Adaman and Mine Eder. Yasin Dalgic (consultant) provided excellent research assistance. Valuable contributions were made by Caglar Ozden (DECRG), Norbert Fiess (LCSPF), Sunita Varada (LCSPF), Gordon Betcherman (ECSHD), Zafer Mustafooglu (LCSPE) and David McKenzie (DECRG). Pinar Baydar (ECCU6) provided invaluable support throughout. The peer reviewers were William Maloney (LCRCE), Arup Banerji (IEGWB) and Seyfettin Gursel (consultant). Overall guidance was provided by Bernard Funck (Sector Manager), Luca Barbone (Sector Director) and Ulrich Zachau (Country Director).
EXECUTIVE SUMMARY

1. **Informality in Turkey is part of people’s daily lives.** Informal transactions occur in many contexts: business is concluded based on a handshake; payments are routinely deferred; employees receive cash payments; receipts are often provided only upon explicit request. These phenomena interact with more traditional definitions of informality, such as unregistered workers, self employment, and tax evasion. Formality and informality exist side by side, often in the same enterprise, such as when firms record only a certain fraction of their production. Two perceptions are widespread. First, *everybody else is doing it*: evading taxes and underreporting wages. Second, *we pay for what we get*: low quality of public services and corruption in the public sphere create low “tax morale.” When all hold such beliefs, undeclared economic activity becomes routine and acceptable.

2. **In Turkey the underreporting of revenues and wages and the non-registration of workers with the social security system are the most important forms of informality.** Informality is usually defined as legal economic activity taking place below the radar of government, covering categories that include unregistered firms, registered firms engaging in unrecorded economic activity, and the self-employed. Among the many categories, unrecorded sales (to evade taxes) and underreported/unrecorded employment (to avoid labor regulations and contributions) are the most common in Turkey. This study focuses primarily on informal employment, which has wide-ranging consequences for the overall economy (including growth, social and fiscal dimensions) and on which richer data is available. Firm registration proves to be less of an issue in the Turkish context than in many other middle-income countries.

3. **The level of informality in Turkey is not surprising given the country’s characteristics.** Informal economic activity in Turkey as a share of GDP turns out to be approximately the level predicted by its per-capita income. Studies using other definitions of informality similarly find that rates in Turkey are well-predicted by its overall level of development.

4. **Nonetheless, informality is widespread and it has been rising in many parts of the economy.** Although the headline measure of informality has been falling, this is almost entirely explained by migration out of agriculture into more formal sectors. The headline measure of informality (provided by TUIK, the proportion of workers unregistered for social security) fell from 53 percent to 44 percent between 2004 and 2008. However, this aggregate decline hides important patterns. Most of the decline between 2001 and 2006 is explained by migration of the workforce out of agricultural employment (where nearly all workers are informal) to manufacturing and services, mainly in urban areas (where informality rates are below 20 percent for wage earners). Moreover, during this period – a period of rapid expansion of the economy – urban and non-agricultural informality increased (from 29 percent to 34 percent for non-agricultural employment).1

5. **Informal employment is most widespread among young and older (mostly retired) workers, and among women.** Younger workers are on average less productive and their level of

---

1 While the study cites the aggregate numbers for 2007 and 2008, the analysis refers to only 2001-2006 throughout most of the report since the micro data set for 2007-08 was not available at the time of preparation.
productivity may be less certain to their employers, since they have a shorter track record;\(^2\) for these reasons from employers’ perspectives they may not justify the costs of a formal job offer (“exclusion”). Younger workers may also place lower value on social security and other benefits of formality, and be more willing to accept offers of unregistered work (“exit”). At the other end of the age spectrum, many older workers who have qualified for early retirement under the Turkish pension system may have incentives to remain in the labor force by working informally past retirement (“exit”).\(^3\)

6. **The government is working to reduce informal economic activity and promote formalization.** The Ninth Development Plan (2007-13) lists “the struggle against the informal economy” as a priority. The Ministry of Labor and Social Security has implemented a project targeting reductions in informal employment (KADİM). More recently, the Revenue Administration has led efforts to reduce informality more broadly, culminating in an *Action Plan against the Informal Economy* published as a Prime Ministry Circular in February 2009.

7. **This report complements government efforts with a comprehensive framework, new empirical evidence, and international experience.** The study brings together inputs from a review of international experience, specially designed surveys of firms and households fielded in Turkey in late 2008 and early 2009, six analytical studies on specific dimensions of firm and worker informality in Turkey, and a workshop to discuss findings with government institutions, held in Ankara in April 2009.

8. **The report makes a conceptual distinction between the consequences and the causes of informality.** The consequences answer the question of why we might want to reduce informality in the Turkish economy. The causes are the starting point for thinking about how we might want to reduce it, and indeed to what extent this may be feasible.

**Consequences**

9. **Informality has consequences for (i) fiscal outcomes; (ii) productivity and growth; (iii) economic and social vulnerability; (iv) social cohesion and the rule of law.** The analysis in this report suggests that the economic and social vulnerability of informal workers is the most important and direct effect of informal employment. Informal workers face lower wages, higher risk of layoffs, and worse working conditions than formal workers and, frequently, lie outside the protection of social safety nets. Loss of respect for public institutions and feelings of injustice are other consequences that – although they are hard to quantify – are underlined by qualitative survey evidence and discussions with public- and private-sector stakeholders. On growth, the report analyzes in depth the relationship between formality and productivity in small firms. The productivity gains associated with formalization in the analysis are moderate (though not insignificant); the findings certainly do not support an often-expressed view in Turkey that lower growth is the main cost of the informal economy. Lastly, the study suggests that the fiscal gains from increasing formalization of employment are likely to be limited. At the same time, the fiscal

---


\(^3\) Here we refer to the terms *exit* and *exclusion* as defined by Perry *et al* in the World Bank’s Latin American flagship report on informality from 2007.
losses from *tax evasion* more broadly could be sizeable. This study, however, does not assess the magnitude of underreporting of revenues and wages in detail.

10. **The main fiscal effects of informal employment come through losses in the personal income tax.** Informal employment, by allowing firms to underreport wages and the self-employed to underreport income, contributes to the problem of personal income tax evasion. VAT evasion, a much bigger problem than income tax evasion in Turkey, appears to be better viewed as a *cause* than a consequence of informal employment, in the sense that firms underreport both sales and wages simultaneously. Finally, the gains from increasing social security compliance have to be set against the increased costs to the system of higher enrollments.

11. **The productivity gains from promoting formalization are probably moderate, particularly in the near term.** The potential output gains from the formalization of informal firms are estimated to be about 5 percent in manufacturing and 25 percent in services. But these gains could only materialize over a period of years as a result of concerted policy reforms, mainly enforcement. This implies that the economy-wide growth dividend from formalization policies is likely to be modest. The estimates in this report do not adequately capture the “dynamic” effects of bringing more workers under the umbrella of formality: for example through greater investment in worker training and other forms of firm-specific human capital. The reason for this is the lack of convincing empirical methods for making such estimations. This said, the limited evidence that does exist – for Turkey and other countries – does not point to strong long-run dynamic effects. Further work would be required to make confident statements on the important topic of the long-run dynamic effects of formalization.

12. **Productivity gains from formalization may also come at the cost of increased inequality.** Labor demand shifts towards more skilled workers turn out to be an important consideration when evaluating the productivity and growth dividend from reducing informality. If production shifts from informal firms to formal firms (e.g., through exit of informal firms), informal-sector jobs are replaced by more productive formal-sector jobs. The net effect on workers is that less skilled workers lose jobs in favor of the more skilled. Simulations using Turkish Labor Force Survey statistics suggest that, within services and manufacturing, the demand for workers with less than a high-school education could fall by more than 15 percent, with the demand for high-school and tertiary educated workers rising by a similar proportion. Such results are only indicative, but they underline the need to buttress compliance and enforcement policies with active labor-market policies (such as worker retraining), and unemployment insurance, in order to offset the net employment effects and social consequences of enforcing formality.

13. **A further damaging consequence of informality is that low returns to education in the informal sector contribute to Turkey’s low female labor-force participation.** Informality is widespread among female workers, particularly the less educated; and the returns to education in the informal sector are very low. These two features of the labor market combine to reduce incentives to invest in women’s education, which in turn drives down female labor-force participation (fewer years of education is associated with lower labor-force participation). The growth-reducing effects of this interaction come in addition to the direct productivity effects, and in Turkey may be more important.
14. **Finally, informal workers may be disproportionately affected by the current recession.** As this report was being written Turkey was experiencing recession and unprecedented unemployment, brought on by the global credit crisis. Informal workers are most vulnerable to falling below the poverty line in a recession. Using household data to simulate the conditions occurring in mid 2009, close to half of the significant rise in poverty occurred in households headed by informal workers in urban, non-agricultural sectors.

15. **Families in which the main providers are informal workers often lie completely outside Turkey’s social safety net.** Survey evidence presented for the first time in this report shows that, while some informal workers receive health coverage through the Green Card program, many are uncovered by this or any public program of social assistance. Bringing such workers and their families under the umbrella of social protection would complement policies to increase formal employment.

**Causes**

16. **Informal employment in Turkey is partly the result of “non-core” factors.** This report defines non-core causes of informality as factors that, although they may be subject to policy interventions, are of sufficiently broad importance that one would not assess their reform solely in light of the consequences for informality. For example, one of the main determinants of informality in Turkey is the high share of agriculture in the economy (where informality is highest). Other non-core causes are the structure of the pension system (which encourages retirement at a very early age) and the level of the minimum wage (which sets a floor to the gross wage of the less-skilled labor). Non-core factors are mostly taken to be beyond the policy scope of this report, although their effects on informality may be one consideration when thinking about reforms in these areas.

17. **Informality in Turkey has a number of core causes that lie at the heart of any formalization strategy:** (i) tax policy and administration; (ii) labor regulations; (iii) social assistance programs; (iv) social norms. Of these, based on international comparisons, consultations and survey results in Turkey, frequent and better coordinated tax inspections and more flexible labor regulations probably hold the key to the largest gains in formalization. In addition, deeply held social norms and common economic practices in Turkey conspire to create a parallel informal economy throughout the production chain. This is key to the deep-seated nature of informality in Turkey. Complementary policies, reaching out to different groups such as employers’ organizations, labor unions, and civil society groups, could bolster reforms to tax and labor in an overall strategy to reduce informality.

18. **Informality – and the need for an integrated policy response – is best understood by considering productive activities as a value chain.** Even before producing, at the stage of establishing a firm, part of its value may effectively become “informal” (that is, hidden from the state) for example through the undervaluation of real estate transactions. Next, for many final products the value chain begins in the agricultural sector, where informality may be the rule rather than the exception. Because of the undocumented nature of many of their upstream inputs, firms then enjoy a large degree of discretion about what proportion of their production they declare (for the purposes of VAT and other contributions). This in turn influences their decisions
on the margin of formal versus informal employment and other factors of production. The underreporting of firms’ own sales constitutes the final layer of this systemic informality.

19. **Value chain reasoning illustrates that avoiding taxes (including labor contributions) is a major factor in informality in Turkey.** However, despite the *perception* in Turkey of high tax *rates*, international comparison does not suggest that these are the prime cause of undeclared transactions. This is all the more true in light of recent tax reforms, which have reduced the tax burden on firms and households. Similarly, labor taxation is no longer very high in comparison with similar countries, following recent reform. Rather than the level of rates or tax structure, survey evidence suggests that more frequent and better coordinated audits are key to formalization.

20. **For Turkish employers, informal labor means flexible labor.** Turkey’s labor regulations are highly rigid by international comparison. This rigidity stems from employment protection laws, in particular limitations on temporary and fixed-term employment contracts and the protection of regular employment through high employer severance payments. Investment Climate Surveys show that despite these restrictions, temporary and fixed-term contracts are common; hiring informal employees is the simplest way for firms to achieve this flexibility. A further potential reason not to declare employees is unemployment insurance premiums; these and other non-wage labor costs have most impact on low-wage workers, reducing employers’ willingness to hire. In the end, although strict labor regulations are intended to protect workers, they can have the opposite effect. A labor code combining strong social safety nets and worker protection and representation with flexibility for employers to adjust to economic conditions could expand formal employment.

21. **The incentive effects of non-contributory social assistance programs do not seem to be a key driver of informality.** Several well-targeted Turkish social programs (e.g., the Green Card non-contributory health insurance scheme and the Conditional Cash Transfer) have features that may create incentives for workers to remain informal. Anecdotal evidence suggests that the most important of these, the Green Card, may exert this effect in certain individual cases. This report used several techniques to estimate the aggregate importance of this incentive effect: under present circumstances, the Green Card does not appear to be a significant cause of informal employment and other safety net programs are likely to be even less significant in this regard. This finding may owe to the informal-formal wage gap between otherwise similar workers in the Turkish labor market. In other words, the expected value of benefits is in most cases simply not large enough to exert much influence on workers’ choices. Nevertheless, de-linking social assistance benefits from employment status might reduce the risks of such effects in future.

---

Conclusions

22. International experience and Turkish evidence both suggest a comprehensive understanding of informality and an integrated policy response. In Turkey, the analysis conducted for this report suggests that the response particularly focus on inspection and audit, reforms to labor regulation, and outreach and communications.

23. A general point is that it is better to create flexibility within the law (e.g., through a modernized labor code), than outside the law (through informality). Companies increasingly seek flexibility to compete in the fast-paced global environment. A labor law that promotes the flexibility of labor markets is likely to reduce the incentives for informality – by making formalization less costly for employers. Three policy areas stand out:

(i) Removing restrictions in the legislation on part-time and short-term contracts. Turkey has strict employment legislation. Removing restrictions on fixed-term contracts will weaken existing incentives to hire short-term workers informally.

(ii) Redesigning severance pay and unemployment insurance in tandem. While some firms abide by the regulations on severance pay, many do not. This creates “unfairness” between firms that pay severance and those that avoid it, as well as between the workers who receive the payment and those who do not. In order to reduce the burden on firms of paying severance, the system could be redesigned, while making unemployment insurance benefits more generous to protect workers.

(iii) Targeted labor tax cuts. The May 2008 package, which has been extended by another year, has introduced targeted labor tax cuts. Such cuts may be desirable, especially if impact evaluation of the recent cuts proves positive.

24. More flexible labor markets can be complemented with increased, better coordinated auditing and monitoring – making informality more costly for employers and workers. Increasing the efficiency of tax collection to reduce the under-declaration of earnings and the evasion of taxes is an important component of an integrated approach to reduce informality. Turkey has already taken a number of measures in this direction, such as improving the cross-checking of information across agencies, tax instruments and taxpayers, and improving risk analysis to better identify evaders. Other measures could complement these efforts:

(i) Higher frequency inspection, increased audit capacity. Turkey has been increasing the number of its tax auditors, social security inspectors and checkover officers of social security. Achieving an increase in the share of staff assigned to auditing and enforcement (relatively low in Turkey by international standards) is likely to have a high payoff in compliance.

(ii) Audits targeted on informality. Audits targeted towards informality could reduce informal activity and employment. Measures could be taken to reduce tax evasion in those sectors most vulnerable to tax evasion and among worker groups where informal employment is known to be most prevalent.
(iii) **Coordination across agencies.** Improved coordination, both between auditing units and between the various agencies involved in efforts to reduce informality, could promote formalization.

25. **“Softer” approaches, such as communications campaigns, could complement harder measures on compliance and incentives.** International experience and Turkish survey evidence both point to the important role that communications and outreach can play. Such measures underline the benefits of formality to workers, households, and firms. Providing information, nationally and regionally, on the benefits of formality can change people’s perceptions and preferences. Consensus building with unions, NGOs, and the business community are critical, not only for managing the reform process towards greater formalization but also for making informality appear socially unacceptable and even unethical. These beneficial effects operate all along the value chain. To complement such campaigns, the actions taken towards reducing informality and the concrete results obtained could be regularly publicized.

26. **Turkey has much to gain by bringing its vibrant economy out into the open.** The broad, integrated strategy outlined here could shift the economy to a new and better equilibrium with greater value placed on public institutions and greater participation in societal structures of contribution and protection. International experience shows that over time gains accrue on a number of fronts, some faster than others: social protection, social capital, compliance with the law, transparency, firm and worker productivity, income growth, and tax revenues. Realism is also important: formalization is no easy fiscal win or growth panacea. There are some inevitable short-term tradeoffs. But over time, a move towards recorded transactions, formal contracts, and compliance with laws, regulations, and positive social norms can help build a more robust foundation for sustainable growth and development in Turkey.
1. **INTRODUCTION**

1. Informality in Turkey, using various definitions, and despite the signs of a recent decline in certain segments of the economy, is widespread. The level of informality is not excessively high, however, taking into account Turkey’s level of income. While firm non-registration is not very common (unlike in many Latin American countries, for example), underreporting of revenues and wages and non-registration of workers with the social security system are more prevalent.

2. The qualitative and quantitative survey results conducted for this study show that in Turkey, informality has become part of people’s lives. While, for example, most small firm owners recognize that informality is harmful, they seem to be engaged in different degrees of informality themselves and are almost certain that their competitors, and particularly large firms (through skillful administering of tax evasion), are also part of informal economic activity that is widespread across many sectors.

3. Informality has both economic and social consequences for development and hence is a key concern for policymakers. Informality may impose limits on economic growth, either directly through lower productivity levels or indirectly, for example where economies of scale are lost through informal firms remaining small. The potential costs also appear in the form of lost government revenues and the economic and social vulnerability of uncovered workers. Finally, informality distorts the level playing field and creates unfairness between formal and informal firms as well as between formal and informal workers. As a result, it may lead to the erosion of social trust and even feed into further disregard for laws or regulations.

4. Informality in Turkey is partly the result of deep structural and institutional factors. First, the relatively large agriculture sector in Turkey operates mostly informally (87 percent of agriculture employees are not registered with the social security system) and this drives up the overall informality rate (43.5 percent as of end-2008). Second, the possibility of early retirement creates an incentive for older workers to work informally after they retire (while receiving pension benefits). In contrast to widespread perceptions, tax rates and the labor “tax wedge” are no longer out of line with international comparators following the recent tax and labor market reforms. However, the share of staff assigned to auditing and enforcement is low by international standards and inspections are not targeted towards detecting informality per se. Finally, employment protection legislation in Turkey continues to be among the most rigid in the OECD. Many firms then hire informal workers to maintain flexibility of employment.

5. Adapting an integrated policy approach to reduce informality is likely to be most effective. This report argues that success in reducing informality requires an integrated policy response. While no single “sufficient” policy tool will be likely to increase formalization significantly, a combination of policies may move the economy to a new equilibrium with higher formalization. The report discusses the need to strengthen auditing capacity, effectiveness and targeting, to ease labor market regulations (particularly on hiring fixed-term and part-time workers and laying off workers), and to communicate effectively with the public on the costs of informality and the benefits of formalization. In introducing such formalization policies, it is also important to recognize that the transition may bring costs, for example job losses, and compensatory policies may also need to be included in the overall “policy package.”
6. The Government of Turkey has acknowledged the importance of the informal economy and recently issued an action plan to tackle informality. The 2008 Annual Program of the Government issued by the High Planning Council, in the framework provided by the 9th Development Plan for 2007-2013, stated that a strategy and action plan would be prepared to address informality. This preparation was led by the Revenue Administration drawing on contributions from a wide array of public agencies. In February 2009 the action plan was issued as a Prime Ministry circular (Box 1).

