Shadow economy in a turbulent environment: evidence from Poland

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Abstract
Purpose – The purpose of this paper is to provide an empirical insight into the functioning of the informal sector in Poland and highlight the reasons for involvement of economic agents in the new forms of the shadow economy.

Design/methodology/approach – The paper is focused on the analysis of different manifestations of unregistered economic activities in Poland. The author draws upon the latest available research findings on the subject including shadow economy estimates. Finally, the case study analysis of the tobacco industry in Poland has been used to exemplify and highlight the driving forces conducive to the expansion of the informal sector.

Findings – The informal sector’s share of the Polish economy in the years 2010-2015 was put as ranging between 12.1 per cent gross domestic product (GDP) and 14.5 per cent GDP (with the peak in 2013) by the GUS (Polish Main Statistical Office), between 19.2 per cent GDP and 21.1 per cent GDP by the IBnGR think tank (peak in 2012) and between 23.3 per cent and 25.4 per cent GDP by Professor F. Schneider.

Research limitations/implications – The case study of the tobacco industry, although well illustrates the dynamics of the shadow economy, does not provide a comprehensive picture of the Poland’s informal sector.

Practical implications – The paper provides tips and recommendations aimed at reducing the size of the shadow economy.

Social implications – Reducing the size of the informal sector could strengthen the social integrity and cohesion.

Originality/value – The paper provides insight into new areas and manifestations of the shadow economy in Poland exemplified by the case study of the tobacco industry.

Keywords Poland, Tax evasion, Shadow economy, Undeclared work, Tax avoidance, Informal labour market

Paper type Research paper

1. Introduction

The shadow economy, present with varying intensity in many countries across the globe, is estimated by experts to rank as the world’s second largest economy, after the USA. With a combined employment of 1.8 billion, it produces US$10 trillion worth of goods and services, or 16 per cent of the global GDP, thus reducing global tax revenues by at least $2 billion (Zieliński, 2012).

These figures highlight the magnitude of the problems posed by the existence and expansion of the shadow economy, which is also referred to as unofficial, informal or non-observed. Not only does it challenge the ethical norms, it also generates huge losses for many national budgets and distorts competition in modern economies, functioning as they are in an unstable, frenzied environment. This, too, is patently true of the Polish economy which – having joined the EU – is now more strongly integrated with Europe, but which is

JEL classification – H0, H26, O17
also linked by multiple ties and interactions with the global economy, thus being exposed to various kinds of external shocks. A careful analysis of the informal economy’s roots, forms in which it manifests itself and the consequences of its expansion may help draw useful conclusions and formulate advice on how to effectively counter this menace.

2. The essence, causes and consequences of the shadow economy

The notion of the shadow economy is applied to the production and sale of goods and services which escape statistical registration, thus staying outside the officially controlled channels. It is unrecorded activity which, if counted in the statistical system, would add to the gross domestic product.

The term used by the European Commission is “non-observable” economy, as defined in the EU accounting framework, the European System of National and Regional Accounts (ESA 2010). Three types of such activities are identified: illegal, hidden and informal.

The first segment is about activities where the parties are willing partners in a transaction prohibited and prosecuted by law. Examples include cigarette smuggling, drug production and trafficking and prostitution and sex trafficking, which according to the European Commission account for the bulk of activities in this component of the shadow economy. It should be remembered, though, that the notions of “legal” and “illegal” have their local contexts, reflecting local laws. In Poland, for example, prostitution is not deemed a violation of law, while sex trafficking (benefitting financially from prostitution practiced by other persons) is classed as misdemeanour. Illegal activities are largely conducted by unregistered entities (often criminal groups), and to a lesser extent, they may be carried out by registered, legally operating firms (Fundowicz et al., 2016).

The second segment of the non-observed economy are hidden and underground activities where the transactions themselves are not against the law but remain unreported to avoid official scrutiny. This includes companies underreporting their sales revenue, usually to avoid tax burdens or because of failure to meet regulatory constraints. Generally, the hidden or underground activities are more frequently conducted by micro and small-sized enterprises – as against medium- and large-sized companies – where sales underreporting is most often caused by over-restrictive terms of doing business, compared to these enterprises’ economic potential (Fundowicz et al., 2016).

