



Lithuanian
Free
Market
Institute

Shadow Economies in the Baltic Sea Region 2015



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Preface

The aim of this publication is to present and analyze the results of representative population surveys on public perceptions of the shadow economy and actual engagement in shadow economic activities that was conducted in six countries, including Lithuania, Latvia, Estonia, Poland, Sweden and Belarus, in May-June 2015. The survey data and other sources of evidence were used to investigate the drivers of the shadow economy and to draw some policy recommendations.

The shadow economy can generally be defined as economic activities (goods produced and services rendered) conducted in non-compliance with applicable laws for the purpose of avoiding taxes/or and regulations. If the goal is to effectively tackle the issue of the shadow economy, it is crucial to view the shadow economy not only as a criminal offence, but also to recognize that the shadow economy is primarily about economic activities that create value.

This implies that the fight against the shadow economy is the most effective not when shadow economy activities are completely eradicated, but when they are transferred from the undeclared domain to the formal sector. In order to do that, one should consider what the legal environment for carrying out economic activities, working and doing business is and whether it is conducive enough to engage in such activities. The incentive to participate in the shadow economy always stems from economic restrictions on legal economic activities, be it taxes or regulations. Therefore, the primary way to curb the shadow economy is by creating a favourable legal environment for legal activities.

The research presented in this publication is based on a direct, micro (survey) approach to investigating the shadow economy. This approach is valuable in that it allows for a better understanding of people's motivations, perceptions and attitudes. After all, it is impossible to construe and formulate proper policy without understanding public attitudes the policy is supposed to address. We therefore believe that this publication does not only give new insights about the extent of the shadow economy in the countries under analysis, but through the micro approach helps us to better understand the perceptions of shadow economy participants and the public at large.

The publication is composed of three main parts. The first chapter presents the general results of the surveys and macro estimations of the shadow economy based on the data from the surveys. The second chapter analyses the drivers of the shadow economy in all six countries. Finally, we provide some policy recommendations on how the shadow economy can be tackled.

We would like to thank all the contributors who participated in the preparation of the surveys and this publication, and especially professor Friedrich Schneider of Johannes Kepler University Linz, Aleksander Łaszek of Civil Development Forum FOR, Poland, Alexei Pikulik and Elena Artsiomenka of the Belarusian Institute for Strategic Studies, Arnis Sauka of the Stockholm School of Economics in Riga, Jesper Ahlgren of Timbro, Sweden, Julija Simionenko-Kovacs of the Lithuanian Free Market Institute, and Robert Mürsepp of the Mises Institute, Estonia.



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1. A survey of shadow economies

This study is based on representative population surveys which were designed by the Lithuanian Free Market Institute and its partner organizations and experts¹ and carried out by the market and public research company Spinter Research in Lithuania, Latvia, Estonia, Poland, Sweden, and Belarus. The main goal of the surveys was to elicit public perceptions of the shadow economy, actual participation in shadow economic activities, and opinions about certain shadow practices.

The surveying took place from May 22nd until June 15th of 2015. The target audience included 18 to 75-year-old residents, with a total sample size consisting of 6,035 in all six countries. The surveys were carried out based on the CAWI (Computer Assisted Web Interview) method using a standardized questionnaire.

The chapters below present analysis of the results of the surveys in all six countries.

1.1. Public perceptions of the shadow economy

Likelihood of being detected and perception of punishment

Before identifying the causes of the shadow economy or offering any specific cure, it is important to understand public perceptions about shadow activities. Without this knowledge, even the most carefully thought-out measures may become useless and fail to achieve the desired result.

Research reveals that the size of the shadow economy in a country is highly dependent on the tax morality of its residents, which in turn is determined by public perceptions and attitudes. Multiple studies show that beliefs and attitudes towards the shadow economy more strongly correlate with compliance than do deterrence factors. Therefore, measures aimed at improving commitment to paying taxes are directly relat-

ed to understanding people's attitudes towards shadow activities.

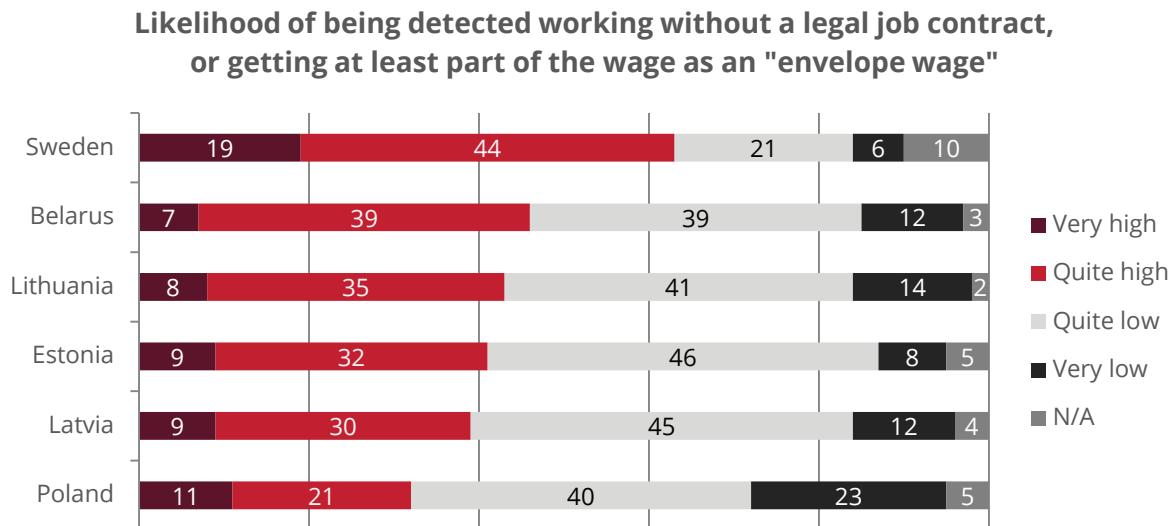
The first part of the survey focuses on how people rate the severity of possible penalties, the likelihood of being detected, and, most importantly, their justification of different shadow activities.

Perception of likelihood of detection

People sometimes engage in shadow activities. They get part of or their entire wages "in an envelope" (or "under the table") or buy goods or services from people who do not pay taxes. People who engage in such activities risk disclosure, fines or additional tax bills from the authorities. Respondents were asked about their perceptions of the likelihood of detection.

¹ Belarussian Institute for Strategic Studies, Belarus, Civil Development Forum FOR, Poland, The Mises Institute, Estonia, Arnis Sauka, Latvia, and Timbro, Sweden.

Figure 1



In Sweden people perceive the likelihood of detection of employment without a legal contract to be the highest. As many as 63% of respondents believe it to be very high or quite high (as opposed to 27% who perceive it to be quite low or very low). From all the surveyed countries Sweden is the only one with a higher share of people who perceive the likelihood of being detected as high or very high as compared to those who judge it to be quite low or very low.

Regarding engagement in the shadow labour market, Poland has the lowest perception of likelihood of detection. Only 32% of respondents consider the likelihood very high or quite high and 63% consider it quite or very low.

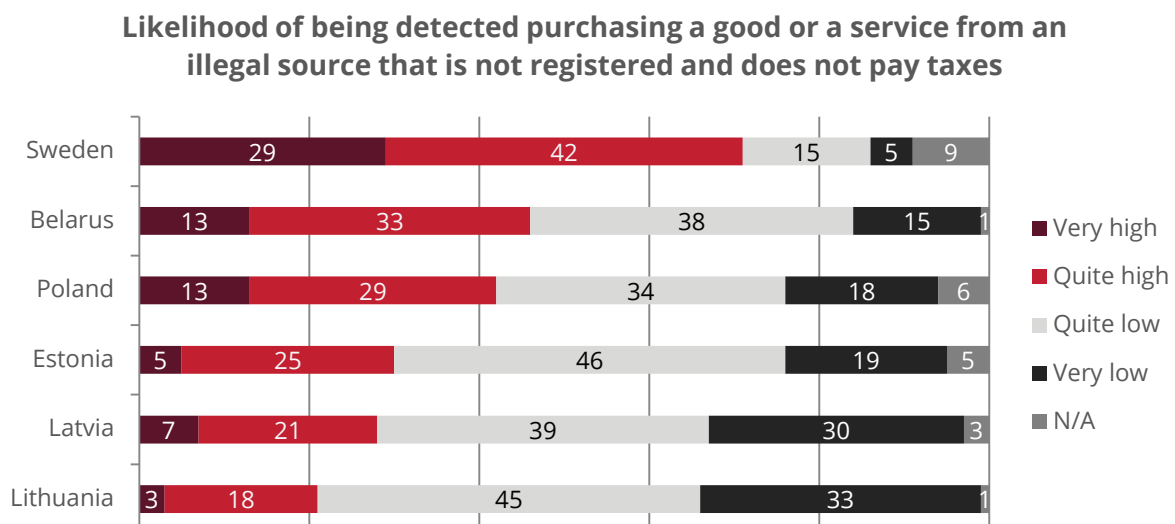
All three Baltic States show very similar tendencies. The share of people who see the likelihood of detection as high varies from 39% in Latvia to 43% in Lithuania, and there is a higher share of

those who consider the risk to be very or quite low, from 54% in Estonia to 57% in Latvia.

Belarus has a similar share of those who consider the likelihood of detection to be high or low, 46% and 51% respectively.

The perception of the likelihood of detection differs quite a lot in some countries depending on whether the respondent has personally been involved in shadow labour activities. Those who have experience working in the shadow labour market view the likelihood of detection as much lower than those who have none. It is lower by 14 percentage points in Lithuania, 13 p.p. in Belarus, 11 p.p. in Sweden, 6 p.p. in Estonia, and 2 p.p. in Latvia. Interestingly, in Poland the share of people who judge the likelihood of being detected as high is the same regardless of whether people have had experience in the shadow labour market or not.

Figure 2



Sweden once again accounts for the highest perceived likelihood of detection for purchases of goods or services from an illegal source that is not registered and does not pay taxes. As many as seven in ten believe the likelihood to be very or quite high, compared to only a fifth of the respondents who perceive it as quite or very low. This is yet again the only country with an overwhelming majority of such opinions.

Lithuania, on the other hand, displays a completely different distribution, with 78% of respondents perceiving the likelihood of being caught as quite or very low, compared to only 21% of those who see it as quite or very high.

Belarus comes second after Sweden in terms of perceived high likelihood of being caught purchasing from illegal sources. However, this view does not reach a majority and accounts for 46% of all the responses. The share of those who perceive the likelihood to be quite or very low is 53%. Poland shares a similar distribution of answers with Belarus. In Poland 42% of respondents perceive the likelihood of being caught as very or quite high, compared to 52% of those who see it as quite or very low.

Contrary to Poland, Latvia and Estonia seem to be closer to Lithuania with their majorities (69% and 65% respectively) leaning towards a low likelihood of being caught purchasing from an illegal source.

When evaluating the likelihood of being caught making illegal purchases, the perception of respondents with and without such experience once again differs slightly. In all the surveyed countries, people with such experience tend to perceive the likelihood of being caught as lower than those who have no such experience, by 8 percentage points in Estonia, 7 p.p. in Lithuania, 5 p.p. in Latvia, 4 p.p. in Sweden, 3 p.p. in Belarus, and 1 p.p. in Poland.

In all three Baltic states respondents think that the likelihood of being detected purchasing goods or services from an illegal source that is not registered or does not pay taxes is lower than while working without a legal employment contract or getting at least part of the wage as an “envelope wage”. The reasons for this can be manifold.

First, there is a lack of perceived liability. Once a person is caught purchasing something illegally, it might be difficult to prove that he or she did know the fact. While the provider of illegal goods or services might be detected during a regular check, a customer can simply pretend that he or she was unaware that the source was not registered or

was not paying taxes. After all, it is difficult to determine whether a seller has been declaring his or her income. Therefore some people might be unaware if their purchase is official. One way to find out this is to ask for a receipt. But in practice, unless a customer needs it for a personal reason, the receipt is usually forgotten. Also, a customer is not legally obliged to request a receipt, except in special cases when one is required.

Another reason is the difference between the amount of time spent working illegally and of making a purchase. To detect an illegal worker, all it takes is one successful inspection. If the company involved in illegal practices falls under the “high risk” category and has a relatively high amount of unregistered labor, the probability of detection is even greater.

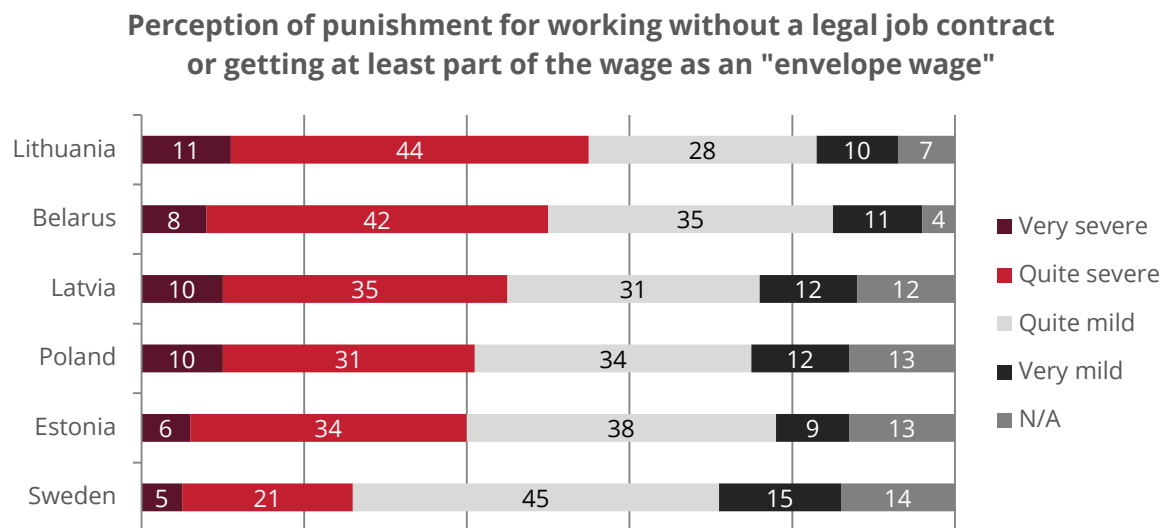
In Sweden and Poland the tendency is different. The likelihood of being detected purchasing goods and services from an illegal source that is not registered or does not pay taxes is perceived as higher than while working without a legal job contract or getting at least part of the wage as an “envelope wage”. In Belarus the perception of risk is almost the same for both types of shadow activities.

Perception of punishment

When thinking about peoples' incentives to engage in shadow economy activities, it is important to investigate not only the perception of likelihood of being detected but also the perceived punishment once a person is caught.

Respondents were asked how severe they believed the punishment would be if they were caught engaging in shadow economy activities, such as getting part of or the entire wage “in an envelope” (or “under the table”) or buying goods or services from people who do not pay taxes.

Figure 3



Punishment for working in the shadow labour market is perceived to be the most severe in Lithuania, the only of the six surveyed countries where the majority of respondents qualify this punishment as very or quite severe (55%). A total of 38% of the respondents see it as quite or very mild.

Belarus also comes close concerning the severity of punishment as one in two of the respondents say the punishment is very or quite severe. The percentage of those who consider it to be very or

quite mild is 46%. The distributions of answers for Latvia, Poland and Estonia are also quite similar. Yet, the majority is not reached in any of these groups. A total of 45% of respondents in Latvia, 41% in Poland and 40% in Estonia consider the punishment to be very or quite severe, compared to 43%, 46% and 47%, respectively, who see it as quite or very mild. In Sweden, on the other hand, the majority (60%) believe the punishment to be quite or very mild, compared to only 26% who think otherwise.

Figure 4



Poland has the highest level of perception of punishment for purchasing a good or service from an illegal source that is not registered and pays no taxes. Almost half of the respondents (48%) consider the punishments to be very or quite severe compared to 39% who think otherwise.

In all the other countries the majority of the respondents think of the punishment for such activities as being quite or very mild. One of these two options was indicated by 57% of the respondents in Estonia, 54% in Belarus, 52% in Lithuania and Latvia each, and 51% in Sweden.

Sweden is an interesting example of the connection between the perceived likelihood of being detected while engaging in shadow economy activities and perceived punishment for it. In most of the surveyed countries the share of respondents who think that the punishment is quite or very severe is higher than the proportion of respondents who see the likelihood of being detected as very or quite high. Essentially, those who believe they will most likely be caught see the punishment as severe. This tendency is very clear in Lithuania and in Poland. Sweden is the big outlier where deterrence from engaging in shadow economy activities comes not from the perceived severity of punishment, but from the high likelihood of detection. The share of Swedish respondents who perceive the likelihood of being detected while working without a legal job contract or getting at least part of the wage as an “envelope wage” as quite or very high is comparatively very large, 63% (the non-weighted average of the other countries is

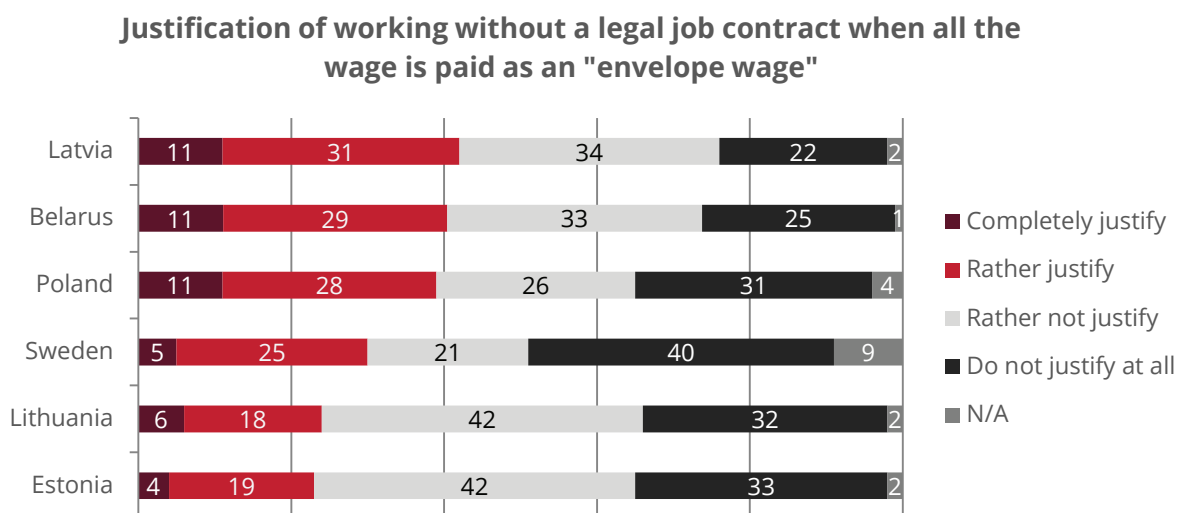
40%), whereas the share of those who perceive the punishment to be quite or very severe is only 26% (the non-weighted average in the other countries is 46%). This fact provides insights for the policy direction in trying to decrease people’s participation in the shadow economy and increase deterrence. For effective deterrence detection and punishment policies should come together. Countries where the perceived likelihood of being detected is low compared to the severity of the punishment (e.g. Lithuania and Poland) should focus more on the former.

Justification of shadow economy activities

Survey respondents were asked to express their opinion about a specific shadow activity and the degree to which they justified it. The level of justification of a certain shadow economy activity can be interpreted in several ways. Firstly, it shows how favourable the conditions for the shadow economy are. The more society justifies a certain activity, the easier it is for people to participate in it. A high level of justification can also be interpreted as showing the degree to which people actually engage in the shadow economy. The more people participate in the shadow economy, the higher the degree of justification of these activities is.

Respondents were asked whether they personally saw justification of people engaging in different shadow activities.

Figure 5



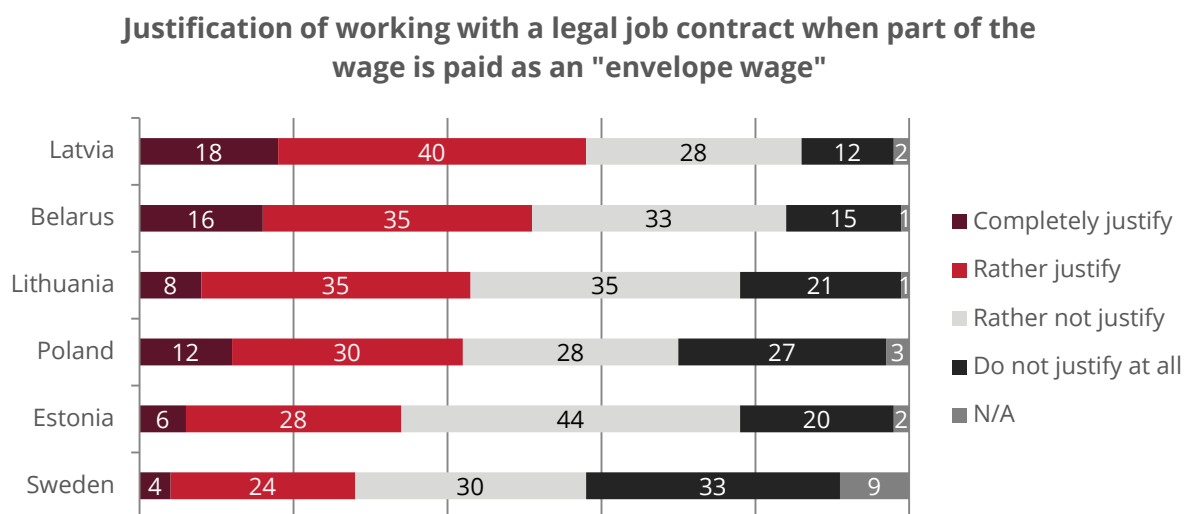
The majority of respondents in all six countries do not justify illegal work whereby the entire wage is paid under the table. However, the proportion of such responses differs significantly across countries.

