INFORMAL ECONOMY IN TURKEY
What is informal economy?

Definition

Characteristic features
Informal Economy
(Shadow Economy, Underground Economy...)

• A multidimensional phenomenon including diverse activities – wide range of definitions

• A general definition: all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements because they are inappropriate, burdensome, or impose excessive costs.
# UNDERGROUND ECONOMIC ACTIVITIES

<table>
<thead>
<tr>
<th>Type Of Activity</th>
<th>Monetary Transactions</th>
<th>Nonmonetary Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illegal</td>
<td>Trade in stolen goods; drug dealing and manufacturing; prostitution; gambling; smuggling and fraud.</td>
<td>Barter: drugs, stolen goods, smuggling etc. Produce or growing drugs for own use. Theft for own use.</td>
</tr>
<tr>
<td>Activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal</td>
<td>Tax Evasion: Unreported income from self-employment; Wages, salaries and assets from unreported work related to legal services and goods.</td>
<td>Tax Avoidance: Employee discounts, fringe benefits.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tax Evasion: Barter of legal services and goods.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tax Avoidance: All do it yourself work and neighbor help.</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>

Source: Rolf Mirus and Roger S. Smith (1997, p.5) and with additional remarks by Schneider and Enste (2000)
Some determining characteristics of informal sector:

- ease of entry into the sector
- small size establishments
- labor intensive production
- low type of the technology used
- lack of compliance with various laws and regulations
Some characteristic features of informal employment:

- lack of protection in the event of non-payment of wages
- compulsory overtime or extra shifts
- lay-offs without notice or compensation
- unsafe working conditions
- absence of social benefits such as pensions, sick pay and health insurance

Some especially exposed groups within informal economy: women, children, young people, internal migrants and immigrants
Informal economy in developing countries:

- Some believed in the past that the informal economy in developing countries would disappear once these countries achieved sufficient levels of economic growth and modern industrial development.

- But it has a fixed character in countries where incomes and assets are not equitably distributed.

- And continuously increasing in most developing countries.
Informal Economy and GDP per capita in 112 countries, between 1999-2007

Kaynak: Schneider, Buehn ve Montenegro (2010) ve World Development Indicators
## Size of informal economy in the world:

<table>
<thead>
<tr>
<th>Country Type</th>
<th>Shadow Economy (in % of official GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing Countries</td>
<td>36.7</td>
</tr>
<tr>
<td>- African Countries</td>
<td>42.8</td>
</tr>
<tr>
<td>- Asian Countries</td>
<td>29.8</td>
</tr>
<tr>
<td>- Central and South American Countries</td>
<td>42.2</td>
</tr>
<tr>
<td>Transition Countries</td>
<td>38.8</td>
</tr>
<tr>
<td>OECD Countries</td>
<td>14.8</td>
</tr>
</tbody>
</table>

Shadow Economy (in % of official GDP) using the DYMIMIC and Currency Demand Method (Schneider, 2007)
Size of Informal Economies Across Countries (2002)
The Reasons of Informal Economy

Economic
Political
Demographic
Economic Reasons

• The real economic reasons behind the shadow economy in Turkey:

  Turkish economic core dynamics depend on agriculture and services sector → difficult to follow and register

Source: SPO 8th 5 Year Development Plan
Economic Reasons

- **Tax burden**

  - Norman Loayza (1996), 16 Latin American countries

    “Tax burden and labor market restrictions are positively correlated with shadow economy”

  - Simon Johnson and Daniel Kauffmann

    “Real reason behind the shadow economy is ineffective implementation of tax revenues rather than higher tax rate per se”
Economic Reasons

- **Tax burden**

  - Zoido-Lobaton and Kauffmann: smaller shadow economies exist in countries with higher tax revenues achieved by lower tax rates

- **Resistance to tax payments**

  - If people think that government use tax revenues ineffectively, then they hide the real incomes and resist to pay tax
Informal Economy and Tax Rates for 112 countries, between 1999-2007

Informal Economy in Turkey 1950-2008
Relationship with Tax Rates

Source: Elgin (2011), SPO and TURKSTAT websites
Economic Reasons

- **Social Security Contribution Burden**
  
  - Social security promotion, health insurance increase cost for employers and promote them to unregistered economy

  - This also creates a burden for social security institutions
Economic Reasons

- Inequality in income distribution
  - Triggers shadow economy indirectly: people in lower income groups provide cheap labor supply for shadow economy

- Tax Morality
  - Decline in tax morality $\rightarrow$ increase shadow economy
Political Reasons

- Intensity of regulations

- Increase in the density of regulations → reduce freedom in official economy → shift to informal sector


“Countries with more regulation have high share of shadow economy in GDP”

Regulation index: 1 point increase in regulation associated with 8.1 point increase of shadow economy in GDP
Political Reasons

- **Intensity of regulations**

  Empirical evidence by Johnson, Friedman and Zoido (1999)

More regulation is correlated with a larger shadow economy.