The third segment of the shadow economy, as defined by the European Commission, comprises informal activities, typically where no records are kept. Failure to register may reflect a small scale of operations or their temporary or seasonal nature. These activities are usually conducted by private individuals rendering for-fee services for other people and, sometimes, companies. The informal economic activities largely involve the so-called marginal labour, which includes:

- unemployed with small chances to find a job on the labour market, because of low skills and poor capacity to stay on the market;
- those employed in the official economy and earning side income in the informal sector, sometimes using for this purpose the equipment and even materials owned by their employer;
- retirees and pensioners, with plenty of spare time;
- school and university students; and
- economic immigrants, ready to take onerous jobs for relatively small pay (Fundowicz et al., 2016).
As argued by many researches, the underlying causes of the shadow economy include an excessive burdens of government regulations and a poor quality of tax law, including its loopholes that may be taken advantage of. Incentives to move into the informal sector are provided by the higher costs imposed by administrative constraints and economic overregulation – excessive extent of mandatory reporting, frequent inspections conducted by different institutions, over-detailed, complicated regulations on workplace safety and hygiene, environmental protection, technical and quality norms, etc. – and also by other factors such as, for example, the “payment morality” (in relations with business partners), “tax morality” and proclivity to transgress the law (EY, 2016).

The negative macro- and microeconomic consequences of the shadow economy include distorting key economic indicators – GDP, inflation and employment – which makes it harder for government to pursue rational policies.

Distortion of competition is another problem. Informal sector entities, evading taxes and hiring staff under short-term civil agreements (rather than regular employment contracts) can offer lower prices for their goods and services, and as such are often no match for the legally operating companies that pay taxes and hire employees in compliance with the Labour Code and whose competitiveness is thus damaged. In highly price-sensitive markets, prices have become the key factor of competitiveness, overtaking quality and innovation. At the macroeconomic level, the result is a decline in a national economy’s innovativeness and international competitiveness, adversely affecting economic growth and national welfare (Global Compact Network Poland, 2016).

The shadow economy also adds to a country’s fiscal deficit, by reducing tax revenues. The direct losses to the state budget caused by tax avoidance and tax evasion effectively narrow the room for a taxpayer friendly fiscal policy and frequently lead to an increase in fiscal burdens. And with these burdens providing the main reason why economic actors go into the non-observed economy in the first place, the full circle is thus made in what can be referred to as a vicious circle of the shadow economy (Mróz, 2009; Schneider et al., 2015; Global Compact Network Poland, 2016).

The negative effects of the shadow economy extend to harm employees. Those working in unofficial settings do not enjoy worker rights (paid leave, damages for workplace accidents), are not covered by health and social insurance and have no entitlement to a pension for the period worked in the informal sector. And because of the absence of their social insurance contributions, the social safety net is weakened and the economy as a whole suffers (Mróz, 2009; Global Compact Network Poland, 2016).

Despite this array of adverse consequences, the shadow economy does have its bright sides. With the creation of low-productivity, low-paying jobs that would not emerge in the official sector, the labour market gets widened, benefitting in particular those for whom taking unregistered employment is in practice the only chance of earning their own income – thus reducing the threat of poverty for the worker and their family. The income derived from unregistered jobs indirectly helps increase budget revenue, via VAT tax. It adds to consumer demand and, to some extent, may even contribute to creating new jobs in the official sector (Mróz, 2009).

For the employer, in turn, the benefits from unregistered work take the form of lower labour costs, which sometimes provides the decisive factor behind the final decision to hire an employee. Because of administrative barriers, unregistered employment frequently offers the only way to complete a project on time – by taking in an employee for a short period (Mróz, 2009).

It should be remembered, however, that these positive impacts of the shadow economy largely reflect the imperfections of an economic system under which certain business
activities are being shifted into the non-observed sector. Notwithstanding certain positive aspects and mechanisms of the shadow economy, its overall assessment remains negative (Fundowicz et al., 2016).