7. Reflecting the multifaceted nature of the challenge of informality, this Country Economic Memorandum (CEM) was designed in four phases encompassing distinct aspects of the issue: (i) A survey paper on the conceptual approach to informality and international experience from different countries across the world; (ii) qualitative and quantitative field surveys of firms and workers; (iii) background papers on specific questions about firm and/or worker informality; (iv) a short synthesis report including policy options. The first piece in the study provided the conceptual framework for analyzing informality and described policy experiences of various countries with a focus on good practice cases that had delivered effective results. The second phase generated new, up-to-date information specific to Turkey, through qualitative and quantitative surveys that were conducted by a consulting firm advised by a team of academicians. The third component drew on both existing public and private data sets as well as our new data to produce background work aimed at understanding the causes and consequences of informality. This report constitutes the fourth and final phase of the study.

8. This report is organized in six chapters. The second chapter introduces definitions and the conceptual framework for the analysis conducted. The third chapter provides a portrait of informality in Turkey, outlines certain issues of measurement, and presents the main trends using various decompositions. The fourth and fifth chapters discuss the costs (consequences) and the causes of informality, respectively, with a specific focus on informal employment. The final chapter presents a suggested integrated policy approach to reduce informality and provides concluding remarks.

5 The titles of individual background papers are listed in the References section.
Box 1: Attempts at reducing informal employment: “Project KADİM” and the “Action Plan to Fight against the Informal Economy”

The government of Turkey has stated in various documents, including the Government’s 2008 Annual Program, that the struggle against the informal economy is among its priorities.

An important part of this effort is “The Struggle against Informal Employment” (KADİM) project. Its purpose is the prevention of informal employment, particularly of illegal foreign employees. Within KADİM, under the responsibility of MOLSS, a Commission was composed of MOLSS Undersecretary (Director of the Commission), the Undersecretaries of nine other agencies (Finance, Domestic Affairs, Education, Industry and Trade, Transportation, Customs, Marine, SPO, Undersecretariat of Treasury), the general secretaries of several social interest groups (trade unions, employer associations) as well as representatives of vocational institutes and non-governmental organizations. A coordinating unit responsible for the execution of the project was established within MOLSS.

Activities were grouped under four main areas: (i) efficient auditing, (ii) activities of reporting and raising awareness; (iii) amendments in regulations; (iv) the removal of bureaucratic obstacles. The target of the project was primarily the detection of a minimum of 100,000 illegal foreign employees and their replacement with formal labor, and in turn transferring the informal employees into formal employment. At the time of writing, the results of the KADİM project at its completion have not yet been made available to the public.

A separate section on reducing the informal economy has been included in the Annual Programs since 2007. 2008 was announced by the Government to be the year of the struggle against informality. The measure “Reducing Informality in the Economy” was developed under the 2008 Program issued by the Council of Ministers. This measure determined the Revenue Administration as the leading institution for the task and identified other institutions (that the RA would coordinate with): the Ministry of Finance, MOLSS, SPO, the Undersecretariat of Customs, the Social Security Institution (SGK), the Energy Market Regulatory Body (EPDK), the Tobacco and Alcohol Market Regulatory Authority (TAPDK), and the Banking Regulation and Supervision Agency (BRSA).

In cooperation with the responsible and collaborating institutions under this measure, the Revenue Administration developed the “Struggle against the Informal Economy Action Plan,” published as a Prime Ministry circular in February 2009. Three goals for struggling against informality were identified: (i) promoting formal activities; (ii) strengthening audit capacity and increasing the deterrence of sanctions; (iii) establishing and strengthening institutional and societal consensus. The Plan covers the three-year period 2008-10 and includes 105 actions under these three objectives. It is a detailed document where performance indicators, timing and the responsible and coordinator institutions are identified. Examples of important actions included in the Plan are: (1) Audits will be based on the “risk analysis” model; (2) A new shared database will be formed consisting of the SGK database and those of other relevant agencies (to be identified).
2. **DEFINITIONS AND CONCEPTUAL FRAMEWORK**

9. This chapter discusses various definitions of informality used internationally and in Turkey and then establishes the framework to be used for the analysis of informality in Turkey and introduces some important concepts in discussions of the subject and therefore repeatedly used throughout the report.

**2.1 Defining and measuring Informality**

10. **In general, informality means legal economic activity taking place below the radar of government.** In other words, the term informality refers to activities that are normally subject to taxation and other regulations and thus excludes all kinds of activities explicitly considered illegal.

11. **However, there are a large number of other definitions of informal economic activities.** The terms “informal”, “shadow”, “underground”, “uncovered” and “unrecorded” are usually used synonymously, but the definitions of these terms refer to different conceptualizations (for a discussion, see Perry et al., 2007, Chapter 1).

12. **These different definitions can be grouped into two categories, which are defined by the International Labor Organization (ILO).** The first category emphasizes the dualistic and segmented nature of the labor market, and defines “informality” in terms of the characteristics of enterprises and working conditions. The second category refers to the legal status of the economic activity. An economic activity is defined as “informal” if it is legal but not legally recorded/registered.

13. **In the case of employment, the first category is defined by ILO as “employment in the informal sector” and the second one as “informal employment.”** “Employment in the informal sector” covers all jobs in informal sector enterprises which are defined as “private unincorporated enterprises (excluding quasi-corporations), i.e. enterprises owned by individuals or households that are not separate legal entities independent of their owners, and for which no complete accounts are available that would permit a financial separation of the production activities of the enterprise from the other activities of its owner(s)” (see Hussmanns, 2004). Informal employment, however, includes (i) own-account workers and employers employed in their own informal sector enterprises; (ii) contributing family workers, irrespective of whether they work in formal or informal sector enterprises; (iii) employees holding informal jobs; (iv) Members of informal producers’ cooperatives; and, (v) own-account workers engaged in the production of goods exclusively for own final use by their household.

14. **In developed economies, the nature of informal activity is somewhat different from in developing economies.** Social protection in developed countries typically covers the entire population, so there is no segmentation of protection according to the labor status of individuals. Additionally, business regulations in developed economies tend to impose relatively light
burdens on firms, so that in general the element of “exclusion” is not the main driver of the informal sector in these countries. Instead, informality mostly involves formal firms and workers who underreport their income to the tax authorities, or the use of undeclared labor, often undocumented foreigners, especially in certain activities (construction, home repair, etc.).

2.2 Framework for analysis and policy considerations

15. **The consequences of each type of informality may be different and their significance may vary.**

While the underreporting of wages does not have an impact on the social well-being of workers in the short term, for example, the non-registration of workers has a significant impact. Similarly, informal activity in the agriculture sector is likely to have very different consequences from informality in the urban manufacturing sector. Figure 2 represents this segmentation: taking a pragmatic approach, we consider the consequences (costs) and the causes associated with different definitions or types of informality.

2.3 Key concepts

16. **“Exit” versus “exclusion.”** The World Bank’s Latin America flagship report on Informality (Perry et al, 2008) is the first piece of analysis that provides a truly comprehensive account of informality. The report characterizes the informal sector as heterogeneous, containing a mixture of economic actors who find themselves in the informal sector for a variety of reasons. Extensive analysis, done over several years in Latin America, reveals a fundamental distinction in the informal sector between segmented and non-segmented markets. The traditional view sees informality as the only alternative for a share of the labor force that lacks opportunities in the formal sector, and thus has no other option but to work in sub-standard conditions and for lower pay than they would get in the formal sector. As a result, the labor market becomes a segmented market, where “insiders” in the formal sector have higher incomes and more secure jobs than those who are “excluded.” While the report does find evidence of an element of exclusion for certain groups of workers – particularly young and old workers with little or no education, and women – there is also growing evidence that a large share of formal sector workers choose to quit their job to become self-employed or salaried in an informal business. These voluntary informal workers may earn equal or higher incomes than formal salaried workers, they may have the satisfaction of “being their own boss,” and they may enjoy greater flexibility to balance their work and family responsibilities (“exit”). This report will draw on this distinction when relevant in the Turkish context.

17. **Self-selection into formality/informality.** The analysis in this study also utilizes the concept, related to the above distinction between exit and exclusion, of self-selection into formality/informality. One example of self-selection is that of educated workers and firms into the formal sector. The differences between formal and informal employment conditions and productivity may be overestimated if this self-selection factor is not taken into account. For
example, productivity differences between formal and informal firms may not be due to the intrinsic characteristics of production in these sectors but rather due to the higher level of education, skills, and experience possessed by formal-sector entrepreneurs.

3. Trends and Profile

3.1 The nature of informality in Turkey and its measurement

18. Each definition of informality requires specific data and measurement. No technique will be entirely accurate given the inherent “under the radar” nature of informality. Box 2 describes the various techniques used in the literature, including those that use a micro-based approach by asking specific questions in household and firm surveys, and those that measure informality from a more macro perspective, using aggregate data. The strengths and weaknesses of each measure are also discussed.

Box 2: Measuring informality

Several techniques to measure the size of the informal sector have been developed. There are two classes of methods. The first type is direct (micro) measurement based on individual surveys, such as the World Bank’s Enterprise Surveys, which explicitly ask the firm’s owner or manager the year when the firm started its operations and the year the firm was legally registered. A discrepancy between the two is typically considered as the time when the firm operated informally. In some household surveys or labor force surveys, interviewees are asked whether in their current employment they have signed a formal contract, or whether they are affiliated to the social security administration (meaning that they or their employer are contributing to a pension plan or other social protection program). The problem with this class of measure is that the interviewee’s answer depends heavily on the phrasing of the question and (particularly in the case of firms) interviewees may be reluctant to reveal their true behavior, so that one has to formulate indirect questions instead, which may be less accurate. In addition, looking at workers covered by a pension plan, for instance, might be misleading as some countries have recently shifted their participation schemes to include self-employed workers, hence blurring the distinction between pension-plan holders as formal and non-holders as informal. Another micro-based approach uses data from tax audits to determine the percentage of the firms audited that evaded taxes and quantifies the amount of tax underreporting as informal activity (one can also determine the legal status of the firm with tax audits). One shortcoming of this approach is that tax audits are not typically conducted randomly and hence the information is not representative of the whole population of firms.

Several indirect techniques use aggregate data instead. The first estimates the size of the informal economy as the difference between aggregate income and aggregate expenditure from the National Accounts. This approach has, however, been used in a few developed countries only, as it requires independent calculations of aggregate income and expenditure. From the employment perspective, other aggregate measures include using the difference between the total labor force and total employment, and an index of pension coverage of the population. The latter has the caveat that coverage has recently been expanded in several countries to the overall population regardless of employment status.

Other indirect techniques include the “physical input” approach, which generally measures the growth of the informal economy as the difference between the growth rate of GDP and the growth rate of electricity consumption. A related measure takes the difference between the fitted values of an estimated money demand equation and the actual amount of cash that circulates in the economy. These types of measure have several disadvantages. First, they assume that in the base year of the estimation (chosen arbitrarily according to sample availability) the size of the informal sector is close to zero. Second, they make unrealistic assumptions, for example about the use of electricity (constant coefficient per unit of GDP, which ignores technological progress) or about money demand (common velocity of circulation in formal and informal sector, and exclusive use of cash in the informal sector). In practice, both measures are highly sensitive to these assumptions: in particular, changing the base year for the estimation of either model often produces very different estimates of the size of the informal sector.
Another method is the Multiple Indicator-Multiple Cause (MIMIC) model, first used by Loayza (1996) for Latin America, and expanded by Schneider (2004) for 145 countries. This model assumes that while informal activity is not observable, its magnitude can be represented by a latent variable (in index form), and its causes and effects can then be measured. This latent variable is used in a set of two equations: in the first, the latent variable is the dependent variable and its causes are the explanatory variables; in the second, the effects of informality are modeled as a function of the latent variable. This system is then simultaneously estimated and the fitted values of the latent variable are used to compute an estimate of the size of the informal sector as a share of GDP. This technique, especially as used by Schneider (2004), has been criticized because of the lack of theoretical support for the equations supposed to capture the causes and effects of informal activity, and it has also been argued that the estimation results are sensitive to transformations of the data, to measurement units, and to the sample used. Breusch (2005) provides a critical analysis of this methodology.

An important criticism of all these techniques is that they view the informal sector as a “stock” rather than a “flow” variable, hence ignoring all the movements into and out of informality that indeed take place for many individuals (and firms). A few studies have quantified these movements, among them Flores et al. (2004) and Maloney (1999) for Mexico, Bosch et al. (2006) for Brazil and Bosch and Maloney (2008) for Mexico and Brazil.

a. For a detailed review of the different techniques, see Perry et al. (2007), and Flores et al. (2004).

<table>
<thead>
<tr>
<th>Measuring the size of the informal sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct methods (micro)</td>
</tr>
<tr>
<td>• Voluntary surveys</td>
</tr>
<tr>
<td>• Tax audits</td>
</tr>
<tr>
<td>• Discrepancy between aggregate income and expenditure</td>
</tr>
<tr>
<td>• Discrepancy between total labor force and formal employment</td>
</tr>
<tr>
<td>Indirect methods (macro)</td>
</tr>
<tr>
<td>• Monetary methods</td>
</tr>
<tr>
<td>• Physical input (electricity consumption)</td>
</tr>
<tr>
<td>Model approach</td>
</tr>
<tr>
<td>• MIMIC and DY MIMIC (macro)</td>
</tr>
</tbody>
</table>

Source: Perry et al. (2007)

19. **Micro-based measures, however inaccurate, are in general preferable to macro-based indirect measures.** Micro measures offer a clearer definition of an informal worker, informal firm, or informal (non-reported) production, and surveys offer the flexibility to investigate in depth different aspects of informality. For this reason some previous studies have designed specific modules to be included in household surveys to capture the motivations of employees to accept informal work arrangements, disentangling exit from exclusion as drivers of informal employment. In the household and firm surveys conducted for this study, questions were asked to respondents about their motivations for informal work or underreporting. Moreover, for the purpose of designing specific policy actions to reduce informality, it is important to know exactly the characteristics of the target group, in order to evaluate the potential costs and benefits of the policies.

20. **There is a multilayered labor market.** On one hand, some employees have insurance, premiums are paid on their actual wages and they benefit from all the protective regulations of

---

6 Perry et al. (2007).
the Labor Code. On the other hand, some employees work informally and are not covered by the social security system or the Labor Code. Finally, some employees are registered and they are covered by the social security system, yet either their wages are not declared fully, or they can not benefit from some of their rights under the Labor Code, such as work safety or severance pay.

21. In much of the analysis conducted for this report, the main definition of informality used is “informal employment”, referring to those employees (wage earners, self-employed and entrepreneurs) who are not registered with the Social Security Institution. There are three main reasons for this restricted definition. First, as Henley et al. (2006) show, definitions of informality based on occupation seem to be “arbitrary in practice even if conceptually well-founded”. Second, the availability of data on social security status, through Turkish Statistical Agency (TUIK) and through the survey conducted for this study, makes empirical study feasible. Third, informal employment has some of the most far reaching consequences.

22. Informality in Turkey is widespread but comparable to countries of similar income levels. Figure 3 shows informality in Turkey, measured as informal economic activity in percent of GDP, is high at about 33 percent, but not excessively so, given its per-capita income level.

23. Using perceptions of tax reporting, however, informality in Turkey is somewhat above the levels observed in a set of comparable large middle-income countries. Enterprise Surveys (previously called Investment Climate Surveys) conducted by the World Bank in many countries provide a qualitative view of informality. In these surveys, respondents are asked about their perceptions of whether a typical firm reports less than 100 percent of sales for tax purposes. The cross country comparison in Figure 4 shows that almost two-thirds of firms in Turkey believe that some degree of tax evasion is observed in a typical firm in Turkey. While not as high as some (e.g., Brazil: 83 percent), this figure is nonetheless higher than most comparator countries and shows that perceived tax evasion is high in Turkey, a point reinforced by the qualitative survey conducted for this study.
3.2 Trends and composition of informal employment

24. **The most commonly cited official measure of informality in Turkey is that provided by TUIK’s Household Labor Force Survey (LFS) results.** TUIK identifies informal workers as those employed (in all five employment categories used) but not registered with the social security system. As evidenced by the qualitative survey carried out for this report, many firms in Turkey choose not to report all of their workers mostly to avoid perceived burdensome taxes and to avoid regulations. Figure 5 shows the long-term trend of the percentage of workers without social security coverage in total employment. The informality rate using this definition has been consistently high in the last two decades, particularly after the mid-1990s, following a decline from the end of 1980s. More recently in the last few years, the number has decreased, reaching 43.5 percent in 2008. Figure 6 shows the trend in non-agricultural informality.

25. **This same pattern is observed when an alternative measure of informal employment is used: the proportion of workers that identify themselves as “self-employed.”** Figure 5 also depicts the trend for this measurement, using data from the ILO’s Labor Force Surveys. While there is no reason to expect identical levels for these two alternative definitions, the trend is similar.

26. **Who is working informally?** When informal employment is split by sector of employment, the role of agriculture becomes clear (Figure 7). While agriculture constitutes about 26 percent of the labor force, the rate of informal employment in that sector (87 percent of total employment) increases the overall size of informal employment. On the other hand, wage earners have an informality rate of 18 percent, but constitute over half of the labor force and two thirds of the non-agriculture labor force. In the next section, we disaggregate the trends for labor informality by employment sector, education level, profession, employment status and firm size. The goal is to determine the main
forces behind the increasing trend in (non-agriculture) informality observed in the period 2001 to 2006.7

**Sector composition**

27. **A breakdown of trends by sector of employment reveals significant differences in rates of informality.** The main forces behind the decrease in informality between 2001 and 2006 were urbanization, the decrease in agricultural employment and a reduction in informality rates in rural areas and in the agriculture sector. The left panel of Figure 8 shows that between 2001 and 2006 employment in agriculture decreased significantly, from 36 to 26 percent of overall employment. More broadly, the share of rural employment decreased from 47 to 40 percent, in part due to rapid migration to urban areas during the period. This shift in employment composition drove the overall decrease in informality, since agricultural and rural employment present significantly higher rates of informality than other sectors.

![Figure 7: Composition of informal employment in Turkey](source:TUIK)

28. **The decrease in rural informality was partly due to the fact that rural households shifted from agricultural employment to non-agricultural employment (mainly into the service sector).** According to Dayioglu and Kirdar (2009), the share of household heads engaged in agricultural self-employment decreased from 41.3 percent in 2001 to 30.5 percent in 2006. This was accompanied by an important reduction in unpaid family work and an increase in wage employment. Informality rates among those working in agriculture remained high, decreasing slightly from 91 percent in 2001 to 86 percent in 2006. This may have occurred due to the fact that those who stayed in agriculture, at the margin, displayed higher productivity there.

---

7 More recently, a drop in non-agricultural informality has been observed. This fall has been concentrated in regular and casual employees, especially women, and took place despite a slight increase in informal self-employed workers. Data for the last two years would be needed to study the details of these developments.
According to Dayiğlu and Kirdar (2009), the majority (90 percent) of individuals who had migrated from rural to urban areas in the period of study had at most attained incomplete secondary education and most of them were engaged in low-productivity self-employment in agriculture (generally working as unpaid family members). On the other hand, Taymaz (2009) highlights important improvements in rural productivity in Turkey during the period of study. As such, less productive agricultural workers may have been more likely to migrate than those with higher productivity (and thus more propensity to be formal).