Latvia has the lowest percentage of those who disapprove of such actions, 56%, compared to 42% who tend to justify or completely justify them. Both Belarus and Poland have very similar distributions too, with 58% and 57% not justifying this type of employment, and 40% and 39% justifying it, respectively.

The Swedish case is slightly different. Even though the overall trends are similar, the importance of some particular groups is different. The proportion of respondents who completely justify this type of shadow employment is the second lowest among all countries (5%) and the share of those who do not justify it at all is the highest (40%).

Estonians together with Lithuanians appear to be the most categorical when judging illegal work (even 75% and 74% tend not to justify or do not justify it at all, respectively), compared to only a fourth of respondents who do (23% and 24%, respectively).

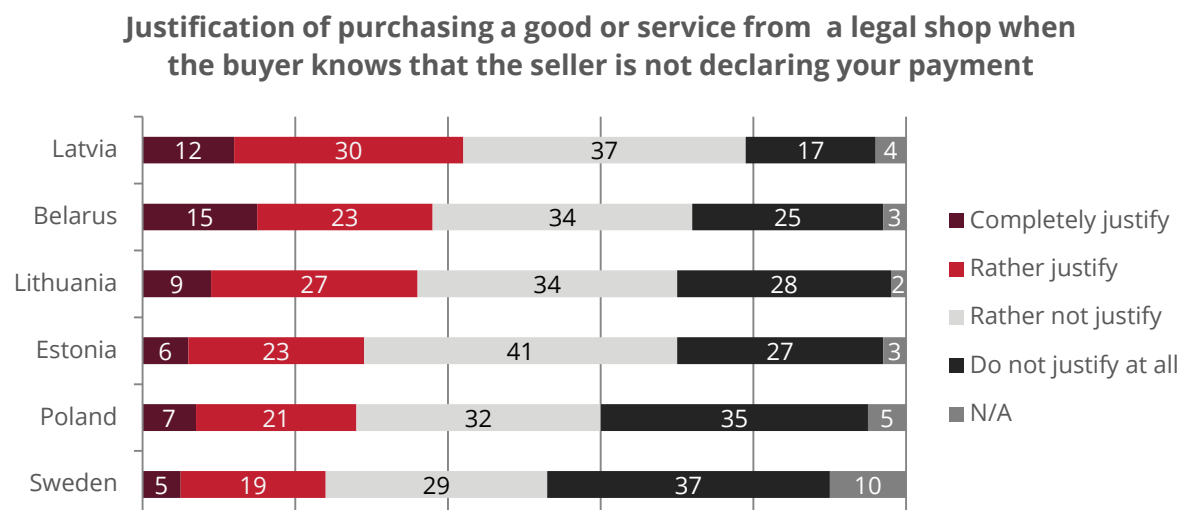
Figure 6



Work with a legal job contract when part of the wage is paid as an “envelope wage” seems to be more acceptable in all the countries as compared to getting the entire wage under the table. Latvia and Belarus again have the highest shares of respondents justifying such behavior (58% and 51% completely justify it or tend to justify it, respec-

tively) compared to 40% and 48% of those who do not. In the other countries the majority are critical of such working arrangements. In Sweden 63% of respondents tend not to justify or do not justify them at all, in Estonia the proportion of such respondents is 64%, in Lithuania it is 56%, and in Poland, 55%.

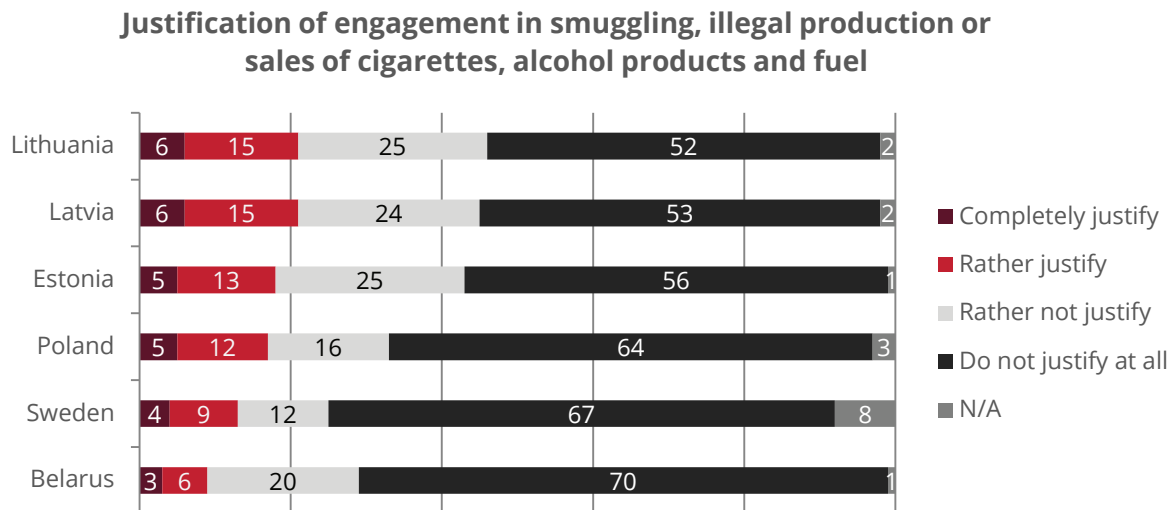
Figure 7



In terms of justification for purchasing a good or service from a legal shop when the buyer knows that the seller is not declaring the payment, again, people in Latvia and Belarus justify this shadow activity the most (42% and 38% completely justify it or tend to justify it, respectively). Lithuania is not far behind, with 36% of such respondents. Even so,

public opinion in all three countries is still mainly unfavorable as the majority of the respondents do not justify them (54%, 59% and 62%, respectively). Estonia has the highest percentage of such respondents, 68%. It is closely followed by Poland (67%) and Sweden (66%).

Figure 8



As far as engagement in smuggling, illegal production or sales of cigarettes, alcohol products and fuel is concerned, these types of shadow market activities are justified to a much lesser extent in all six countries if compared to the other shadow activities under analysis. In fact, an overwhelming majority of respondents in all six countries tend not to justify or do not justify them at all. As many as nine in ten people in Belarus reported such atti-

tudes, followed by eight in ten in Estonia (81%), Poland (80%), and Sweden (79%). The share of such respondents in Lithuania and Latvia is 77%, with one fifth of the population who justify the said actions (21%).

Below is a table that compares the levels of justification of shadow economic activities by countries and types of activities.

Table 1: Share of respondents who completely justify or tend to justify certain shadow economy activities (%)

	Working without a legal job contract when the entire wage is paid as an "envelope wage"	Working with a legal job contract when part of the wage is paid as an "envelope wage"	Purchasing a good or service from a legal shop when the buyer knows that the seller is not declaring the payment	Engagement in smuggling, illegal production or sales of cigarettes, alcohol products and fuel
Belarus	40	51	38	9
Estonia	23	34	29	18
Latvia	42	58	42	21
Lithuania	24	43	36	21
Poland	39	42	28	17
Sweden	30	28	24	13

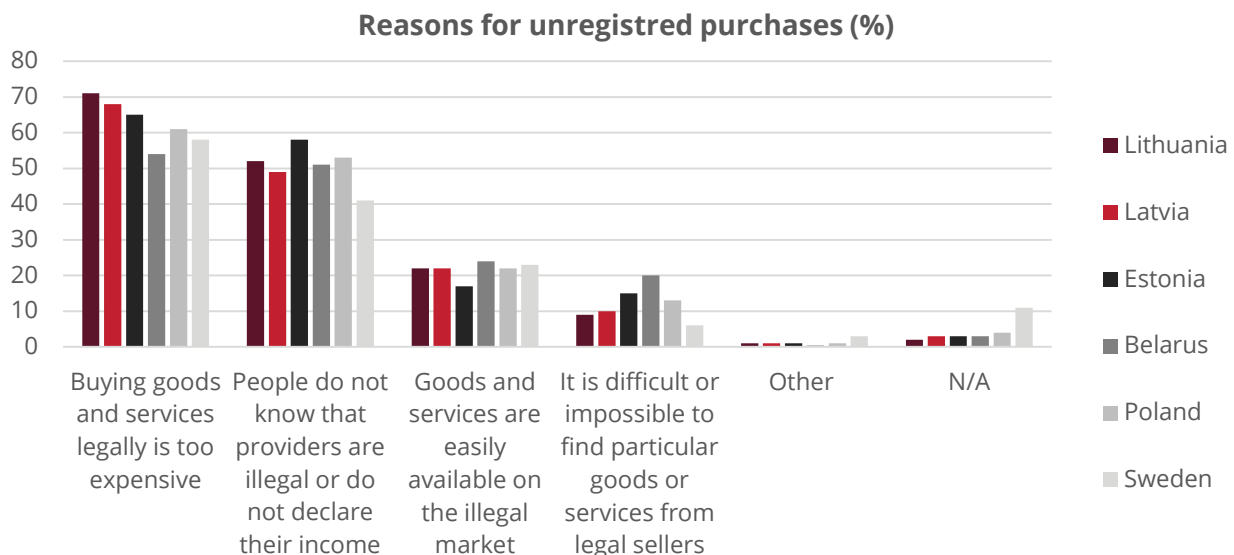
The red and blue colors indicate the most and the least justified shadow economy activities in each country, respectively. Even though the shares of respondents who justify different shadow economy activities vary among the countries, there are some general tendencies. In all of the countries, except Sweden, the shadow activity that is justified the most is work with a legal job contract when part of the wage is paid as an “envelope wage.” In all countries without exceptions people tend to justify engagement in smuggling, illegal production or sales of cigarettes, alcohol products and fuel the least. Working without a legal job contract when the entire wage is paid as an “envelope wage” and purchasing a good or a service from a legal shop when one knows that the seller is not declaring the payment positions in the middle in terms of the degree of justification.

Perceived reasons for shadow practices

The relatively strong support for certain illegal activities can be explained by studying the reasons why people engage in shadow practices in the first place. To elicit the reasons behind the involvement in the shadow economy, survey participants were asked to indicate why in their opinion people engaged in unregistered purchases or shadow employment. Respondents were given a multiple answer option and were free to indicate more than one reason.

Firstly, survey participants were asked why they thought people purchased goods or services from illegal providers or legal providers who did not declare their income.

Figure 9



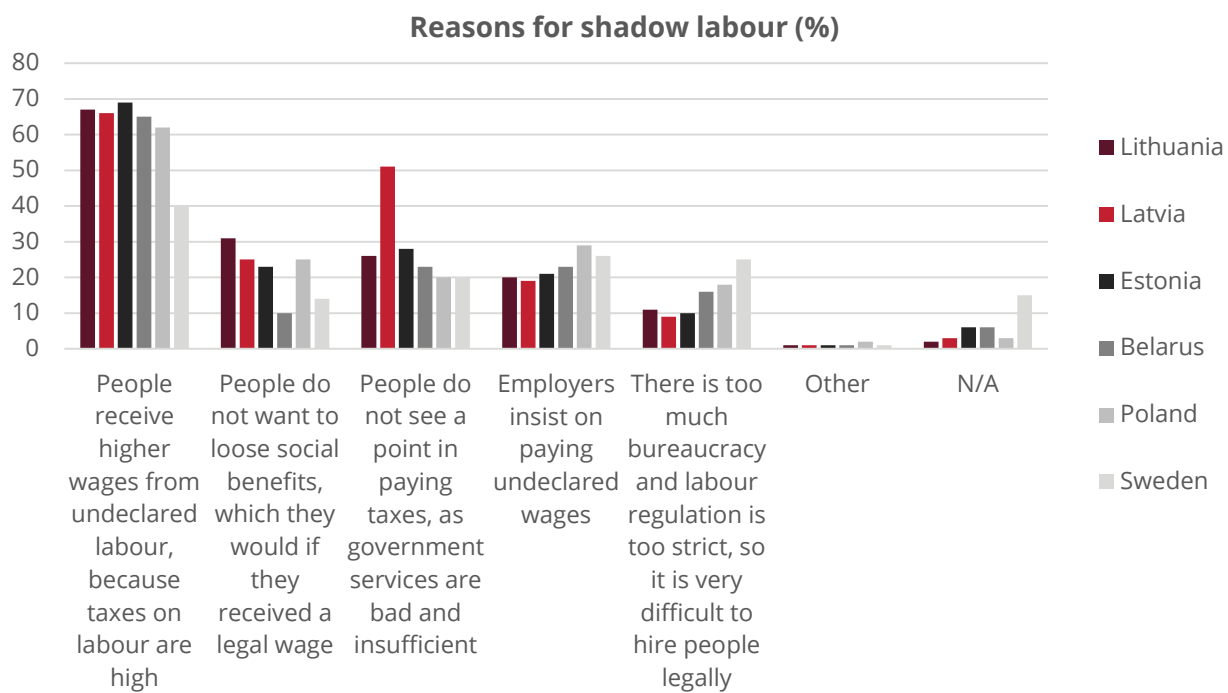
Note: Respondents were allowed to choose several options

Geography does not seem to play an important role when it comes to perceived reasons for unregistered purchases. The majority of respondents in all six countries consider high costs of legal goods and services to be the main reason for engaging in unregistered purchases. This reason was indicated by 71% of respondents in Lithuania, 68% in Latvia, 65% in Estonia, 61% in Poland, 58% in Sweden, and 54% in Belarus. This shows that people perceive the purchasing power to be the main determinant when making a decision whether or not to engage in unregistered purchases. Thus, we can conclude that any measures which increase the prices of legal products (such as taxation or regulations on goods or services) or decrease the prices of illegal products incentivize the purchase of unregistered purchases.

Not knowing that providers are illegal or do not declare their income was the second most frequent answer (58% of respondents in Estonia, about half in Poland, Lithuania, Belarus, and Latvia, and 41% in Sweden). A better availability of goods and services on the illegal markets was also mentioned quite frequently, usually by one fifth of all respondents (ranging from 17% in Estonia to 24% in Belarus). According to the survey participants, the difficulty to find particular goods and services from legal sellers was the least important reason for engaging in unregistered purchases.

Secondly, survey participants were asked what they thought about the main reasons why people worked without a legal job contract or received part of their wage as an “envelope wage.”

Figure 10



Note: Respondents were allowed to choose several options

The main reason for choosing to work in the shadow economy are high taxes, which then allow for higher wages on undeclared labour. The majority of respondents in all the countries except Sweden indicated this reason (69% in Estonia, 67% in Lithuania, 66% in Latvia, 65% in Belarus, and 62% in Poland, as compared to 40% in Sweden). Dissatisfaction with government services is also an important factor, as indicated by one in five respondents in Belarus, Poland, and Sweden, as well as 26% in Lithuania and 28% in Estonia. In Latvia as many as one in two respondents think this is an important driver of undeclared labour. Employers' tendency to pay undeclared wages is also seen as an important factor (ranging from 19% in Latvia to 29% in Poland) and so is the wish not to lose social benefits (from 10% in Belarus to 31% in Lithuania). Labour market regulation and bureaucracy was mostly perceived as the least important reason of the shadow labour market, and only in Sweden it is seen as an important factor, with one in four respondents being of this opinion.

There are two interesting outliers in the analysis of perceived reasons for the shadow labor market. Firstly, in Sweden a relatively lower share of the population see high taxes as a driver of the shadow labour market. Secondly, as many as half of respondents (51%) in Latvia see no point in paying taxes because they are dissatisfied with government services. This comes as no surprise knowing that trust in the government is the lowest in Latvia of all countries under analysis.

1.2. The extent of shadow economies

The second part of the survey focused on people's experiences with shadow economy activities. Shadow economy activities are grouped into four categories. The first category covers unregistered purchases of two types: (i) purchase of a legal good or service from a legally registered shop or service provider when the buyer does not receive a receipt and the shop does not legally account for these revenues, and (ii) purchase of a good or service from people who are not legally registered and do not pay any taxes at all.

The second category includes undeclared labour market activities which are also divided into two types: (i) working with a legal job contract when part of the wage is received as an "envelope wage," and (ii) working without a legal job contract when the entire wage is received as an "envelope wage."

People were surveyed about their experience in the last 12 months with buying legal goods or services from legal shops or service providers when they knew or suspected that the revenues were not legally accounted for.

Figure 11

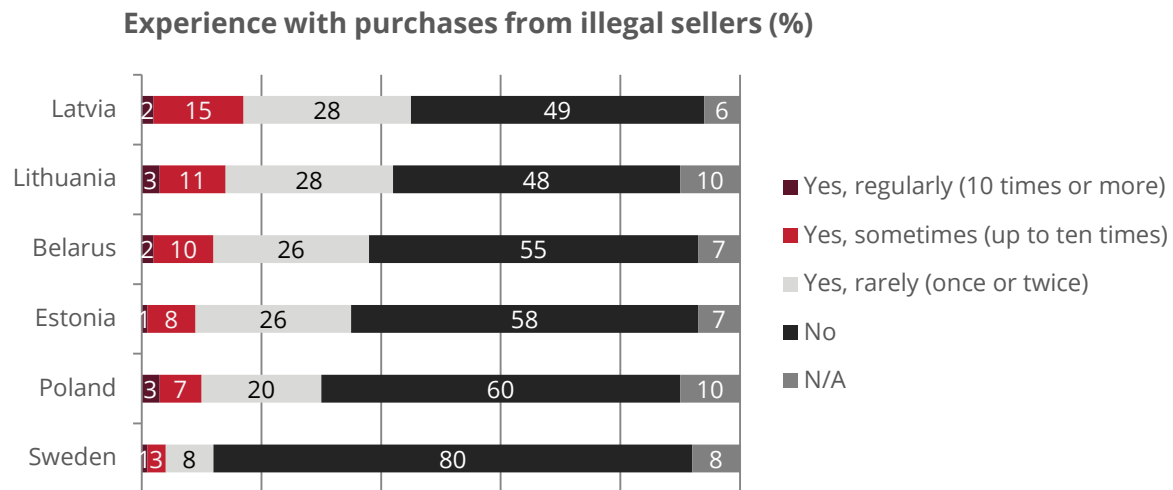


Experience with unregistered purchases

The experience with unaccounted purchases differs widely across the countries. Among the surveyed countries people in Lithuania have the most experience when it comes to purchases from legal sellers without a receipt. A total of 63% of respondents admitted to this fact, with 5% doing it regularly, 26% up to ten times, and 32% only once or

twice in the last 12 months. Latvia has reported a somewhat lower number of such responses (57%), while in Belarus they accounted for half of the survey participants (49%). In all the other countries the majority of respondents claimed that they had not purchased goods or services without a receipt. According to the survey results, 53% of people in Estonia, 55% in Poland and 69% in Sweden reported so.

Figure 12



In all countries people have less experience with purchases from illegal providers than with purchases from legal sellers where the income is undeclared. In terms of purchases from illegal sellers, the highest share was recorded in Latvia where 45% of respondents claimed to have had experience with such purchases. Almost a third of the country's respondents did it only once or twice, 15% up to ten times, and 2% did it regularly in the past year. Lithuania follows with 42% of respondents with the experience of purchases from illegal sellers. The proportion of the population

with similar experience is 38% in Belarus, 35% in Estonia, and 30% in Poland. Sweden has the lowest participation rate, 12%.

Summarizing the results of peoples' participation in both purchases from legal sources where income is undeclared and purchases from illegal sellers, we can distinguish three groups of countries. The highest incidence of these activities is in Latvia and Lithuania. The middle group is Belarus and Estonia, while Poland and Sweden have the lowest incidence of unregistered purchases.

Respondents were also asked to indicate approximately how much money they spent on purchases from legal sources when income was not registered or purchases from illegal sellers. In all countries about two thirds of respondents claimed that they spent up to 50 euros on unregistered pur-

chases every month. The most common answer was up to 20 euros. The share of such respondents varied from 35% in Poland to 48% in Sweden. The larger the sums, the lower the proportion of respondents.

Figure 13

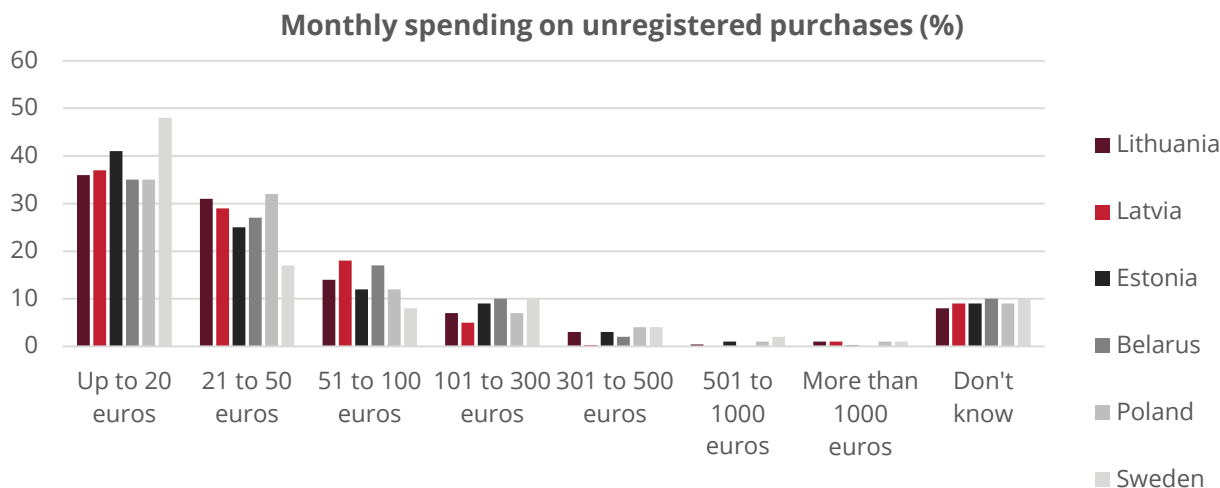
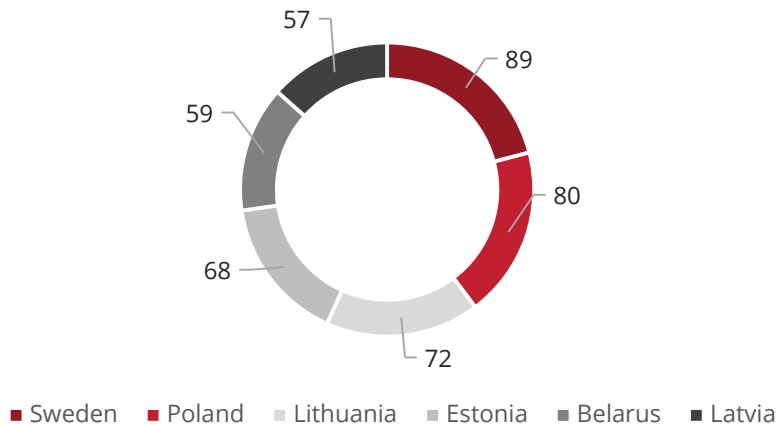


Figure 14

Weighted average monthly spending on unregistered purchases (eur)



It is difficult to elicit the exact sums of money when data is presented in ranges and percentages. In order to directly compare monthly expenditures on unregistered purchases in different countries, a weighted average of monthly spending was calculated².