1 point increase in regulation rises share of shadow economy by 10 points in 76 countries.
Political Reasons

• Reduction of weekly working hours

- Implemented to fight with high unemployment rates. However, people use their potential effort in underground economy.
Political Reasons

• Early retirement

- Since people can work while they are being paid their pension, they find a new job in underground economy.
Demographic Reasons

- High population growth with low employment opportunities
  - Makes people work in underground economy

- Internal migration
  - In 90’s migration from rural to urban areas triggered increase in shadow economy
Informal Economy in Turkey 1950-2008
Relationship with Population Growth Rate

Source: Elgin
Informal Economy in Turkey 1950-2008
Relationship with Unemployment

Source: Elgin
The Effects of Informal Economy

Negative and Positive Effects
Damages of the Informal Economy

Source: The Informal Economy Study Report (January 2007)
Negative Effects

- Economic Policy-making Process
- Unfair Competition Conditions for Firms
- Decreasing Tax Revenue of Government
- Deterioration of Social Security Institutions
- Ethics and Customer Rights
Relation between Efficiency and the Informal Economy

Source: Assoc.Prof. Dr. Metin ERCAN, the Informal Economy
## Tax Loss (1998-2004)

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VAT Loss</strong></td>
<td>2.004</td>
<td>2.655</td>
<td>3.704</td>
<td>7.367</td>
<td>10.293</td>
<td>13.125</td>
<td>14.843</td>
</tr>
<tr>
<td><strong>Income Tax Loss</strong></td>
<td>1.168</td>
<td>1.460</td>
<td>1.441</td>
<td>3.223</td>
<td>3.500</td>
<td>4.340</td>
<td>4.782</td>
</tr>
<tr>
<td><strong>Corporate Tax Loss</strong></td>
<td>251</td>
<td>458</td>
<td>547</td>
<td>1.022</td>
<td>1.422</td>
<td>2.202</td>
<td>2.899</td>
</tr>
<tr>
<td><strong>Total Tax Loss</strong></td>
<td>3.423</td>
<td>4.573</td>
<td>5.692</td>
<td>11.612</td>
<td>15.216</td>
<td>19.667</td>
<td>22.524</td>
</tr>
</tbody>
</table>

*Source: AEB Size of the informal economy in the 1998-2004 period based on input-output method*
Positive Effects

• Creating Employment

• Possible Increase in General Welfare Level by Increasing Purchasing Power of Society
Informal Economy and Economic Growth

Underground economy may affect economic growth rate in country positively and negatively. No consensus on relationship among growth of underground economy and growth of official economy.

- Adam and Ginsburgh (1985)
- Loayza (1996)
Adam and Ginsburgh

A **positive** relationship exists between the growth of the shadow economy and the official economy and under certain assumptions, an expansionary fiscal policy has a positive stimulus for both the formal and informal economies.
Loayza

Increasing (decreasing) underground economic activities might decrease (increase) tax revenue of government and decreasing (increasing) tax revenue may diminish (increase) public infrastructure investments, which are basic element of economic growth.
Measurement Approaches

Micro
Macro
**Measurement Approaches**

**Direct / Micro Approaches:** based on voluntary replies

- Surveys: household, tax

**Indirect / Macro Approaches:** relates one variable w/ informal economy → indicator approaches

- GDP
- Employment
- Tax Auditing
- **Monetary:**
  - Simple Currency Ratio Method
  - Transaction Method: Fisher
  - Currency Demand Method
Informal Economy in Turkey 1970-2000
Based on: Tanzi Method of Currency Demand


Source: ESTIMATION OF UNDERGROUND ECONOMY IN TURKEY, Hakan ÇETİNTAŞ, Hasan VERGİL
Informal Economy in Turkey 1970-2000
Based on: Tanzi Method of Currency Demand

1970-2000 Period, Informal Economy in Turkey (% of GDP)

Source: ESTIMATION OF UNDERGROUND ECONOMY IN TURKEY, Hakan ÇETİNTAŞ, Hasan VERGİL
Informal Economy in Turkey 1987-2007
Based on: autoregressive distributed lag (ARDL) approach

The size of the Turkish unrecorded economy as % of GDI

Source: Munich Personal RePEc Archive, An ARDL model of unrecorded and recorded economies in Turkey, HALICIOGLU, Ferda and Dell'Anno, Roberto
Informal Economy in Turkey 1950-2008
Based on: DYMIMIC Approach

Source: Elgin
### Table 1: The size of the Unrecorded Economy in Turkey (various studies)

