The Shadow Economy in Europe and Bulgaria

How Payment Systems Help Limit the Shadow Economy

Study Results Presentation

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Prof. Dr. Friedrich Schneider
Department of Economics

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Shadow economy is legal business with added value, conducted illegally

Definition of shadow economy

<table>
<thead>
<tr>
<th>Sector</th>
<th>Official</th>
<th>Household</th>
<th>Irregular</th>
<th>Criminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice</td>
<td>• legal</td>
<td>• legal</td>
<td>• legal</td>
<td>• illegal</td>
</tr>
<tr>
<td>Execution</td>
<td>• Legal</td>
<td>• legal</td>
<td>• Illegal(^1)</td>
<td>• illegal</td>
</tr>
<tr>
<td>Example</td>
<td>• &quot;Normal&quot; economy activities</td>
<td>• Neighbourly help etc.</td>
<td>• Moonlighting: craftsmen, material</td>
<td>• Burglary, robbery, drug dealing, etc.</td>
</tr>
</tbody>
</table>

\(^1\) Related income not declared to authorities
Source: A.T. Kearney and Prof. Dr. F. Schneider

Components

- **Undeclared Work**: Mass phenomenon – estimated 30-35% of the working population is moonlighting (executing 2+ jobs)
- **Sales Underreporting**: Retail or commercial transactions not reported – partly connected to undeclared work (purchase of material)

In Europe typically ~2/3 of the shadow economy
In Europe typically ~1/3 of the shadow economy

1) Related income not declared to authorities
Source: A.T. Kearney and Prof. Dr. F. Schneider
With €2,200 bn and an average 22% of economic activity, the shadow economy in Europe is sizeable.

Size of shadow economy in relation to total GDP – 2009 (in € bn)

1) EU-27 (without Cyprus, Luxemburg, Malta), plus Norway, Switzerland and EU candidate countries; size of the shadow economy calculated with the MIMIC and currency demand method.

Source: Data Prof. Schneider, A.T. Kearney analysis
Bulgaria’s shadow economy has been consistently among the highest in Europe

Evolution of the Shadow Economy in Bulgaria as % of GDP

- **Shadow economy at persistently high levels**
- **Penetration decrease** during the preparation for EU accession
- **Contained increase** during the financial and economic crisis:
  - Slower GDP growth: H1 2010 GDP lower than H1 2009
  - Unemployment increase from 6.3% to 9.1% in 2009, with only a slight recovery in 2010
- **International experience post-crisis**: slight increase in the shadow economy as a result of fiscal and austerity measures

Source: BNB, NSI, Prof. Dr. F. Schneider
The basic structure of the shadow economy is comparable across countries

Industry structure of the shadow economy in Europe

- Manufacturing, Wholesale/Retail and Construction – sectors with the highest share of shadow economy in Europe
- Hotels/ Restaurants, Transportation, and Agriculture – consistently relevant shadow economy sectors
- Free professions – high value-added services, typically with significant share of underreporting
- Household services – sectors with high penetration of undeclared work
- Gas & Water Supply, Electricity, Mining – regulated industries with virtually no shadow economy

Average | Distribution
---|---
1) Based on focus countries – Germany, Spain, Italy, Poland, Romania and Turkey
Source: A.T. Kearney analysis, Prof. Dr. F. Schneider
The shadow economy is driven by a series of factors, which can be clustered in four areas.

**Drivers for the shadow economy**

**Objective advantages/need**
- Tax rates and social security premiums
- Complexity of tax/labour regulations
- General economic situation

**Lack of "guilty conscience"**
- Perceived quality of state institutions
- Perceived value of state benefits
- Sociocultural factors

**Opportunity/ease to participate**
- Cash-based transactions
- Available time

**Low risk**
- Danger of detection
- Possibilities to be tracked
- Possible penalties

Source: A.T. Kearney, several studies
Cash is a key enabler of the shadow economy

Correlation of shadow economy vs. number of electronic payments\(^2\)

**Share of shadow economy (\% of GDP)**

\[
\text{Correlation: } \sim -0.68
\]

**Average \# of electronic transactions/\ inhabitant/year**

1) Estimate
2) EU-27 2009 (no data available for Luxemburg)

Source: ECB, Interbanks card center, Prof. Schneider, A.T. Kearney analysis

Especially for B2C sales underreporting, the use of cash creates or eases the opportunity to underreport.
Promoting electronic payments helps to reduce the shadow economy

Increase in electronic payments – simulation

- Leverage of the MIMIC model used to evaluate the size of the shadow economy
- Isolation of the effect attributed to the development of electronic payments per capita
- Simulation of the shadow economy size with all input factors unchanged except for electronic payments
- Test of three different scenarios for the increase of electronic payments as basis for the further calculation

Shadow economy reduction through electronic payments

1) Selected European countries; simulation for four consecutive years; average of year-on-year changes
Source: Simulation results Prof. Dr. F. Schneider, 2009