Based on this calculation, the highest expenditure on unregistered purchases was in Sweden, 89 euros per month. Poland ranked second with 80 euros, and Lithuania came third with 72 euros. In

Estonia people spend approximately 68 euros for unregistered purchases per month. In Belarus and Latvia the average expenditures are very similar, 59 and 57 euros per month, respectively.

In terms of the types of goods and services that are bought through unregistered purchases, the situation is quite similar in almost all the countries under analysis, at least as regards the most popular categories. Clothes top the list in Latvia, Estonia and Belarus. In Belarus as many as 46% of the respondents buy clothes as unregistered purchases, while in the other countries this percentage varies between 25 and 30%.

² Weighted average monthly expenditure is calculated by multiplying the middle of the ranges by the percentage of respondents in each range. The last open range (more than 1000 euros) is taken as 1250 euros. "Don't know" answers are eliminated by distributing the share proportionally to other ranges.

Foodstuffs are usually the second most common choice, accounting for about a quarter of all responses in Latvia, Estonia, Belarus and Sweden. In Lithuania it is the most common type of unregistered purchases, indicated by 28% of the respondents.

Auto repair is another common unregistered service. In Lithuania auto repair ranks second together with clothes, with 26% of the population with the experience of unregistered auto repair purchases. In Sweden it tops the list, albeit with a low percentage of the respondents (16%).

Table 2: Unregistered purchases by type of goods, % of respondents

	Lithuania	Latvia	Estonia	Belarus	Poland	Sweden
Clothes	26	29	29	46	24	8
Food products	28	26	23	25	20	15
Auto-repair	26	21	16	18	18	16
Cigarettes	21	21	22	7	32	11
Medical, beauty services, hairdressers, massages	24	25	15	12	13	8
Alcoholic beverages	10	11	10	13	18	16
Construction and home renovation	19	11	15	13	12	6
Fuel	21	12	14	11	12	4
Transportation	10	16	10	20	10	5
Cars and car parts	17	12	9	9	5	8
Fire wood, wood pallets, coal	17	11	9	6	8	8
Sewing, clothing and shoe repairs	12	11	6	6	18	3
Household goods, IT and audio-video equipment	7	6	11	15	8	7
Medicine, food supplements, drugs	16	7	9	2	6	3
Catering and hotel services	5	8	5	4	6	14
Construction materials	6	5	7	10	6	6
Property rent	6	7	7	10	5	2
Entertainment	6	8	6	6	3	4
Household services (cleaning, ironing etc.)	4	4	3	4	8	6
Training and tutoring	6	4	2	8	5	3
Gardening and agricultural work	7	3	3	3	2	5
Childcare, sick and elderly care	3	3	1	1	6	1

In Poland the most popular good was cigarettes, with a third of respondents admitting to purchasing them. In the other countries they also accounted for a large share of the responses, 22% in Estonia as the third most common good, and 21% in Lithuania and Latvia, being the fourth most common unregistered purchase.

Other slightly less prevalent categories included alcoholic beverages and medical services, beauty services, hairdressers, and massages. Alcoholic beverages accounted for about a tenth of all answers in most of the countries except for Sweden where it was the most popular category along with auto repair. The amount of respondents who indicated medical services, beauty services, hairdressers and massages varied from 25% in Latvia to 8% in Sweden.

There are some noteworthy differences by countries. For example, catering and hotel services, which did not show any exceptional results in other countries, were the third most common answer in Sweden. Medicine, food supplements and drugs appeared to be an interesting category in Lithuania where 16% of respondents claimed to have bought them as unregistered purchases, compared to an average of 5% in the other countries.

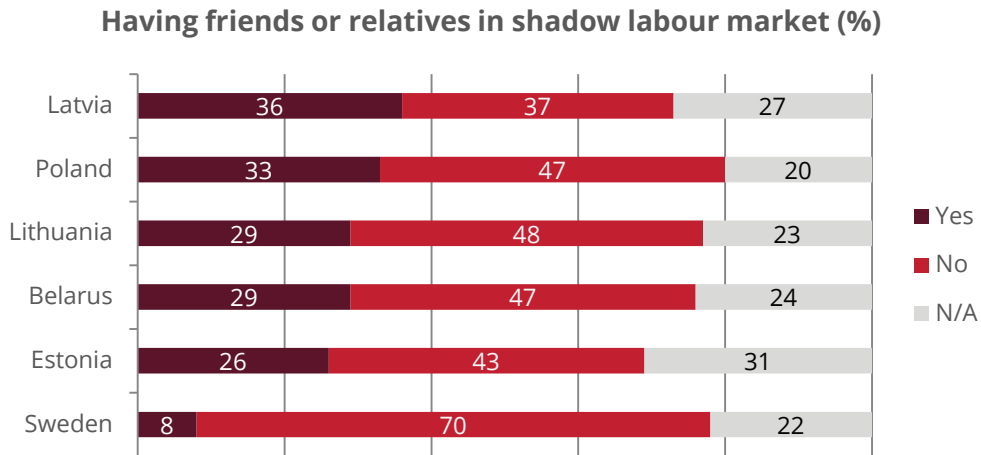
Experience with the shadow labour market

The survey questionnaire contained two sets of similar questions about the shadow labour market. Since shadow employment is a sensitive topic and people might be unwilling to discuss their experiences in detail, survey participants were first asked to answer the questions about the experience of their friends and relatives and about their own experience.

Friends and relatives

The respondents were asked if they had friends or relatives who worked in the shadow labour market (without labour contracts or who received part of their wage as an "envelope wage") during the last 12 months.

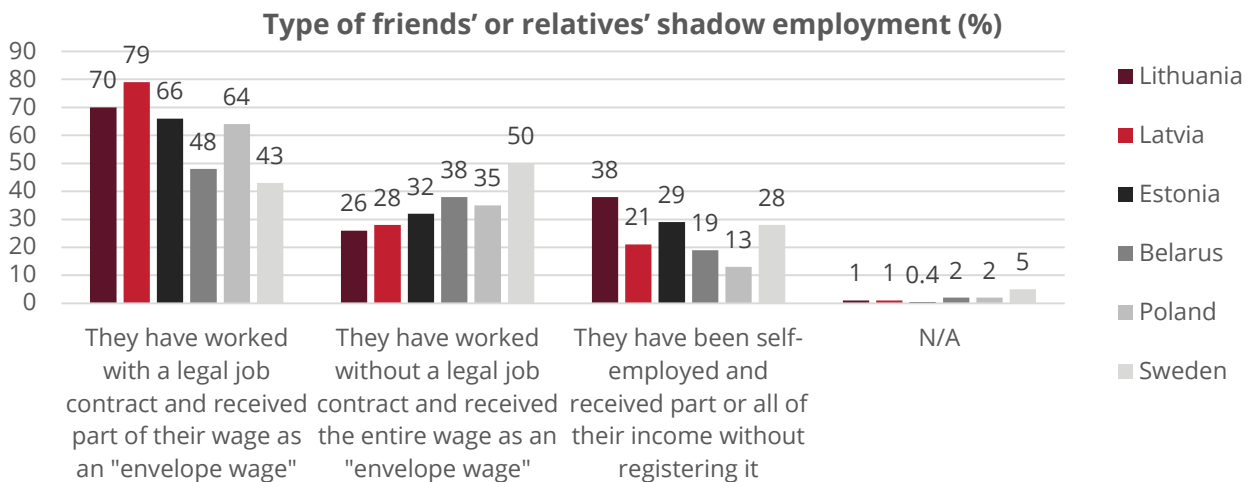
Figure 15



Latvia comes out first in terms of the share of friends or relatives in the shadow labour market. A total of 36% of respondents in Latvia admitted having such friends or relatives. Poland followed closely with 33%, Lithuania and Belarus reported

29% each, and Estonia recorded a fourth of the respondents (26%). Sweden shows the lowest percentage of people, only 8%, whose friends or relatives have undeclared labour relationships.

Figure 16



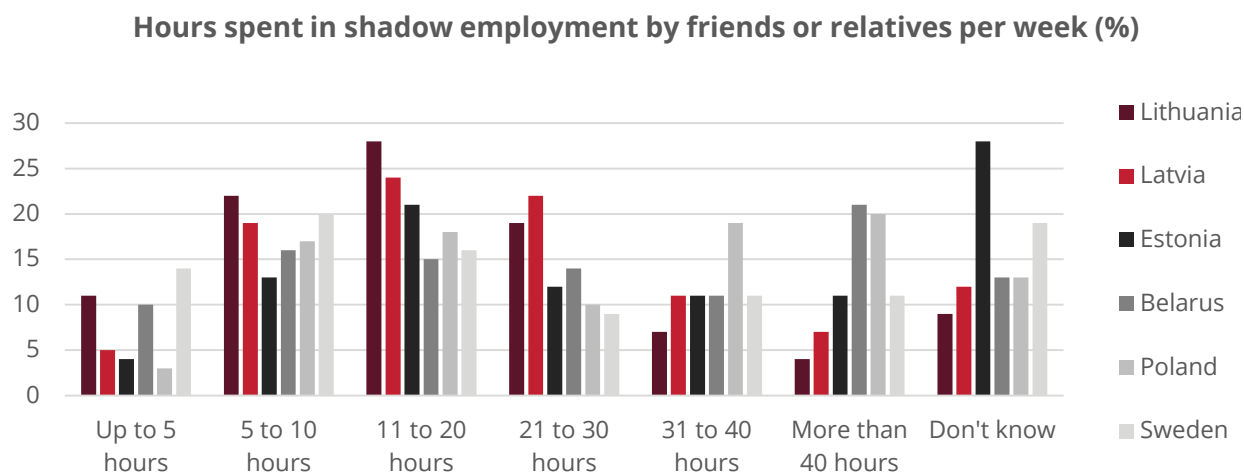
In terms of the type of shadow employment of relatives or friends, the highest share of them worked with an employment contract and received only part of their wage as an "envelope wage." This is the case in all countries except for Sweden. This trend is the most evident in the Baltic States where undeclared labour under a legal job contract was indicated by six to eight out of ten respondents.

Working illegally and receiving the entire wage as an "envelope wage" was the second most common answer among respondents, especially in Sweden (50%). Sweden is the only country where the share of people who had friends or relatives working without a legal job contract was higher than the share of those who had a job contract but received part of the wage as an "envelope wage."

In Lithuania, Estonia and Sweden self-employment came out third as another quite popular type of undeclared labour. It was indicated by about a third of respondents.

On a non-weighted average basis, 62% of respondents answered that their friends or relatives worked with a legal job contract but received part of their wage as an "envelope wage," 35% said that their friends or relatives worked without a legal job contract, and 25% reported that they were self-employed and received part of or their entire income without registering it.

Figure 17

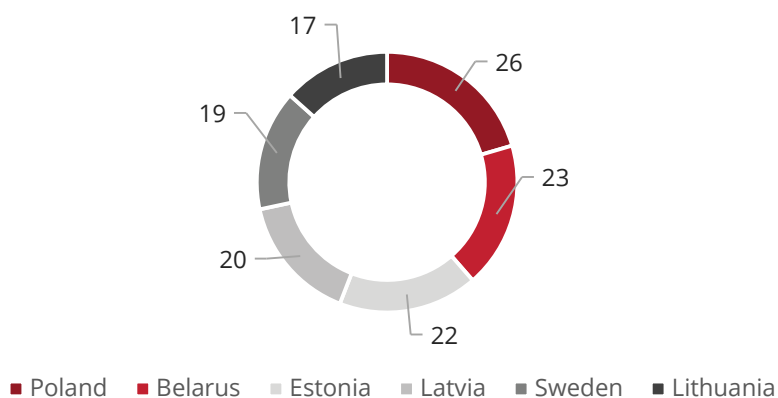


The number of hours spent in shadow employment varies quite significantly across the surveyed countries. According to the distribution of the answers as seen in figure 17, this type of employment seems to be more part-time (up to 30 hours per week) for most of the countries. The share of people who spend up to 20 hours in shadow employment varies from 38% in Poland to 61%

in Lithuania. People spend more time working in the shadow labour market (from 31 hours to more than 40 hours) in Poland where four out of ten respondents claimed that their friend or relative spent more than 31 hours working in the shadow labour market. This share is 32% in Belarus, 22% in Estonia and Sweden, 18% in Latvia, and 11% in Lithuania.

Figure 18

Weighted average of hours spent in shadow employment by friends or relatives per week (%)

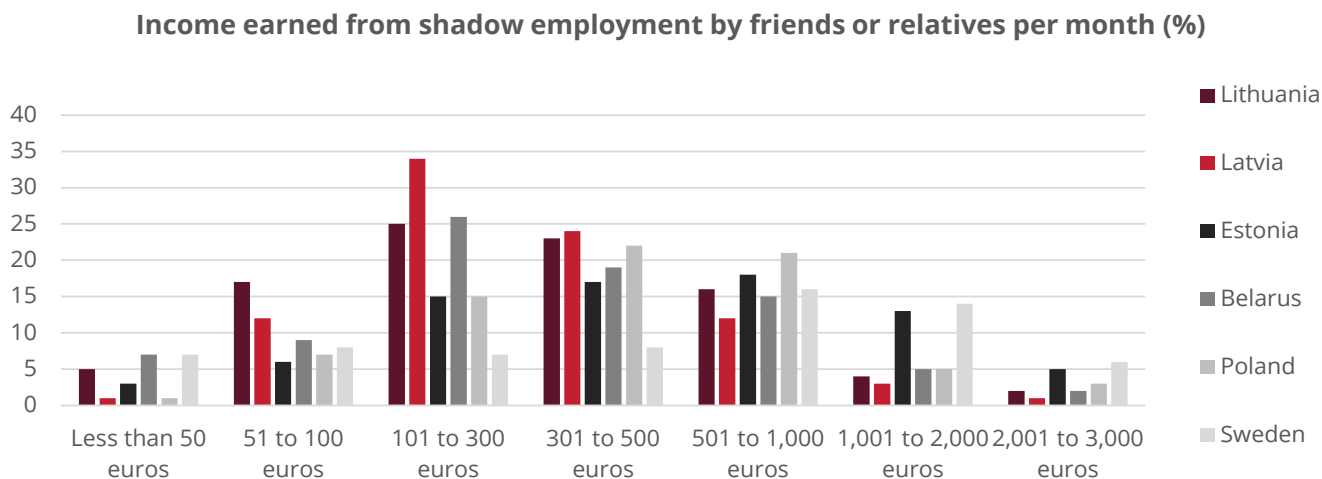


As in the case of unregistered purchases, weighted averages³ need to be calculated to directly compare hours spent and money earned in the shadow labour market in different countries. In Poland people who are engaged in the shadow labour market spend 26 hours per week for such

employment. This is the highest number among the surveyed countries. Belarus comes second with 23 hours, and Estonia follows with 22 hours. Lithuanians spend on average less than half of the normal workweek working in shadow labour activities, 17 hours. It should be noted that these are average hours spent in the shadow labour market. Some respondents have full time jobs in the shadow labour market, while others may work for several hours only.

³ The weighted average of hours spent in shadow employment is calculated by multiplying the middle of the ranges by the percentage of respondents in each range. The last open range (40 hours and more) is taken as 44 hours. "Don't know" answers are eliminated by distributing the share proportionally to other ranges.

Figure 19

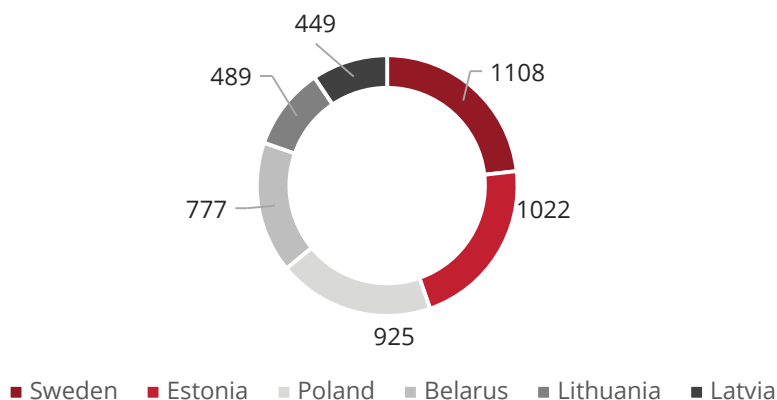


Although the distribution of income from shadow employment varies across countries, there are several ranges of income that are the most common. In Latvia, Belarus and Lithuania the highest share of respondents claimed that their relatives or friends earned from 101 to 300 euros in the shadow labour market. A total of 34%, 26% and

25% of respondents, respectively, reported so. The most popular category in Poland, with 22% of respondents, was 301 to 500 euros. In Estonia and Sweden the most common category is in the higher range, from 501 to 1000 euros. This category was indicated by 18% of respondents in Estonia and 16% in Sweden.

Figure 20

Weighted average of income earned from shadow employment by friends or relatives per month



The higher average monthly income from shadow labour activities in Sweden and Estonia also shows in the weighted average income. It reaches 1108 euros per month in Sweden and 1022 euros in Estonia. The lowest amounts earned in shadow em-

ployment are in Latvia and Lithuania where they are 449 and 489 euros respectively. Poland and Belarus are in the middle bracket with 925 and 777 euros per month.

Table 3: Shadow employment by sector, % of respondents

	Lithuania	Latvia	Estonia	Belarus	Poland	Sweden
Construction and renovation	61	56	60	48	51	49
Auto and other repairs	28	26	22	22	26	18
Wholesale and retail trade	26	25	16	29	25	9
Production	19	24	13	18	24	11
Farming, forestry and fishery	28	28	19	10	8	6
Catering and hotel services	15	17	21	4	11	28
Transportation and storage	18	14	19	14	18	9
Housework, gardening and property care	10	13	7	6	11	20
Childcare, sick and elderly care	14	12	6	4	20	6
Sewing, clothing and shoe repair	10	16	9	10	11	5
Medical and beauty services	13	14	7	4	9	4
Entertainment	9	10	9	7	9	5
Training and tutoring	7	9	4	5	9	8
IT and telecommunications	5	8	9	9	3	6
Financial intermediation and consultancy	5	4	2	1	6	3

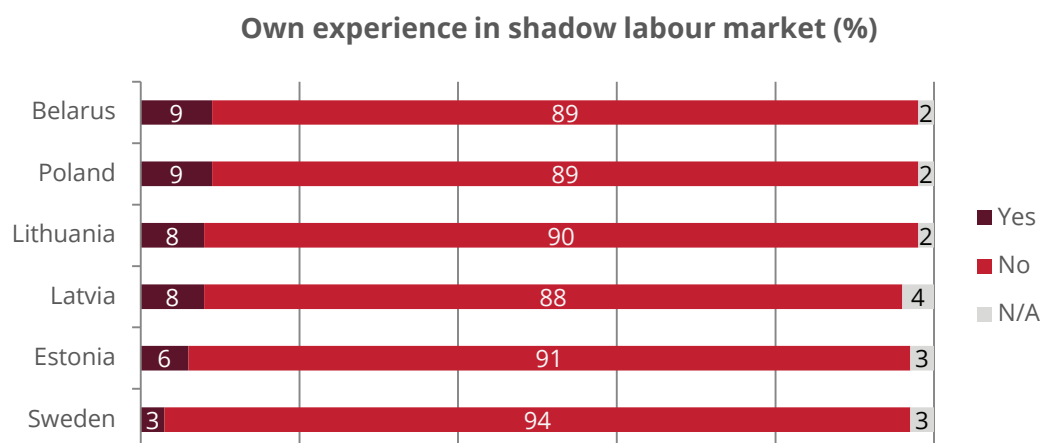
Construction and renovation was by far the most common answer, indicated by the highest share of respondents in all six countries (61% in Lithuania, 60% in Estonia, 56% in Latvia, 51% in Poland, 49% in Sweden, and 48% in Belarus) as regards shadow employment of friends or relatives.