29. **Contrary to the trends in agriculture and rural sectors, informality in non-agricultural sectors increased from 29 percent overall to 34 percent in 2001-06.** As labor shifted to urban areas, urban informality increased during this period, as did informality in non-agricultural activities overall. Figure 9 shows that informality rates in manufacturing, transport, and communications increased by approximately 20 percent between 2001 and 2006. Services, the sector with the highest share of formal employment, displayed the largest increase in informality: a 50 percent increase, from 12 percent in 2001 to 18 percent in 2006. All these increases were not, however, large enough to compensate for the decrease in informal employment related to labor moving out of agriculture and rural areas.

**Level of Education and type of profession**

30. **In 2001-06, reductions in informality mainly affected unskilled labor, which still accounts for the majority of the employed population.** The left panel of Figure 10 shows the composition of employment in Turkey by educational attainment. Not surprisingly, informality rates are higher among individuals with lower education and decrease as workers become more educated. Estimates for 2006 indicate that the majority of individuals employed in Turkey (52 percent) have attained at most primary education, down from 63 percent in 2001. This coincided with an increase in the share of overall employment that attained secondary and tertiary education. Informality decreased among individuals with at most primary education, from 67 percent in 2001 to 64 percent in 2007. This group (largely defined as unskilled workers) was the only group that benefited from improvements in informality during the period of study. This is consistent with the fact that informality only decreased in agriculture and in rural areas where the population is generally less educated than average. On the other hand, informality among semi-skilled workers (those who have attained middle and high school) increased during the period of study, as did informality among high-skilled workers (tertiary educated).

---

8 The most recent year available in the micro household labor force data set is 2006. As a result, most of the analysis in this report is restricted to 2001-06.
The increase in informality among skilled workers can better be understood when broken down by profession. As shown in Table 1 informality rates among officials, clerks, technicians, and professionals increased significantly between 2001 and 2006. All of these groups also experienced growth in their share of the total population. Within professions associated with lower skills (such as elementary occupations and operators) informality also increased, although to a lesser extent. The only occupation that displayed a decrease in informality was agriculture/fishery.

<table>
<thead>
<tr>
<th>Profession</th>
<th>2001</th>
<th>Pop. Share</th>
<th>Informal</th>
<th>% Informal</th>
<th>2006</th>
<th>Pop. Share</th>
<th>Informal</th>
<th>% Change in Composition</th>
<th>% Change in Inf. Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officials/managers</td>
<td>8.2</td>
<td>15.9</td>
<td>9.1</td>
<td>26.9</td>
<td>11.0</td>
<td>69.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionals</td>
<td>5.9</td>
<td>5.1</td>
<td>6.7</td>
<td>6.6</td>
<td>13.6</td>
<td>29.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technicians</td>
<td>5.1</td>
<td>11.8</td>
<td>6.1</td>
<td>15.9</td>
<td>19.6</td>
<td>34.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerks</td>
<td>4.6</td>
<td>9.8</td>
<td>6.1</td>
<td>15.8</td>
<td>32.6</td>
<td>61.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service workers/salesmen</td>
<td>9.2</td>
<td>43.1</td>
<td>11.6</td>
<td>45.1</td>
<td>26.1</td>
<td>4.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture/fishery worker</td>
<td>34.3</td>
<td>91.5</td>
<td>21.5</td>
<td>85.8</td>
<td>-37.3</td>
<td>-6.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Craft and trade worker</td>
<td>15.8</td>
<td>41.6</td>
<td>14.6</td>
<td>47.3</td>
<td>-7.6</td>
<td>13.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operators</td>
<td>8.2</td>
<td>29.1</td>
<td>10.7</td>
<td>32.2</td>
<td>30.5</td>
<td>10.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary occupations</td>
<td>8.7</td>
<td>54.1</td>
<td>13.7</td>
<td>63.5</td>
<td>57.5</td>
<td>17.4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Employment type

Improvements in informality have been associated with an increase in the share of regular wage-earners in total employment. Furthermore, improvements in informality have been associated with a decrease in unpaid work and a decrease in informality rates among self-employed individuals. As illustrated in Figure 11, there has been a rapid increase in the share of regular wage employment to total employment between years 2001 and 2006 (from 40 to 51 percent) that has occurred hand-in-hand with a decrease in the share of unpaid employment in total employment (from 23 to 14 percent in the same time period). This change in employment
composition seems to have been a very important driver of the decrease in informality between 2001 and 2006, mainly because regular employment displays much lower informality rates than unpaid employment (right panel of Figure 11). However, informality rates among regular workers actually increased from 16 percent in 2001 to 23 percent in 2006. Informality rates also increased among employers and casual workers, and only decreased among the self-employed and the unpaid family worker. Among the different employment categories within the non-agriculture sector, all except unpaid family workers displayed an increase in informality over the period.

![Figure 11: Informality Rates and Employment Composition by Employment Status](image)

Source: TUIK, LFS

**Age and gender profile**

33. **Informality is most widespread among young workers, older workers, and women.** As indicated in Figure 12 there are interesting patterns in informality in Turkey by age and gender. First, informality rates are rather high among young individuals (15 to 19) and decrease rapidly as age increases. Informality reaches its minimum between ages 25 and 29 for women and 35 and 39 for men, after which it increases until retirement age. This is probably due to the fact that many individuals in Turkey choose to retire early. The low age of retirement is in part caused by the relatively high pension replacement rates and rules that mean that pension benefits are not reduced for workers who retire younger than the official retirement age. Furthermore, retirees do not pay taxes on their pension and are entitled to full health insurance without having to pay contributions.

![Figure 12: Informality by age group and gender all workers](image)

Source: TUIK, LFS

34. **For most age groups, informality among female workers is higher than among male workers, especially among adult groups.** This is partly due to the fact that women tend to work in agriculture and display lower levels of education than men (Dayioğlu, 2009). Nevertheless,
controlling for other characteristics (such as age, education, and occupation), male workers have informality rates 10 percent lower than those of their female counterparts. In the non-agricultural segment of the labor force a similar pattern emerges (Figure 13), although there are some differences. First, the informality rates for women are below that of men at younger ages, until about 30-34, when informality starts increasing with age. Second, in all age groups the discrepancy between male and female workers is smaller in the non-agricultural sector as compared with the full labor force. Finally, total informality rates are almost fully driven by male informality rates, given lower female participation rates in urban areas.

3.3 Firm informality

Informality in Turkey is best understood and analyzed as a continuum rather than a dichotomous phenomenon. A distinctive feature of the Turkish economy (as compared, for instance to those of Latin America and, to some extent, East and South Asia) is the high rate of firm registration. Therefore a dichotomous categorization of firms as formal and informal based on their registration status may not be informative. Accordingly, we can differentiate between three major types of Turkish firms:

(i) **Fully formal firms.** Some enterprises comply with all rules regarding the tax and employment legislation (laws and regulations). All of their transactions are registered; they do not engage in tax evasion; they do not use uninsured employment; they declare their employees’ wages as they actually are. Additionally these enterprises fulfill the employment legislation requirements fully; they disburse severance benefits, meet mandatory employment obligations (such as for example, employing a certain share of disabled workers), and abide by the regulations on environment and work safety. The majority of the large-size firms, especially unionized establishments, fall within this category.

(ii) **Fully informal firms.** Some enterprises are entirely informal. They do not register any of their activities to the relevant state institutions such as tax offices, municipality, trade chambers – tradesmen and craftsmen chambers. Hence, as a matter of fact, they do not exist officially. They do not declare their economic activities to related public authorities nor pay any income taxes or social security premiums. Therefore their commercial transactions and employment volume are all beyond the public authorities’ cognizance.

(iii) **Semi-informal firms.** Some enterprises are registered formally; yet they neither meet their tax obligations fully nor comply with all employment legislations. The great
majority of firms in Turkey are registered in public offices, such as the tax office, social security institutions, municipal and other relevant business associations. However, they may underreport revenues, not register their workers, or underreport their workers’ wages.

36. There are clear benefits of firm registration. Registration is the most important indicator of the existence of the firm; in fact it is difficult for any firm to thrive without being registered. Firms have to be registered to provide services for any state institutions and or larger private firm and they also have to be registered for to provide invoices. An enterprise faces invoice requests in some of its deliveries, if not all of its goods and services deliveries. Registration of the market players in the energy sector (through licenses, certificates etc.), for example, results in increased monitoring and supervision capability of the government.

37. In many cases, being registered is unavoidable. When an application is made to the relevant authorities to use public utility services, such as water, electricity and natural gas in the business place, tax registration is demanded. Tax registration is also required for producers and suppliers of these services. Some commercial and industrial activities require licenses and the application to relevant authorities requires tax registration. Similarly, using bank credit from money transfers requires a tax identification number.

38. In Turkey, the term “informal firm” generally signifies a registered firm that underreports sales and employment. Most of the analysis in this report covers this type of informality in addition to the more strict definitions. In general audits performed in 2007 for the detection of unregistered tax payers, 428,522 tax payers were audited and only 2.7 percent (11,603 tax payers) were identified as unregistered. The firm survey conducted for this report found that 5 percent of sampled firms did not register before they began operations. The BEEPS 2008 results show that 94 percent of firms were formally registered when they started their operations. In addition, a comprehensive study on Turkey argues that “most of the businesses (in Turkey) are registered, but they partially report business revenue and employment” due to the low cost of registering and strong enforcement.9

---


---
According to the LFS, informality is most widespread among micro firms (i.e., employing less than 10 workers). Most individuals in Turkey (6 out of every 10) work in firms with less than 10 employees (Figure 14). Workers in these firms display the highest informality rates (roughly 70 percent). However, the share of small firms in Turkey has been decreasing since 2001, a trend that is likely to have contributed to the overall decrease in informality. On the other hand, the share of informality among workers of medium and large firms has increased; only small firms displayed a mild improvement in informality rates.

**Informality in business transactions**

The firm informality survey conducted for this study investigates other indicators of informality in business life. Despite informality’s continuous nature in Turkey, we nonetheless attempt to separate firms into three categories for the purpose of discerning the impacts of informality on firm performance. This task is made trickier given the futility of asking firms whether/how much they evade government taxes/regulations. Survey questions that directly ask firms about practices that may be considered informal allow the construction of three groups of firms (informal, semi-formal, and formal). One group of questions concerns uninsured and under-insured workers, and the survey asks the firms directly if and how many workers they have, among their total workforce, that the firm could not insure or that the firm could only insure by declaring lower wages than the actual ones. Firms are then classified as informal if they have at least one employee that is either uninsured or under-insured (lower than true wages declared). Firms are classified as formal if they registered their businesses before starting operations and if they have no uninsured, under-insured or non-paid worker among their workforce. The firms that fall in between these two groups, that is, firms that while not having any uninsured or under-insured workers, may or may not have registered before starting operations and may or may not have non-paid workers among their staff, are classified as semi-formal. This typology yields 124 informal firms, 358 semi-formal firms, and 545 formal firms. 12 percent of the sample is classified as informal, 53 percent are classified as formal and 34 percent as semi-formal.

Perceptions of informality in the wider economy are more widespread among informal and semi-informal firms (Figure 15). While 72 percent of formal firms claimed informal practices are not widespread, this ratio was 64 percent for semi-formal firms and less than 40 percent for informal firms. Using the same categorization, delayed payment arrangements and settling these arrangements by informal means (such as handshakes) are more widespread among informal firms. The data collected also allows for an examination of business to business transactions and how prevalent certain informal practices may be. One section of the survey looks into delayed payment arrangements that firms enter when buying or selling goods or services: the practice is widespread among the sample. Well over two thirds of all firms
engage in this practice; when the data is segregated by firm size, large firms also use this arrangement, albeit less: 58 percent of firms confirmed that they engage in delayed payments when buying goods or services, and 44 percent of firms when selling goods or services. Separating firms by formality status, the left panel in Figure 16 shows that while this practice is widely employed; formal firms tend to make less use of it than informal or semi-formal firms. Formal firms that do engage in delayed payment arrangements are also less likely to settle those arrangements using very informal means. Relying only on handshakes and making mutual promises of payment (instead of signing deposit slips, postdated checks or written arrangements) when buying goods or services is less common for formal firms, and this difference is statistically significant and meaningful even after controlling for other firm characteristics (see regression results below). When selling goods and services, formal and semi-formal firms have a similar likelihood of relying on handshakes or promises, and while informal firms seem to be more likely to rely on that arrangement (although when other firm characteristics are controlled for, this difference is not statistically significant).

Figure 16: Informal Business Practices

Source: WB FIS (2008)

42. While most firms use formal methods of payment when dealing with other firms, informal firms more commonly make cash payments to their employees. Firms were asked to list their most important clients and/or suppliers. In addition, they were asked to characterize their business transactions in two dimensions: whether the payments for transactions among them are mostly done in direct cash payment or through bank transfers, check/credit slips or credit cards; and whether these business transactions are registered by means of written receipts. Figure 16b shows that while a majority of firms transacts mostly through more formal means than direct cash payments, a significant fraction (21 percent) mostly transact using direct cash payments. An even larger fraction of firms mostly uses written receipts when transacting with their clients or suppliers. It is worth noting that while most business to business transactions do not rely on cash payments, a majority of firms mostly pays their worker’s wages in cash: 73 percent for the overall sample. Firms seem to rely on more formal methods of payment when dealing with other firms, and on more informal methods of payment when dealing with their employees.
43. Previous work on the informal economy and informal employment has argued that informal economic activity has several economic consequences. The most important consequences generally referred to are sub-optimal production scales, low investment, the “free rider” problem (overuse of public goods, low tax collection), unfair competition, low innovation, lack of protection of the poor population against income shocks and lack of protection of workers with respect to basic safety standards. In this section, we evaluate the potential consequences of informality for the specific case of Turkey.

4.1 Fiscal costs of informality

44. A large informal sector may reflect inefficiencies and inequities in the tax system while at the same time imposing losses on government revenues. Although foregone government revenue is one of the most commonly cited costs of informality, the size and importance of such losses is difficult to quantify. The losses are likely to occur both from underreporting of economic activity (mainly through consumption and corporate taxes) and unregistered employment (mainly through income taxes and social security premiums).\footnote{The need to study the magnitude and the dynamics of “underreporting” was also pointed out at the Workshop on the findings of this report on April 7, 2009. Such a study would require a more in-depth analysis in future work.}

45. However, when interpreting the fiscal costs of tax evasion, caution is needed. First, estimates of potential additional revenues which are based on statutory tax parameters and income and spending flows from the National Accounts statistics may overstate the revenue gap, as such estimates are static in nature and ignore the fact that certain economic activities may not occur if they were fully taxed. Second, informal activities bear at least part of the tax burden as informal firms buy goods and services which may have been taxed at earlier stages of production. Third, the government may have adjusted tax policies to existing evasion levels by setting higher tax rates on income and consumption so that the desired amount of revenue is collected despite tax evasion. The objective of fighting tax evasion is thus not necessarily to shift more resources from the private sector to the public sector but rather to create a more efficient tax system. Moreover, reducing inequity between evaders and non-evaders not only improves fairness between individuals and between firms, but may also raise growth potential if resources are no longer locked in informal activities where productivity may be lower.
### Table 2: Structure of tax revenue as % of GDP

<table>
<thead>
<tr>
<th>Year</th>
<th>Turkey</th>
<th>EU 15</th>
<th>OECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>10.6</td>
<td>27.7</td>
<td>25.6</td>
</tr>
<tr>
<td>1985</td>
<td>11.5</td>
<td>37.6</td>
<td>32.7</td>
</tr>
<tr>
<td>1990</td>
<td>14.9</td>
<td>38.2</td>
<td>33.8</td>
</tr>
<tr>
<td>1995</td>
<td>16.8</td>
<td>39.0</td>
<td>34.8</td>
</tr>
<tr>
<td>2000</td>
<td>24.2</td>
<td>40.6</td>
<td>36.1</td>
</tr>
<tr>
<td>2005</td>
<td>24.3</td>
<td>39.7</td>
<td>35.8</td>
</tr>
<tr>
<td>2006</td>
<td>24.5</td>
<td>39.8</td>
<td>35.9</td>
</tr>
</tbody>
</table>

**Social security contributions**

<table>
<thead>
<tr>
<th>Year</th>
<th>Turkey</th>
<th>EU 15</th>
<th>OECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>0.6</td>
<td>6.2</td>
<td>4.6</td>
</tr>
<tr>
<td>1985</td>
<td>1.6</td>
<td>10.7</td>
<td>7.6</td>
</tr>
<tr>
<td>1990</td>
<td>2.9</td>
<td>10.7</td>
<td>7.8</td>
</tr>
<tr>
<td>1995</td>
<td>2.0</td>
<td>11.4</td>
<td>8.9</td>
</tr>
<tr>
<td>2000</td>
<td>4.5</td>
<td>11.2</td>
<td>9.0</td>
</tr>
<tr>
<td>2005</td>
<td>5.4</td>
<td>11.1</td>
<td>9.1</td>
</tr>
<tr>
<td>2006</td>
<td>5.5</td>
<td>11.1</td>
<td>9.1</td>
</tr>
</tbody>
</table>

**Total tax excluding social security contributions**

<table>
<thead>
<tr>
<th>Year</th>
<th>Turkey</th>
<th>EU 15</th>
<th>OECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>9.9</td>
<td>21.5</td>
<td>20.9</td>
</tr>
<tr>
<td>1985</td>
<td>9.8</td>
<td>26.9</td>
<td>25.0</td>
</tr>
<tr>
<td>1990</td>
<td>12.0</td>
<td>27.4</td>
<td>26.0</td>
</tr>
<tr>
<td>1995</td>
<td>14.8</td>
<td>27.6</td>
<td>25.8</td>
</tr>
<tr>
<td>2000</td>
<td>19.6</td>
<td>29.5</td>
<td>27.1</td>
</tr>
<tr>
<td>2005</td>
<td>18.8</td>
<td>28.6</td>
<td>26.7</td>
</tr>
<tr>
<td>2006</td>
<td>19.0</td>
<td>28.8</td>
<td>26.8</td>
</tr>
</tbody>
</table>

**Taxes on personal income**

<table>
<thead>
<tr>
<th>Year</th>
<th>Turkey</th>
<th>EU 15</th>
<th>OECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>2.6</td>
<td>7.2</td>
<td>7.0</td>
</tr>
<tr>
<td>1985</td>
<td>3.2</td>
<td>11.0</td>
<td>10.2</td>
</tr>
<tr>
<td>1990</td>
<td>4.0</td>
<td>10.7</td>
<td>9.7</td>
</tr>
<tr>
<td>1995</td>
<td>3.6</td>
<td>10.5</td>
<td>9.7</td>
</tr>
<tr>
<td>2000</td>
<td>5.4</td>
<td>10.6</td>
<td>9.2</td>
</tr>
<tr>
<td>2005</td>
<td>3.6</td>
<td>10.2</td>
<td>9.2</td>
</tr>
<tr>
<td>2006</td>
<td>3.8</td>
<td>10.2</td>
<td>9.2</td>
</tr>
</tbody>
</table>