The informal economic activity emerges and unfolds in a great variety of ways, demonstrating remarkable dynamism, flexibility and a capacity to fill loopholes in the official sector and adjust to a fast-changing environment. While some of its underlying causes are universal, many other factors are the result of changing country-specific social and economic realities, such as legal regulations, taxpayers’ mentality, the direction of economic policies, etc. Table I presents the rich variety of unregistered economic activities in Poland, some of which are deeply rooted in the local conditions, and only rarely seen in other countries.

3. Estimated size of the shadow economy in Poland: controversies and methodological differences

Even though evading registration and escaping administrative control, the shadow economy does leave a trail – for example, traces in monetary aggregates, such as the velocity of money and demand for high-face-value banknotes, used for settlements between informal sector actors – which provokes attempts at estimating its size. Depending on the estimating entity, the results may differ, sometime quite considerably. Table II presents estimates for the size of the Polish shadow economy made by the Central Statistics Office (GUS), IBnGR think-tank and the renowned researcher of the informal sector, Professor F. Schneider. Generally, the differences in results may be traced to the circumstance that estimates by public statistics services require “harder” data, confirmed by many sources, whereas independent centres do not face such constraints. In one particular case, the IBnGR estimates cover a wider extent of activities counted as the shadow economy, compared to the GUS study. Furthermore, in their estimates of sales underreporting, the GUS only surveys micro-enterprises with workforces of up to 9 (leaving out larger companies), while the IBnGR includes illegal trading in fuels and illegal gambling, which are not counted by the GUS (as matters stand, the bulk of revenue from illegal betting, gambling and unregistered coin-operated machines for games of chance in Poland goes into the shadow economy). The IBnGR estimates take into account education-sector services, such as writing graduation theses against payment, and also the unregistered economic activity conducted in Poland by foreign nationals, for example, Ukrainians or Vietnamese (Fundowicz et al., 2016, p. 20).

On the other hand, F. Schneider used in his estimates all available data on the shadow economy in European countries, including findings of anonymous questionnaires and macroeconomic indicators (e.g. inflation, unemployment, economic growth, per capita GDP). His analysis draws on the econometric model MIMIC (Multiple Indicators Multiple Causes), which makes it possible to study how the shadow economy is influenced (in addition to macroeconomic factors) by, for example, direct taxes, social insurance contributions, economic freedom, the quality of regulations, etc. Based on series of observable variables and estimated variables, MIMIC establishes dependencies between the size of the shadow economy and other variables.

As Table II demonstrates, the informal sector’s share of the Polish economy in the years 2010-2015 was put as ranging between 12.1 per cent GDP and 14.5 per cent GDP (with the peak in 2013) by the GUS, between 19.2 per cent GDP and 21.1 per cent PKB by the IBnGR (peak in 2012) and between 23.3 and 25.4 per cent GDP by Professor F. Schneider. The proportion of the shadow economy is shown as falling in each of these estimates.

Importantly, Professor Schneider’s estimates leave out illegal and criminal activities, and the household-supplied services which do not have to be reported as economic activity (e.g. neighbourly help). In his interpretation, the shadow economy is equated with the legal economic activity that is undocumented and conducted without the knowledge of the state
apparatus. It should also be added that according to many researchers of the subject, Professor Schneider’s numbers for the size of the shadow economy in European countries are slightly overestimated, even if his latest estimates for 2017 are a little bit lower than in the previous years (Schneider, 2017). Some scholars criticise sharply his methodology based on the