The other categories showed varying results. Farming, forestry and fishery was the second most common answer in Lithuania and Latvia (28% of responses). In Belarus, wholesale and retail trade was more common and ranked second with 29% of all answers. In Sweden catering and hotel services came out second, a category which was also very popular with Swedish respondents in terms of the most common types of unregistered goods and services. Housework, gardening and property care is widespread in Sweden well (20%). Auto and other repairs, on the other hand, showed a more or less similar percentage across all countries, from 20 to 30% of respondents.

White-collar and qualified professions such as financial intermediation and consultancy or IT and telecommunications were among the least common shadow employment areas. Fewer than every tenth respondent in all the countries indicated these categories.

Personal experience

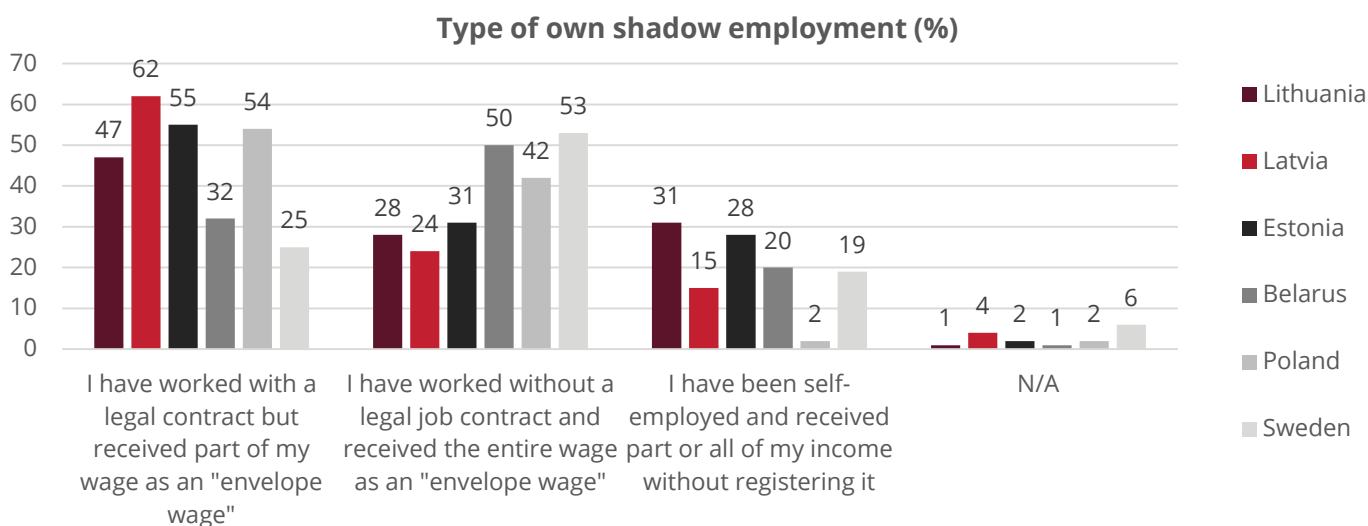
After answering about the experiences of friends or relatives in the shadow labour market, respondents were asked about their own experience. This two-step approach was designed to hedge the risk that people would answer questions not directly related to them more honestly. Still, the data about personal experience is a valuable source of information when we make cross-country comparison.

Figure 21

When asked to share their personal experiences in the shadow labour market, respondents answered surprisingly similarly in all of the surveyed countries. The proportion of people who admitted to undeclared labour experiences varied between 6% and 9% (6% in Estonia, 8% in Lithuania and Latvia, each, and 9% in Belarus and Poland) in all countries except for Sweden where only 3% reported such experiences. These levels are substantially lower than those reported about friends

or relatives, and the reasons are twofold. Firstly, one person has several friends and relatives, so the statistical likelihood of having at least one person with experience in the shadow labour market is higher than the likelihood that the person him- or herself has such experience. Secondly, people may give less sincere answers when the question relates to their own experience, especially when questions are sensitive, as is the case with shadow employment.

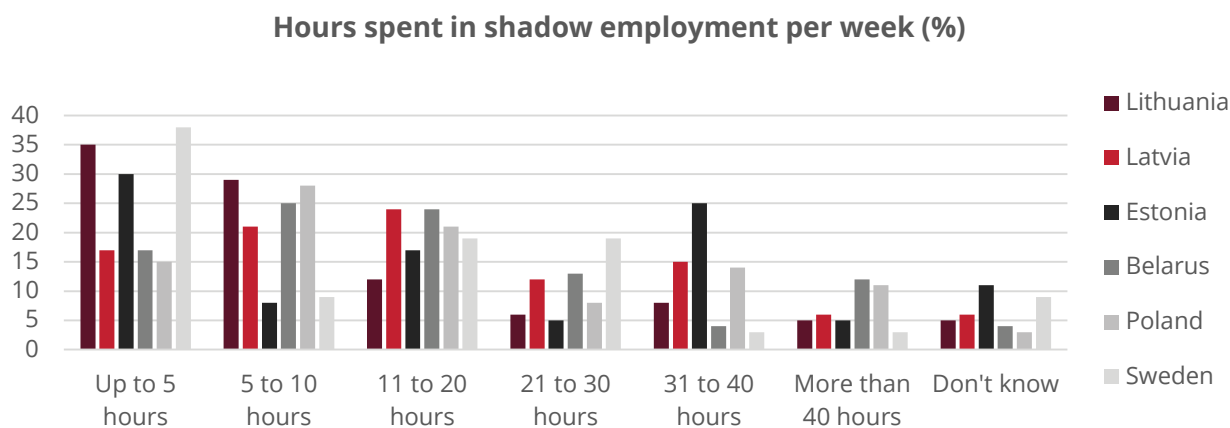
Figure 22



The types of shadow employment as reported based on personal experiences varied significantly across the countries. Legal work with part of the wage paid as an “envelope wage” is the most common type of shadow employment in Latvia (62%), Estonia (55%), Poland (54%) and Lithuania (47%). Working illegally and receiving the entire wage as an “envelope wage” is more common in Sweden (53%) and Belarus (50%). In Lithuania and Estonia

undeclared self-employment is again quite widespread, as indicated by 31% and 28% respectively. On a non-weighted average basis, 46% of respondents answered that they worked with a legal employment contract and received part of their wage as an “envelope wage,” 38% reported that they worked without a legal job contract, and 19% said that they were self-employed and received part of or their entire income without registering it.

Figure 23

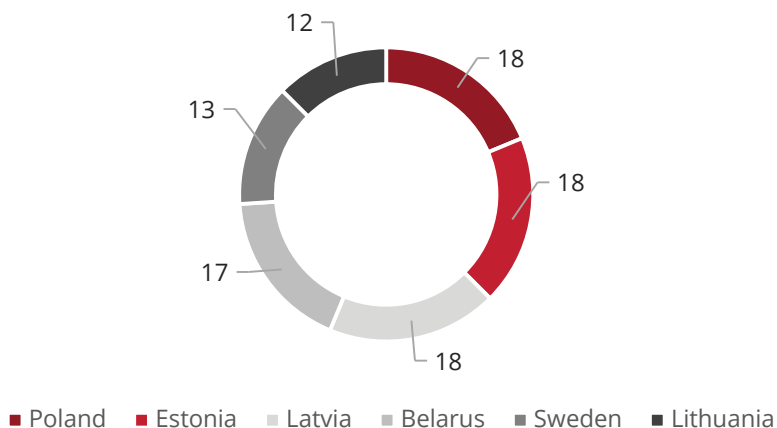


It seems that people tend to report a lower number of hours spent in the shadow employment when it comes to their own experiences as compared to that reported about their friends or relatives. As this distribution is more concentrated to the left, it points to an even stronger expressed part-time nature of such activities for most of the countries. The share of people who spend up to 20 hours in

shadow employment varies from 55% in Estonia to 76% in Lithuania. The highest share of people who work more hours in the shadow labour market (from 31 hours to more than 40 hours) is in Estonia, 30%. This proportion is 25% in Poland, 21% in Latvia, 16% in Belarus, 13% in Lithuania, and only 6% in Sweden.

Figure 24

Weighted average of hours spent in shadow employment per week

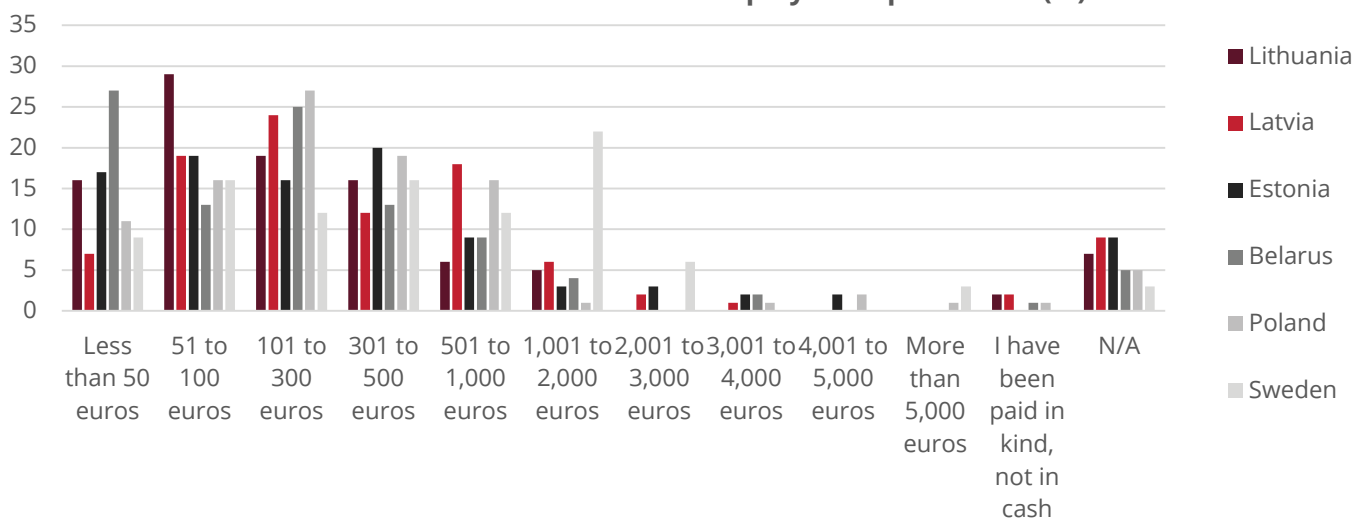


The estimates of weighted averages show a similar trend to that observed with friends and relatives. Poland tops the list again, this time with 18 hours per week spent in shadow employment. Estonia and Latvia share the same result. Again,

Lithuanians spend the least amount of hours, 12 hours per week, on shadow employment activities, which is less than a third of normal working hours. Sweden is close, with an average of 13 hours of shadow employment per week.

Figure 25

Income earned from shadow employment per month (%)

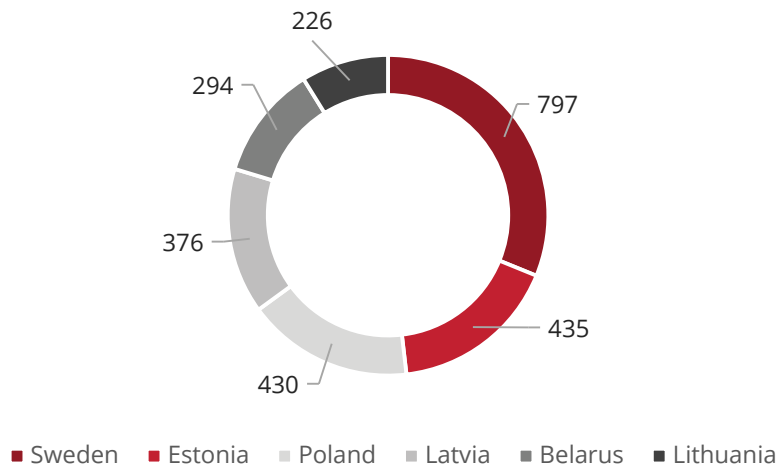


Similarly to the answers about the hours spent in shadow employment, respondents reported lower levels of personal income earned from shadow employment than those earned by friends/relatives. In Belarus the most common level of personal income from undeclared labour was below 50 euros (27% of respondents). In Lithuania it was between 51 and 100 euros (29%). Latvians most

often indicated the range of 101 and 300 euros (24%). So did respondents from Poland (27%). Estonians seem to earn a little more from shadow employment, as the highest proportion of respondents (20%) indicated 301 to 500 euros. In Sweden, as many as 22% of respondents reported 1001 to 2000 euros.

Figure 26

Weighted average of income earned from shadow employment per month



That the level of income from shadow employment is higher in Sweden is also confirmed by the weighted average income which amounts to 797 euros per month. Estonia comes second again, with 435 euros. The lowest amounts are in Lithuania (226 euros) and Belarus (294 euros). Poland and Latvia are in the middle bracket, with 430 and 376 euros per month, respectively.

1.3. Summary of the main findings of the survey

Perception of risk

The likelihood of being detected both working in the shadow labour market and engaging in illegal purchases is generally perceived as low rather than high. The share of respondents who consider this likelihood as quite or very low is larger than the share of those who see the possibility of detection as quite or very high in all of the analysed countries except Sweden where the majority of the population tends to see this likelihood as rather high.

Perception of punishment

Punishment for illegal purchases is more often perceived as quite or very mild in all of the countries but Poland. The severity of punishment for undeclared labour is perceived to be more severe. Most of respondents in Lithuania and a significant share of those in Belarus and Latvia consider punishment for shadow employment to be very or quite severe. Sweden is an interesting exception where an overwhelming majority considers the severity of punishment for both undeclared purchases and undeclared labour to be quite or very mild.

Justification

The majority of survey respondents do not justify any kind of shadow activity. Yet, a significant proportion of people do, and working with a legal job contract when part of the wage is paid as an “envelope wage” is the most justified activity (in Latvia and Belarus by as many as a majority of the population). On the other hand, engagement in smuggling, illegal production or sales of cigarettes, alcohol products and fuel receives the least justification, as less than a fifth of respondents completely justify it or tend to justify.

Perception of the drivers of the shadow economy

Public perceptions of the reasons behind shadow economic activities are similar in all the countries under analysis. Most respondents in all of the countries consider high costs of legal goods and services to be the main reason for engaging in unregistered purchases. The second most common reason is that the buyer does not know that the seller operates illegally or does not declare the income. High labour taxes are seen as the key driver of undeclared labour, followed by dissatisfaction with government services and employers insisting on paying undeclared wages.

Experiences with unregistered purchases

People in Lithuania appear to have the most experience when it comes to purchases from legal sellers who do not report their income (63% of respondents have such experiences), while people in Latvia are the most experienced with buying from illegal sellers (45%). Respondents in Sweden have the least experience in both cases (21% and 12%, respectively). Overall, people in all of the surveyed

countries have less experience with purchases from illegal sellers than with purchases from legal sources when the income is unaccounted.

Reportedly, about two thirds of survey respondents in all the countries spend up to 50 euros on unregistered purchases every month. The lowest weighted average monthly spending is recorded in Latvia (57 euros), and the highest is in Sweden (89 euros). Clothes are the most common unregistered purchases in Latvia, Estonia and Belarus. Food products rank second, while auto repair comes third.

Experience with the shadow labour market

The levels of shadow employment differ significantly across countries. Latvia has the highest share of respondents who have friends or relatives working in the shadow labour market (36%). Sweden has the lowest proportion of such population (8%). In most of the countries the majority of friends or relatives reportedly work legally but receive part of their wages as an “envelope wage.” In Sweden, most of relatives and friends with shadow employment experience work illegally and receive the entire wage as an “envelope wage.”

Shadow employment seems to be more of a part-time occurrence in most of the countries. Friends and relatives of Lithuanian respondents appear to spend the least amount of time on such activities (17 hours per week), while in Poland the number of hours spent in the shadow labour market is the highest (26 hours). Not surprisingly, in terms of income earned from shadow employment, Lithuania also shows one of the lowest levels (489 euros of weighted average income), followed only by Latvia (449 euros). In Sweden the level of income earned from undeclared labour is the highest (1108 euros).

Construction and renovation is the most common area of shadow employment, as indicated by the highest share of respondents in all six countries. Auto and other repairs are also widespread (reported by 20 to 30% of respondents), as is wholesale and retail trade (10 to 30%).

The proportion of respondents who admitted their own involvement in the shadow labour market is much lower as compared to that reported about friends or relatives. It varies between 6 and 9% in all the countries except Sweden which recorded a mere 3%. Working legally with only part of the wage paid as an “envelope wage” is the most common type of shadow employment in all countries but Sweden and Belarus, where people more of-

ten work illegally and receive the entire wage as an “envelope wage”.

The time spent and income earned in shadow employment show similar trends, as most of the reported levels appear to be lower as compared to those indicated for friends or relatives. Yet, the positions of the countries remain almost the same: people in Poland spend on average the most time working in the shadow labour market (18 hours per week), in Sweden income from undeclared labour is the highest (797 euros), while Lithuania reported the lowest levels of both hours spent in shadow employment (12 hours) and average income earned (226 euros).

1.4. Macro estimation of the shadow economy

This section provides macro estimations about the shadow labour market and unrecorded purchases based on the data of the survey. The extent of shadow activities is calculated by using three methods. The first two methods are used to estimate undeclared labour and the third is used to evaluate the extent of unregistered purchases.

Macro estimation of the shadow labour market

One way to estimate the volume of shadow employment is by comparing the number of hours spent on undeclared labour with those spent in the formal economy. A similar method was used by the Rockwool Foundation Research Unit (Pedersen, S. 2003; Feld, L. P., & Larsen, C. 2005). This method assumes equal productivity in both the shadow and formal sectors.

The number of average weekly hours spent in shadow employment is calculated from the survey data by using the proportion of respondents who admitted to having friends or relatives in the shadow labour market (as we consider these numbers to be closer to reality than the ones reflecting own participation) and an estimated weighted average of hours spent in such employment. The results are then compared with the number of average hours worked in the formal economy in each country.

The results show that the proportion of undeclared to normal working hours differs significantly across countries, with Poland registering the highest share of undeclared working hours (21%) and Sweden, the lowest (4%). Latvia comes second with 19%, followed by Belarus with 17%, Estonia with 15%, and Lithuania with 13%.

Table 4: Shadow working hours as a share of normal working hours

	Friends/ relatives in shadow labour market	Average weekly shadow hours worked by friends or relatives	Average weekly shadow hours worked for the whole population	Normal average weekly working hours	Shadow hours as a share of normal hours
	1	2	3=1x2	4	5=3/4
	Proportion	Hours per week	Hours per week	Hours per week	Proportion
Poland	33%	25,5	8,42	40,7	20.7%
Latvia	36%	20,3	7,31	39,1	18.7%
Belarus	29%	23,5	6,82	39,8	17.1%
Estonia	26%	22,4	5,82	38,9	15.0%
Lithuania	29%	16,8	4,87	38,1	12.8%
Sweden	8%	18,9	1,51	36,3	4.2%

Note. Figures for the experience of friends or relatives in the shadow labour market and average weekly undeclared hours are taken from the survey, while normal average weekly working hours come from the Eurostat Database for the year 2014. In the absence of such data for Belarus, it was estimated as an average of normal working hours for Central and Eastern European countries that belong to the European Union (Eurostat, 2014).

Another method of evaluating the extent of the shadow labour market is by using the average hourly undeclared wage. This method is also used by the Rockwool Foundation Research Unit (Pedersen, 2003; Feld & Larsen, 2005). The idea is to express the extent of shadow employment as a proportion of gross domestic product by comparing the average hourly wage from shadow employment, multiplied by the total number of

undeclared working hours spent per year, to the country's GDP.

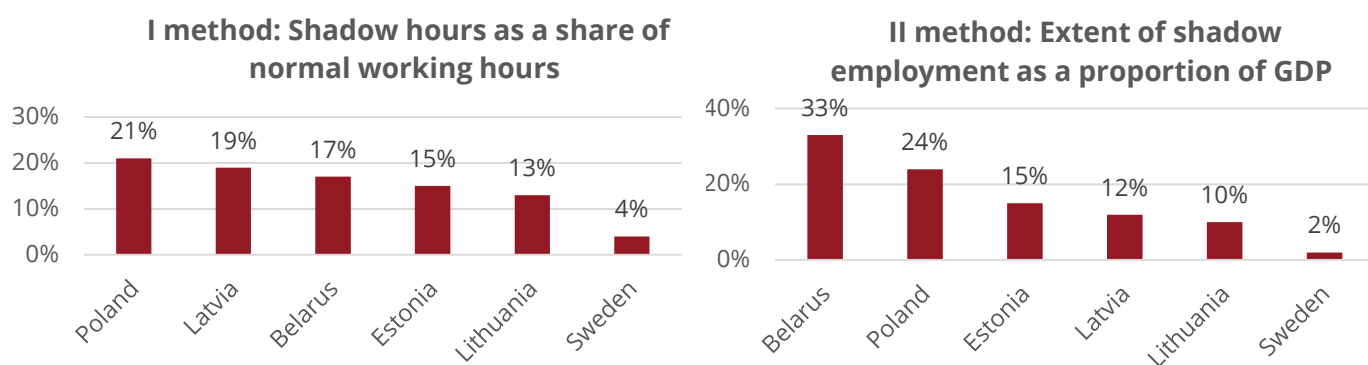
In this case Belarus seems to have the biggest shadow labour market accounting for as much as a third (33%) of the country's GDP. In Poland it reaches 24%, followed by Estonia with 15%, Latvia with 12%, and Lithuania with 10%. In Sweden it accounts for only 2% of GDP.