**Taxes on corporate income**

<table>
<thead>
<tr>
<th>Year</th>
<th>Turkey</th>
<th>EU 15</th>
<th>OECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>0.5</td>
<td>1.9</td>
<td>2.2</td>
</tr>
<tr>
<td>1985</td>
<td>1.1</td>
<td>2.4</td>
<td>2.6</td>
</tr>
<tr>
<td>1990</td>
<td>1.0</td>
<td>2.5</td>
<td>2.6</td>
</tr>
<tr>
<td>1995</td>
<td>1.1</td>
<td>2.7</td>
<td>2.7</td>
</tr>
<tr>
<td>2000</td>
<td>1.8</td>
<td>3.5</td>
<td>3.6</td>
</tr>
<tr>
<td>2005</td>
<td>1.7</td>
<td>3.2</td>
<td>3.7</td>
</tr>
<tr>
<td>2006</td>
<td>1.5</td>
<td>3.2</td>
<td>3.7</td>
</tr>
</tbody>
</table>

**Taxes on property**

<table>
<thead>
<tr>
<th>Year</th>
<th>Turkey</th>
<th>EU 15</th>
<th>OECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>1.1</td>
<td>1.8</td>
<td>1.9</td>
</tr>
<tr>
<td>1985</td>
<td>0.5</td>
<td>1.5</td>
<td>1.7</td>
</tr>
<tr>
<td>1990</td>
<td>0.3</td>
<td>1.7</td>
<td>1.9</td>
</tr>
<tr>
<td>1995</td>
<td>0.5</td>
<td>1.7</td>
<td>1.9</td>
</tr>
<tr>
<td>2000</td>
<td>0.8</td>
<td>2.0</td>
<td>1.9</td>
</tr>
<tr>
<td>2005</td>
<td>0.8</td>
<td>2.1</td>
<td>1.9</td>
</tr>
<tr>
<td>2006</td>
<td>0.9</td>
<td>2.2</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Taxes on goods and services**

<table>
<thead>
<tr>
<th>Year</th>
<th>Turkey</th>
<th>EU 15</th>
<th>OECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>5.7</td>
<td>10.4</td>
<td>9.6</td>
</tr>
<tr>
<td>1985</td>
<td>4.1</td>
<td>11.6</td>
<td>10.5</td>
</tr>
<tr>
<td>1990</td>
<td>4.2</td>
<td>11.8</td>
<td>10.5</td>
</tr>
<tr>
<td>1995</td>
<td>6.3</td>
<td>11.9</td>
<td>11.0</td>
</tr>
<tr>
<td>2000</td>
<td>10.1</td>
<td>12.0</td>
<td>11.2</td>
</tr>
<tr>
<td>2005</td>
<td>12.0</td>
<td>11.9</td>
<td>11.3</td>
</tr>
<tr>
<td>2006</td>
<td>11.9</td>
<td>11.8</td>
<td>11.1</td>
</tr>
</tbody>
</table>

**Source:** OECD Revenue Statistics

46. The ratio of total tax revenues (including social security) to GDP is generally used as an indicator of the overall tax burden and Turkey’s tax burden is not particularly high. Over the past 40 years, the tax to GDP ratio has increased from around 10.6 percent in 1965 to 24.5 percent in 2006, with the increase being most pronounced between 1985 and 2000. Following the banking crisis in 2001, when controlling public spending became a key policy target of the macroeconomic stabilization program, the increase in the overall tax burden was brought to a halt. In international comparison, Turkey’s tax level is not particularly high, even controlling for GDP per capita (purchasing power parity): tax-to-GDP ratios including and excluding social security contributions are slightly below the averages for comparable countries.

47. The government collects a significant amount of revenue from consumption and labor and less from personal and corporate income. Turkey relies to a large extent on the taxation of labor and consumption while taxation of capital is moderate. In addition to taxes on

---

11 Unweighted average.
12 Unweighted average.
13 The recent upward revision of nominal GDP by over 30 percent has reduced the tax-to-GDP ratio in 2006 by 8 percentage points. The lower tax ratio as compared with earlier publications does not reflect a lower tax burden of the formal sector but the fact that the informal economy is now estimated to be larger than previously thought.
labor, relatively high consumption taxes exist. Turkey has a relatively low tax burden on corporations. Taxes on property are also relatively low (Table 2).

48. **The informal sector cannot fully escape taxation.** Even if the informal sector does not directly pay taxes, some of its activities are taxed indirectly. Given the flexibility of prices and wages, it is often unclear who finally bears the tax burden (tax incidence). Tax shifting from the formal sector to the informal sector can occur through higher output prices or lower input prices. For example, the money which is earned in the informal sector and spent on purchases from the formal sector bears VAT and other indirect taxes. Also, if informal firms sell intermediate goods to the formal sector these sales are finally taxed as the purchasers cannot claim VAT credits on these inputs. Some factors may also work in the opposite direction. For example, if informal sector activities drive down prices and wages of formal firms and workers through competition, the formal sector has not only to carry the full tax burden but also suffers lower gross income. The net effect of these opposing effects on real income of formal and informal workers is ambiguous.

49. **The personal income tax is paid by a small portion of the population.** Given the large informal sector, only a small portion of the population (around 1.7 million or less than 4 percent of the working-age population) pays personal income tax. The shares of personal income tax revenues in GDP and in total tax revenues are relatively low and have recently declined. In 2006, personal income tax yielded less than 4 percent of GDP and less than 16 percent of total taxes (lower than the OECD average; A relatively low share of personal income tax is a common feature in many emerging market economies).

50. **VAT is vulnerable to evasion.** In order to assess the size of VAT evasion, the effective VAT rate\(^{14}\) is compared with the standard VAT rate. In Turkey, the effective VAT rate was 9.6 percent in 2005 which is just above half (53 percent) of the standard rate of 18 percent. This VAT Revenue Ratio (VRR) has declined from around 63 percent in 2003 after having previously increased (Figure 18). The recent decline of this indicator could point to increasing evasion, although the measure is a crude proxy for the efficiency of tax collection as it reflects not only evasion but also exemptions, reduced rates and other special

---

\(^{14}\) As measured by dividing VAT revenues by its macroeconomic tax base.
regimes. Nonetheless, it remains a challenge to strengthen VAT tax administration further, a challenge Turkey shares with other European countries.\textsuperscript{15}

51. **VAT evasion is the main source of revenue loss for the government.** Calculations based on expert accountants’ board estimations suggest that the revenue losses from VAT evasion in 2004 were 3.5 percent of GDP. CIT and PIT evasion, on the other hand were estimated at 0.7 and 1.1 percent of GDP\textsuperscript{16} (Figure 19).

52. **Unreported workers and underreported wages cause losses in social security premium collection, but the net fiscal impact of any formalization effort needs to take into account the future liabilities that better compliance creates.** An estimate of the revenues foregone from unpaid social security premiums suggests a loss of about 1.3 percent of GDP in 2008. This is mainly driven by the unpaid premiums by wage earners and casual workers (0.8 percent of GDP).\textsuperscript{17} This estimation only considers the impact of unreported workers (fully unregistered workers) and does not take into account the under-reporting of wages or working days. In this sense, this estimate is only indicative. Furthermore, net fiscal impact would need to discount these potential benefits, in the form of added revenue, by the future liabilities accrued, in the form of health and pension benefits.

4.2 The impact of informality on firm performance and growth

53. **Recent studies on informality among firms argue that informal firms are less productive than formal firms, and that informality is therefore a potential growth constraint.** According to Perry et al (2008), the difference in labor productivity between formal and informal firms is on average about 30 percent for seven Latin American and Caribbean countries. Similarly, a study on Turkey (McKinsey, 2003) finds a productivity gap of 30-40 percent between formal and informal businesses. The following are most typical costs borne by informal firms that may constrain their growth:

(i) they may lack of access to markets and services

---

\textsuperscript{15} Nam et al (2001) have estimated VAT revenue losses (as percent of hypothetical revenues) in the mid-1990s for selected European countries. According to these estimates revenue losses were highest in Italy (35 percent), Spain (24 percent), Greece (20 percent) and Portugal (16 percent), followed by France (10 percent), Germany (7 percent) and the UK (6 percent) and at the bottom Denmark (4 percent) and The Netherlands (2 percent). For recent years the same authors have estimated VAT revenue losses for Germany at around 9 percent.

\textsuperscript{16} Informality strategy and action plan of the government.

\textsuperscript{17} For details of this calculation see Necdet Kenar (2009).
(ii) they may lack access to credit

(iii) they may not exploit latent economies of scale.

54. The analysis conducted for this CEM investigates the productivity differentials between formal and informal firms.\(^\text{18}\) Notwithstanding obvious data constraints (informal firms are typically not willing to provide accurate information on their activities), the analysis makes the most of existing data. For firm-level analysis of productivity differentials, data from two private surveys are used, one of which was conducted for this study and the other by Economic Research Forum (ERF). For individual-level analysis of wage differentials as a proxy of labor productivity differentials, TUIK’s labor force survey data is used.

55. Fully unregistered firms represent a small share of the sample. Figure 20 shows the number of firms reporting non-registration with chambers, tax-office and social security, based on the ERF data. The intersection of three different types of non-registration shows 203 firms out of a total of about 5000, 4 percent, are fully unregistered. The number of firms not registered with the tax office is slightly higher at 252, or 5 percent of the sample. An interesting feature of the survey is that it shows that most of the firms that did not register their workers with the Social Security Institution are registered with the tax office and the chambers.

56. Analysis of the ERF data set of 5,000 small or medium-sized manufacturing and services firms\(^\text{19}\) shows differences between formal and informal firms consistent with other studies. As observed in many other countries, there is a positive correlation between the level of formal employment and firm size both in manufacturing and services. While the share of formal firms is less than 80 percent among firms with five or less workers, this ratio exceeds 95 percent for firms that employ at least 20 workers. Consistent with the LFS data (above), female entrepreneurs tend to have much higher informality rates, especially for manufacturing. Furthermore, formal firms produce more, achieve higher labor productivity (as measured by output per employee), use more capital intensive techniques, and pay higher wages. Finally, formal firms are older (they survive longer), their owners are also older, more educated and experienced, and they employ fewer young workers.

\(^{18}\) Erol Taymaz, 2009, Informality and Productivity.

\(^{19}\) Employing less than 50 workers.
To test for a productivity gap between formal and informal firms, the methodology controls for self-selection. Although most of the differences discussed above, between formal and informal firms in the data used, are statistically significant, a simple comparison between a group of informal and formal firms would not provide any information as to why these differences emerge. If, for example, the factors that influence the choice of entry into formal/informal sectors and the productivity characteristics under investigation are correlated, then the observed differences could simply reflect the effect of the self-selection process. In order to isolate the productivity differences between formal and informal firms, we must mitigate the effect of self-selection.

4.2.1 An estimate of the productivity gap between formal and informal firms

The empirical analysis shows that there is a substantial Total Factor Productivity (TFP) gap between formal and informal firms. In the estimates of production functions for formal and informal firms, the coefficients are significantly different. The TFP gap between formal and informal firms is about 150 percent for manufacturing and 140 percent for services. The differential in manufacturing seems to be substantial but it is of the same order of magnitude of the productivity differential between very small firms that employ 10-24 people and others that employ 25 or more people. According to the TUIK Annual Survey of Manufacturing Industries in 2000, the productivity differential between these two groups of manufacturing firms was about 191 percent. Furthermore, the marginal product of labor is much higher for formal firms than informal firms. Productivity differentials could, however, arise not because of intrinsic characteristics of formal and informal firms, but rather due to self-selection.

The analysis also shows that the formal/informal selection process is influenced by the entrepreneur’s characteristics and firm location and age. A test of the determinants of informality suggests self-selection of more educated entrepreneurs into the formal sector. Large firms are less likely to operate informally. There is support for life-cycle theories: the tendency to operate informally diminishes with the entrepreneur’s experience and the firm’s age, particularly in services. In addition, clustering of firms (where enterprises engaged in similar business are located close to each other) increases formality. All these factors are likely to increase the productivity of formal firms.

Even after controlling for self-selection, formal firms are more productive than informal firms. When entrepreneurial characteristics are included in the estimation of the

---

Figure 21: Total Factor Productivity Gap

---

A logit model is estimated where the dependent variable takes the value of 1 if the firm is informal and 0 otherwise.
productivity gap the total factor productivity differential unexplained by these characteristics is estimated to be 44 percent in manufacturing and 115 percent in services. When firm-specific characteristics are also included in the estimation, the productivity gap declines to 19 percent in manufacturing and 62 percent in services (Figure 21).²¹

61. **Another way to test for productivity differences between formal and informal firms is to compare wages.** The wage rate at the individual level is expected to be positively correlated with labor productivity. If the labor market is competitive the wage rate will be equal to the marginal product of labor and differences in wage rates can be used as an indication of productivity differences. If the labor market is not competitive, the wage rate may still be positively correlated with productivity. But in such a case, a wage differential between informal and formal firms may arise without any productivity differential (e.g., if formal sector workers have a stronger bargaining power than those employed in the informal sector).

62. **There are significant wage differentials between informal and formal workers, even after controlling for gender and firm size.** A separate analysis of productivity differentials using household-level data, complementary to the firm level analysis, yields consistent results. The wage differential is much higher in services (about 55 percent) than in manufacturing (about 35 percent). Irrespective of firm size, formal firms pay higher than their informal counterparts.

63. **Estimation of a Mincerian wage equation provides explanation of the determinants of the wage differential.**²² There are significant wage gaps between informal and formal workers even after controlling for selection and individual characteristics. These differences are likely to be caused by productivity differentials between informal and formal firms. Moreover, the level of education and firm size also has positive effect on wages. These two factors also contribute to the observed wage differentials, since the share of formal employees is much higher among the educated and also among large firms.

**Potential Cause of Productivity Differential No. 1: Economies of Scale**

64. **In theory, it is possible for informal firms to operate at suboptimal scales of production and hence formalizing them should foster their growth.** Many studies argue that lack of scale in production may be a cost of informality (the increasing risk of being caught as the firms grow). If the large majority of informal firms stay very small they never reach an efficient scale of production. A series of recent studies by McKinsey Global Institute conclude, similar to de Soto, that “the powerful incentives and dynamics that tie companies to the gray economy keep them subscale and unproductive.” However, discussion of the role of economies of scale implicitly assumes that informal and formal firms adopt the same technology and production function.

---

²¹ When the same analysis is conducted using the WB Informality Firm Survey for Turkey, consistent results are obtained. Informal firms are found to be less productive. However, due to the small number of observations, the explanatory power of the model is low. The detailed results can be found in Taymaz (2009)

²² See Taymaz (2009) for results and detailed discussion of this analysis.
65. **There is no evidence in our empirical analysis for increasing returns to scale.**\(^{23}\)
Formal and informal firms appear to use different technologies of production, in which informal firms display decreasing returns to scale and formal firms display constant returns to scale.

**Potential Cause of Productivity Differential No. 2: Unfair Competition**

66. **Informality may cause negative externalities due to the free rider problem and unfair competition.** Loayza (2007) argues “the informal sector generates a negative externality that compounds its adverse effect on efficiency: informal activities use and congest public infrastructure without contributing the tax revenue to replenish it.” A frequently cited problem associated with informality is the “unfair competition” argument. Informal firms “unfairly” take market share away from formal firms, hindering formal firms’ growth. However, according to international literature, this causal link between firm-level “fairness” and aggregate productivity is theoretically ambiguous (it is not straightforward to isolate this effect) and empirically not supported. “Unfair competition” may nonetheless erode social trust (below) and hamper growth indirectly but such effects are even harder to quantify that productivity-related effects.\(^{24}\)

67. **Most firms do not view informality as the most significant constraint to their businesses.** Results from the surveys may at first give an impression that informality is a major issue for firms in Turkey. However, careful analysis of the data shows that while many firms seem to be in direct competition with informal businesses (about 45 percent in ES 2005 and 52 percent of service firms in BEEPS 2008), this competition only seems to impede a small fraction of firms. Out of the 55 percent of firms in the ES 2005 that identified competition from informal firms as a major/severe obstacle to their business, only 27 percent of them listed informality as the top or second-most important obstacle when asked to prioritize among constraints. And among the full sample, while informality was the third most often cited obstacle, in terms of number of firms sampled, only 16 percent of them actually identified informality as the first or second most important constraint to their business operation (Figure 22).

\(^{23}\) See Taymaz (2009) for full results.
\(^{24}\) A counteracting argument is that flexibility of small informal firms and the self-employed leads to (informal) employment generation and contributes to growth, notwithstanding measurement difficulties.
68. **The Informality Survey shows firms consider it possible to work as a formal firm despite common informal practices such as tax evasion, unregistered employment and operating without receipts.** When asked about whether informal activities (such as tax evasion, unregistered employment, and operating without receipts) are widespread or not, about 35 percent of firms said it was widespread or very widespread (Figure 23 left panel). Only 28 percent said informal activities are not widespread at all. In response to another question on “whether it is possible for a firm to work as formal in the presence of widespread informality,” a significant share (close to 70 percent) responded positively (Figure 23 right panel).

69. **Informality may therefore not be a major constraint on most firms’ operations.** Some level of informal activity takes place in the opinion of a large share of the firms interviewed in all surveys: 77 percent of firms in the Enterprise Survey of 2005 declared that a typical firm in their sector declares less than 100 percent of their sales for tax purposes; a majority of the firms interviewed for the qualitative survey said “that doing business without receipts or less-valued receipts is quite frequent in their business sector.” But our analysis underlines: (i) the difficulty of measuring the impact that informal practices may have on firm performance, and (ii) that informality may not be the biggest constraint to a firm’s operation.

70. **This may be changing: firms’ have viewed informality in Turkey as increasingly serious in recent years.** In the Enterprise Survey of 2005, 51 percent of interviewed firms perceived an increase in the level of informal competition. In contrast, 21 percent saw a decrease and 28 percent said levels of informal
competition remained the same. After 2005, firms’ perceptions seem to indicate that they faced an increase in the level of competition from informal firms. Figure 24 shows there was an increase of 7 percentage points between 2008 and 2005 in the numbers of firms that see themselves in direct competition with informal firms.25

### 4.2.2 Potential growth effects of a formalization policy

71. **Policies to formalize could increase productivity in the economy.** Having established the existence of a productivity differential between formal and informal firms, we investigate the impact of “enforcing” formality. A simulation exercise estimates the gains from formalization. Since the above analysis pointed to the importance of entrepreneur and firm characteristics and “self-selection”, this analysis also takes into account the fact that some entrepreneur characteristics cannot be changed in the short to medium term.

72. **We experiment with three scenarios to understand the employment effects of a shift towards formality.** In the first scenario, we assume that all informal firms start to operate formally. In the second scenario, we assume that all informal firms exit from the market because they lose competitiveness as a result of high costs of formality (social security contributions, taxes, etc.), and the formal firms expand (or new formal firms are established) to satisfy the demand previously met by informal firms, such that total output does not change. It is obvious that these two scenarios represent extreme cases: all informal firms survive in the first one, and all informal firms exit in the second one. The third scenario is the same as the second one, but assumes total output increases by 10 percent due to productivity gains.