<table>
<thead>
<tr>
<th>Sector</th>
<th>Examples of shadow economy activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, hunting, fishing</td>
<td>seasonal work in agriculture, illegal wood cutting and sale, sale of forest undergrowth products, poaching</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>wildcat mines, extracting sand and gravel</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>production of alcohol and tobacco products, production of articles of clothing</td>
</tr>
<tr>
<td>Water supply, sewerage and waste management, remediation</td>
<td>illegal waste management, sale of used motor oil</td>
</tr>
<tr>
<td>Construction</td>
<td>unregistered construction services</td>
</tr>
<tr>
<td>Trade, repair of motor vehicles</td>
<td>illegal trade in arms, untaxed curbside sales, untaxed e-commerce, sales of fuels from various sources, including contraband, car repair and backup servicing, borderland trade, second-hand sale, fraudulent online sales</td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>unlicensed passenger transport, overcharging</td>
</tr>
<tr>
<td>Accommodation and catering</td>
<td>unregistered lodging and catering services, tips</td>
</tr>
<tr>
<td>Information and communication</td>
<td>unregistered IT services, illegal copying and dissemination of copyrighted content (computer piracy, making available illegal copies of films and music for a fee, photocopying of books)</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>Usury, trading in currencies</td>
</tr>
<tr>
<td>Real estate</td>
<td>leasing properties and premises, leasing land</td>
</tr>
<tr>
<td>Professional, scientific and technical activities</td>
<td>legal counsel</td>
</tr>
<tr>
<td>Administrative and support services</td>
<td>financial services (e.g. completing PIT tax returns for a fee), consulting, intermediation (e.g. in car sales outside second-car shop)</td>
</tr>
<tr>
<td>Education</td>
<td>private lessons, writing graduation theses for a fee</td>
</tr>
<tr>
<td>Human care and social work</td>
<td>healers and chiropractors</td>
</tr>
<tr>
<td>Arts, entertainment, recreation</td>
<td>unregistered/illegal gambling, online betting, ticket resale (secondary market)</td>
</tr>
<tr>
<td>Other services</td>
<td>illegal parking, unauthorised collection of parking fees, caregiving for children, elderly and disabled, domestic help, neighbourly assistance against payment</td>
</tr>
<tr>
<td>Households hiring domestic helpers, households producing goods and services for own consumption</td>
<td></td>
</tr>
</tbody>
</table>

Source: Fundowicz et al., 2016, p. 24
application of modified MIMIC (multiple indicators multiple causes) method (Breusch, 2005; Feige, 2016a, 2016b).

Below, in search of a more detailed analysis of the Polish shadow economy, the GUS estimates will be used, covering both the legal and illegal segments of the official sector (Table III). The legal segment is not prohibited by law, but only hidden from government. The GUS distinguishes between two forms of concealing economic activity: underreporting by registered entities (hidden activities) and unregistered economic activities by private individuals working on their own account (informal activities). The illegal activities include production and distribution of drugs, cigarette smuggling and sex trafficking.

Table III, which presents the latest findings of GUS research, shows that the largest component of the shadow economy was the hidden activities (income underreporting by legally operating companies), accounting for an average of almost 9.0 per cent GDP over 2010-2013 and as much as 66 per cent of the whole unofficial economy.

In breakdown by institutional sector, the largest one is the aggregate of trade, repair of motor vehicles, accommodation and catering, which accounted for a combined 42 per cent in 2013. Next came construction, with an 18 per cent share, followed by industry (10 per cent), real estate (10 per cent) and transportation and storage, with a 7 per cent share [Główny Urząd Statystyczny (GUS), 2015b].

Since 1995, the Central Statistics Office has also conducted periodic studies of unregistered employment in Poland, as part of the continuous labour force surveying project BAEL. To-date, such studies were carried out in 1995, 1998, 2004, 2009, 2010 and 2014, providing a valuable source of information on the unregistered labour market in Poland – its size, growth rate, structure and trends (Table IV).

Very likely, these “black employment” estimates fall short of the total number of players on the market for unregistered work, given that statistical-research respondents are reluctant to admit working in the informal sector. Also, for many people, receiving pay from unregistered work is so common as to be considered by them a normal situation. Furthermore, as Table IV indicates, the numbers of those admitting to be in unregistered employment have no connection with estimates for the size of shadow economy output. A comparison of 2010 and 2014 reveals two divergent trends: while unregistered employment dropped in 2014, the shadow economy as a percentage of the GDP increased in that year, as compared with 2010.

Even with these doubts, the GUS research provides plenty of valuable data, helping to better learn and understand the market for unregistered employment in Poland.