Table 5: Extent of shadow employment as a proportion of GDP

	Shadow hours worked per year	Average shadow hourly wage	Extent of shadow employment	GDP	Extent of shadow employment as a proportion of GDP
	1	2	3=1x2	4	5=3/4
	Million hours	Euro	Million euros	Million euros	Proportion
Belarus	2.504	7,51	18.816	57.300	32.8%
Poland	11.954	8,24	98.554	410.845	24.0%
Estonia	289	10,37	2.993	19.963	15.0%
Latvia	549	5,03	2.760	23.581	11.7%
Lithuania	540	6,62	3.570	36.444	9.8%
Sweden	541	13,32	7.212	430.635	1.7%

Note. Shadow hours worked per year are calculated as Shadow frequency/100 x average weekly shadow hours worked by friends or relatives who carried out shadow activities x 52 x total population aged 18-74. Average hourly shadow wage is calculated as average income earned from shadow employment by friends or relatives per month / 4,4 weeks / average weekly shadow hours. Figures for shadow frequency, average weekly shadow hours and average income earned from shadow employment are taken from the survey, while the population aged 18-74 and GDP at current prices are taken from the Eurostat Database for the year (Eurostat, 2014).

Figure 27



Macro-estimation of unregistered purchases

A similar method can be used to estimate the volume of unregistered purchases. The survey results show the share of respondents who had

experience with unregistered purchases and their average monthly spending on such purchases. This allows estimating the total yearly spending on unregistered purchases and comparing it to GDP.

Table 6: Extent of unregistered purchases as a proportion of GDP

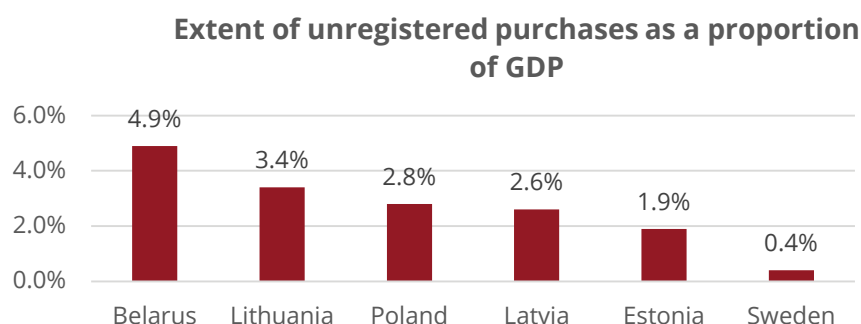
	Respon- dents with experience with un- registered purchases	Popula- tion aged 18-74	Number of respon- dents with unreg- istered purchase experience	Average yearly spending on unreg- istered purchases	Total year- ly spending on unreg- istered purchases	GDP	Extent of unregis- tered pur- chases as proportion of GDP
	1	2	3=1x2	4	5=3x4	6	7=5/6
	Proportion	Thousand	Thousand	Euros	Million euros	Million euros	Proportion
Belarus	56%	7.066	3.957	712	2.816	57.300	4.9%
Lithuania	67%	2.130	1.427	866	1.237	36.444	3.3%
Poland	44%	27.319	12.020	965	11.597	410.845	2.8%
Latvia	62%	1.445	896	682	611	23.581	2.6%
Estonia	48%	953	457	817	374	19.963	1.9%
Sweden	23%	6.884	1.583	1073	1.699	430.635	0.4%

Note. Average yearly spending on unregistered purchases is calculated by multiplying the average monthly spending (estimated from the survey) by 12. The share of respondents who had experience with unregistered purchases is taken from the survey, while population figures and GDP at current prices come from Eurostat Database for the year (Eurostat, 2014).

The results show that the highest share of unregistered purchases is in Belarus and amounts to 5% of GDP, while Sweden, again, has the lowest pro-

portion, 0.4%. Lithuania ranks second with 3.3%, and Poland comes third with 2.8%, followed by Latvia with 2.6% and Estonia with 1.9%.

Figure 28



2. Drivers of the shadow economy

2.1. Factors behind the shadow economy

The aim of this chapter is to identify the most important drivers of the shadow economy. It is quite common among policy makers to disagree on what should be done in order to fight and reduce the shadow economy. But before this question can be answered, one needs to understand the reasons why the shadow economy exists in the first place.

Why does the shadow economy evolve and what determines its growth? One of the ways to answer this question is to analyse the results of existing empirical research. Feld & Friedrich conducted such analysis and discussed major factors influencing the shadow labour market (Feld, L. P., & Schneider, F. 2011). The table below summarises the results of several studies about the causes of undeclared labour. Some causes directly contribute to the emergence of the shadow economy (e.g., taxes and regulation), but there other factors that can influence shadow employment.

Table 7: Factors of shadow economy

Factors influencing the shadow economy	Influence on the shadow economy, %	
	<i>The average values of the 12 studies (including tax morale)</i>	<i>The average values of empirical results of 22 studies (excluding tax morale)</i>
(1) Tax and social security contribution burdens	35-38	45-52
(2) Quality of state institutions	10-12	12-17
(3) Transfers	5-7	7-9
(4) Specific labour market regulations	7-9	7-9
(5) Public sector services	5-7	7-9
(6) Tax morale	22-25	-
Total of all factors	84-98	78-96

Source: Feld, L. P., & Schneider, F., Survey on the shadow economy in OECD countries, 2011.

The studies that include and exclude the factor of tax morale are examined separately. The analysis suggests that the tax rate and the size of social security contributions are the most important reasons behind the shadow economy. Depending on a country, they explain from 35% to 52% of the shadow labour market. The second major factor is tax morale. It determines from 22% to 25% of the shadow economy. The third factor is the quality of state institutions, and labour market regulation comes fourth.

There is an interesting link between people's willingness and determination to pay taxes (tax

morale) and dissuasive measures. For example, although dissuasive measures are applied as a signal for people to pay taxes, their extensive application may lead to the opposite effect on taxpayers' morality. Secondly, taxpayers' morality is highly dependent not only on the quality of public services, but also on the general satisfaction with public policy decisions and fairness of public institutions.

This overview of factors behind the shadow economy shows that taxes on economic activity are the major causes of the shadow economy. In fact, the shadow economy by nature consists of economic

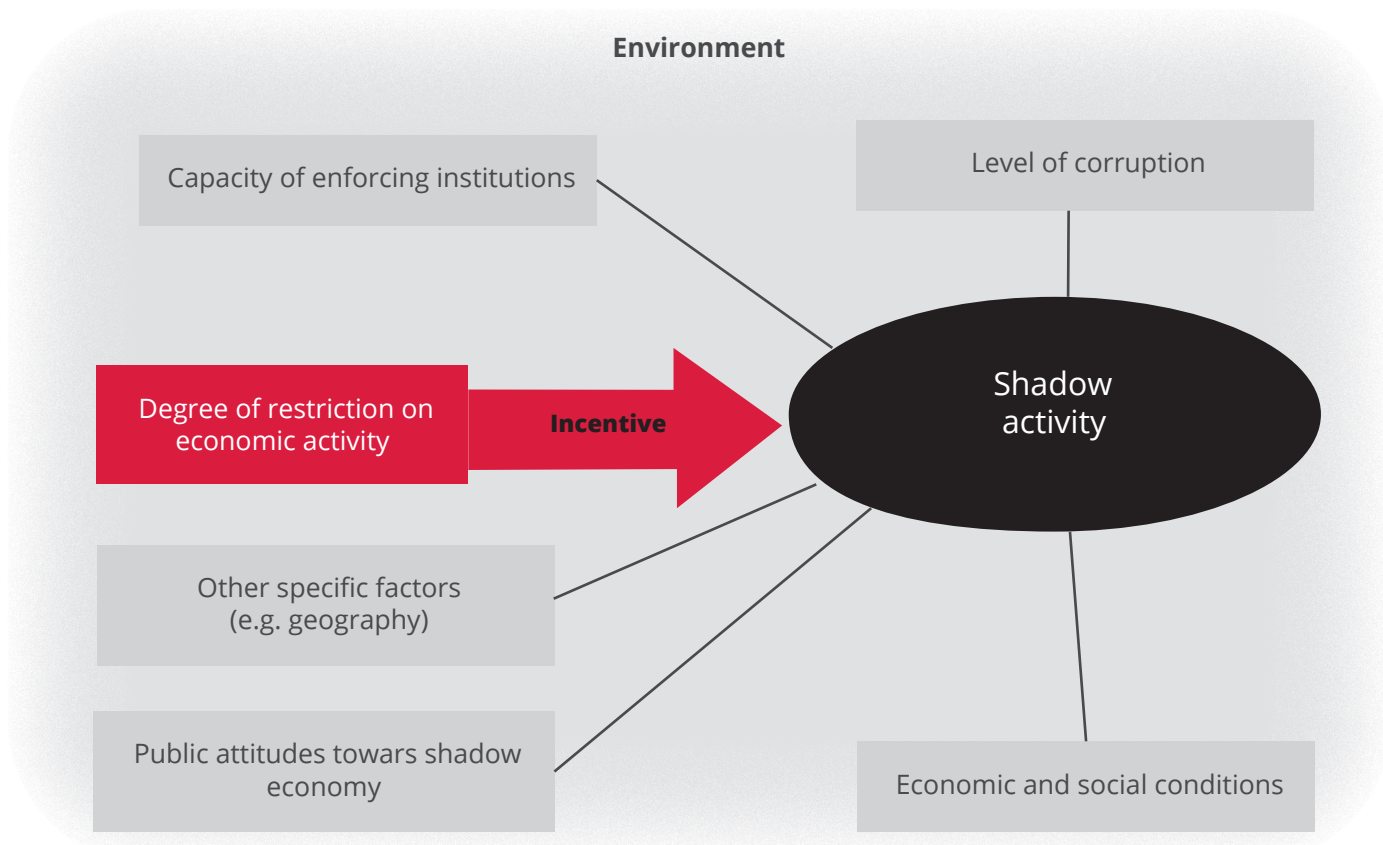
activities (goods produced and services rendered) conducted in non-compliance with applicable laws for the purpose of avoiding taxes or/and regulations.

The incentive to engage in illegal activities always arises from taxation and regulatory restrictions on legal activities. Therefore, the shadow economy is caused by the restriction of economic activities: there can be no shadow economy without restric-

tion. Therefore, keeping other conditions constant, the higher the taxes and the more stringent the regulations are, the higher the incentive to engage in the shadow economy.

Of course, the same level of restrictions (tax rates or regulations) may have a varying impact on the shadow economy in different countries depending on the social, economic and legal circumstances.

Figure 29: Restriction of economic activity as a cause of shadow economy

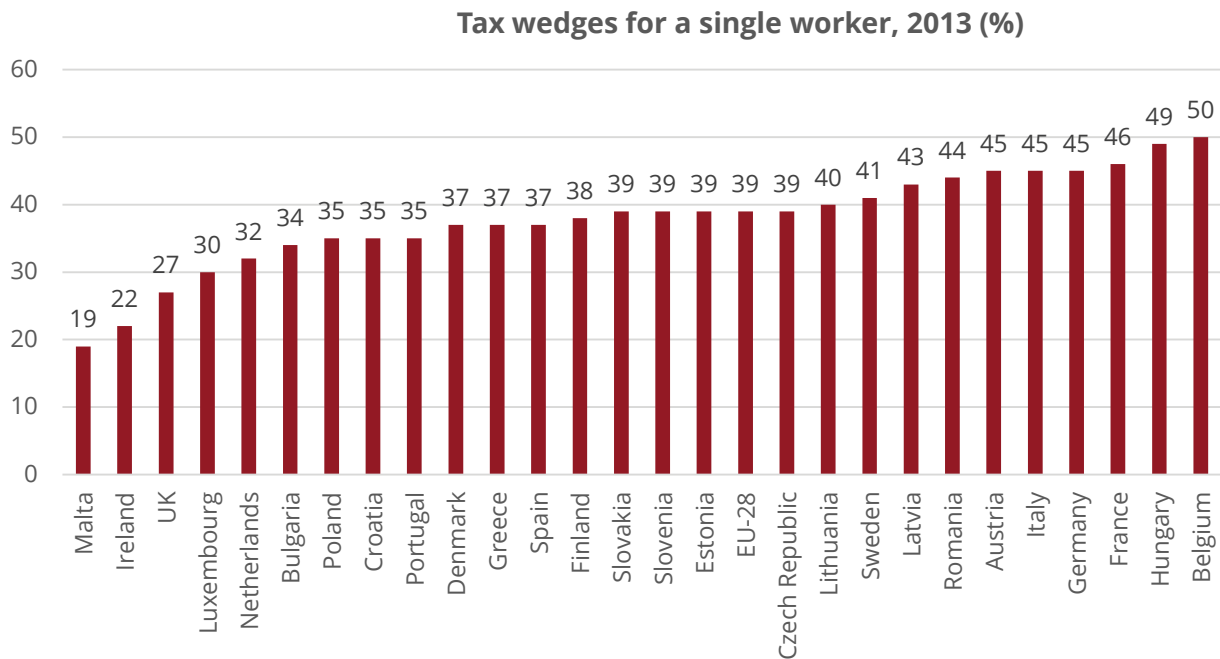


So even though the incentive for shadow economic activity always stems from restriction, there are always other factors that determine to what extent high taxation and burdensome regulation of economic activity influence the shadow economy. By their nature these factors can be economic (e.g., the standard of living or a country's economic situation), social (e.g., public tolerance of the shadow economy), legal (e.g., laws regulating the activities of the institutions combatting the shadow economy) or other. The difference between restriction of economic activity as the main incentive for the shadow economy and other factors is that, if there were no restriction of economic activity, other factors themselves would not cause the shadow economy. They can only be viewed as circumstances or an environment that either facilitate engagement in the shadow economy or deter people from undeclared practices.

One way to illustrate this further is to understand that taxes may influence the shadow economy to a very different degree depending on the level of income, which varies enormously across countries. Together with burdensome regulations and excessive taxation, the level of income can also add to the spread of the shadow economy. The reason for this is that restrictions such as taxes have a more severe effect on low-income earners.

At first glance it might appear that countries with a similar tax level impose a comparable tax burden on their citizens. For example, after studying the data on tax wedges for a single worker across different European countries, citizens of Belgium, France or Germany may seem to carry the biggest tax burden. Their tax wedges are some of the highest across the continent and yet these countries still demonstrate much lower levels of shadow economy than countries like Greece, Poland or Bulgaria.

Figure 30



Note: Tax wedges for a single worker with 67% of average earnings, no children, (% of total labour costs)

Source: Eurostat, Taxation trends in the European Union, (Eurostat Statistical Books, 2014).

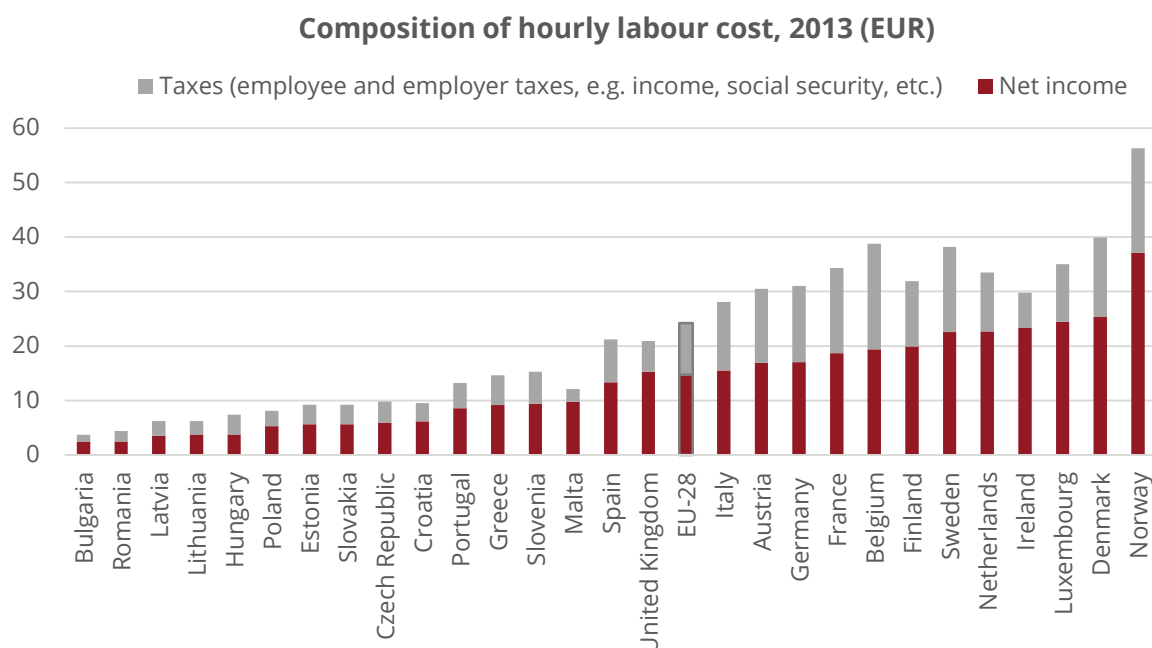
However, the analysis of the tax levels, without accounting for people's income, shows only half of the picture. The actual effect of the tax burden on people's behaviour depends not only on the tax level in general, but also on the size of income that people receive. Figure 31 pictures the composition of hourly labour cost (taxes on labour) across different European countries with respect to citizens' earnings in those countries.

As mentioned previously, labour taxation in Belgium, France and Germany is among the highest in Europe, 50%, 46% and 45% respectively. Coun-

tries like Greece, Poland and Bulgaria, on the other hand, have a significantly lower labour taxation, which stands at 37%, 35% and 34% respectively. These tax wedges are even lower than the EU-28 average of 39%.

Nevertheless, due to relatively low labour productivity, the actual hourly wage in the latter countries is much lower than the EU-28 average. As a matter of fact, citizens of Bulgaria have the lowest earnings in the entire European Union. Poland and Greece are not much ahead either.

Figure 31



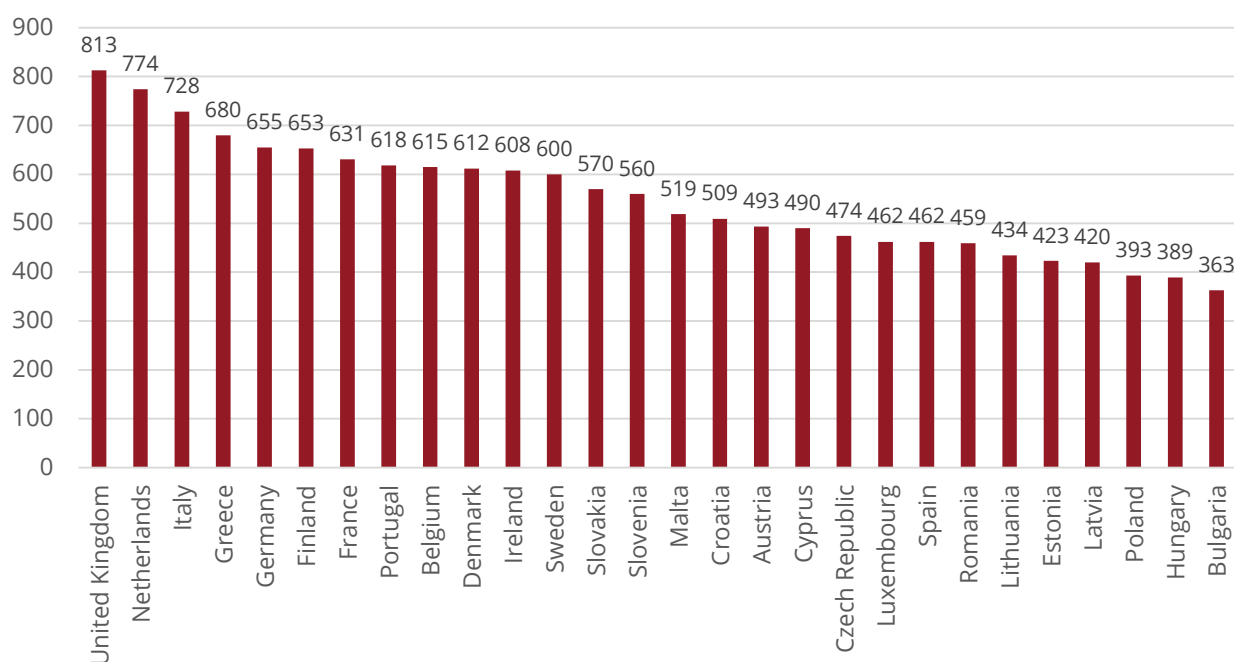
Source: Eurostat, Taxation trends in the European Union, (Eurostat Statistical Books, 2014).

Therefore, even when the tax rate itself is similar among countries, taxes will be more burdensome when the net wage is lower. For instance, Belgium and Hungary have similar tax wedges (50% and 49% respectively). But since Hungary's productivity is lower, the net income of an average Hungarian is almost 5.5 times lower than earnings of an average Belgian citizen.

Goods that are subject to excise duties, such as fuel, provide a good example. The main reason behind excise duties for such goods is that governments either try to reduce their consumption because of their effect on health (alcohol and cigarettes) or use them for other possible side effects brought on by the consumption of these goods (fuel excise is used for road repairs and other purposes).

To take this point further, it is worthwhile analysing the situation of highly taxed goods or services.