![Figure 25 a and b: Simulation results of a formalization policy](Image)

73. **In a scenario in which all informal firms become formal, potential output gains emerge, although they are more limited in the manufacturing sector.** In this scenario all informal firms are forced to operate formally. Conceptually, they switch to the production function of formal firms without any change in their inputs and entrepreneurial characteristics. It

---

25 As these are entrepreneur’s perceptions, involving subjectivity and some degree of comparison with other constraints faced by firms, this result should be interpreted with care and should not be taken as an indication of increase in absolute levels of informality in Turkey in this period.
is assumed that firm characteristics such as technology, composition of labor and customer relations are replaced with those of formal firms. As a result, the output of manufacturing firms increases by 5 percentage points while the output increase for services is more pronounced for services, at 25 percent (Figure 25).

74. **This increase in output is associated with a decline in employment, pointing to a potential tradeoff between growth and equality.** In another illustrative scenario, all informal firms exit from the market as a result of strict enforcement. When informal firms move to “formal production” the productivity gains may not be sufficient to compensate for the additional costs of formality such as taxes and social security premiums. In this scenario production by informal firms stops and formal firms match their former production. This scenario is constructed to illustrate potential employment costs of formalization. Using LFS statistics, the simulation implies that if all informal jobs are replaced with more productive formal jobs, total employment would drop to 15 million from 16.5 million, a 9.7 percent decline.26

75. **Simulated changes in the composition of employment reveal that the burden of transition from informality to formality is shouldered by poorer workers.** Uneducated (less than high school level), young (aged 15-24), old (aged 45 and above) and female employees would experience employment losses (Figure 26). Those who would benefit most from formality have vocational school training or university degree holders, and are 35-44 years old.

76. **Estimates of the productivity gap between formal and informal firms are mitigated by two considerations.** (i) **Unobservables.** Even after controlling for firm and entrepreneur characteristics, which reduces the TFP gap for manufacturing to 19 percent, there are unobservable factors such as worker or entrepreneur effort. Not being able to control for such unobservables drives up the estimated productivity differences between formal and informal firms. (ii) **Inequality.** Simulations show moving production from informal to formal firms may have significant distributional effects since formal firms are likely to employ more skilled workers and the transformation may lead to unemployment of informal workers. Vulnerable groups (less educated, young and old, and female) would experience a decline in the demand for their labor, whereas more educated, mid-aged and male workers would have better employment prospects.

---

26 In a somewhat more realistic scenario, output is allowed to increase by 10 percent. The results are comparable, with the only major change observed in the impact on the composition of employment.
4.3 Economic and social vulnerability

77. **One of the most important and direct consequence of informality is the economic and social vulnerability of the informally employed.** Informal workers, whether self-employed or salaried, generally lack basic protection to face unforeseen shocks (illness, disability, etc.), as well as the benefits that will allow them to get through periods when they cannot earn income, such as old age or maternity. As Perry et al. (2007) discuss, despite evidence that poor households are able somewhat to mitigate the impact of shocks to their incomes (for instance, in Latin America, poor households are able to protect between 60 and 75 percent of their per capita consumption in the face of an income shock), this protection is far from complete. Moreover, evidence also indicates that poor households are particularly vulnerable to health shocks, which typically have compounding costs (treatment, lost income of the ill person and family members) and in many cases lead families to disinvest in their own future (by pulling children out of school for instance).

78. **Informal workers face higher economic risk in the form of lower net earnings and risk of job loss.** This puts a large fraction of the population in a situation of uncertainty and vulnerability to shocks, which itself may impose a cost on the economy as a whole. As discussed in section 5.3.4 below, according to the labor force survey, the wages of informal sector workers are significantly lower than those of formal sector workers, controlling for worker characteristics such as education and experience. Informal workers are also unprotected against job loss: (i) they have no right for severance pay (indeed, high cost of firing may be a reason for their employers’ not registering them) and (ii) they are not eligible for unemployment benefits. In the WBHII survey, respondents were asked how long they would manage (to sustain their living expenses) if their income was cut off (Figure 27). While about 30 percent of formal workers are reported to maintain their living standard for only a week or less, this ratio goes up to 50 percent for informal workers. At the same time, when asked about the current economic conditions of their families, informal workers are on average much less satisfied with their situation then formal workers (Figure 28).
79. **Informal workers may be disproportionately affected at times of crisis.** The potential impact of the recent global crisis on vulnerable groups in Turkey can be simulated to illustrate the composition of the expected rise in unemployment and poverty. While both formal and informal sector workers would experience job losses in a severe contraction (in fact fewer informal jobs would be lost), non-agriculture informal sector workers are most vulnerable to falling into poverty. This is caused by possible real declines in the informal sector wages. Figure 29 shows that close to half of those falling below the poverty line, resulting from a sharp recession, belong to the non-agriculture informal group of workers.

80. **While some of the informal workers are covered by the public health system through the Green Card program, some remain fully uncovered.** WBHII survey results displayed in Figure 30 shows that in the selected sample of 2850 household members, 21 percent of informal wage earners are not covered. Since the survey results also show that about 70 percent of respondents in the survey stated they value the health benefits of a formal job the most, there seems to be an important element of exclusion in this segment of the population. Job seekers in general stated preference for a low pay job with social security and health coverage over a higher paying job without social security coverage (discussed in chapter 5).

81. **Widespread informal employment also contributes to low female labor force participation.** Informality is widespread among less educated female employees and is likely to be a permanent status for this group. Women often start their careers as informal workers and

---

27 This paragraph draws on a recent World Bank study on Female Labor Force participation “From Crops to Jobs: A Report on Female Labor Force Participation in Turkey. Report 48508-TR. Washington D.C and a background paper for the same study by Erol Taymaz.
are then unlikely to move to the formal sector. Also, crucially, the returns to education are much lower in the informal sector than in the formal sector (Figure 31). Furthermore, wages of informal female employees are much lower than those of informal male employees – unlike in the formal sector. As a result, there is little incentive to invest in women’s education, resulting in a “low participation trap”, putting a constraint on the long-term growth potential of the economy over and above the productivity effect discussed above.

5. Causes

82. Informal economic activity has diverse causes. The following are most commonly cited potential determinants of informal activity:

- burdensome regulations (high firm entry costs, strict labor regulations, high taxes, complicated procedures, etc.)
- low institutional quality (corruption, weak rule of law, lack of accountability, etc.)
- low human capital
- high economic inequality
- low trust in institutions
- low quality of public services (infrastructure, social protection)
- lack of access to resources (land, credit, etc.)
- low monitoring and enforcement
- individual preference for independent work.

83. In this chapter we will discuss the possible determinants of informal economic activity in Turkey. In the exclusion and exit framework introduced earlier, there may be two different types of determinants. Exclusion suggests that firms are forced into informality by factors outside their control, such as regulations and taxation. These are mainly institutional determinants of informality. In contrast, some workers and firms may choose to opt out of the formal sector based on an assessment of the costs and benefits of formality. These more deliberate decisions may in turn be affected by “the structural characteristics of underdevelopment” in a particular country, such as educational achievement, production structure and demographic trends (Loayza, 2007). While some of the above factors play an important role in Turkey, such as for example strict labor market regulations and weak enforcement, other factors do not seem to be very influential, such as for example the preference for independent work.

84. The discussion distinguishes “structural” and “non-core” factors behind informality from “core” factors. Structural factors are deep-seated characteristics of the economy not necessarily amenable to policy, such as demographics. Core factors are drivers of informal activity that we would see as potential policy levers to promote formalization and reduce informality. Non-core factors are determinants of informality whose significance is such that we would not evaluate reforms in these areas solely on the basis of the effects on informality. Examples of non-core factors might include the overall structure of taxation or the parametric structure of the pension system, for example.
5.1 Structural and Non-Core Factors

85. **Age and gender are important determinants of informality.** As discussed in more detail in section 3.2 above, informality rates are rather high for the two ends of the age profile and for female workers.

86. **The design of pension parameters and particularly early retirement appear to have a significant role in increased informality at older ages.** As the age profile figure of informality shows, informality rates, after declining until the late 30s, increase at the 40-44 age group, suggesting that early retirement may play a role. Pension systems can create incentives to retire from formal work at a relatively early age and continue working informally. In this case, the labor supply is not reduced but fiscal costs increase, as these workers receive a pension and stop paying social contributions and may also avoid personal income tax.

<table>
<thead>
<tr>
<th>Table 3: Indicative estimation of potential number of pensioners that work unregistered, in July 2008.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of pensioners (SGK actual number)</td>
</tr>
<tr>
<td>The number of persons who are out of labor force, because of retirement (LFS)</td>
</tr>
<tr>
<td>The number of pensioners in the labor force</td>
</tr>
<tr>
<td>12.3% of non-agricultural unemployment rate</td>
</tr>
<tr>
<td>Estimated number of pensioners who work</td>
</tr>
<tr>
<td>The number of pensioners who work registered (SGK, actual number)</td>
</tr>
<tr>
<td>Estimated numbers of pensioners who work unregistered</td>
</tr>
</tbody>
</table>

**Source:** SGK Monthly Statistics and TUIK HLFS

87. **According to an indicative estimation, the number of pensioners working informally may be close to 2 million (Table 3).** In Turkey, workers retire extremely early, on average below the age of 50. The low age of retirement is caused by the relatively high replacement rate of the pension and the fact that pension benefits are not reduced for workers who retire younger than the official retirement age (which is currently 58 for women and 60 for men). Furthermore, retirees do not pay taxes on their pension and are entitled to full health insurance without having to pay contributions. In addition, pensioners receive a severance payment on retirement which is equal to one month’s salary for each year of work. These incentives for early retirement boost the number of middle-aged pensioners who continue to work informally. As the pension system runs a deficit that is covered by general taxes, formal sector workers therefore indirectly subsidize informal work by pensioners, which reduces the overall tax base and also leads to “unfair competition” in the labor market between pensioners and younger workers trying to enter the formal sector. Recent pension reforms have reduced benefit entitlements and incentives for early retirement and increased the standard retirement from 60 for men and 58 for women to 65 for both, but the new rules are to be phased in gradually and will become fully effective only for age cohorts born after 1980.
### Table 4: Sectoral structures in Turkey and a set of European comparators

<table>
<thead>
<tr>
<th>Economic Activity</th>
<th>Turkey</th>
<th>Comparators</th>
<th>Turkey</th>
<th>Comparators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>31.8%</td>
<td>6.9%</td>
<td>44.9%</td>
<td>45.4%</td>
</tr>
<tr>
<td>Industry</td>
<td>23.7%</td>
<td>26.0%</td>
<td>6.4%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Construction</td>
<td>6.9%</td>
<td>12.7%</td>
<td>10.9%</td>
<td>11.4%</td>
</tr>
<tr>
<td>Services</td>
<td>37.6%</td>
<td>54.5%</td>
<td>24.8%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>100.0%</td>
<td>25.9%</td>
<td>10.4%</td>
</tr>
</tbody>
</table>

Source: Reis, Angel-Urdinola and Quijada Torres (2009)

88. **The structure of the Turkish economy is another major determinant of informality.** A simple exercise estimating the rate of informal employment in Turkey using the employment structure in selected European countries (see Table 4) validates the prominent role of economic structure. Using the European average employment per economic sector and informality rates per economic sector to simulate the effect of Turkey’s economic structure on its informality rate (a simple variance decomposition assuming no interaction effects), the results show that the Turkish overall informality rate would be 19.7 percent if its economic structure resembled this European average, about 6 percentage points lower than its current level of 25.9 percent. That is, the structure by economic sector of the Turkish economy (level of employment by economic activity) accounts for about 60 percent of the difference in informality rates between Turkey and this group of European countries. As agriculture gradually reduces its importance in Turkish employment, we should expect a gradual reduction in informal employment. This simple exercise also shows that unless further reductions in informality are obtained in urban sectors, (in industry and especially in services), the overall level of informality in the country is likely to remain high, at least twice the level observed in Europe (Table 4).

89. **Minimum wage.** International evidence suggests that high statutory minimum wages may reduce the employment chances of low-productivity of workers and in lagging regions (World Bank, 2005). In most countries where the minimum wage is binding in the formal sector, (i.e., where a higher minimum wage is found to lead to a fall in formal employment) there is an associated higher rate of informal sector employment (OECD, 2008). For the case of Turkey, the OECD (2008) argues that the minimum wage in the formal sector is binding and suggests limiting minimum wage increases and introducing a differentiated rate (for different age groups, new entrants or in different regions, targeting low-productivity workers) could promote formalization.

90. **The regulatory environment for business.** The high cost of establishing and operating a formal business can also encourage informality. Research based on Latin American experience suggests that “reductions in informality and improvements in microfirm performance could be achieved by lowering statutory burdens to formalization and implementing administrative

---

28 The following ILO categories for employment were not included in these calculations: Public Administration and Defense, Compulsory Social Security, Education, Health and Social Work, Other Community, Social and Personal Service Activities, Private Households with Employed Persons, Extra-Territorial Organizations and Bodies Not classifiable by economic activity.

29 Informal employment defined as self-employment, using ILO Own-account workers (ICSE-1993) categorization.
simplification programs aimed at reducing the transaction costs associated with operating legitimate businesses” (World Bank 2007). Turkey has made progress in simplifying business regulations as measured by the World Bank’s “Ease of Doing Business Index” and moved to 59th among a total of 181 from its rank of 84th in 2005. However, survey results also show that bureaucratic procedures are still perceived as a major obstacle for doing business in Turkey—particularly in the area of licensing, construction permits, and closing a business.

91. **Quality of public services.** A strong institutional structure and an efficient bureaucracy promote formalization. Trust in the quality of government services can enhance tax compliance. If taxpayers believe that they will receive high quality public services, tax evasion is likely to be lower. In addition, widespread corruption prevents the provision of high quality public services and in turn, encourages informal practices. This association is fostered by the fact that in the absence of an efficient bureaucracy, the risk of operating informally is lower. The World Bank’s Worldwide Governance Indicators rank Turkey’s overall government effectiveness at 64 percent against the highest score of 100 percent (Switzerland).

<table>
<thead>
<tr>
<th>Box 3: Controlling informality in the energy sector*</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the Turkish energy sector, almost all energy products have been subject to high tax rates because of the high evasion present in the Turkish tax system. Thus, high tax rates on energy products (in addition to insufficient institutional capacity and inadequacy in monitoring and enforcement) have been the major cause of informality in the sector (especially in the petroleum sub-sector). However, after the enactment of laws 4628 and 4646 in 2001, law 5015 in 2003 and law 5307 in 2005, measures have been taken step by step in order to try to minimize informality. Significant reductions in informality have been achieved. These measures have included: the registration of market participants, improvement of the monitoring capacity, strengthening of laws and regulations, and the implementation of new technology such as the national marker applied to fuel products.</td>
</tr>
</tbody>
</table>

*This discussion is based on comments received from EMRA, which are gratefully acknowledged.

5.2. **“Core” Factors**

5.2.1 **The role of tax policy**

92. **Avoiding taxes is a major reason for informality.** The complexity of the tax system and the level of the tax burden are among the aspects of the regulatory environment most associated with informal activity. The causality often goes both ways: high tax burdens lead to increased tax evasion, which ends up shrinking the tax base and leading to higher nominal rates. In that sense, tax policies may both be a consequence of widespread informality and also a cause. A good example is the energy sector (see Box 3).

93. **Perceptions of a high tax burden are widespread in Turkey.** In the WBHHI survey, in response to a question on “what percentage of their taxes do people actually pay?” only 4 percent said they pay all of their taxes (Figure 32).

---

30 An alternative interpretation of limited formalization of microfirms offered in the same report is that the presence of low opportunity costs for entry into formal sector may lead to an increased number of low-productivity firms.

31 See Kenar (2009) for more details on this issue.
94. In surveys conducted for this report, firm owners and managers complain about high tax burdens and predict government’s tax revenues would increase if a radical tax cut was made. One respondent in the in-depth interviews argued “I try to pay as little tax as possible. Taxes are high, everyone is saying this already.” Another complained “I pay more than enough taxes. Taxes are too high and too many. Where around the world do they have 39-40 percent taxes?” Overall, there was a strong belief among the respondents both in the quantitative and qualitative survey that taxes are “too high”. Partly as a result of this assessment, people expect that a tax cut in VAT and CIT would increase revenue collection by enhancing compliance (Table 5). However, when asked the same question with respect to their own firms, the percentage of firms expecting an increase in their own tax payments is much smaller, casting doubt on the possible impact of a moderate tax cut. Similarly the Investment Climate Survey (2007) for Turkey identifies high taxation as the main cause of informality, leading to losses in productivity and employment.

95. However, in international comparison, tax rates in Turkey are not much higher than in comparator countries, particularly after recent changes. According to the Doing Business 2009, Turkey’s total tax rate of 45.5 percent of profits is lower than most comparator countries. In 2005, this rate stood at 53 percent.

96. The Turkish tax system has undergone major reforms in recent years, particularly since 2004. A number of measures have been taken to bring the tax system closer to “international good practice” by reducing tax distortions, making the system simpler and more transparent, and improving tax collection. Personal and corporate income taxes have been modernized and the rates are not high in international comparison, although they still remain vulnerable to evasion.

97. After recent reforms, Turkey’s corporate income tax is not a major barrier to domestic and foreign investment. In the past the CIT system was characterized by relatively high tax rates and a relatively low tax base with many exemptions and loopholes, which provided incentives for tax planning and possibilities for tax avoidance. The complexity of the tax system has also created inequalities both between informal and formal

---

32 Total tax rate includes all taxes and mandatory contributions a firm must make, accounting for deductions and exemptions for a typical firm.
firms as well as within the formal sector, as the effective corporate tax burden has fallen on a small number of taxpayers. Through recent reforms, Turkey reduced the CIT rate to 20 percent and attempted to widen the tax base by eliminating the 40 percent investment allowance. Measures were also taken to reduce tax evasion of corporate income tax by clarifying provisions concerning transfer pricing and thin capitalization, and rationalizing tax incentives in Free Trade Zones (FTZ) to prevent the shifting of profits into FTZs through transfer pricing or other measures. Furthermore, tax incentives in low income regions have been reformed by replacing tax holidays by lower labor taxes for new jobs.

98. **The personal income tax was rationalized after 2004, although it is still vulnerable to evasion.** At the end of 2004, the top marginal personal income tax rate was reduced from 40 to 35 percent for wage earners and from 45 to 40 percent for non-wage earners. In April 2006, the PIT schedule was further reformed by lowering rates, reducing the number of tax brackets, and unifying the tax treatment of wage and non-wage income; the PIT schedule now consists of four tax brackets with rate of 15, 20, 27 and 35 percent for both wage and non-wage income. The PIT system provides a number of tax allowances and tax credits, such as tax relief for the disabled, and for social security contributions and special tax credits for wage and salary earners (for specified expenditures).

99. **Indirect taxes have also been reformed but they are still subject to widespread evasion.** Turkey’s standard VAT rate of 18 percent is close to the OECD average of 17.7 percent – c.f. the Slovak Republic (19 percent), Greece (19 percent), Spain (16 percent), and Mexico (15 percent) (Figure 33). There also exist reduced rates of 1 percent and 8 percent for food products and a number of other consumption items. Differentiated VAT rates and exemptions exist in many countries and reflect social or other policy objectives but at the same time reduced rates and exemptions distort competition and consumption patterns, complicate the tax system and increase administrative costs. In March 2006, the VAT on textile products has been reduced from the standard rate of 18 percent to a preferential rate of 8 percent. In order to support tourism and improve competitiveness, the reduced rate of 8 percent was also granted to hotels and restaurants.