4. Case study: shadow economy in the tobacco industry in Poland

The tobacco industry is an interesting sector which well illustrates all the factors underlying the shadow economy’s existence and expansion. Obviously, the main reason is taxation, and

<table>
<thead>
<tr>
<th>Year</th>
<th>Central Statistics Office (GUS)</th>
<th>IBnGR think-tank</th>
<th>Professor F. Schneider</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>12.6</td>
<td>21.0</td>
<td>25.4</td>
</tr>
<tr>
<td>2011</td>
<td>12.1</td>
<td>20.0</td>
<td>25.0</td>
</tr>
<tr>
<td>2012</td>
<td>14.0</td>
<td>21.1</td>
<td>24.4</td>
</tr>
<tr>
<td>2013</td>
<td>14.5</td>
<td>19.9</td>
<td>23.8</td>
</tr>
<tr>
<td>2014</td>
<td>12.6</td>
<td>19.5</td>
<td>23.5</td>
</tr>
<tr>
<td>2015</td>
<td>12.4</td>
<td>19.2</td>
<td>23.3</td>
</tr>
</tbody>
</table>

Sources: GUS; IBnGR estimates for 2014-2016; Schneider (2016)
particularly the excise tax, which determines the price of tobacco products and which has risen considerably in Poland over past years. The biggest problem here is contraband – by organized groups and by individuals – which is made easier by the fact that Poland, situated on the European Union’s eastern frontier, borders on countries where production of tobacco products is cheap. Smugglers employ a wide variety of methods which may involve: individuals frequently crossing the border and each time carrying amounts allowed by law; hidden compartments in vehicles and packaging of legally carried products; corruption of customs officers; illegal “border hopping” using pontoons, planes, drones, etc.; falsified documents or a fictitious carrying of tobacco products out of European Union territory (while in reality they are distributed on the domestic market), etc. The largest smuggling route into Poland runs from Belarus. Another problem is posed by the illegal production of coarse-cut tobacco (an input for cigarette production) and ready-made cigarettes. Its scale is well-illustrated by a police operation of March 2015, in which one of Europe’s largest illegal cigarette factories was closed in Grójec, a town outside Warsaw. The police confiscated 2.5 million kilograms of tobacco, worth 1.5 billion zloty (€357 million), four illegal production lines, 20.5 million illegal cigarettes worth more than 13 million zloty (€3 million) and 33 million zloty (close to €8 million) in cash. The losses to state budget revenue caused by the unofficial sector in the tobacco industry in 2015 alone amounted to 6.5 billion zloty (more than €1.5 billion).

Poland is Europe’s second largest producer of raw tobacco (just after Italy) and the second largest exporter of tobacco products in the European Union (after Germany). Tobacco is the second largest source of excise tax revenue for the Polish Treasury. Excise tax is levied on tobacco products such as cigarettes, pipe tobacco, cigarillos and cigars. Cigarettes represent the largest volume, with the bulk of their price being accounted for by VAT and excise tax (81.2 per cent in 2015). This provides a big temptation for dishonest players, looking for a quick buck (also by evading indirect taxes). In step with an increase in the prices of tobacco products on the official market (where VAT and excise duty are levied), consumers are looking for alternative, cheaper sources, often from behind the eastern border. Some consumers are not aware of products’ illegal origins (contraband, illegal production), but many buy them with the full knowledge of this circumstance – and this is a particularly frequent situation in the case of cigarettes. In addition to budget losses of some 6.5 billion zloty (€1.5 billion) because of unpaid excise tax and VAT, the shadow economy practices in the tobacco sector lead to an erosion of business ethic and atrophy of civic responsibility among consumers.

The measures that should be taken to counter criminal activities in this field include:

• strengthening border control, especially on the eastern flank;
• providing operational and IT support for specialist services that fight contraband and illegal production;

<table>
<thead>
<tr>
<th>Legal/illegal segment</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Legal activities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hidden activities</td>
<td>8.6</td>
<td>7.9</td>
<td>9.5</td>
<td>9.8</td>
</tr>
<tr>
<td>Informal activities</td>
<td>3.3</td>
<td>3.5</td>
<td>3.7</td>
<td>3.9</td>
</tr>
<tr>
<td>Illegal activities</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Shadow economy, total</strong></td>
<td>12.6</td>
<td>12.1</td>
<td>14.0</td>
<td>14.5</td>
</tr>
</tbody>
</table>

**Table III.**

GUS Estimates for the size of the shadow economy in Poland in 2010-2013, by legal and illegal segment (% GDP)