Figure 32: Indirect taxes (excise duties and other indirect taxes) on Euro-super 95 (1,000 L), EUR

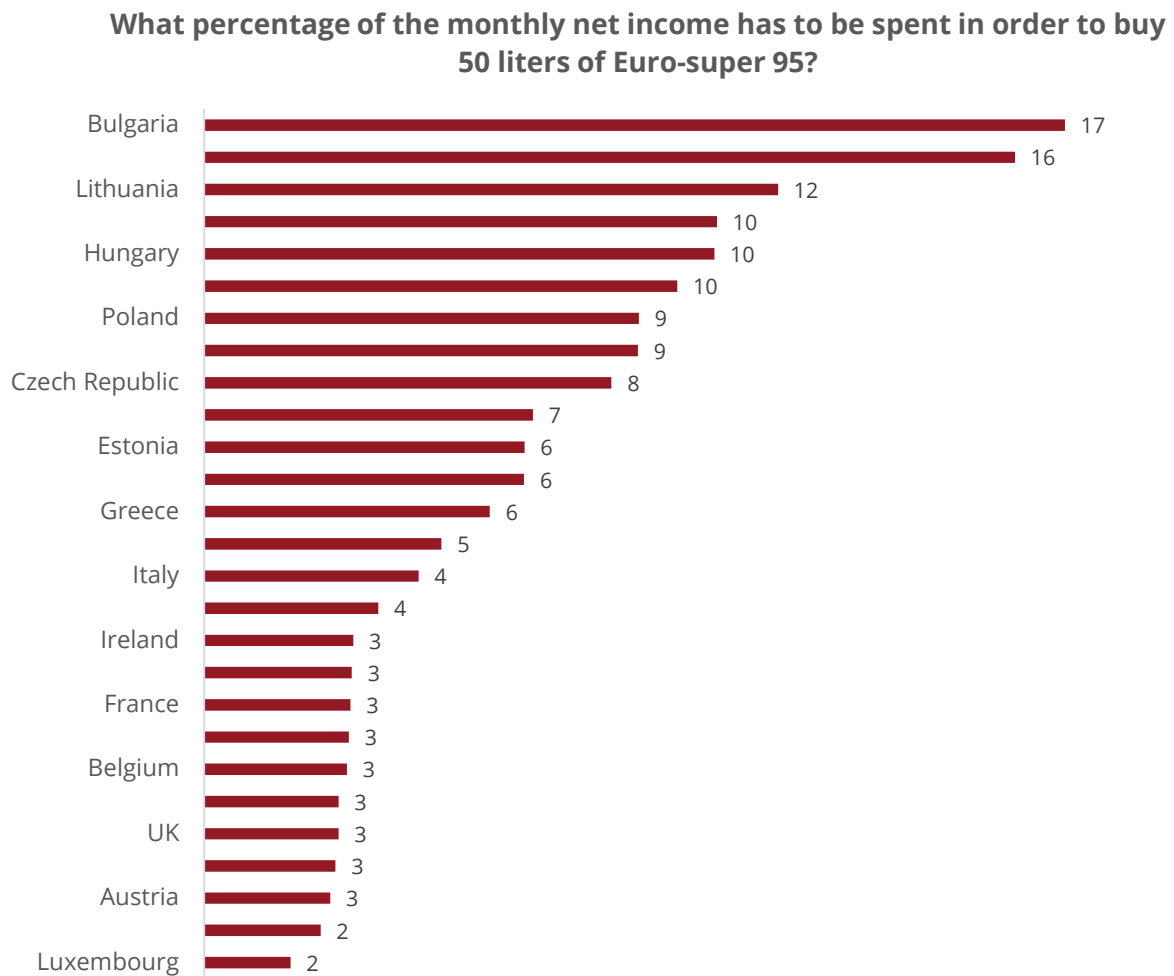


Source: Weekly Oil Bulletin, European Commission, 2015.

Just like taxes on labour, excise duties also differ greatly across countries. Figure 32 shows the level of indirect taxes (excise duties and other indirect

taxes) on 1000 litres of Euro-super 95 fuel in different European countries.

Figure 33



Note: The price (with taxes) of 50 l of Euro-super 95 divided by monthly net income (of single person, no children, 100%).
 Source: Weekly Oil Bulletin, European Commission, 2015.

It turns out that the lowest level of indirect taxes is in Eastern European countries, while Western countries such as the Netherlands, Germany and the UK seem to have the highest taxation. However, this does not mean at all that the burden of an excise duty is the biggest in these particular countries.

On the contrary, since Dutch, German and UK citizens have high labour productivity, and thus greater income, their fuel affordability is considerably higher than that of Eastern European residents. Therefore, indirect taxes may even be more burdensome in the countries where taxation levels are lower.

2.2. Latvia

By *Arnis Sauka*

The drivers of the shadow economy in Latvia, as found by the 2015 population survey on the shadow economy, are manifold. First, involvement in shadow economy activities in Latvia seems to be driven by public perceptions of the likelihood of being detected and punished for such practices. Close to 60% of respondents think that the likelihood of being detected while working without a legal job contract or getting at least part of the wage as an “envelope wage” is either quite low or very low. Interestingly enough, almost 70% report the same perceptions about the likelihood of being detected while purchasing a good or a service from an illegal source. Furthermore, approximately half of respondents do not consider punishment for illegal work or “envelope wages” to be severe.

Similarly to other studies, the 2015 population survey shows that shadow economy activities in Latvia tend to be justified by the society, which in turn also determines a rather high involvement of the Latvian population in the shadow economy. More specifically, the findings of the study show a high level of justification for “envelope wages” (58% of respondents), purchases from legal shops when the buyers know that the sellers do not declare the payments and illegal jobs (both practices justified by 42% of respondents). In addition, about one fifth of respondents also justify engagement in smuggling and illegal production or sales of cigarettes, alcohol products and fuel.

The tolerance of shadow practices also shows in ‘excuses’ or justification for involvement in the shadow economy, such as opportunities to receive higher wages (reported by 66% of respondents) rather than paying taxes and thereby ensuring better services from the government. In this light, however, the 2015 population survey highlights another determinant of the shadow economy, which is low trust in government. Reportedly, as many as half of respondents think that people see no point in paying taxes because government services are of poor quality and insufficient.

The drivers of the shadow economy in Latvia have also been analysed in several other surveys. Three relatively recent studies are summarised below, complementing conclusions derived from the 2015 population survey.

In the most recent study by Putnins and Sauka (2015), who explore the shadow economy in three Baltic countries, business people highlight a number of issues relating to why firms evade taxes and

operate in the shadow economy. Consistent with previous empirical evidence, one of the key findings by Putnins and Sauka (2015) in this regard is that firms that are dissatisfied with the tax system or the government tend to engage more in shadow activities, while those which are content with the government engage in shadow practices to a lesser extent. Overall, Putnins and Sauka (2015) discern a clear pattern: firms in Estonia are the most satisfied with the tax system and the government, while Lithuanian firms rank second, and Latvian firms are the least satisfied.

As further reported by Putnins and Sauka (2015), in all three countries firms tend to be the most satisfied with the national revenue service. A total of 66.8% of Estonian firms report that they are “satisfied” or “very satisfied.” In Latvia dissatisfaction is particularly high with the government’s tax policy and government aid for the business sector, as reported by 44.2% and 36.2% of “very unsatisfied” Latvian firms respectively. The strong dissatisfaction with the tax system and the government, in particular government spending wise, is likely to be one of the main factors behind the large difference in the size of the shadow economies in the three Baltic countries.

The findings of Putnins and Sauka (2015) also indicate that one of the reasons, especially in Latvia, why entrepreneurs evade taxes is to simply stay in business, i.e. to survive. Interestingly, Estonian business people more often mention personal benefits, or higher profits resulting from tax evasion, than their Latvian and Lithuanian counterparts (approximately 20% in Estonia and 5% in Latvia and Lithuania each). Tax avoidance for the purpose of optimizing expenses and thus increasing the competitive advantage seems to be a rather common pattern in all three Baltic countries. Still, weak legal enforcement is slightly more emphasized as a reason behind tax evasion in Latvia.

When it comes to ‘cultural reasons,’ a tradition to avoid taxes and low standards of ethics and morale were mentioned as significant reasons for tax evasion in Lithuania and Latvia, but not in Estonia (Putnins and Sauka, 2015). Unfair competition as a reason to evade taxes, in turn, was more emphasized by entrepreneurs in Latvia, with only a few respondents seeing this as a problem in Estonia and none in Lithuania.

Similarly to the results of Putnins and Sauka (2015), Sauka (2011) shows that entrepreneurs are generally rather satisfied with tax administration by the Latvian State Revenue Service (SRS). Namely, 65% of respondents claimed that they were either very

satisfied or satisfied, and only 25% reported that they were not satisfied or very unsatisfied with the performance of SRS. Half of respondents agreed that SRS administered the tax system in a competent and fair manner. Still, almost four in ten entrepreneurs said that SRS was corrupt.

As regards the tax system, consistent with the findings of the shadow economy index, the findings by Sauka (2011) show that more than 70% of respondents are either very unsatisfied or unsatisfied with the tax system in Latvia. In this light, the majority of respondents believe that taxes should be diversified: 83% of all respondents think that small companies have to pay much lower (43%) or lower (40%) amounts of taxes, whereas 25% would like to see bigger companies pay slightly more. Entrepreneurs are also found to be very dissatisfied with how the government spends tax payers' money, with six in ten being completely dissatisfied and more than a fifth dissatisfied. Furthermore, only one third have trust in the government and civil service. Entrepreneurs' trust in courts, however, is considerably higher, amounting to about 55%. All this impacts the scope of the shadow economy.

Individual perceptions of the institutional environment in which taxes are collected and spent play a key role, and tax morale is another factor of the shadow economy. In this context, based on Sauka (2011), Mickiewicz, Rebmann and Sauka (2015) analyse how tax morale, or a moral obligation to pay taxes and 'a belief in contributing to society by paying taxes' (Torgler and Schneider 2009), is influenced by (1) perceptions of government as fair and trustworthy, (2) entrepreneurs' social identity, and (3) the effectiveness of the regulatory framework.

The main conclusions of Mickiewicz, Rebmann and Sauka (2015) are as follows:

- Tax morale is enhanced by the confidence in the ways the taxes are collected and spent. Robust evidence was found that seeing tax collection as being honest, not corrupt, and administered fairly is associated with higher tax morale.
- General confidence in the government plays a role as well, though the evidence is somewhat weaker.

Finally, Mickiewicz, Rebmann and Sauka (2015) argue that, consistent with the self-serving/ego-centric bias, the perceived consequences of tax evasion were also found to affect tax morale: "Interestingly, the severity of punishment matters more than likelihood of being caught. This is con-

sistent with the standard-risk avoidance perspective where expected cost of tax evasion depends on the risk of detection and the size of the ensuing financial losses. It has also obvious policy implications for shaping the parameters of formal policy aimed at reduction of tax avoidance".

2.3. Estonia

By Robert Mürsepp

This chapter focuses on the causes and drivers of the shadow economy in Estonia based on the 2015 population survey and other studies or media reports. The goal is to compare and analyze these causes from the point of view of their validity and to provide a basis for further suggestions on how to improve the country's economic environment. To that end, the current legal and regulatory environment for private individuals and businesses is analysed.

Undeclared labour and envelope wages

As the 2015 population survey shows, the main reason why people and businesses use envelope wages is the high tax burden on labour. While Estonia is known for its low tax burden on income, especially corporate income, and a zero-rate capital gains tax, the tax burden on labour is still considered to be relatively high even with respect to wealthier countries.

The taxes paid by an employee on gross wages for the year 2015 are as follows:

- the personal income tax of a flat rate of 20%⁴;
- the mandatory pension fund tax of 2%; and
- unemployment insurance of 1.6%.

On top of that, the employer pays:

- the social insurance tax of 33%; and
- unemployment insurance of 0.8%.

All these taxes mean that the entire expenditure on the payroll for a 1000-euro monthly gross wage is 1338 euros, of which 802 euros goes as a net wage to the employee and 536 euros in total taxes to the state. The entire tax burden with regard to the payroll expenditure thus amounts to 40%. This puts the Estonian tax wedge above the OECD average of 36% and in the middle ground in terms of tax competitiveness among developed countries. As of now, there are no plans to lower this burden, except for the agreement to lower the personal income tax by a couple of percentage points and to

⁴ No income tax is charged for the tax-exempt minimum of 154 euros per month.

raise the tax-exempt minimum on a regular basis.

As a result, this provides an incentive for companies to look for ways to cut down on labour costs as local labour becomes more costly (due to the rising level of wealth) and people look for higher income abroad. The latter has been a particularly serious issue over the past few years as large numbers of people have gone to work in Finland and Sweden. Competing with the Nordic countries creates additional pressure for local entrepreneurs. Together with a growing economy this has caused a shortage of labour and is considered to be the main impediment to Estonia's economic growth.

Revising minimum wage policies and labour legislation could offer a solution and would open up a legal labour market for people not yet in occupation, especially young people/students. The 2015 population survey shows catering as a popular field of employment for young people. Part-time jobs and undeclared income offer a good opportunity to get the first job experience, but it is a lot harder in areas which require more specialized and qualified work. Simpler legislation and lower taxes could improve labour market opportunities, while a high minimum wage obstructs part-time workers from getting legal job contracts.

Construction is the most cited segment of the shadow labour market in Estonia. The economic boom and the following decline showed that the shadow construction industry embraced not only hired workers but also entrepreneurs with dubious backgrounds, an understandable circumstance in times of economic turmoil. And the construction sector was severely hit by the economic downturn, with small companies turning insolvent or incapable of finishing their work due to a lack of proper paperwork or unregistered workers who chose to go abroad.

In order to combat unregistered labour and envelope wages, the Estonian Tax and Office Board recently introduced a new registry that is supposed to record every employee, including volunteers. While the number of properly registered employees has increased, the construction sector has appeared to employ numerous voluntary workers who in reality are most likely envelope wage earners.

In 2015 the minimum wage in Estonia was set at 390 euros per month. As the 2015 population survey shows, a sizeable number of people who receive envelope wages have lower income than this. It can be concluded that a considerable amount of unregistered labour and envelope wages can be

eliminated simply by lowering or abolishing the minimum wage or by lowering payroll taxes. While people most likely earn more than the minimum wage, this would still provide better incentives for reporting the entire income that people earn from additional part-time and side jobs. However, the political agenda is to keep raising the minimum wage on a yearly basis, with no small part being played by trade unions targeting at 1000 euros per month in the next three to four years. As the 2015 population survey shows, the most common income range in the shadow economy is between 301 and 500 euros and this correlates with the current minimum wage. It is also estimated that undeclared workers may earn up to half of their wage as envelope wages. This means that there is a clear cut-off point at the minimum wage level. It is likely that people earn the minimum wage and receive the rest of their income under the table. In this case lower labour taxes are also likely to increase the tax income for the public sector.

A survey by the Estonian Chamber of Commerce and Industry revealed another reason for envelope wages. It shows that some employees deliberately ask for envelope wages in order to hide their income from public institutions and to avoid certain liabilities, such as debt repayment and child support and alimonies, or to keep their unemployment benefits.

As the 2015 population survey shows, dissatisfaction with government services is another reason behind envelope wages, albeit it is not as significant an issue, as reported by 28% of respondents. Notably, some proportion of people prefer to use private medical services even though the same public services are available free of charge under the general health insurance. A closer analysis of the cited reasons for such choices leads to a conclusion that tax resistance reflects more of a principled opposition to government services rather than perceptions of the quality of services. Respondents' political preferences may also affect the levels of dissatisfaction with the government.

As dissatisfaction with the government does provide incentives for shadow practices, it is advisable to revise the current spectrum of government services. It might be worth providing more access to private markets while limiting the burden on the government as well as the tax payers, especially those who already pay extra fees for private services.

Purchases in the shadow economy

Similarly to other shadow activity occurrences, the main reason for dealing with vendors in the shadow economy has to do with various costs involved. While people find legal goods and services to be too expensive due to the tax burden on consumption, there are also other factors that raise the prices of goods and services beyond the reach of some people. Although the tax code in Estonia is fairly straightforward, there are several trends that can potentially affect the spread of the shadow economy. For a while now it has been a policy of the Estonian government to shift the tax burden from income to consumption through changes in tax rates and regulations.

During the crisis the government raised VAT from 18 to 20% as a source of extra revenues. A reduced 9% tax rate is still charged on books, learning aids, medication and medical equipment, accommodation, periodicals, etc., and a zero-tax rate is applied to some socially oriented services. At the same time there are ongoing discussions about eliminating some of these exemptions. In addition, various excise taxes are charged on different sources of energy, alcohol and tobacco.

Fuel and alcohol excises have been a hot topic for years as the government has raised them on a regular basis. It is estimated that excise duties on gasoline make up roughly a third of the price of the fuel, which means that coupled with the VAT the tax burden on gasoline is more than 50%. As a result, the smuggling of fuel has been on the rise recently, according to the Estonian Tax and Customs Board. Steps have been taken to curb the smuggling of fuel with private cars, but there are still ways to do it with trucks. A loss in income from the sales of smuggled fuel over the recent years might have incentivized other shadow economy practices.

Research shows that decisions about unrecorded purchases are closely related to people's relative wealth and the prices of legal goods. This means that raising excise duties may not be the best solution if the goal is to change people's purchasing patterns⁵. On the contrary, this may encourage shadow consumption, as evidenced by a growth of undeclared purchases during economic downturns. So instead of pricing some products out of the market, it might be worth lowering the tax burden on consumption and thereby widening the scope of legally available goods and services.

Home renovation and car repair services are often procured through personal connections and are in high supply in the shadow economy, at lower costs and of varying quality. For many economic activities, such as housework, handcrafts and arts, it is not worthwhile registering as a self-employed professional, therefore many choose shadow practices. Easing the legal environment and lowering the tax burden on self-employed individuals could thus be a way to encourage people to conduct and report legal activities.

In addition to the aforesaid classical examples of shadow services, the 2015 population survey shows that clothing and foodstuffs are relatively common undeclared purchases too. This is likely to be related to the geographical location. Estonia being located on the peripheries of the European Union, the costs of logistics tend to drive up the prices of goods to the point where they can become comparable to prices in wealthier countries. This effect is amplified by the small size of the local market and the purchasing power of visiting tourists. While many better-off locals have semi-annual shopping trips to Europe, people who lack this option might turn to the shadow economy. With the rise of online shopping people in even remote locations can access goods they lacked before, making the shadow market more accessible too. In response, the Estonian Tax and Office Board has targeted online businesses who fail to report their income properly and avoid taxes.

Despite all these findings, recent studies show that the shadow economy has been contracting in Estonia. This may partly be explained by the efforts of the Estonian Tax and Customs Board to curb smuggling and tax evasion. It is noteworthy though that recent global trends should not be ignored. Falling prices of crude oil have kept various prices in check and have even led on occasion to a slight deflation. This, coupled with the growth in people's growing purchasing power driven by the economic growth, has incentivized legal purchases. Yet, should oil prices start climbing again or the economic growth slow down, the situation can easily change.

Given that 17% of respondents said that a lack of available legal options was the reason for shadow purchases, a legitimate question is what is it that these people are looking for? In terms of business regulation getting a vendor's license for most goods and services is not an issue. Regional differences might be at work here, but this would require additional research.

5 Alcohol and tobacco excises are often justified by the will to push people towards more healthy consumption choices.

Public perceptions and the satisfaction with the government

The 2015 population survey suggests that public attitudes towards the shadow economy are far worse than the actual participation levels. This leads to a conclusion that people might condemn shadow activities publicly but this does not necessarily mean that they avoid such practices themselves. Also, one should be careful with interpreting the results as people might not be straightforward with all their answers. The results of face-to-face Eurobarometer interviews may confirm this.

The research also shows that the link between being dissatisfied with the government and participating in the shadow economy is not straightforward. One can conclude that the decision to participate in the shadow economy is more related to a person's specific situation rather than the government's performance. In addition, engaging in the shadow economy is possibly a matter of principle.

Another significant finding is that the punishments for unrecorded activities do not necessarily work as a deterrent as people engage in the shadow economy regardless of whether they find the punishment to be severe or mild. This means that harsh punishments are likely to be superfluous and not supportive of public satisfaction with the government. When people who are forced into the shadow economy because of their socio-economic status are condemned for doing this, severe punishments tend to alienate them from the government. Severe punishments are justified mainly in the case of severe crimes.

As various studies suggest, public satisfaction with the government is often related to how people assess public services, therefore it could easily be improved by easing the burden of bureaucracy and making the public sector more efficient.

2.4. Poland

By Aleksander Łaszek

While discussing potential drivers of the shadow economy in Poland, it is helpful to distinguish between (A) factors affecting household decisions about providing work in the shadow economy, (B) factors affecting household decisions to consume goods and services purchased in the shadow economy, and (C) factors behind firms' decisions about buying inputs and selling outputs in the shadow economy, and finally interactions between A, B and C. The most obvious is point B. People purchase unregistered goods and services because it is cheaper or they do not know (and probably do

not care) whether the purchase is legal or not. The following discusses the supply of unregistered labour and behaviour of firms, with special focus on the factors that are specific to Poland.

Supply of unregistered labour

Tax wedge is the most obvious driver of undeclared work, but one should notice that its impact is not linear. The results of the survey indicate that a higher envelope wage is the most common incentive for working in the shadow economy. Although this seems to be quite a universal conclusion, in Poland the effect is enhanced by the flatness of the tax wedge at the lower end of the scale. The survey results suggest that low-income earners are more likely to work in the shadow economy. Thus, lowering the tax wedge for this particular group could lead to a reduction of shadow employment.

Poorly designed social protection schemes create incentives to remain in the shadow economy. In Poland the bulk of support provided through the tax and benefit system is conditional on income with rigid thresholds. This, combined with a lack of coordination between different policies, results in cases where an increase in gross income decreases net income. It happens when an increase in labour income is outweighed by the withdrawal of social benefits after breaching income criteria. Such faulty design is particularly visible in financial support for families with children (Myck et al. 2013). Furthermore, some pension schemes are conditioned on not working. It is thus not a coincidence that housewives, pensioners and the unemployed mentioned fear of losing social benefits as a reason for unregistered work more often than other survey participants.