---

33 In the past environment of high inflation, investment allowances had been used as a tool to limit the effective tax burden on investment as standard tax depreciation allowances are based on historical costs rather than replacement costs. In 2003, the bureaucratic system of investment allowance with rates of 100% and 200%, which were granted after an investment certificate had been issued, was replaced by an automatic allowance of 40%.

34 There is some anecdotal evidence, that deadweight losses are high i.e. that a good part of the investment would be carried out also without such subsidies, in particular in regions, which are not too far from major cities but benefit from tax incentives; at the same time, investment in more distant regions remains too low to initiate economic catching-up.

35 In 2002, Turkey has simplified its system of special consumption taxes by introducing a Special Consumption Tax (ÖTV) which replaced 16 different indirect taxes and funds. There are mainly 4 product groups which are taxed at different rates under ÖTV: (1) petroleum products, natural gas, lubricating oil, solvents and derivatives of solvents; (2) automobiles, motorcycles, planes, helicopters, yachts; (3) tobacco and tobacco products, alcoholic beverages and (4) luxury products.

36 Pursuant to the decision No: 2009/15200 of the Council of Ministers, as of July 15, 2009, VAT rates for venues with first-class restaurant certificates or operation licenses, and restaurants within hotels, resorts and similar facilities with three stars or more have been raised to 18 percent.
100. **A feature of the VAT system is that firms can claim credits on the VAT paid on their purchases for reduced rate goods and for their exports.** If this credit is higher than what firms pay on their taxable sales they are entitled to receive a refund from the government. Firms with large shares of exports in total sales often receive VAT refunds from the government as VAT is not levied on export sales. For example, as a result of the recent tax cut, textile firms now receive VAT refunds not only on exports but also on domestic sales as inputs are taxed generally at 18 percent while sales are only taxed at 8 percent.

101. **The administration of the VAT remains challenging in Turkey, as in many other countries.** Due to the refund system, firms have an interest in receiving proper invoices on their purchases of inputs so that they can claim these tax credits. Despite this self-policing feature of VAT, this tax is also vulnerable to various types of fraud. One is the non-declaration of sales by firms in the informal sector. However, as these firms cannot claim VAT credits on their inputs, they implicitly pay VAT on the value added of earlier stages of production if these have occurred in the formal sector; thus only the value added of the informal firm goes untaxed. Another is the under-declaration of sales by formal sector firms which at the same time claim full tax credits for the VAT levied on their inputs. This type of fraud often arises at the stage of final sales to consumers or to tax-exempt organizations which accept purchases without a receipt and pay a lower price in return. Finally, in so-called carousel fraud (or “missing-trader” fraud), evaders exploit the VAT zero-rating of exports (destination principle) and claim credits on inputs while no tax is paid in the importing country.

102. **Another potential avenue for tax evasion is through transferring labor income into capital income.** While wage costs are deductible from the profit tax base, the incentive for full wage declaration depends on the relative size of labor and profit taxes. In Turkey, with the reduction of the corporate income tax rate and the introduction of a partial inclusion system in 2003, where only half of the distributed profits has to be included in the personal income tax base of dividend receivers, the total tax on dividends declined significantly, from 65 percent in 2000 to 44 percent in 2005 and 34 percent in 2006. It is now 8 to 10 percentage points lower than...
the labor tax wedge depending on the income level and family status (see below). The lower dividend tax provides an incentive to under-declare wages and transform wages into distributed capital income. However, as social security contributions are capped (above 6.5 times the minimum wage), which reduces the marginal labor tax wedge for high income earners, the incentive to evade labor taxes by transforming labor income into capital income is perhaps not very strong for very high wage earners who benefit from the social security cap.

5.2.2 The role of the tax wedge

103. **Labor tax wedges have also been a major cause of informal employment.** High taxes on labor can reduce employment in the formal sector. The impact of the tax wedge on gross and net wages depends on labor market institutions and economic conditions. An increase or decrease in labor costs leads to an adjustment of demand for labor by firms and supply of labor by workers. The elasticities of labor demand and labor supply then determine the tax incidence.

![Figure 34: Tax Wedges in OECD countries](source)

Source: OECD and staff calculations based on Kenar (2009)

104. **Previous empirical work has found that the labor tax wedge tends to reduce formal sector employment.** Betcherman and Pages (2009) provide estimates for the elasticity of labor demand and argued that a tax wedge cut may be influential in increasing formal sector employment. However, this effect will be limited due to the potential pass-through to wages of the tax cut. The more the labor tax cut is used to increase the net wage, the smaller is its effect on labor costs and labor demand. This finding suggests caution in using general tax cuts as a policy for formalization. However, reducing labor taxes for low-skilled workers can be effective, particular in a country like Turkey where the minimum wage sets a floor to the gross wage so that employer contributions have to be borne by firms, which increases labor costs and reduces labor demand for lower skilled workers. Cutting employer contributions would therefore reduce labor costs and increase labor demand in the formal sector for these workers.

---

37 In times of crisis, the pass-through may be expected to be zero or close to zero, given increased unemployment.
While the labor tax wedge in Turkey has historically been high, recent reforms have significantly reduced non-wage labor cost. Figure 34 shows the tax wedge for OECD countries, with the rate Turkey displayed for both before and after the reform. The main features of the reform were (i) the introduction of a minimum living allowance (MLA) for personal income tax in January 2008; (ii) a 5 percentage points across the board reduction in employer social security contributions effective from October 2008; and (iii) exemptions for employer contributions for newly hired young workers and female workers in the first year and reduced rates over a five year period. The tax wedge for a single-earner earning the average wage stood at 42.7 percent in 2007. The MLA reduced the tax wedge by between 2.5 and 6 percentage points, depending on the family status and the income level of the worker.

The across-the-board cut in the social security contribution could increase formal employment. The 5 percentage point cut in social security contributions reduces the average tax wedge by 2.5 percent to 3 percent. If this reduction were fully used to cut costs (assuming no pass-through to workers in the form of higher wage – an admittedly extreme assumption) wage costs would decline by around 4 percent. Assuming a labor demand elasticity of 0.5 (Betcherman and Pages, 2009), formal employment could increase by around 2 percent (or around 150 000 workers). If one assumes instead some pass-through of the labor tax cut to workers, the employment effect would be smaller.

5.2.3 Labor market flexibility

Excessively rigid or protective labor market regulations create another powerful incentive for informal employment. Labor market regulations cover many areas such as the establishment and protection of universal workers’ rights, working conditions, employment protection rules, the protection of vulnerable groups of workers. Among these, employment protection legislation (EPL) covers the kinds of contracts permitted; the conditions under which employees can be dismissed for economic reasons; requirements for severance and advance notice of dismissal; rules for mass layoffs; and redundancy procedures. All these regulations complicate the processes of hiring and firing and increase the costs of these processes. If such laws weaken the employment flexibility of firms against business cycle fluctuations, the firms may hire workers informally to avoid EPL.

Empirical studies show that labor market policies are important determinants of informality (Perry et al, 2007). The degree of strictness of labor market regulations and strong enforcement of labor regulations play a major role in this interaction. Higher non-wage cost of formal employment in Brazil, Colombia, and Peru has been argued to cause substantial declines in formal employment in these countries. Brazil, for example, introduced a constitutional change including several important changes to labor market regulations increasing labor costs and reducing employer flexibility, including a reduction in maximum working days/hours, expansion of union power and increasing by four times the penalty for “unjustified” dismissal. Bosch, Goni and Maloney (2006) suggest that these changes appear to have had a strong impact on decreasing formal job creation. Simulations suggest if there had been no legislative change formal hiring

---

38 After the reform tax wedge figure is estimated for a worker married with four children and earning TL 1509.
39 This part relies heavily on the Latin America flagship study on informality, Perry et al, 2007, Informality, Exit and Exclusion.
rates would have been 40 percentage points higher (Perry et al, 2007). Similarly, a number of studies have analyzed the effects of labor market regulations on economic outcomes in India (Ahsan and Pages, 2007) and found evidence of an adverse effect of job security laws, particularly on formal manufacturing jobs.

| Table 6: Summary of Impacts of Employment Protection Regulations-
| Impacts of strict limitations regarding: |
| Fixed-term and temporary agency work | Terminating indeterminate employees for business reasons |
| Employment | Somewhat lower | Somewhat lower |
| Labor force participation | N/a | Somewhat lower |
| Unemployment | Insignificant | Insignificant |
| Unemployment duration | Longer | Longer |
| Non-standard employment | N/a | Probably higher |
| Informal employment | Higher | Higher |
| Job creation | Lower | Lower |
| Job destruction | Lower | Lower |
| Labor turnover | N/a | Lower |
| Job tenure | N/a | Longer |
| Groups benefiting | Women, youth | Prime-age males, skilled |
| Groups losing | Women, youth, unskilled |


109. Cross-country evidence also suggests a potentially high impact of strict labor market limitations—regarding fixed-term and temporary agency work and terminating regular employees’ contracts for economic reasons—on informal employment. There is a large literature that attempts to estimate the impact of EPL in OECD countries and particularly in Europe (World Bank, 2006). Table 6 provides a summary of the findings of this research. The impacts on employment and unemployment levels are modest and in the case of unemployment, often statistically insignificant. The impacts on job-types—formal versus informal—are quite high, however, although the results should be interpreted with caution. A more recent review of the literature on the impact of EPL on economic outcomes by Boeri, Helppie and Macis (2008) sends a consistent message. Dismissal costs are found to reduce output, investment and productivity and to induce firms and workers to operate in the informal sector. Similarly, in Latin America, Perry et al argues, the high levels of severance costs may substantially reduce job creation.

110. Turkey is an example of strict EPL. According to OECD calculations, Turkey, along with Mexico, has the most protective employment protection rules with an overall EPL rating of 3.5 among 28 OECD countries (OECD, 2008 based on 2003 data). This is primarily due to the existence within the protection regulations of limitations on temporary employment and fixed term contracts (receiving the highest rating of 4.9). A second group of regulations that contributes to Turkey’s EPL rating is the protection of regular employees. Among 28 countries, Turkey is ranked sixth (with a score of 2.6, along with Spain) for the protection of regular employment. The most significant factor increasing the strictness of regular employment protection is the high level of severance indemnity payment (see Box 4 for a brief description of
employment protection in the 2003 labor code). Similarly, the World Bank’s Doing Business (2009) study, in its “employing workers” category ranks Turkey 138th out of 181. This indicator is one of the 10 indicators of the ease of doing business in a country and measures flexibility in the regulation of hiring, working hours and dismissal in a manner consistent with the conventions of the International Labor Organization (ILO).

**Severance pay**

111. **Severance pay is often considered one of the least effective methods of income support for the unemployed because it often offers inadequate income protection and may impose large efficiency costs.** Empirical evidence suggests the system typically suffers from non-performance, in that many workers fail to receive the severance pay to which they entitled. For example, in Peru only about half of all workers legally entitled to severance pay received the benefit if dismissed, compared with 83 percent in Malaysia. This is related to the limited risk-pooling ability of the system, coupled with the non-funded nature of the system and the fact that liabilities often arise when the firm is least capable of paying them.

(ii) **Efficiency.** Several studies showed that job security laws in general have unfavorable consequences on labor market outcomes (as discussed above; see also Vodopivec, 2008).

![Figure 35: Severance pay parameters-International comparison](image)

Source: Turkey Labor Market Study, World Bank, 2006

112. **The burden of severance pay for enterprises in Turkey is high compared with most countries.** After one year of tenure, in case of no-fault dismissals, workers are eligible for severance pay in the amount of 30 days’ salary for each year of service. Figure 35 (taken from the World Bank’s Turkey labor market study of 2006) shows that (i) Turkey’s severance pay is the highest among various income groups, and (ii) Turkey’s 12-month prior employment eligibility requirement is well below upper-middle income countries’ (21 months). While a worker with 20 years tenure in Turkey gets 20 times his or her monthly wage as severance payment, the average payment is 6.2 times in the OECD and 9.8 times in upper middle income

---

40 Regarding collective dismissals, Turkey has flexible rules with the score of 2.4 that is ranked twenty-second along with Ireland among the OECD countries.


42 Vodopivec (2008) based on MacIsaac and Rama (2000) and Mansor and others (2001)
countries. Moreover the severance pay in Turkey is not limited to dismissals. Severance pay is paid to male workers for compulsory military service, female workers who leave within one year after marriage, and workers qualifying for old-age pension.\textsuperscript{43}

113. **Severance pay was increased to its current levels in 1975 in the absence of unemployment insurance.** Before 1975, severance pay was equal to 15 days’ wage for a worker with one year tenure. In 1975, this increased to 30 days. This aimed to address the absence of an unemployment insurance system at the time. This regulation also foresaw the establishment of a severance fund but that fund has never been formed. When the unemployment insurance system was implemented in 1999, the question of establishing such a fund was discussed but agreement was not reached during the preparations for the 2003 Act.\textsuperscript{44}

114. **The burden of severance pay leads many enterprises to seek ways to avoid it, including employing informal workers.** Employers may take a letter of resignation from the employee when the employee assumes the position, lay the worker off before the one-year tenure, show the employee at default in lay-offs, and negotiate with the employee when hiring him to obtain a resignation letter or quit claim. In some lay-offs, the severance payment is paid in full to the employee in exchange for a resignation letter and quit claim, and the reason for the termination of contract is shown as resignation.

**Restrictions on Temporary Agency Work and Fixed-term Employment**

115. **The Turkish Labor Code allows fixed-term and temporary employment only in exceptional circumstances.** The law only allows for temporary employment within the same holding companies, and for a period of at most 6 months, subject to renewals only twice. Thus the current law does not allow for temporary work agencies to function as effectively as in other countries.\textsuperscript{45} Among EU members and candidate countries, Turkey is the only country that does not allow such agencies to function and in the OECD only Mexico follows similar practice. Fixed-term employment is also restricted in the Labor Code, since it mandates fixed-term contracts should be based on “objective reasons” such as the completion of certain work or the occurrence of a certain event and not to be concluded more than once; otherwise the contract is to be turned into an open-ended contract.\textsuperscript{46} Among OECD countries, only Greece and Turkey limit fixed-term contracts to these cases. Some of the OECD countries have no restrictions, while others have only limited restrictions and the general tendency among the OECD countries is to relax these.

\textsuperscript{43} 30 days’ salary for each year as the severance payment makes an additional burden of 8 percent (1/12) increasing the non-wage cost of the employee for the employer.

\textsuperscript{44} Act no. 4857. For more details on the employment protection legislation in Turkey see Kenar (2009).

\textsuperscript{45} Recently the EU issued the Temporary Agency Work Directive in October 2008. Under the Directive it is provided that: “Member States must review and justify existing restrictions or prohibitions on the use of temporary agency work. Such restrictions can only be maintained under the Directive if they are justified on grounds of general interest. At that stage, any continuing prohibitions or restrictions must be reviewed and made the subject of a report to the Commission. The Commission reserves its right to take action if restrictions and prohibitions are not reviewed and justified in accordance with the Directive.” (EU MEMO/08/646, Brussels, 22\textsuperscript{nd} October 2008.)

\textsuperscript{46} In the draft Labor Code “objective reason” was to be sought in fixed term contracts only when the contract was renewed (i.e. in successive contracts). However upon the pressure of trade unions the condition of “objective reason” was made a condition required in all cases.
116. **Legal restrictions on temporary employment promote informal employment.** The level of informal salaried employment is almost twice as variable as the level of formal salaried employment, demonstrating that enterprises provide flexibility through informal employment during business cycle fluctuations and seasonal changes. According to TUIK, from 1988 to 2007 the coefficient of variation is 29 percent for unregistered employees and 17 percent for registered employees (OECD, 2008).

117. **Though temporary work and fixed term contracts are restricted by the Labor Code, statistics demonstrate that temporary work is practiced on a wide scale among enterprises.** The Turkey ICA reports that, on average 31 percent of the workforce of the survey respondents was employed on a temporary basis. “This high incidence of temporary employment reported by formal sector firms suggests that this type of employment arrangement is relied on by employers to provide flexibility” (Turkey ICA, 2007).

**Subcontracting**

118. **Despite the restrictions in the Labor Code, subcontracting is another way for firms to escape formal employment protection.** Job security, severance payment and notice burdens, extreme limitations on fixed term contract, and particularly the illegality of temporary work agency employment have boosted the demand for subcontracting. Firms employ workers of other firms using methods of subcontracting or by outsourcing one part of their production and service in their enterprises. Whether these methods are legal or not is controversial. There are many cases in which court decisions have viewed these methods as violations of the Labor Code.

**Unemployment Insurance**

119. **Unemployment insurance premium also contributes to the non-wage cost of labor.** Currently, the unemployment insurance premium is 4 percent (2 percent employer’s share, 1 percent employee’s share, and 1 percent state contribution). Eligibility criteria for unemployment benefits are strict when compared with OECD countries. As a result, the unemployment insurance fund has continued to accumulate funds since the beginning of premium collection in 2000. As of end-2008, the unemployment insurance scheme had a surplus of TL 38.3 billion. As shown in Table 7, the Fund’s interest revenues alone are significantly higher than its annual expenditures. Simulations (World Bank, 2006) show that the UI fund remains financially viable and sustainable under any realistic scenario (including changes in the parameters of the system such

<table>
<thead>
<tr>
<th>Table 7: Revenues and expenditures of UI Fund, as of end 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue and expenditure</strong></td>
</tr>
<tr>
<td>Employer (2%) and employee (1%) contribution</td>
</tr>
<tr>
<td>State contribution (1%)</td>
</tr>
<tr>
<td>Interest revenue</td>
</tr>
<tr>
<td>Total revenue</td>
</tr>
<tr>
<td>Expenditure of UI fund</td>
</tr>
<tr>
<td>UI fund stock</td>
</tr>
</tbody>
</table>

Source: İŞKUR, UI Monthly Bulletin

---

47 Works given to an enterprise other than the place of business through contract manufacturing are not covered by the term subcontracting. There is no restriction regarding contract manufacturing under the Labor Code. For a work to be deemed subcontracted, it has to be made in the workplace owned by the main employer.

48 This section draws on World Bank, Turkey Labor Market Study (2006) and Kenar (2009).
as eligibility and benefit level, shocks to macro parameters, and changes in the compliance rate and coverage of the system).  

5.2.4 Enforcement of tax, social security and labor legislation

120. **An effective tax administration is crucial for reducing tax evasion.** The World Bank’s Doing Business study reports revenue authorities around the world are making great efforts to streamline administrative processes and modernize payment systems. In the last four years, about half of the 181 countries studied have implemented reforms to make it easier to pay taxes. (Doing Business 2009). The effectiveness of tax administration depends on the quality and quantity of staff and its general attitude. Tax collectors are expected to have a reputation of being professional, approachable, effective and efficient so that tax payers cannot easily escape but can also meet their obligations without undue costs; thus besides its revenue raising objective, tax administration also has an important service function for taxpayers. However, the effectiveness of tax collection also depends on general economic framework conditions and with high tax rates, complex tax systems, and deeply engrained tax evasion, it is more difficult to collect taxes.

121. **In Turkey, there are various factors which make the collection of taxes challenging.** Among them are relatively high tax rates on labor and consumption, numerous exemptions and loopholes in direct and indirect taxes, the structure of the economy (with a relatively large agricultural sector and wide income gaps across regions), relatively low perceptions of government effectiveness and corruption control (illustrated by surveys; see Figure 36), and lack of full coordination among auditing units.