<table>
<thead>
<tr>
<th>Authors</th>
<th>Approach</th>
<th>Period</th>
<th>Size of UE (min-max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kasnaçoğlu (1993)</td>
<td>currency ratio</td>
<td>1968-1990</td>
<td>4% - 35% of official GDP</td>
</tr>
<tr>
<td></td>
<td>currency demand</td>
<td>1963-1990</td>
<td>0% - 23% of official GDP</td>
</tr>
<tr>
<td></td>
<td>transaction approach</td>
<td>1970-1992</td>
<td>0% - 26% of official GDP</td>
</tr>
<tr>
<td>Temel et al. (1994)</td>
<td>currency demand</td>
<td>1975-1992</td>
<td>6% - 20% of official GDP</td>
</tr>
<tr>
<td></td>
<td>Tax auditing</td>
<td>1984-1991</td>
<td>8% - 92% of official GDP</td>
</tr>
<tr>
<td></td>
<td>discrepancy method</td>
<td>1987-1992</td>
<td>1% - 4% of official GDP</td>
</tr>
<tr>
<td></td>
<td>transaction approach</td>
<td></td>
<td>0% - 62% of official GDP</td>
</tr>
<tr>
<td>Yayla (1995)</td>
<td>currency ratio</td>
<td>1968-1993</td>
<td>4% - 100% of official GDP</td>
</tr>
<tr>
<td>Halicioğlu (1999)</td>
<td>currency demand</td>
<td>1970-1997</td>
<td>0% - 42% of official GDP</td>
</tr>
<tr>
<td></td>
<td>currency ratio</td>
<td>1980-1988</td>
<td>0% - 46% of official GNP</td>
</tr>
<tr>
<td></td>
<td>discrepancy method</td>
<td>1987-1999</td>
<td>11% - 8% of official GNP</td>
</tr>
<tr>
<td>ÇetinTaş and Vergil (2003)</td>
<td>currency demand</td>
<td>1971-2000</td>
<td>17% - 31% of official GNP</td>
</tr>
<tr>
<td></td>
<td>Physical Input</td>
<td>1978-2000</td>
<td>1% - 33% of official GDP</td>
</tr>
<tr>
<td></td>
<td>currency ratio</td>
<td>1987-2003</td>
<td>0% - 90% of official GDP</td>
</tr>
<tr>
<td>Us (2004)</td>
<td>currency demand</td>
<td>1987-2003</td>
<td>3% - 12% of official GDP</td>
</tr>
<tr>
<td></td>
<td>Tax auditing</td>
<td>1985-2002</td>
<td>26% - 184% of official GDP</td>
</tr>
<tr>
<td>Schneider and Savaşan (2007)</td>
<td>MIMIC</td>
<td>1999-2005</td>
<td>32% - 35% of official GDP</td>
</tr>
<tr>
<td>Davutyan (2008)</td>
<td>expenditure-based approach</td>
<td>2005</td>
<td>21% of official GDP</td>
</tr>
</tbody>
</table>

Source: Munich Personal RePEc Archive, An ARDL model of unrecorded and recorded economies in Turkey, HALICIOGLU, Ferda and Dell'Anno, Roberto
Informal Economy in Turkey
Comparing Various Studies

The Size of UGE in Turkey: MIMIC and Others

Source: Modeling the Underground Economy in Turkey: Randomized Response and MIMIC Models, Fatih Savaşan

Source: Turkstat
Rate of Informal Employment in Turkey

Source: TÜİK HHİA Results
Rates of Informal Employment in Turkey Across Cities (2007)

Source: Candan, Mehmet. 2007 - Türkiye İş Kurumu
## Turkish Action Plan Against Informal Economy

<table>
<thead>
<tr>
<th>Aims</th>
<th>Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Encouraging formal economic activities</td>
<td>➢ Empowering the potential of creating formal employment</td>
</tr>
<tr>
<td></td>
<td>➢ Enabling the increase in voluntary adaptation to formal economy</td>
</tr>
<tr>
<td>• Enhancing the capacity of supervision and ensuring the deterrence of sanctions</td>
<td>➢ Enhancing the capacity of supervision and audit</td>
</tr>
<tr>
<td></td>
<td>➢ Greater reach to databases and increasing share of information</td>
</tr>
<tr>
<td></td>
<td>➢ Ensuring the deterrence of sanctions</td>
</tr>
<tr>
<td>• Providing and developing social and institutional agreement</td>
<td>➢ Enabling, empowering and perpetuating institutional cooperation</td>
</tr>
<tr>
<td></td>
<td>➢ Providing and empowering social consonance through education</td>
</tr>
</tbody>
</table>

Source: ACTION PLAN OF STRATEGY FOR FIGHT AGAINST THE INFORMAL ECONOMY (2008 - 2010)
Actions Taken in Accordance with the Targets

• Changes in labor law in order to encourage registered employment. (premiums of specific group of workers -woman workers aged 18-29- partially shouldered by unemployment fund)

• Rearrangement of laws in order to decrease bureaucratic and paper work for opening new workplaces thus indirectly encouraging formal employment

• Law to force the employers to pay wages through banks and ensure the proper share of information about employees

• Precautionary actions against informal LPG, diesel and gasoline market through automated stations (Dağıtıcı Bayi Denetim Sistemi); national markers for fuel oil, gasoil and naphta

• Rearrangement of VAT for construction sector

Source: ACTION PLAN OF STRATEGY FOR FIGHT AGAINST THE INFORMAL ECONOMY (2008 - 2010)