**Source:** Rachunki narodowe według sektorów i podsektorów instytucjonalnych 2010-2013 [National accounts by institutional sectors and sub-sectors 2010-2013], Central Statistics Office (GUS) (2015b) Warsaw
• expanding the system of training for judges and tax officers;
• introducing tougher penalties, to discourage repeat offences; the penalties should result in the taking away of assets earned from criminal activity;
• introducing controls on the import and sale of machines to make tobacco products, and regulations that will enable forfeiture of objects serving criminal purposes; and
• raising the public’s awareness of the damage caused by tobacco product purchases in the non-observed sector and promoting civic responsibility.

In 2015, for the first time in ten years, the Ministry of Finance did not raise the rates of excise tax on cigarettes – whether percentagewise and in absolute terms – and yet the tax burden on cigarettes went up. That was because of an increase in the mandatory minimum excise tax rate, which is an arrangement designed to protect the government against a fall in excise tax revenue. This minimum rate is computed based on the weighted average of cigarette retail prices for 10 months of the preceding year. Taxes’ share of the retail price of a cigarette pack is 82.3 per cent, which puts Poland in the sixth position among the European Union member states, the leader being the UK (85.7 per cent). The remaining 17.7 per cent (an average 2.28 zloty per cigarette pack) comprises the distributor’s mark-up and the revenue of tobacco product makers, from which are covered the costs of purchasing dried tobacco leaves from growers, semi-products, marketing, employment, etc.

In 2014, the Polish tobacco industry’s net profit amounted to 236.6 million zloty (€56 million), whereas the combined state treasury revenue generated in the sector was nearly one hundred times as high, including 17.9 billion zloty (€4.3 billion) from excise duty and 4.9 billion zloty (€1.2 billion) from VAT. Under EU law, excise duty is a harmonised tax, which no member state may reduce below the level of €90 per 1,000 cigarettes. In 2015, the Polish excise tax ran at €92 per 1,000 cigarettes, which means that no increase was required. Poland could have availed itself of a transition period and stick to the EU requirement only starting from 2018. Yet the Ministry of Finance took the path of short-term revenue maximisation, which meant tax increases, leading to a fall in tobacco excise-tax revenue and greatly accelerating the expansion of the shadow economy. Over 2012-2014, the revenue actually earned from this source was lower than planned by as much as 3 billion zloty (€0.7 billion), including a shortage of 1.28 billion zloty (€300 million) in 2014 alone. This destructive impact of high tax rises continues till today, bringing about a drastic decline in legal sales (down by nearly 27 per cent in 2010-2014) (Table V).

State budget revenue from excise tax have declined in recent years, trailing a fall in legal cigarettes sales – but that did not reflect any decrease in smoker numbers or a replacement

### Table IV.

<table>
<thead>
<tr>
<th>Year</th>
<th>‘000</th>
<th>% of all people in employment</th>
<th>Shadow economy as per cent of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>2,199</td>
<td>14.9</td>
<td>n.a.</td>
</tr>
<tr>
<td>1998</td>
<td>1,431</td>
<td>9.3</td>
<td>17.0 (2000)</td>
</tr>
<tr>
<td>2004</td>
<td>1,317</td>
<td>9.6</td>
<td>14.5</td>
</tr>
<tr>
<td>2009</td>
<td>785</td>
<td>4.6</td>
<td>13.1</td>
</tr>
<tr>
<td>2010</td>
<td>732</td>
<td>4.6</td>
<td>12.6</td>
</tr>
<tr>
<td>2014</td>
<td>711</td>
<td>4.5</td>
<td>14.5 (2013)</td>
</tr>
</tbody>
</table>

Source: Praca niezarejestrowana w Polsce w 2014 r., Informacje i opracowania statystyczne [Unregistered work in Poland in 2014], GUS (2015a) Warszawa
of traditional products with e-cigarettes. Rather, it should be seen as empirical evidence of the Laffer curve, and the argument that tax increases above the optimum point bring about a fall in tax revenue, with consumers turning to lower-cost untaxed cigarettes in the shadow economy. On the other hand, the World Health Organisation attributes a fall in cigarettes’ consumption to their increasing prices. Regrettably, this should be regarded as just wishful thinking. The sad truth seems to be that consumption did not fall at all, but some consumers moved into the shadow economy to buy cigarettes more cheaply.