Firms in the shadow economy

The complexity of tax regulation in Poland is the single biggest obstacle reported by business, so avoiding tax regulations can be an important benefit from staying in the shadow. In order to identify the main reasons for unregistered corporate activities, one should start with a list of major problems reported by firms. The results of twelve different surveys concerning major obstacles for businesses point to the complexity of the tax code (not tax rates!) as the biggest problem for enterprises in Poland. This is confirmed by Poland's poor standing in World Bank's Doing Business index (World Bank, 2015). Although Poland ranks 32nd overall, it fares far worse in terms of the ease of paying taxes and occupies the 87th position, mainly due to a lengthy process and numerous payments, which both are well above OECD averages (on the

other hand, the total tax rate is below the OECD average). To a large extent taxes are responsible for the fact that the administrative costs⁶ in Poland are much higher than on average in other countries. According to the estimates by Deloitte (Deloitte, 2010), in 2008 they amounted to 6% of GDP, as compared to 3.5% in other countries⁷. As much as 44% of these costs is generated by three tax bills, including the personal income tax, the corporate income tax, and the value added tax. Since 2008, overall administrative costs have indeed fallen, but not enough to bring them to the level of other European countries. Based on RIAs (regulatory impact assessments) of four deregulation bills this decline can be estimated at about 0.5% of GDP.

The tax system in Poland is not only complicated, but also unstable. Every tax law and the general tax code are amended, on average, at least a few times a year. The Ministry of Finance publishes more than 150 individual tax interpretations daily. Nearly 3,000 interpretations yearly are appealed before the administrative court which declares more than half of all complaints as justified.

Complex and unstable tax legislation reinforce their negative impact on business and investment. On the one hand, if the tax system were complicated but stable, studying it would entail one-off cost. If the rules are constantly being changed, tracking them has no end. On the other hand, if taxes were often revised but simple, one could identify

⁶ Administrative costs are the costs imposed on businesses through regulatory compliance requirements.

⁷ Own calculation based on data from: <http://www.administrative-burdens.com/>

potential scenarios and prepare for each of them. When the number of parameters in the tax system that are subject to change is high, an analysis of potential scenarios becomes very difficult, if at all possible. These difficulties discourage new projects from which one cannot withdraw without incurring serious losses, particularly in the case of investment in machinery.

The instability of the tax law is a manifestation of a wider problem of inflation of law, which makes it very difficult for people to assess whether they act in compliance with the regulations. Last year almost 26,000 pages of legislation entered into force in Poland. In this regard Poland outruns not only the Czech Republic, Slovakia and Hungary, but even France or Italy, often seen as leading bureaucracies. If one wanted to familiarize him- or herself with all the changes in legislation being introduced in Poland, one would have to spend about 3 hours and 26 minutes each day (Thornton, 2015).

2.5. Sweden

By Jesper Ahlgren

Schneider & Williams (2013) identifies several drivers of the shadow economy, i.e. factors that increase people's propensity to be active in the shadow economy. Table 3 summaries these factors and the extent to which these factors influence the size of the shadow economy in a country, with and without the independent factor of tax morale. As can be seen, taxes and social contributions are the most important driver, followed by tax morale and the quality of state institutions.

Table 8: Main causes of the increase of the shadow economy

<i>Variable</i>	<i>Influence on the shadow economy (in %)*</i>	
	(a)	(b)
Tax and social security contribution burdens	35-38	45-52
Quality of state institutions	10-12	12-17
Labour market regulation	7-9	7-9
Transfer payments	5-7	7-9
Public sector services	5-7	7-9
Tax morale	22-25	-
Influence of all factors	84-98	78-96

(a) Average values of 12 studies

(b) Average values of empirical results of 22 studies

* This is normalised or standardised influence of the variable average over 12 studies (column a) and 22 studies (column b)

Source: Schneider, 2009.

Schneider & Williams (2013) also examines a sample of 21 OECD countries between 1990 and 2007 and finds that the above drivers have a significant impact on the size of the shadow economy. The largest impact was from the social security contribution and the share of direct taxation.

Below these factors are discussed in more detailed based on the survey.

Tax and social security contribution

Almost all studies on the shadow economy suggest that taxes and social security contribution levels have a substantial impact on the size of the shadow economy (see Schneider & Williams (2013) for references). The bigger the difference between the total labour cost in the official economy and after-tax earnings from work, the greater the incentive to reduce the tax wedge by working in the shadow economy. Given that Sweden has high social security contributions (31.42 %) and high marginal taxes in a European perspective, for both low-income and, especially, high-income earners, one should expect to see a high propensity to work in the shadow economy and to buy undeclared services.

However, Kleven et al (2011) identifies a key difference between two ways of reporting income. One is third-party information reporting whereby institutions such as employers, banks, investment funds, and pension funds report taxable income earned by individuals (employees or clients) directly to the government, which makes it difficult to evade taxes. The other is self-reported income wherein the tax-payer has a larger possibility to declare lower income and consequently pay lower taxes. Their model predicts that evasion will be very low for third-party reported income, but substantial for self-reported income. It also predicts that the effects of tax enforcement (audits, penalties) and tax policy (marginal tax rates) on evasion will be larger for self-reported income than for third-party reported income. They also show empirically that tax evasion is much more common for self-reported income than for third party reported income.

In Sweden, most income is reported by a third party. In 2015 one tenth of all people in Sweden just verified the information given by employers, banks authorities, etc. and the tax calculations made by the tax authorities via an sms, and many more verified the information without changes. In a survey by the Swedish tax authority (Swedish National Tax Agency (2014), 79 percent of respondents did not think that there was ample possibility to evade taxes, compared to 59 percent among the

self-employed. Hence, we should expect shadow economy activities to take place predominantly in sectors where there is a lot of self-reporting (or no reporting at all).

Buying goods and services

The most common products and services are either 1) high tax items such as alcoholic beverages and cigarettes that, in addition, have seen substantial increases in the tax burden the last years, or 2) goods and services where the possibility to avoid taxes is obvious, such as auto-repair, food and catering. The tax increases on alcohol and tobacco were calibrated in order not to increase smuggling and illegal selling, but even though we cannot from our study say anything regarding any changes in the purchases of these goods, it seems clear that they are an important part of the shadow economy in Sweden. Correspondingly, the rather strict rules enforced to make it more difficult to avoid taxes for restaurants, street vendors, etc. have at least not fully eradicated the availability of undeclared goods and services in these sectors.

A majority of the respondents also believed that high prices of legal goods and services (presumably due to high taxes) were the main reason why people bought from illegal providers or legal providers that did not declare their income. This was especially common for men and the ones with a negative attitude towards the Swedish government.

Working in the shadow economy

Construction and renovation is by far the most common sector for undeclared work: half of those who knew someone with shadow economy employment knew someone working in construction and renovation. Catering and hotel services, housework and auto repair were other popular sectors. These are the sectors that one would expect to be common if taxes are the main driver of the shadow economy in Sweden. That is, sectors with a lot of smaller companies and where labour costs make up a substantial proportion of the total cost and labour taxes can create large dead-weight losses. Targeted tax cuts have been applied to construction and household services⁸, and VAT has been lowered for restaurants, at least partly to counter the shadow economy. The tax authority estimated in 2008 that 60 percent of the turnover in the auto repair business was undeclared, and since then no policy initiatives have been launched to address this practice.

⁸ Since 2009, half the labour cost of repair and maintenance work, household work, child care and gardening is deductible (in advance) up to a threshold.

Four in ten respondents believed that high taxes were the main reason why people chose to work in the shadow economy, which means that this was the most commonly stated reason. Interestingly, among those with an actual experience of the shadow economy this reason was somewhat less common (34 percent), while bureaucracy and labour regulations were seen as equally likely (31 percent). On the other hand, among those with a friend or relative working in the shadow economy, 45 percent indicated that high taxes were the main reason for undeclared work.

Our findings, then, corroborate the view that taxes are an important, maybe the most important, driver of the shadow economy in Sweden. The sectors that are the most affected by high taxes on labour and where it is possible to evade taxes are the most commonly cited by the respondents. One indication of this is that the rather large tax cuts aimed at reducing the shadow economy in the consumer market for construction, repair and household services seem to have dis-incentivized the consumption of these services without paying taxes. Given the prevalence of these services in the shadow economy in other countries, and how prevalent they used to be in Sweden, the fact that only 1.5% of the respondents have consumed either construction and repair or household services without paying taxes is remarkably low.

Considering the sectors where people claim that their friends and relatives have undeclared work, household services and especially construction are much more common. This indicates - together with the facts that the tax cuts exclusively have been directed towards the private consumers of these services - that, while the demand from private citizens for shadow economy services of this kind is low, the supply of people willing to perform the services without paying taxes still exists. These people are most likely working for legitimate companies that avoid paying part of their taxes, as confirmed by a recent study of the cleaning industry (The Swedish National Tax Agency, 2015).

This suggests that the present government is running a clear risk of increasing the shadow economy in these sectors with the proposed scaling back of the tax cuts. If the demand for undeclared work in these sectors is sensitive to tax cuts, it is likely that the demand is also sensitive to the scaling back. Should the demand increase, there is no shortage of people willing to perform the services.

From a policy perspective, it is also interesting to see the prevalence of the shadow economy in some of the sectors for which various political par-

ties have proposed tax relief. Neither in sewing, clothing and shoe repair nor in IT and telecommunications is it common to buy services without paying taxes or performing services without declaring the full income. This indicates that the scope for scaling back the shadow economy in these sectors through tax incentives is substantially smaller than in construction or in household services.

Intensity of regulation

Schneider & Williams (2013) also identify regulation such as labour market regulations, trade barriers and immigration restrictions as a key driver of the shadow economy, as it limits freedom of choice for agents in the official economy. Labour regulations increase the cost of hiring, and this increases the pay-off of hiring someone illegally. Since most of the increased cost is passed on to employees, regulations also make it more lucrative for employees to work in the shadow economy. Restrictions on work that are applied for immigrants also provide clear incentives to work in the shadow economy. Johnson et al (1997) find that the enforcement of regulation is important: regulations that are easily avoided are less important.

Sweden is characterized by fairly deregulated product markets (with housing as an obvious exception) but with far-reaching regulations of the labour market. Hence, the fact that alcohol is the good (or service) that most respondents have bought undeclared is most likely partly due to regulations. Alcohol can only be bought in special, government-run stores within limited hours. People under 20 are not allowed to buy something that is strictly enforced. This should increase the demand for buying alcohol from other sources, especially in rural areas. The survey, however, does not seem to show any difference between respondents living in rural areas, towns or big cities in how likely they are to buy alcohol undeclared. Reportedly, none of the respondents below 20 years of age bought alcohol undeclared, so in this respect regulations did not seem to be important. However, as was concluded above, less stringent limitations on private import of alcohol from other EU-countries with lower prices as implemented in 2004 may be one reason for a sharp drop in undeclared purchases of alcohol during the last decade.

A quarter of the respondents said that too much bureaucracy and too strict labour regulations were the main reason for undeclared work, and an even higher proportion of those with own experience claimed so. Labour regulations in Sweden are in some cases extensive. For instance, the last person employed should be the one to be

laid off first if a firm wants to downsize; companies do not have full discretion to choose which employees they want to keep. Companies are also obliged to cover some costs if an employee falls ill. Employers see these rules as serious impediments for firms to grow, and it is likely that the desire to circumvent them is a key factor behind the size of the shadow economy in Sweden. That one in four respondents believes this to be the main driver strengthens this view.

Sweden has the lowest number of low-paying jobs in the EU. In 2010, 2.5% of employees made 23 percent of the median or less, compared to, for instance, 22% Germany and 17% in the EU as a whole. This is not due mainly to government regulations (Sweden has no mandatory minimum wage) but to high minimum wages set within the collective bargaining system. This has led to unemployment being concentrated among people with a low level of education and/or with little experience, people who are priced out of the labour market (e.g. see Skedinger, 2015) and can potentially pursue lower-income jobs in the shadow economy.

Our finding of an average hourly wage of 156 SEK, well above minimum wages, does not seem to indicate that high minimum wages are a driver of the shadow economy. However, we can assume that our study does not cover newly arrived immigrants or illegal immigrants (simply because their knowledge of Swedish in many cases is not enough to complete the survey) and there is anecdotal evidence that for these groups the average salaries are lower, so the high minimum wages might be significant.

Quality of public sector services and institutions, and tax morale

Johnson et al. (1998) finds that countries that achieve higher tax revenues through lower tax rates, fewer laws and regulations and less corruption usually have a smaller shadow economy. This is tightly linked to tax morale. Tax morale can be described as the psychological tax contract with rights and obligations for taxpayers and citizens as well as for the government and the tax authorities (Feld & Frey, 2007). Taxpayers are more willing to pay taxes if they receive public services of good quality in return. Public services in this case also refer to services that do not directly benefit a specific tax-payer, such as redistribution policies.

Survey respondents were asked to grade how satisfied they were with the Swedish government. We then used this as a proxy for the (subjective) quality of public services and institutions to deter-

mine if this affected in any way the respondents' views or actions regarding the shadow economy. Engagement in the shadow economy, both working and buying, was more justified by those with a negative opinion of the government. Those with negative perceptions more often bought legal goods without receiving a receipt. These perceptions did not affect the propensity to work in the shadow economy.

Hence, as could be expected from previous research, dissatisfaction with the government is a driver of the shadow economy. One obvious disadvantage is that no distinction is made between those discontent with government services in general and their views of the ruling government and its specific policies. Given that the time span covered in the survey ("the last 12 months" from May and June 2015) extend over the times when both a center-right and a center-left government were in power, this should not have any substantial effect on the survey results.

Unwillingness to pay taxes out of discontent with government services was also given as a possible answer to the question why people take part in the shadow economy. One fifth of the respondents believe that people work in the shadow economy due to the fact that they did not see the point in paying taxes because of poor and insufficient government services. That belief was not in any major way affected by the respondents' own attitude towards the government. Respondents with a dislike for the government were, however, more likely to consider bureaucracy and labour regulations as a key driver of the shadow economy in Sweden. This illustrates that discontent with the government is not only due to the quality of government services, but is also related to the design and scope of regulations and how these regulations are enforced.

Deterrence

In addition to these factors, Schneider & Williams (2013) also mentions the importance of deterrence, even though there is a lack of strong evidence regarding its impact on the shadow economy. The risk of detection is somewhat important for the prevalence of undeclared work, but fines and punishments seem less important. For Sweden, Denmark and Norway, Pedersen (2003) finds marginally significant negative effects of perceived risk of detection of conducting undeclared work in the shadow economy for men and, in the case of Sweden, also for women.

In our study, respondents were asked about their perceived risk of being detected when buying un-

declared goods and working in the shadow economy and how severe the punishment would be if they were detected. As the results show, those who had experience from the shadow economy during the last 12 month perceived the risk as higher than those without such experience. On the other hand, those with experience believed that the punishment would be less strict should they be detected.

This indicates that a perceived risk of detection does not counter the shadow economy in Sweden, whereas more severe punishment potentially could. One explanation is the interaction between tax morale and deterrence: if more draconian punishments or more intrusive methods of detection are applied, then tax morale might decrease. Another is simply that taxpayers misunderstand the level of punishments and the risk of being caught evading tax.

2.6. Belarus

By Alexei Pikulik and Elena Artsiomenka

The main drivers of shadow activities could be divided into three main groups. The first group is what could be referred to as the longue-durée factors. They include long-term historical legacies and institutions that may affect particular sets of institutions. The examples of those robust long-durée factors may include a tradition of statehood, identity, political culture, etc.

The second group includes particular institutions and regulations, in other words, it is about both concrete rules of the game and particular contexts that constrain an actor's behavior providing them with the structure of opportunities. The examples include: the level of economic development, regional specificity, particular economic institutions and forms of regulation and governance, social security contribution/tax burdens, intensity of regulation, quality of institutions, the rule of law, etc. The difference between those two groups of variables mainly rests in their longevity: the longue-durée factors are more long-lasting and stable, the institutional group represents particular timely institutional arrangements and political-economic regimes.

The third group consists of the micro-level drivers and actors' perceptions of factors that relate to shadow economies, as derived from the 2015 population survey on the shadow economy. Although actor centric and structure centric variables (the third one and the former two groups accordingly) are often hard to separate because actors act, and not the structures, this distinction should never-

theless be held and Sartori's ladder of abstraction should be descended in the analysis.

Institutional parameters and regulations

Three champion variables in terms of institutional parameters and regulations are: a) tax and social security contribution burdens, b) intensity of regulation, and c) quality of public services and institutions.

The first variable – tax and social security contribution burdens - links the actor's evaluation of those burdens with the shadow economic activities. Thus, in their path-breaking article, Allingham and Sandmo (1972) create a cost-benefit analysis model for an individual taxpayer deciding upon the strategy of paying full taxes or under-reporting the income. They argue that the expected costs of non-compliance derive from deterrence measures pursued by the state, which determine the probability of detection and also the fines individuals face when they are caught (Schneider and Williams, 2013).

Kanniainen et al. (2004) hypothesize that higher taxes unambiguously increase the shadow economy, while the effect of public goods financed by those taxes on the shadow economy depends on the ability to access public goods. Morality is also included in this analysis. The costs for individual non-compliers resulting from moral norms, however, appear to be mainly captured by state punishment, although self-esteem does play a role.

To keep a long story short, the bigger the difference between the costs of labor employed officially and the after-tax earnings from work, the higher the incentives to minimize taxation through shadow employment. As Schneider and Williams (2010) nicely put it: "since this difference depends largely on the social security burden/payments and the overall tax burden, the latter are key features of the existence and the increase of the shadow economy." Furthermore, Johnson, Kaufmann and Zoido-Lobaton (1998a, 1998b) find strong statistical evidence for the influence of taxation on the shadow economy. The causal link here is pretty simple: in those cases where the share of taxes to be paid is considered to be overtly high for the taxpayers, they become rationally interested in moving into the gray areas.

The second variable is the intensity of regulation. Schneider and Williams (2010) speak about labor market regulations (e.g. minimum wages or dismissal protections), trade barriers (e.g. import quotas), and labor market restrictions for foreign-

ers (e.g. restrictions regarding the free movement of foreign workers) that influence the development of the shadow economy. Since regulations increase the transaction costs for economically active actors and lead to substantial growth of labour costs, this creates additional incentives to work in the shadow economy.

Friedman et al. (2000) argue that available measures of regulation are significantly correlated with the share of the unofficial economy and the estimated sign of the relationship between their measures of regulation and the shadow economy is unambiguously positive: more regulation is associated with a larger shadow economy. Others, such as Johnson, Kaufmann, and Zoido-Lobaton (1998), argue that the quality of regulatory enforcement is a key factor. The overall causal link here is pretty straightforward: actors tend to minimize the transaction costs created by ill-defined policies and regulations and tend to move into the gray area.

The third variable from the literature related to the institutional parameters is linked to the quality of public services. There is a vicious circle herein: public services are financed from taxes, so, the larger the share of the shadow economy, the more limited the state's ability to provide high-quality services. Likewise, the weaker the ability of the state to provide decent services, the weaker the incentive for the actors to support it via the official economy. What matters here is both the quality and the accessibility of those services. As Johnson, Kaufmann, and Zoido-Lobaton (1998) demonstrate, better situations with shadow economies appear in countries with higher tax revenues achieved by lower tax rates, fewer laws and regulations, and less corruption.

Whereas the said variables stand to explain the institutional foundations in stable industrial economies, they are rather insufficient in explaining shadow economies in the transformative cases.

After outlining the most important institutional factors, the layer of actors' perceptions can be discussed.

Micro-Level Drivers: Lessons from Belarus

According to the 2015 population survey, one of the drivers of the shadow economy (the main reason to purchase goods or services from illegal providers or legal providers who do not declare their income) is the perception that the legal purchase of the same goods is too costly (54% of respondents indicated this as the main reason for illegal purchases). Clothes are the most popular category

of goods bought during unregistered purchases (46%). Thus, price decreases and income increases can lead to a reduction of illegal purchases.

The same goes for illegal work. The main reason why people work illegally without a legal employment contract or receive part of their wage as an "envelope wage" is higher wages from undeclared labour, given high taxes on labour (65% of respondents see this as the main reason for illegal employment). Two drivers stand out. The first one is a low salary level (in the perception of the respondents). The second one is a high tax rate (in the case of Belarus the most important part is social security contributions, as 34% of an employee's wage is paid by the employer to the Population Social Security Fund).

There is also a structural difference that is relevant in terms of the shadow economy. Working in the shadow economy is more typical for less socially protected groups with lower income (young people and women); working without a legal job contract when the entire wage is paid as an envelope wage is more often justified by residents of rural areas. This makes the phenomenon more socially dangerous. As the study shows, working in the shadow economy is more typical for younger people. One can suppose that the practice of working in the shadow economy will spread together with the maturation of the younger cohort. But it is less common for younger people to buy goods or services illegally, so it can be assumed that this practice will contract as the generation matures.

The second factor behind purchasing goods or services from illegal providers or legal providers who do not declare their income is that people do not know that providers are illegal or do not declare their income. Women more often think that people do not know that providers are illegal or do not declare their income. The attitudes towards punishment differ in younger age groups. This cannot be attributed to their wider experience of shadow activities. Different education and information sources might be at work here.

It is important that more economic active and experienced people (males and higher income people) tend to underestimate the likelihood of detection. It is a factor increasing the risk of the shadow economy because these social groups can be opinion leaders.

An important driver of the shadow economy is a rather high level of justification of undeclared economic practices. According to the study, 40% of respondents justify or tend to justify working illegally, while 38% justify illegal purchases. Working

with a legal job contract when part of the wage is paid as an “envelope wage” is justified by half of the population (51%).