---

Box 4: Employment Protection in the 2003 Labor Law (4857)

- Notice period for no-fault dismissals of indeterminate employees (i.e. those with open-ended contracts) is two weeks if tenure is less than six months, four weeks if tenure is between six to 18 months; six weeks if tenure is between 18 months and three years; and eight weeks if tenure is more than three years. If an employer wants to cancel a work contract, he has to pay the employee’s check for his entire tenure.
- After one year of tenure, severance pay for no-fault dismissals of indeterminate employees is 30 days’ salary for each year of service (its ceiling is equal to the retirement bonus for highest-ranking civil servant amounting to TL 2.173,18, in 01.07.2008-31.12.2008)
- Job security through requirement of a valid reason (including economic reasons) for dismissal. This regulation is valid for enterprises that employ 30 or more employees and only for employees who are in tenure for at least six months. A valid reason for dismissal must be connected to the capacity or conduct of the employee or based on the operational requirements of the establishment or service. If the court or the arbitrator concludes that the termination is unjustified, the employer must reinstate the employee in work within one month; otherwise the employee must be paid compensation to be no less than the employee’s four months’ and not more than his eight months’ wages. In addition, the employee shall be paid up to four months’ wages for the time he is not reinstated in work until the finalization of the court’s verdict.
- Compensation for abusive dismissal is three times the wage for the notice period (for workers in enterprises employing less than 30 employees).
- Notification to İşKUR and regional directorate of labor is required for collective dismissals within 30 days.
- “Objective conditions” for making fixed-term contracts and “essential reason” for their renewal are required; otherwise the fixed term contract is turned into an “open-ended” contract.
- No legal provision exists for temporary work agencies.

---

49 The simulations do not take into account expenditures through the new “wage subsidy” scheme.
Turkey has put in place various measures for strengthening tax enforcement. In 2005, the General Directorate of Revenues was abolished and replaced by the newly created Presidency of Revenue Administration (RA). The RA is a semi-autonomous entity within the Ministry of Finance. It is autonomous in making tax law rulings, remitting penalties, deciding on its own internal structure, maintaining its own IT operation, and setting service performance levels but has no autonomy in fixing levels and mix of staff, hiring and firing staff, and negotiating staff pay. The main tasks of the RA are: implementing tax policy, informing tax payers about their rights and obligations deriving from tax legislation, participating in preparing tax policies and carrying out tax inspections and audit. The RA collects all centrally-administered taxes but not custom duties and social security contributions. In addition, the General Directorate of Revenue Policies is established within the Ministry of Finance with the responsibility of setting state revenue policy within the framework of planning, programming, and economic policies and strategies. The aim of these changes was the separation of implementation and policy units regarding state revenues.

A number of measures have been taken to improve the efficiency of tax collection and to reduce under-declaration of earnings and tax evasion in general. For example, firms are required to make large payments for purchases through the banking system in order to be eligible for VAT credits. Furthermore, the RA is currently in the process of improving cross checking of information across tax agencies, across tax instruments, and across taxpayers and also improving risk analysis to better identify potential tax evaders.

The Ministry of Labor and Social Security stated in a 2004 report, that “one of the reasons for high informality in Turkey is the lack of communication and coordination among related institutions. Strengthening collaboration among the various agencies (such as the tax office, MOLSS, social security institution, police and customs administration as well as other related enforcement agencies), business associations and social partners is often cited by stakeholders as a means to increase the effectiveness of the struggle against informality. The OECD (2008) argues: “A coordinated approach can reduce the compliance burden, prevent duplication of effort, capitalize on opportunities to cross-check information from different agencies and signal to the public that the government is serious about combating informality.” This collaboration is particularly important for the simplification of business regulations, elimination of duplications, and thus the reduction of compliance burden. The Government’s new Informality Action Plan incorporates measures to facilitate better information exchange between various institutions through, for example, establishing a joint database.
Table 8: Results from MOLSS and SGK inspections

<table>
<thead>
<tr>
<th>Auditors and Institution</th>
<th>Audit period</th>
<th>Number of work places</th>
<th>Number of employees</th>
<th>Number of unregistered employees</th>
<th>Share of unregistered employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor inspectors of MOLLS</td>
<td>02/22/2008 - 03/07/2008</td>
<td>12.053</td>
<td>191.026</td>
<td>2.472</td>
<td>1.3%</td>
</tr>
<tr>
<td>Insurance inspectors of SGK</td>
<td>2007</td>
<td>18.994</td>
<td>324.648</td>
<td>12.673</td>
<td>3.9%</td>
</tr>
<tr>
<td>Insurance inspectors of SGK</td>
<td>01/01/2008-10/31/2008</td>
<td>15.194</td>
<td>302.465</td>
<td>14.435</td>
<td>4.8%</td>
</tr>
<tr>
<td>Social security control officers of SGK</td>
<td>01/01/2008-08/31/2009</td>
<td>8.868</td>
<td>n.a</td>
<td>10.959</td>
<td>n.a</td>
</tr>
<tr>
<td>Revenue Administration's officers</td>
<td>2007</td>
<td>n.a</td>
<td>n.a</td>
<td>12.458</td>
<td>n.a</td>
</tr>
</tbody>
</table>

125. **The share of staff which is assigned to auditing and enforcement has been relatively low by international standards.** The number of labor inspectors per 10,000 employed persons is below ILO guidelines for advanced and transition countries (1 and 0.5 respectively), and is significantly below those of Hungary, Korea, Poland and Slovak Republic (OECD, 2008). Both MOLSS and SGK have insufficient number of inspectors by this measure. There are 4,000 enterprises and 30,000 registered workers per labor inspector. Moreover, 34 percent of labor inspectors are assigned to Ankara, with only 18 percent to Istanbul; 30 percent of workplaces and registered workers are in Istanbul, 9 percent in Ankara. Thus, in Istanbul there are 11,000 registered workplaces and 87,000 registered workers per inspector. Table 8 shows that the share of workers identified to be informally employed is not more than 5 percent in various selected audits. In addition, the World Bank Qualitative Firm Study (WB QFS) verifies that labor and social security inspections are applied mostly to big, formal companies. WB QFS firms are small firms (46 of 50 have less than 20 workers) and firm owners do not have any problems with social security inspections. In contrast, the companies where informality is most intense are the small and medium size companies: informal employment rate in the WB QFS companies is 50 percent, and according to TUIK data, the rate of informality in enterprises with 1-9 workers is 52 percent, 27 percent in companies with 10-24 workers.

126. **Moreover, inspections are not targeted towards detecting informality.** MOLSS carries out inspections on occupational health and safety and on social aspects of workplaces and does not regularly conduct informality audits. As of end 2007, 300 of 548 labor inspectors were in charge of social affairs; 248 of these were dealing with occupational health and safety affairs (technical). Labor inspectors in charge of social issues conduct audits concerning the application of labor laws including the Labor Code, Trade Unions Act, Collective Bargaining Act, and Work Permission for Foreigners Act. The recruitment of new “social security checkover officers” is likely to improve capacity for informality audits. SGK conducts random or annual planned audits as well as informality audits. However, in recent years (as with labor inspectors), audits based on complaints comprise the majority of inspectors’ activities. 80 percent of complaints made to
insurance inspectors are from individuals who demand to have their previous informal working period counted as a formal period (Kenar, 2009).50

127. **“Restructuring” laws may have an impact on compliance.** Granting of concessions to debtors failing to pay their taxes or social security premiums creates moral hazard. The 2007-09 Medium Term Program of the government stated: “All expectations of debt relief and debt restructuring that weaken formality, and therefore causes loss in the public revenues shall be eradicated.”51 In 2008 a new arrangement was made concerning the restructuring of premium debts.52 The restructuring laws enacted in Turkey for the collection of premium debts have been common exemptions for all debtors rather than only for those negatively affected in certain periods. Following the exemption period premium arrears typically accumulate again. According to the survey results reported by the RA, 74 percent of the taxpayers think that “debt relief” is in fact beneficial for those who evade taxes.

5.2.5 Institutional strength and control of corruption

128. **In general, institutional weaknesses, inefficient bureaucracy and lack of control of corruption will promote informal practices.** First, trust in the quality of government services can enhance tax compliance. If taxpayers believe that they receive high quality public services in return for the taxes they pay, the tendency to commit tax evasion will tend to be lower. Second, there is a strong relationship between corruption and the informal economy. In an environment where corruption is widespread, economic agents are more likely to enter into the informal economy. Third, an efficient bureaucracy discourages informality since functioning in an informal economy has higher risks of being caught and penalized. Bowi (2002) finds that, in 21 OECD countries, the informal economy is more related to bureaucratic inefficiency and corruption than to tax and social security premiums. For example, while the tax burden and strictness of EPL is higher in Nordic countries than in Southern European countries (such as Greece, Italy, Portugal and Spain), the informal economy is smaller in Nordic countries. The main reasons are the efficiency of bureaucracy, well-functioning institutions, and low levels of corruption (Kenar, 2009).

129. **In comparison with other OECD countries, Turkey does not score highly on institutional structure and efficient bureaucracy, which may therefore reflect an opportunity to reduce informality.** The World Bank’s Worldwide Governance Indicators rank Turkey’s “control of corruption at 59 percent, up from the 2002 and 2004 levels of 41 and 53 percent, respectively, versus a highest possible score of 100.

---

50 More recently, based on the enactment of law no. 5510, banks are required to ask for the social security identification numbers of their regular customers. If no such number can be provided to the Bank, then the business address of the firm is shared with the Social Security Institution, after which social security checkover officers conduct inspections of that firm. The implementation of this policy started in July 2008.

51 Published in the official journal dated 13.6.2006 as a Council of Ministers decree.

52 Codes 5763 and 5797. Statements regarding debt structuring were removed from the 2008–2010 and 2009–2011 Medium Term Programs.
5.2.6 Social Assistance programs

130. **In theory, non-contributory social assistance (SA) programs may provide incentives to become informal or to stay in the informal sector.** This section investigates whether the major social assistance programs in Turkey have an impact on informal employment. The analysis is based on data from Household Budget Survey and it does not cover certain social assistance programs such as cash and in kind transfers by municipalities as well as those provided by the Social Assistance and Solidarity Foundations. When analyzing the impact of SA programs on informality, it is important to understand the particular incentives that programs may produce on beneficiaries. The impact depends mainly on three factors: the generosity of the programs (including the perceived quality of the services), eligibility and coverage of the programs.

(i) **Generosity.** An important dimension for analysis is the programs’ generosity. Indeed, highly generous programs (i.e. those with transfers that could constitute a large share of household’s income) generally create welfare dependency and could adversely affect labor market decisions of beneficiaries.

(ii) **Coverage.** A program’s coverage (i.e. the share of the target population actually benefiting from the program) is also an important factor as it can potentially influence aggregate outcomes in localities where the program is implemented. A generous program that covers a large share of the population in a given locality is likely to have an important impact on that location’s overall outcomes.

(iii) **Eligibility design.** The third dimension concerns program eligibility design. If a program’s eligibility design requires recipients to be unemployed or informal, for example, the program may create incentives for the recipient to remain unemployed or informal for a longer period. In Turkey, the eligibility design could potentially contribute to increase informality and/or to extend individuals prevalence in the informal sector since all SA benefits require recipients to be outside the contributory sector of the economy (i.e., in the informal sector).

131. **Other country cases provide weak evidence for the impact of non-contributory health and social assistance programs on incentives to become or to stay informal.** Colombia and Mexico have large and comprehensive non-contributory health insurance systems: the *Plan Obligatorio de Salud Subsidiado* (POSS) in Colombia and the *Seguro Popular* in Mexico.\(^{53}\) Two recent papers analyze the impact of these two programs on informality. Camacho and Conover (2007) analyze the effect of the 1993 Health Reform in Colombia, which introduced the POSS program and provides free access to health insurance and medication for individuals who do not have a formal job. In order to be eligible for the POSS programs, individuals need to be below a certain score (called the SISBEN score), which is a proxy means testing mechanism that the Colombian government employs to identify the poor. In order to assess the impact of the program on informality, the authors analyzed informality rates above and below the SISBEN score and found only a very small jump of the probability of being

----

\(^{53}\) Columbia and Mexico have a large share of unregistered workers, at about 55% (of total employment) in 2006 (World Bank, 2007).
informal at the eligibility threshold, suggesting a moderate impact of the POSS program on informality. Similarly, Borros (2008) found that the expansion of the Seguro Popular program in Mexico had no impact on informality – and suggested that this may be driven by the low quality of healthcare provided under the program.

132. **Informal workers may choose to stay in the informal sector if the benefits of the social assistance program they are benefitting from are larger.** The evaluation of Mexico’s non-contributory health program mentioned above highlights a key dimension of the relationship between social programs and informality: the perceived value of the benefits provided by the program. Gasparini et al (2007) analyze this topic for a large poverty-alleviation program in Argentina named Programa Jefes de Hogar (PJH). This program provides cash transfers to unemployed household heads. In practice, the difficulty in monitoring the unemployment requirement for informal (unregistered) workers would imply a disincentive for program participants to search for a formal job. By applying matching techniques to panel data, they find some evidence of an informality bias of the program when the value of the cash transfer is relatively high compared to wages in the formal labor market. However, the impact disappeared when, over time, real wages in the formal sector went up substantially while the value of the PJH transfers remained fixed.

---

**Box 5: Main Features of the Green Card Program – A non-contributory Health Insurance Scheme**

**Brief Description:** Since 1992, the objective of the Green Card program has been to meet the medical expenses of the poor who are not covered by other social security institutions. Started in 1992, the program covers: (i) outpatient treatment, examination, tests and medicines in health care facilities, (ii) prenatal care and delivery expenses, (iii) emergency medical care. Expenses on pharmaceuticals do require beneficiary’s co-payment.

**Regulation:** The program came into effect under Law No: 3816 in 1992.

**Eligibility:** Beneficiaries should not be covered under other social security institutions and should not have income or income share within the family less than 1/3 of the gross minimum wage (according to the amendment to article 2 of the law no 3816 through law no. 5754).

**Management:** The targeting of the Green Cards is managed at the local level through provincial and district administration boards. The budget allocation for the programs is assigned to the Ministry of Health so as to cover the cost of health services to be provided

133. **In Turkey, social assistance is a part of the overall social protection system; the Green Card is its largest program.** The social assistance system in Turkey is composed of four main programs: old age/disability benefits, in-kind transfers, family and children’s benefits, and non-contributory health insurance (Green Card). The Green Card program accounted for about 85 percent of the total budget for these four programs in 2007. The main features of the Green Card program including eligibility criteria is described in Box 5.

134. **Despite being small in size and coverage, non-contributory social assistance programs seem to be well-targeted.** Previous findings, using 2006 Household Budget Survey (Aran, 2008), show that most of the benefits of the non-contributory social assistance programs accrue to the households in the bottom two quintiles.

135. **The Green Card program, however, displays some features (in relation to generosity and coverage) that could potentially affect workers’ decisions to remain in the informal sector.** Figure 37 analyzes targeting performance, coverage, and generosity of non-contributory
SA program in Turkey using a three dimensional figure by which the main results of a benefit-incidence analysis can be visualized. Each dimension of the figure represents a different indicator. The vertical axis represents the share of the poor that benefit from the income source (coverage). The horizontal axis represents the share of the total program expenditures that reach the poor (targeting). The size of the bubble, which represents the generosity of the program, is proportional to the average per-capita transfer “received” by households (a larger bubble indicates a larger per-capita transfer in monetary terms). This figure shows that the Green Card is the most generous and best-targeted SA program in Turkey and has the highest coverage.

136. Estimates do not provide evidence of a discontinuity at the eligibility threshold, suggesting that the Green Card program is not affecting the choice between informal and formal employment, at least on an aggregate level. In order to test empirically the impact of the Green Card program on informality, we use the eligibility requirement of having an income less than one third of the minimum wage, as a basis for the analysis. Those individuals lying close enough to the cutoff point are expected to be quite similar in terms of the relevant attributes, except for qualifying or not for the program. Hence, by comparing them we can evaluate the impact of Green Card in different dimensions. This popular identification strategy is known as “discontinuity design”. The discontinuity refers to the eligibility threshold (i.e., the income threshold established in order to target the program). The basic rationale of this analysis is the expectation that those who are marginally above the threshold are comparable to those who are marginally below the threshold and, therefore, can be used as a reasonable control group. Figure 38 indicates a negative relation between income and informality (i.e., as expected, informality decreases as per-capita household income increases). At the same time, the figure does not provide evidence of a discontinuity at the threshold, suggesting that the program is not introducing significant

54 See Angel-Urdinola et al (2009) for details of the analysis.
distortions in the probability of working in the informal sector (around the eligibility income level).\(^{55}\)

137. **Simulations show that an expansion in social assistance expenditures may only marginally influence informality (Figure 39).** The potential impact of an expansion in the non-contributory SA spending can be estimated using a model that allows the firms and workers in informal sector to adjust their behavior to changes in SA benefits and firms and workers in the formal sector to adjust their behavior to changes in non-wage labor costs and benefits. The model is used to simulate the impact of a hypothetical increase in Green Card spending comparable to the increase observed between 2004 and 2007 – a 170 percent increase. The results indicate that the effect of this large increase on the share of informal employment is only marginal (from the benchmark level of 45 percent to at most 46.4 percent).\(^{56}\)

138. **An important factor in this result may be the large wage gap between the formal and informal workers, as described in Chapter 4.** Evidence suggests that formal and informal labor markets in Turkey display large wage differentials that are not explained by worker’s productivity. Angel-Urdinola et al (2009) finds that controlling for observable characteristics such as education, sector of employment, and age – among others – workers in the informal sector are expected to earn hourly wages 40 percent lower than those of otherwise similar workers in the formal sector. Such differences in wages could be due to the existence of labor market segmentation in the labor market, whereby low mobility across sector make individuals queue in the uncovered sector with the hope of eventually getting a job in the covered sector (exclusion). However, there is no “hard” empirical evidence that this is the case in Turkey. To make this finding more visible, the left panel of Figure 40 plots the “net” labor income distribution for workers in the formal and informal sectors. As this figure illustrates, formal workers earn much more than informal workers at all points of distribution. The right panel of the figure computes the average labor income for formal and informal workers in the neighborhood of Green Card eligibility threshold (i.e. plus/minus 10 percent of the Green Card eligibility threshold). Results indicate that the formal/informal wage gap is so large, that even after accounting for the Green Card transfers, workers in the formal sector would earn “net” wages that are much higher than

---

\(^{55}\) This result seems to be robust to other tests. Indeed, similar results are obtained when controlling by observable characteristics and employing different econometrics techniques (such as linear partial regressions and probit regression models).

\(^{56}\) The model assumes workers have the choice to move freely across sectors. However, the Turkish labor market may be segmented and this would imply that the estimates presented here are likely to have an “upward bias”.

---
“gross wages” (accounting for Green Card benefits) in the informal sector. As such, low-income workers who have a chance to move from the informal sector to the formal sector would have all the incentive to do so even if this would imply losing all Social Assistance benefits (i.e., the expected wage gains of moving to formality would by far surpass the “monetary” benefits provided by SA transfers by staying in informality).