5. Curtailing the second economy in Poland

Despite exhibiting some positive characteristics, the non-observed sector’s overall social and economic impact is disastrous. In analysing the problem, government administration and tax offices should take note of its underlying causes, which often include poor quality of state assets management, underperformance of public administration and pervasive red tape. These areas are within the scope of government responsibility, and so it is the government that should seek improvements there and launch new arrangements with a view to improving the quality of life for citizens and checking the shadow economy.

An important inducement to start “off the books” operations is provided by the tax burden, which thus comes as the first area in need of change. Taxes are the largest component of state budget revenue, with indirect taxes offering the most effective instrument of social income redistribution. It is important that taxes be set at an appropriate level, that is, one that brings sufficient revenue while not putting excessive burdens on citizens. The tax system should be made more transparent that it is now, remembering that complicated tax codes not only provide discouragement to tax-paying but actually may render tax evasion easier (Pietrzak and Bolkunow, 2013, pp. 51-53; Ćwikowski, 2016).

Measures to be taken in other fields may include: harsh penalties for proven activities outside of the official economy, increased recruitment for inspector from among people of unblemished moral standing, diverting a portion of tax revenue to rewards for informers, taking an active approach to countering unemployment, lowering administrative barriers, and streamlining procedures for starting up and running businesses. Presented below are three examples of arrangements aimed at checking the shadow economy (Global Compact Network Poland, 2016, pp. 60-62).

- Sales receipt lottery. Used in Poland, Croatia, Slovakia, Portugal and many other countries, it provides additional encouragement for buyers to request a sales slip as confirmation of the transaction. The goal is to boost VAT and income tax revenue. The biggest prizes are offered in segments where unregistered transactions do the greatest harm.

- System of electronic VAT (“fiscal”) cash registers, launched in Bulgaria, Croatia, Slovenia and also Hungary, where in 2014 it led to an increase in VAT revenue by some Ft1150 billion or 0.5 per cent of the country’s GDP. This is a costly project, involving the purchase of new, or adjustment of existing, cash registers to make them capable of

<table>
<thead>
<tr>
<th>Year</th>
<th>Cigarettes (billion)</th>
<th>Tobacco (tons)</th>
<th>Cigars and cigarillos (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>57.3</td>
<td>1,941</td>
<td>13.1</td>
</tr>
<tr>
<td>2011</td>
<td>55.6</td>
<td>1,669</td>
<td>14.2</td>
</tr>
<tr>
<td>2012</td>
<td>52.2</td>
<td>1,274</td>
<td>n.a.</td>
</tr>
<tr>
<td>2013</td>
<td>46.6</td>
<td>1,089</td>
<td>n.a.</td>
</tr>
<tr>
<td>2014</td>
<td>42.0</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Table V.

Sales of tobacco products in Poland in 2010-2014

Source: Ministry of Finance, 2015
automatically sending transaction information to supervisory agencies. It makes possible a faster analysis of declared income and an ongoing detection of irregularities.

- Mandatory caps on cash transactions. Used in European countries, according to different blueprints, these arrangements introduce upper limits on B2B and B2C transactions settled in cash. Cashless transactions leave an electronic trail, which is instrumental in detecting fraud. The Polish cap for transactions between businesses is €15,000, but no legal consequences await non-complying parties.

It would be hard to exaggerate the importance of public-education programmes in media and schools, seeking to bring home to citizens that that shadow economy employment is unethical and that tax dodgers have no moral right to use public goods. A strong argument can be provided by juxtaposition of rights enjoyed in registered and unregistered work, especially in respect of workplace safety, social provision, protection of consumer rights, etc. Many people are not aware of this, as has been demonstrated by research findings, and therefore many experts propose arrangements such as, for example, a dedicated helpline, which may also be used to report instances of unregistered work (Pietrzak and Bołkunow, 2013, pp. 52-54; Mróz, 2016).

Methods used to restrict the shadow economy can be grouped as follows:

- Systemic action, which includes new regulations streamlining the legal and economic environment and closing legal loopholes used to game the system and also organisational measures adjusting tax administration’s operations to meet pressing challenges, with a view to curtailing the shadow economy.

- Effective repression and inspection in areas and entities that are in breach of the law, coupled with effective penalisation of entities to whom evidence of non-reporting or underreporting practices has been presented.

- Preventive and educational campaigns, as elements of a systemic policy seeking to win over the public to the idea that the shadow economy is harmful and that countering it is in public interest.

Researchers of the shadow economy prefer systemic action to repression, as an effective means of restricting the non-observed sector. But for this goal to be achieved, all elements listed above must be put to use in a coordinated effort (Global Compact Network Poland, 2016).

Another kind of measures, more of a technical nature, are initiatives and projects supporting proper tax-collection, such as the following ones:

- Reverse charge mechanism, which changes the system of VAT computation and deduction, by shifting the obligation to settle the tax from seller to buyer. The goal is to cut off tax offenders from VAT in the forms of cash or transfer and, thus, restrict their opportunities for fraud. “Vanishing taxpayers” cannot misappropriate the tax office’s revenue, because they cannot claim VAT payment from the buyer.

- Joint and several liability, with the goal of countering the “vanishing taxpayer” mechanism. Here, buyers of certain goods (especially those susceptible to VAT fraud) have joint and several liability for tax obligations of the seller. Under this arrangement, taxpayers control more closely their business partners, and state budget interests are protected by means of recovering defrauded amounts from an imprudent buyer. This has been strongly criticised by many in the business community, arguing that in this way the state shifts to them the burden of verifying the integrity and credibility of their business partners.
Standard Audit File for Tax (SAF-T), also referred to as the “VAT data warehouse”. It currently applies in Poland only to large companies but starting from 2018 small-to-medium companies will be added. The taxpayers are required to file transaction information in a standardised format to be embedded in the “VAT warehouse”, which is directly and instantly accessible by tax offices. The latter not only have access to B2B and B2C transaction data, but can also monitor transactions on an ongoing basis, which translates into speedier detection of tax fraud (Ministry of Finance report, 2016).

6. In conclusion
Doing business in the shadow economy is unethical or at least ethically questionable. Despite certain bright sides – e.g. providing income for low-skill workers and cushioning the official sector’s tensions and frictions – the non-observed sector has consequences which, in net terms, are damaging socially and economically. The one that has been fingered most frequently is absence of budget revenue from taxes and social insurance contributions, which in effect adds to the costs of budget deficit financing, prevents the state from performing its redistribution function and enforces a high level of taxes, thus making it still more difficult to start and run a business. The informal sector also distorts economic indicators and, consequently, impairs the quality of economy policy. It is unfair competition for the legally operating entities, whose profits are thus reduced and growth opportunities checked. There is also more cash in circulation (Pietrzak and Bolkunow, 2013, p. 37, 49).

Among the damaging macroeconomic consequences, the failure to pay social insurance contributions by entities operating in the shadow economy poses a threat to the functioning of the social insurance system. This also brings social injustice, a situation where benefits received by citizens are the same but their contributions to the state are not. Company operations are adversely affected by increased uncertainties and shifts of labour and capital to areas where tax avoidance or tax evasion is easier. A strong presence in the economy of its informal sector leads to economic turbulence, rising corruption and the public’s falling trust in the state and its institutions (Schneider et al., 2015; Ćwikowski, 2016, pp. 113-117).

Summing up, the shadow economy has largely negative consequences, whether at the macro- or microeconomic level, which necessitates undertaking systemic efforts that seek to eliminate its underlying causes. Developments and processes behind the unofficial sector’s expansion should be meticulously countered by systemic measures (such as changes in the regulatory environment) and a country-specific mix of hard and soft methods, involving for example crackdown on dishonest entities on the one hand and, on the other, public education and promotion of responsible attitudes (Mróz and Sokolek, 2013).

References


Schneider, F. (2017), Impleausible Large Differences of the Size of the Underground Economies in Highly Developed European Countries? A Comparison of Different Estimation Methods, Johannes Kepler Universität, Linz.


Further reading


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