Figure 40: The formal/informal wage differential in Turkey so large that Green Card transfers (albeit generous) may not influence worker’s sector choice

Source: Authors own elaboration using 2006 HBS data.
Note: Graphs plot “net” labor income.

139. In addition, the above analysis does not take into account the expected risk of being laid off in consideration for a move from an informal to a formal job. There is a “risk” factor that may create incentives for some workers to remain in the informal sector, if they believe they may get fired soon after they obtain formal employment. According to data from a World Bank informality survey, only 2 out of every 10 uneducated workers in the urban labor market (at all age groups) make the transition from the informal to the formal sector. When doing so, workers (and their dependents) must give up their Green Card benefits. At the same time, workers face the risk of being laid off from formal employment before one year of service. As mentioned before, this risk is heightened by the condition that after 12 months of service workers become eligible for severance payment protection. If the worker is laid off, he needs to re-apply for a Green Card. Obtaining a new Green Card may take between eight to ten months. Thus, if the worker values health coverage highly – more than he values the additional wage he would earn in the formal sector – and believes that the probability of being laid off before one year is high; the worker may choose to remain working informally to avoid the risk of becoming uncovered. This may occur when individuals (and/or their dependents) are frequent users of health services and/or have health conditions. However, it is difficult to quantify with the data at hand how many individuals could face such dilemma.
5.3 Social Norms and the Value Chain

Both the qualitative and quantitative survey results showed that informality has become part of people’s lives. While most firm owners recognize that it is harmful, they seem to be engaged in different degrees of informality themselves and are almost certain that their competitors and particularly larger firms (through skillful administering of tax evasion) are also part of informal economic activity widespread across many sectors. As discussed above, informality in the form of non-registration of firms is not a major concern for Turkey. On the other hand, informal employment and underreporting of revenues seem to be the most common features of informality. Furthermore, going beyond the strict definitions of informality, informality can be detected in the form of transactions outside the banking system (cash payments to workers), business transactions with a close network of firms etc. Some of the key findings of the qualitative survey of firms are:

- Formality and informality are intertwined. They can not be clearly separated, and cannot be perceived as dichotomous. Rather “it’s a matter of level.”
- Everyone agrees that tax rates are high. However, it is not clear whether a decline in tax rates would increase compliance and tax revenues.
- Business transactions based on hand-shakes only, deferred payment arrangement, cash transactions including payment of workers, predominance of social networks in doing business are key features of informality.
- Firms’ (and individuals’) lack of trust in the state, frustration with public services and feeling of injustice are observed in responses to questions on perceptions.

Consequently, entrepreneurs may engage in informal activities not as a result of exclusion but of a deliberate decision to maximize profits. There are two underlying factors (perceptions) that drive entrepreneurs’ decisions: (i) perceptions that “everybody else” is evading taxes, underreporting workers and wages, as mentioned above and (ii) perceptions that the returns to taxes paid are low, and public services have low quality as well as existence of corruption. Torgler and Schneider (2007), in their analysis of “tax morale” argue that in societies where individuals seem more confident about the ability of their institutions to make good use of their taxes, informality tends to be lower. The existence of a large law-dodging informal sector then has the potential to erode the confidence of individuals in their institutions, diminishing the rule of law and fostering corrupt behavior. Once the system of beliefs in the society is dominated by these perceptions, the choice to be informal is justified easily by individuals (is not considered “unethical”) and becomes part of people’s daily routines, creating a vicious circle and keeping the economy at a sub-optimal equilibrium.

In addition, the various types of informality prevalent in Turkey are interrelated. The value chain figure (Figure 41) illustrates the different phases of informality building up from the initial stage of production through final consumption. In the establishment stage of a

---

57 This section draws on valuable discussions with the private sector representatives and government counterparts.
58 Chong and Gradstein (2004) build a theoretical model that captures the evidence first put forward by Maloney (1999) that informal activity is the result of the worker/entrepreneur’s rational cost-benefit analysis given the institutional quality, regulatory framework, and social values’ system of the country. The model establishes positive relationships between both poor institutional quality and wealth inequality and the size of informal sector. (Oviedo, 2009)
business, for example, a firm owner may acquire land for plant building. The widespread undervaluation of real estate for tax purposes then becomes the first link in a chain of informality, causing revenue losses for the state at each stage. In the purchases of raw materials required for production, if for example the firm owner purchases agriculture goods, the lack of invoicing in the agriculture sector could add a second link to this chain of informality. When firms record lower than actual inputs, they will also be likely to underreport the number of employees engaged in production and thus evade non-wage labor costs – a third link in the chain. When the final products reach the markets, the underreporting of sales for tax purposes constitutes the final link in the chain of informality.

6. CONCLUSIONS: AN INTEGRATED POLICY RESPONSE

143. In Turkey, the underreporting of revenues and wages and the non-registration of workers with the social security system are the two most significant forms of informal economic activity. The level of informality in Turkey is not surprising, however, given the country’s characteristics. Informal economic activity in Turkey as a share of GDP income turns out to be approximately the level predicted by its per-capita income.

144. Informality is widespread and, moreover, recent falls in informal employment are almost entirely explained by migration out of agriculture. The headline measure of informality (provided by TUIK, the proportion of workers unregistered for social security) has been falling: between 2004 and 2008 this measure fell from 53 percent to 44 percent overall. However, this aggregate decline hides important patterns. Most of this decline is explained by migration of the workforce out of agricultural employment (where nearly workers are informal) to manufacturing and services, mainly in urban areas (where informality rates are below 20 percent for wage earners). Moreover, between 2001 and 2006 – a period of rapid expansion of the economy – urban and non-agricultural informality actually rose (from 29 percent to 34 percent for non-agricultural employment).

145. Informality has consequences for (i) fiscal outcomes; (ii) productivity and growth; (iii) economic and social vulnerability; (iv) social cohesion and the rule of law. The analysis suggests that the economic and social vulnerability of informal workers is the most important and direct effect of informal employment. Informal workers face lower wages, higher risk of layoffs, and worse working conditions than formal workers and, frequently, lie outside the protection of social safety nets. Loss of respect for public institutions and feelings of injustice are other consequences that – although they are hard to quantify – are underlined by qualitative survey evidence and discussions with public- and private-sector stakeholders. On growth, the analysis showed that the productivity gains associated with formalization are moderate (though
not insignificant); the findings certainly do not support an often-expressed view in Turkey that lower growth is the main cost of the informal economy. Lastly, the study suggests that the fiscal gains from increasing formalization are likely to be limited.

146. **Informal employment in Turkey is the result of a combination of factors, some of which are more structural and long term, and others of great significance beyond informality.** The main determinant of informality is the high share of agriculture in the economy, which is a structural feature of the economy. Similarly, there is a strong negative relationship between the education level of employees and informal employment. As the education and skill level of the labor force increases, the productivity of the labor force and therefore the likelihood of formal employment increase. Quantitative and qualitative improvements in the education system will increase formal employment by enhancing the quality and efficiency of Turkish labor force. In addition, Active Labor Market Programs (ALMPs) equip unemployed people with skills to improve their employability. A labor force with higher levels of education and skills will have increased awareness and bargaining power vis-à-vis the employers on issues such as social security, wages and working hours and conditions.

147. **Determinants of informality that might be considered areas of sufficiently broad importance that one would not assess their reform solely in light of the consequences for informality are the structure of the pension system, the level of the minimum wage, the business regulatory environment, and the quality of public services.**

(a) **Pension system.** The design of pension parameters and particularly early retirement may have a significant role in increased informality at older ages. Informality rates, after declining until the late 30s, start to increase in the 40-44 age group, suggesting that early retirement plays a role. Pension systems can create incentives to retire from formal work at a relatively early age and continue working informally. In this case, the labor supply is not reduced but fiscal costs increase, as these workers receive a pension and stop paying social contributions and often also personal income tax.

(b) **Minimum wage.** International evidence suggests that high statutory minimum wages may reduce the employment chances of low-productivity of workers and in lagging regions (World Bank, 2005). In most countries where the minimum wage is binding in the formal sector (i.e., a higher minimum wage is found to lead to a fall in formal employment) there is an associated higher rate of informal-sector employment (OECD, 2008). For the case of Turkey, the OECD (2008) argues that the minimum wage in the formal sector is binding and suggests that limiting minimum wage increases and introducing a differentiated rate (for different age groups, new entrants or in different regions, targeting low-productivity workers) could promote formalization.

(c) **The regulatory environment for business.** A high cost of establishing and operating a formal business can also encourage informality. Research based on Latin American experience suggests that “reductions in informality and improvements in microfirm performance could be achieved by lowering statutory burdens to formalization and implementing administrative simplification programs aimed at reducing the transaction costs
associated with operating legitimate businesses” (World Bank, 2007). Turkey has made progress in simplifying business regulations as measured by the World Bank’s “Ease of Doing Business Index” and moved to 59th among a total of 181 from its rank of 84th in 2005. However, survey results also show that bureaucratic procedures are still perceived as a major obstacle to doing business in Turkey—particularly in the areas of licensing, construction permits, and closing a business.

(d) Quality of public services. A strong institutional structure and an efficient bureaucracy promote formalization. Trust in the quality of government services can enhance tax compliance. If taxpayers believe that they will receive high quality public services, tax evasion is likely to be lower. In addition, widespread corruption prevents the provision of high quality public services and in turn, encourages informal practices. This association is reinforced by the fact that in the absence of an efficient bureaucracy, the risk of operating informally is lower.

While policy changes in these areas would be expected to contribute to reducing informality, cutting the incentives to operate informally and increasing the benefits of being formal, these “non-core” areas are taken to be beyond the scope of the policy recommendations in this report since they would have to be considered against a much broader background than simply reducing informality.

148. Of the core causes of informality (i.e., potential policy levers) frequent and better coordinated tax inspections and more flexible labor regulations probably hold the key to the largest gains in formalization. The array of possible policy focuses includes tax policy, tax administration, labor regulations, social assistance programs, and social norms. Of these, tax administration and labor regulations seem the most promising areas to focus on. This conclusion is based on international comparisons, consultations and survey results in Turkey. In addition, deeply held social norms and common economic practices in Turkey conspire to create a parallel informal economy throughout the “value chain” of production. Understanding this is key to appreciating the deep-seated nature of informality in Turkey.

149. The incentive effects of non-contributory social assistance programs do not seem to be a key driver of informality, yet de-linking SA programs from employment status is likely to improve targeting and increase effectiveness. Several well-targeted Turkish social programs (e.g., the Green Card non-contributory health insurance scheme, the Conditional Cash Transfer) have features that may create incentives for workers to remain informal. Anecdotal evidence suggests that the most important of these, the Green Card, may exert this effect in certain individual cases. The aggregate importance of this incentive effect was examined using several estimation techniques, with the conclusion that, under present circumstances, the Green Card is not a significant cause of informal employment. This finding may owe largely to the gulf between informal and formal wages earned by otherwise similar workers in the Turkish labor market; in other words, the expected value of benefits is in most cases simply not large enough to

---

59 An alternative interpretation of limited formalization of microfirms offered in the same report is that the presence of low opportunity costs for entry into formal sector may lead to an increased number of low-productivity firms.

60 See Kenar (2009) for more details on this issue.
exert much influence on workers’ choices. Nevertheless, de-linking social assistance benefits from employment status might reduce the risks of such possible effects.

150. **Both international experience and Turkish evidence suggest a comprehensive understanding of informality and an integrated policy response.** Informality – and the need for an integrated policy response – is best understood by considering productive activities as a *value chain*. Even before producing, at the stage of establishing a firm, part of its value may effectively become “informal” (hidden from the state) through the undervaluation of real estate transactions, for example. Next, for many products the value chain begins in the agricultural sector, where informality is often the rule rather than the exception. Because of the undocumented nature of many of their upstream inputs, firms then enjoy a large degree of discretion about what proportion of their production they themselves declare (for the purposes of VAT and other contributions). This in turn influences their own decisions on the margin of formal versus informal employment and other factors of production. The underreporting of firms’ own sales constitutes the final layer of this systemic informality. In Turkey, the analysis conducted for this study suggests that the response should encompass inspection/audit, labor regulation, and outreach/communications—where unions are likely to play a significant role (Figure 42).

151. **A labor law which promotes flexibility of labor markets is likely to reduce incentives for informality – making formalization less costly for employers.** Turkey’s labor regulations are highly rigid by international comparison. This rigidity stems from its employment protection laws, in particular limitations on temporary and fixed-term employment contracts and protection of regular through high employer severance payments. Investment Climate Survey data show that despite these restrictions, temporary and fixed-term contract are widespread; hiring informal employees is the most straightforward way for firms to achieve flexibility. In addition to employment restrictions and costly separation, a further reason that potentially contributes to the firms’ decisions not to declare their employees is unemployment insurance premiums, which raise the non-wage cost of labor. These and other non-wage costs may be particularly significant in the case of low-wage or unskilled workers. Most OECD countries have significantly eased employment protection and severance pay regulations while, in parallel, (i) assuring coverage rates of social protection to workers; and (ii) strengthening active labor market policies (e.g., retraining) as flexible contracting may reduce incentives for firms to invest in training for their workers.\(^6\)

---

The second phase of the labor market reform in Turkey could involve core measures to increase flexibility and improving worker protection against loss of income in case of unemployment.

(a) Relaxing the restrictions on the use of fixed-term contracts (either entirely or by specifying a wider range of possibilities when such forms of contracts can be used) could be an important tool to increase the employment absorption of the economic recovery. Aspects to consider in such legislative reform would include (i) the reasoning necessary for firms/workers to enter such contracts (with 18 out of 28 OECD countries having removed all or almost all such restrictions); (ii) number of possible contract renewals (with 15 of 28 OECD countries allowing for at least four such renewals); and (iii) maximum length of cumulated duration of successive contracts (with 16 out of 28 OECD countries not specifying any upper limit).

(b) Legalizing the functioning of temporary work agencies and minimizing restrictions on their activities could constitute an important element of second phase reform. Aspects to consider in the regulations of temporary employment agencies include (i) their operating ability across different types of work (with 14 of 28 OECD countries having moved to not restricting work by occupation/sector); (ii) restrictions on the number of contract renewals (with 13 of 28 OECD countries not specifying an upper limit); and (iii) the maximum accumulated duration of temporary work contracts (with 16 out of 28 OECD countries not specifying any upper limit).  

(c) Severance pay reform can remove excessive job protection and replace it with strengthened worker protection via enhancing the UI system. Similar to many developing countries, the balance between job and worker protection in Turkey is tilted in the favor of former. The severance pay and UI programs are two closely related programs and thus it would be beneficial to capture the synergies by designing a complementary system with reduced job protection and enhanced worker protection. Three different reform options could be considered with the aim of increasing the efficiency of the labor market as well as promoting better, formal jobs to more workers. These three reforms options – parametric changes of severance pay, converting severance pay to pre-funded individual accounts and integrating severance/UI system – are discussed in Box 6.

---

62 Government is currently working on legislation to grant private employment agencies the authority to make temporary employment deals. Eliminating the disincentives for part-time work could also encourage the contracting of part-time work (providing enhanced flexibility), since there exists no legal restriction for part-time work.  
63 Options for the Reform of the Turkish Severance Pay System” by Milan Vodopivec, World Bank, October 2008.
### Box 6: Options for Reforming the Severance Pay System

<table>
<thead>
<tr>
<th>Description</th>
<th>Option A: Parametric changes of severance pay</th>
<th>Option B: Converting severance pay to pre-funded individual accounts</th>
<th>Option C: Integrated severance/UI system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic architecture of the severance pay system intact, but qualifying conditions tightened, and payment for year of service reduced and a ceiling on total payment introduced. (Ideally, UI generosity would increase simultaneously.)</td>
<td>Current severance system replaced by monthly contributions (e.g., 3-5% of wages) to UI Savings Accounts of individual worker. Upon separation, accumulations could be withdrawn, or they could be kept and claimed upon retirement.</td>
<td>There would be two pillars: UISAs of individual workers, as under option B, and a reformed UI system allowing workers to receive UI benefits after they exhaust their individual accounts.</td>
<td></td>
</tr>
<tr>
<td>Enhanced labor market flexibility; improved access to good jobs by vulnerable groups; simplicity of the reform. When coupled by increased UI benefits, income protection could also improve.</td>
<td>Enhanced labor market flexibility beyond option A; reduced litigation costs; strengthening worker protection by removing the nonperformance problem; enhancing access to good jobs by marginal groups; enhanced pension support.</td>
<td>Increased complexity of the system, as the two systems – severance pay and UI – would become interlinked and would have to be connected.</td>
<td></td>
</tr>
</tbody>
</table>

| Arguments for | Weaknesses of the severance pay system would be retained, although they would be reduced in magnitude, and synergies between severance pay and UI would not be exploited. | Failure to take advantage of the coexistence of UI and severance pay. | Increased complexity of the system, as the two systems – severance pay and UI – would become interlinked and would have to be connected. |

| Arguments against | | | |
|-------------------|| | |
| Fiscal impact | | | |
| Winners and losers | Winners are (i) informal sector workers gaining access to better jobs in the formal sector, and, (ii) in the longer run, all formal sector workers who would share the benefits of higher productivity via increased wages. The losers are formal sector workers whose likelihood of losing jobs would increase. | As under option A; in addition, the conversion would put at disadvantage the workers with the highest probability of losing jobs. | In comparison to option B, reduction of overall contribution rates, benefiting in formal sector workers and vulnerable groups. Losers would be individuals whose unemployment benefits would be trimmed because of better coordination of the two systems. |
| Administrative requirement | Increased budget revenues caused by the increase in formal employment. | Increased budget revenues caused by the increase in formal employment. | The largest increase in budget revenues (because the increase in the formal employment would be more pronounced than under other two options). |
| | Capacity to handle individual accounts – collection of contributions and payment of benefits. | | In addition to requirements under option B, coordination (and possible integration) of the two systems (UISAs and UI) would be required. |

**Source:** Vodopivec (2008)

153. **More flexible labor markets can be complemented with increased and more coordinated auditing/monitoring of informal economy and employment – making informality more costly for employers and workers.** Rather than the level of rates or tax structure, based on international comparisons, consultations and survey results in Turkey,
frequent and coordinated tax inspections appear to be key to any formalization effort. Moreover, audits targeted towards informality could be effective in reducing informal activity and employment. Increasing audit frequency of those firms or individuals that are more likely to have higher incomes based on observables can lead to superior outcomes, a measure used in many countries. Improved coordination, both between auditing units and between the various agencies involved in efforts to reduce informality, could promote formalization.

154. International experience and Turkish survey evidence also suggest that “softer” approaches, such as communications efforts, could complement harder measures on compliance and incentives. First, these measures are intended to underline the benefits of formality. In this context, providing information on a wide scale on the benefits of formality would contribute to changing people’s perceptions and preferences. Secondly, consensus building with unions, NGOs, and the business community would be critical not only for managing the reform process for formalization but also for making informality unacceptable/unethical – and intervening along the value chain. To complement these efforts, it would be desirable to make public, on a regular basis, the actions taken towards reducing informality and the implementation results of such actions. As part of their efforts to strengthen enforcement, countries such as Denmark, Sweden, the UK, Estonia and Romania have launched public awareness campaigns and improved their communications strategies.
7. References


Ministry of Labor and Social Security, 2006. KADİM Projesi (The project of Struggling Against Informal Employment).