The likelihood of detection while working without a legal employment contract or getting at least part of the wage as an “envelope wage” is considered to be low for half of the respondents. A similar proportion (53%) see the likelihood of being detected for purchasing a good or service from an illegal source that is not registered and does not pay taxes as low.

Perceptions of the severity of the punishment for working without a legal job contract or getting at least part of the wage as an “envelope wage” are very similar to the perceptions of the likelihood of detection. The share of people who think that the punishment would be mild (quite mild or very mild) is almost the same, 46%. The evaluation of the severity of punishment for purchasing a good or service from an illegal source that is not registered and does not declare incomes is very similar to the perceptions of the likelihood of detection too. The share of people who think it would be mild (quite mild or very mild) is 54%.

Previous experience of shadow activities can be an important driver that influences the spread of the shadow economy as it may change the perception of punishment and the attitudes towards shadow practices per se. In general, people perceive the likelihood of detection of shadow activity as low. In the case of the shadow labor market, the most important factor influencing the perception of the likelihood of detection is own experience of undeclared work. Most people who have such experience perceive the likelihood of detection as low (64% see it as quite low or very low), while those who have no such experience evaluate the likelihood as low more rarely (50% consider it quite low or very low). Finally, those who have the experience of illegal purchasing consider the likelihood of detection as low more often (57%) than those who have no such experience (51%).

The fact that only 13% have bought alcoholic beverages illegally can explain a low level of tolerance of such shadow activities as illegal production or sales of cigarettes, alcohol products and fuel. Other practices that embrace wider experiences in the shadow economy see more justification. Thus, people who are engaged in the shadow economy tend to consider the likelihood of detection to be lower and they tend to justify undeclared practices to a greater degree. Consequently, such people face fewer barriers in terms of involvement in the shadow economy.

2.7. Lithuania

By Julija Simionenko-Kovacs

As noted by Schneider and Williams, understanding the main determinants of the shadow economy is crucial as this knowledge informs policy for dealing with the problem. The main reasons of the shadow economy are related to the level of taxes, regulation, public institutions, and deterrence.

Drivers of unregistered purchases

The 2015 population survey shows that the main reason behind unregistered purchases is the fact that goods and services are too expensive on the legal market. Other common reasons include not knowing that the seller is illegal and the fact that while some goods and services are easily available illegally, it is difficult to find particular goods or services from legal sellers.

Goods and services are too expensive

At first glance it might seem that prices of goods and services in Lithuania are rather low compared to other EU countries. As a matter of fact, the European Commission’s data and Eurostat calculations (European Commission, 2015) show that the basic outgoings on food, housing and transport are the lowest in the Baltic States. Yet, this is only half the story. More research reveals that the average monthly expenses on basic goods or services account for almost half of the average household income. For the optimum food basket (as compiled by dieticians), transport and housing, a four-member family in Vilnius spends an average of 518 euros per month, which is around 44% of their income.

The situation is even worse for those who earn the minimum wage. The Statistics Lithuania data on the average consumption expenditure per household member show that the expenditure on food, housing and transportation accounts for 53% of the monthly minimum wage.

As a matter of fact, Lithuanian affordability of goods or services is one of the lowest in EU. The rankings of EU countries based on the size of their Local Purchasing Power Index (Numbeo, 2015) reveal that the only two countries that have a lower purchasing power in the European Union are its newest members, Romania and Bulgaria.

With such income and price levels people find an opportunity to get cheaper goods or services cheaper on the illegal market quite tempting.

Excise goods among highly priced products

The fact that a high price is one of the primary causes of the shadow economy can also be illustrated through analysis of highly taxed items. A good example would be goods that are subject to excise taxes, which usually include fuel, alcohol and tobacco products.

In Lithuania excise taxes account for almost one fifth of the annual government budget. The size of a certain excise tax can reach up to 68% of the final value of a good. With additional 17% VAT, the price of a good on the black market can be 14 to 15% of the official retail price. High excise duties, in combination with low income, result in the fact that Lithuanian affordability of such items is among the lowest in the entire EU.

Such gaps thus provide opportunity for highly profitable shadow activities, especially since prices of the aforesaid goods are considerably lower in some of the neighbouring countries such as Russia, Belarus or Ukraine.

Drivers of undeclared labour

Respondents of the survey were asked to identify the main reasons why they thought people engaged in the shadow labour market. The majority of participants stated that the main reason for

shadow employment was high taxes on labour, which made legal income much lower than that earned on the legal market.

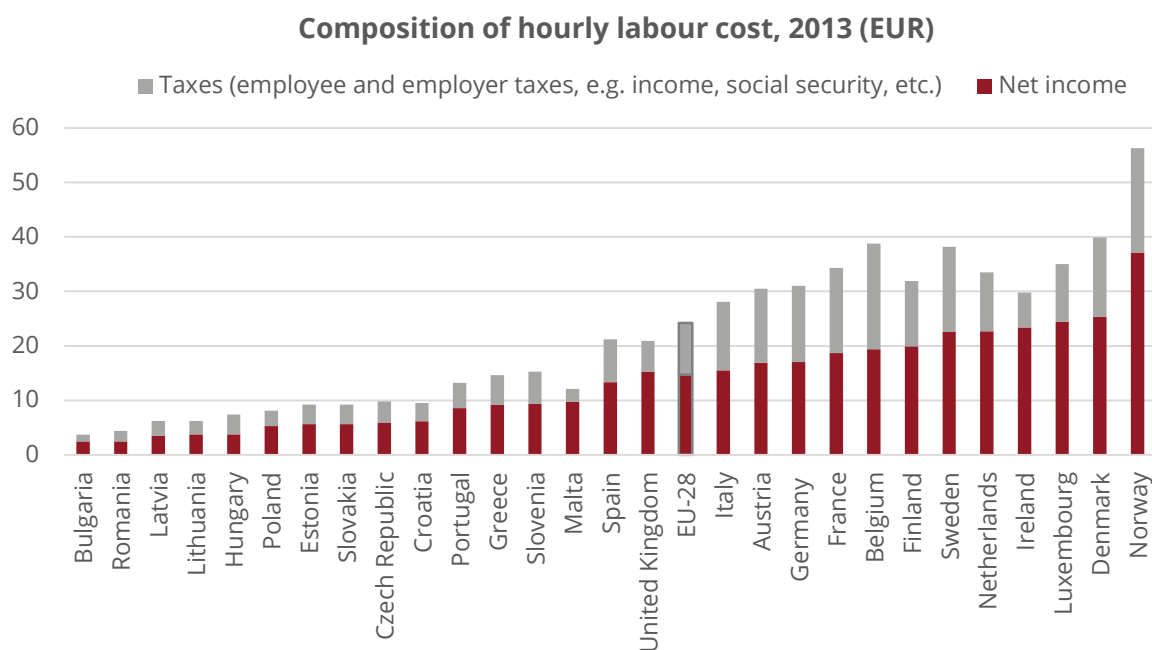
In addition, survey participants noted that a fear of losing social benefits, dissatisfaction with country's government, employers insisting on paying undeclared wages, and too much bureaucracy and regulations were among other causes of undeclared labour.

Low income and high taxes

While at first glance it might appear that legal wages and tax rates in Lithuania are reasonable, the actual tax burden in the country is higher than the EU average. High labour costs leave the net income for workers very low compared to other countries, and therefore incentivize greater participation in the shadow economy.

If one considers the personal income tax rate alone, then with a 15% rate Lithuania might appear to the lowest income taxation in EU. However, there are also hidden labour costs that do not explicitly appear on the paycheck. These are 6% compulsory monthly health insurance contributions, 3% compulsory health insurance and 30.98% social security contributions paid by employers. In addition, the employer also pays a 0.2% tax to the Guarantee Fund.

Figure 34



Source: Eurostat, Taxation trends in the European Union (Eurostat Statistical Books, 2014).

High labour taxation, together with the country's relatively low labour productivity, translates into one of the lowest wages in the EU. The actual hourly wage in Lithuania is only 3.8 euros. This is four times less than the EU-28 net wage average! Lower net earnings are recorded only in Latvia, Romania and Bulgaria.

The role of social benefits in the shadow economy

The size of the shadow economy is also highly dependent on the size of social benefits, which are usually subject to unemployment conditions. For instance, people can receive unemployment or maternity benefits only while they remain unemployed. Therefore, people are tempted to engage in illegal practices in order to keep both sources of income, rather than just a legal wage.

The higher the compensation, the more willing people are to look for illegal sources of income in order to keep it. This trend is particularly noticeable when the difference between legal income and social benefits is small.

Even though in Lithuania unemployment benefits are calculated based on the size of insured income, the minimum and maximum size of insurance benefits and a person's income of three years before the job loss, the change in the size of compensations has been showing a positive trend over the years. Furthermore, the average size of unemployment benefits also appears to be close to the size of the minimum wage set by the Lithuanian government.

Public services and shadow economy

There is a considerable amount of literature and research that suggests that the efficiency of the public sector has an effect on the size of the shadow economy as it affects tax morale. Taxpayers are more inclined to pay their taxes honestly if they get proper public services in exchange.

This assumption is also confirmed by the survey results on participants' satisfaction with the Lithuanian government. The average rate of satisfaction with the government appears to be rather low, 4.81. It is therefore not surprising that people

who do not see any point in paying taxes engage in shadow activities as this is the most straightforward way to avoid paying taxes whose use they denounce.

Too much bureaucracy and labour regulation

Strict employment regulations reduce people's freedom to engage in contracts or agreements of their choice, therefore increasing the incentive to work beyond the Labour Code. According to the Lithuanian Free Market Institute's labour regulations flexibility report, in 2012 Lithuania was ranked only 127th out of 183 countries.

Complicated and costly employee redundancy creates preconditions for undeclared labour arrangements. Companies are tempted not to sign job contracts with new employees when they are not certain about their future, the scope of work, or the ability to maintain new jobs. This is particularly relevant in times of changing economic conditions when legal employment with excess redundancy requirements can easily be replaced by employment without a legal job contract.

The main reasons behind the shadow economy in Lithuania

The shadow economy is a complex phenomenon and it is usually driven by more than just one set of reasons. Some of the most popular drivers identified in popular literature are the burden of taxes and social security contributions, the intensity of regulation, the level of deterrence, and the quality of public sector services and institutions.

The dominance of different combinations of the aforementioned and other factors may differ across countries and various points in time. Therefore, it is very important to identify them precisely, as tackling the general causes of the shadow economy might not bring the desired results.

In order to see a long-term contraction of the shadow economy policies need to address the drivers that make people engage in shadow practices in the first place. Simply increasing punishments and detection might have a short-term effect, but it does not root out the problem.

3. Measures for combating the shadow economy

The shadow economy is an issue addressed by government institutions in almost all countries worldwide. Policies and measures designed to reduce it vary significantly depending on their philosophy, direction, scope and efficiency. In order to create a comprehensive strategy for fighting the shadow economy, one needs to be aware of different ways that might be pursued in this regard. The aim of this chapter is to classify and show the scope of such policies.

All the measures to combat the shadow economy may be divided into four categories:

1. reducing the primary causes of the shadow economy;
2. burdening the participation in shadow economy activities by increasing the risk and costs;
3. raising public awareness; and
4. increasing personal income and the standard of living.

Each of these categories is discussed below and their main advantages and disadvantages are outlined.

1) Reducing the primary causes of the shadow economy

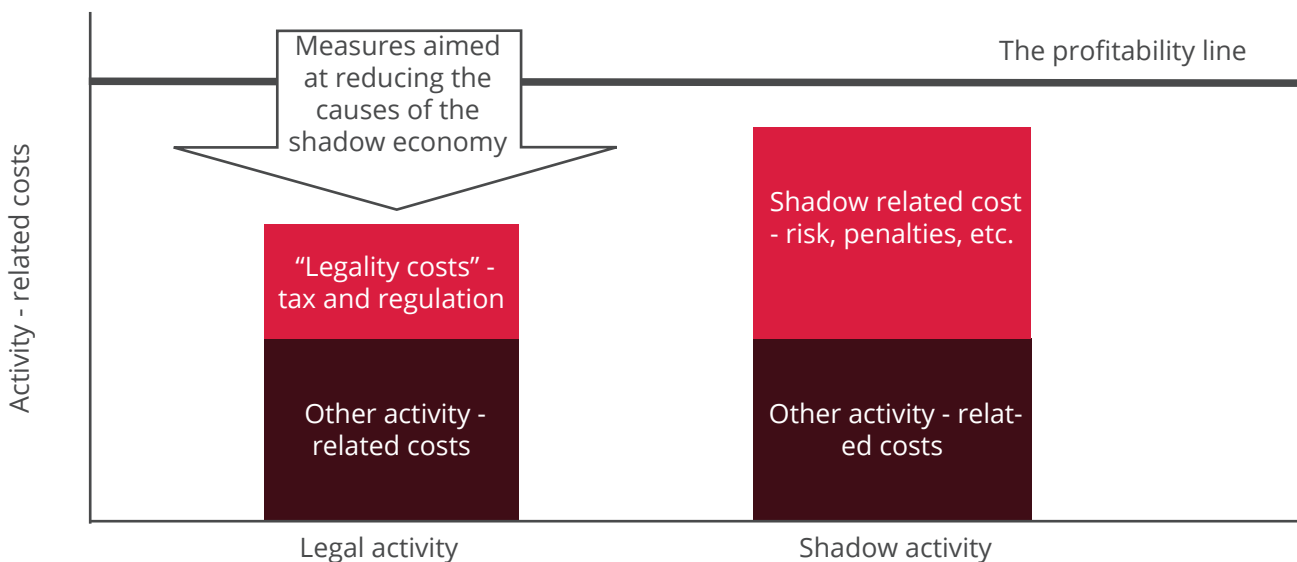
Since the motives of those engaged in undeclared and legal activities are the same, the structure of

illegal activities is similar to that of legal practices. Both are aimed at profiting and imply costs and income. The income and profitability of the shadow economy stems from its non-compliance with law.

Firstly, profit may be generated from incurring lower costs as compared to those related to legal activities (e.g., by avoiding certain taxes, requirements or mandatory standards), thus avoiding "legality costs." Secondly, profit is generated when legal goods or services are unavailable because they are prohibited (e.g., drug trafficking, prostitution, etc.). In this case, illegal income and profit are generated from engaging in certain activities prohibited by law.

Both cases show that the potential of illegal activities is consistent with restrictions on legal activities (taxation or regulation): the more activities are restricted or even prohibited, the greater the potential for shadow economy activities (keeping other conditions constant). Therefore, the shadow economy may be reduced by diminishing its economic motive (profit) by means of decreasing taxation and regulation of legal activities as well as removing prohibitions to engage in certain activities, thereby making transparent activities more attractive.

Figure 35: Measures aimed at reducing the causes of the shadow economy



“Mini Jobs”

In April 2003 Germany enforced a new set of rules called “mini jobs.” These rules apply to part-time employees who earn up to €450 per month or those working up to two months per year. Such employees are exempt from social security contributions (compulsory health, pensions and unemployment insurance), while their employers pay reduced contributions as well. These rules are aimed at decreasing the scope of illegal employment by means of enhancing legal employment possibilities. According to Friedrich Schneider, the “mini jobs” reform resulted in a significant decrease in illegal employment in 2004 and 2005 which equals approximately €9 billion¹.

¹ <http://www.eurofound.europa.eu/areas/labormarket/tackling/cases/de016.htm>

Reducing labour taxation in the EU

According to the European Commission, the biggest reduction in the taxation of labour from 2003 to 2012 was recorded in Holland, Cyprus, Sweden, and Slovenia (from 5 to 7% per person earning two thirds of the average wage). In the same period, the shadow employment level decreased in all four countries too.

	Reduction in the taxation of labour from 2003 to 2012, %	Reduction in shadow employment levels from 2003 to 2012, %
Holland	6.9	3.2
Cyprus	6.7	3.1
Sweden	6.3	4.3
Slovenia	5.0	3.1
Slovakia	3.9	2.9

There are two types of measures aimed at reducing the primary causes of the shadow economy. Firstly, they may be aimed at improving the conditions of economic activity for all market participants by means of:

- reducing taxation (taxation on labour, excise duties, VAT and other taxes influencing the emergence of the shadow economy market);
- reducing the regulatory burden on economic activities that impact the shadow economy (e.g., decreasing the minimum wage, relaxing the stringency of labour regulations and requirements for fixed-term employment contracts, as well as the costs of terminating employment contracts);
- introducing legal and easy-to-access forms of economic activity, e.g., by making it possible to formalise minor economic activities (the absence of such an opportunity is frequently an incentive to remain in the shadow economy);
- facilitating the return to the legal labour market and self-employment opportunities for the unemployed (e.g., by gradually decreasing, rather than immediately cutting, the provision of social allowances); and
- establishing uniform rules of tax administration that would ensure minimum standards (including the stability of the tax and administrative burden) and a commitment to preventing tax increases at the international level.

The first category of measures to combat the shadow economy is targeted at its causes. In this case, the taxation and regulation of legal economic activities are reduced in order to increase the at-

tractiveness of transparent activities and decrease the incentives to engage in illegal activities.

Secondly, measures may be designed to reduce the primary causes of the shadow economy by means of selectively improving conditions for certain economic activities where the improvement is most needed as their taxation and regulation are the major contributors to the shadow economy.

Examples of such measures include:

- targeted direct tax advantages (tax deductions of the personal income tax or other taxes applied when purchasing certain goods and services legally, with a possibility of establishing a maximum deductible amount);
- a decrease in VAT and other indirect taxes applicable to individual sectors (aimed at increasing accessibility of certain goods and services in a particular sector by reducing their prices);
- a selective decrease in the taxation of labour in individual sectors (for those with lower wages, young market participants and newly established jobs, as well as for the first year or another temporary period of employment);
- an amnesty for the whole market, particular sectors or enterprises. An individual amnesty applies when an enterprise voluntarily admits having paid wages illegally or engaged in other shadow economy activities (a timeframe is given to legitimise in order to ease or avoid the sanctions); and
- advice to illegally acting enterprises on legalisation of their activities.

However, it must be borne in mind that a selective improvement of the conditions for certain economic activities aimed at combating the shadow economy may distort conditions of competition as well as increase the possibilities for corruption. Therefore, better conditions for all market participants should be the priority.

There are significant advantages of such measures:

- Empirical research suggests a significant effect on reducing the causes of the shadow economy;
- It is relatively easy to identify which taxes or regulations create incentives to engage in shadow economy activities;
- Deregulation and the abolishment of prohibitions on economic activities do not entail budgetary expenditure;
- A reduction in taxation and deregulation contribute to economic growth;

- An opportunity to repeal unjustified and ineffective regulation and reduce over-taxation on certain activities.

The disadvantages of such measures are as follows:

- A reduction in taxation and deregulation implies a refusal of other objectives of those measures (e.g., to reduce the accessibility to goods and services);
- A reduction or the elimination of taxation is often thought to imply a loss of budgetary revenue. However, this is not always the case in practice, because a reduction in taxation may result in revenue increases from the surge and legalisation of economic activity (the Laffer Curve effect);
- The legalisation of certain activities associated with the shadow economy is not acceptable to the society.

E-government in Estonia

The burden of bureaucracy is often cited as one reason for engaging in the shadow economy. The more specific reasons can vary from the lengthy process of registering a company to a complicated tax law and the procedure of declaring taxes. The efficiency of the public sector is also a more general hot topic for a small country like Estonia.

To combat the growing administrative burden that comes with statistics- and data-oriented public management, Estonia has introduced a wide range of e-services in the past decade. From the economic and entrepreneurial viewpoint the most impactful services include:

- an electronic system for declaring taxes;
- a quick and easy to an online system for registering a business; and
- electronic identification that can be used for signing documents and communicating with public offices.

In addition, there is also ongoing development for connecting various public and official databases in order to provide prefilled forms for applications, public data requests, etc. As a result of investing in e-services the Estonian bureaucracy has become more streamlined, and entrepreneurs and consumers alike are more satisfied with the access to, and quality of, public services. The time saved with moving from paper forms to electronic systems has been estimated to be tenfold for a single person. Electronic systems have also lowered the number of errors that occur in various forms and declarations, hence lowering the burden for those who follow the letter of the law. This has also made it possible to cut the operational costs of various public offices (Helm, 2012; Kalvet, Tiits, Hinsberg, 2013).

Policy actions for fighting the shadow economy in Latvia

Data from 2011 and 2012 support the notion that comprehensive, large scale efforts to combat the shadow economy can make a difference and reduce the size of the shadow economy. In exchange for financial assistance during the crisis, the Latvian government undertook over 60 different policy actions to combat the informal economy between 2010 and 2013, with most of the reforms front-loaded, i.e., taking effect in 2010 and 2011. Our estimates of the size of the Latvian shadow economy in previous years are consistent with the notion that the deliberate policy efforts aimed at reducing shadow sector activity were indeed successful. Latvia experienced a large decline in the size of the shadow economy from a record high of 38% of GDP in 2010 down to 21% in 2012. However, following the completion of this substantial package of policy actions, Latvian policy initiatives targeting the shadow economy have substantially subsided. The reduced regulatory/policy effort is likely to have contributed to the ending of the consecutive contractions in the size of the Latvian shadow economy and serves as a strong signal that reducing the shadow economy requires continued attention from policymakers and enforcement agencies such as the State Revenue Service.

2) Obstructing participation in shadow economy activities by increasing the risk and costs

Although the profitability of illegal activities stems from restrictions on economic activity, it is also influenced by operational costs. In addition to regular operational costs, there is also specific shadow economy activity-related expenditure which includes fines, confiscation of goods, losses related to the absence of the possibility to employ legal mechanisms to ensure the execution of contracts, bribes to avoid liability, etc.

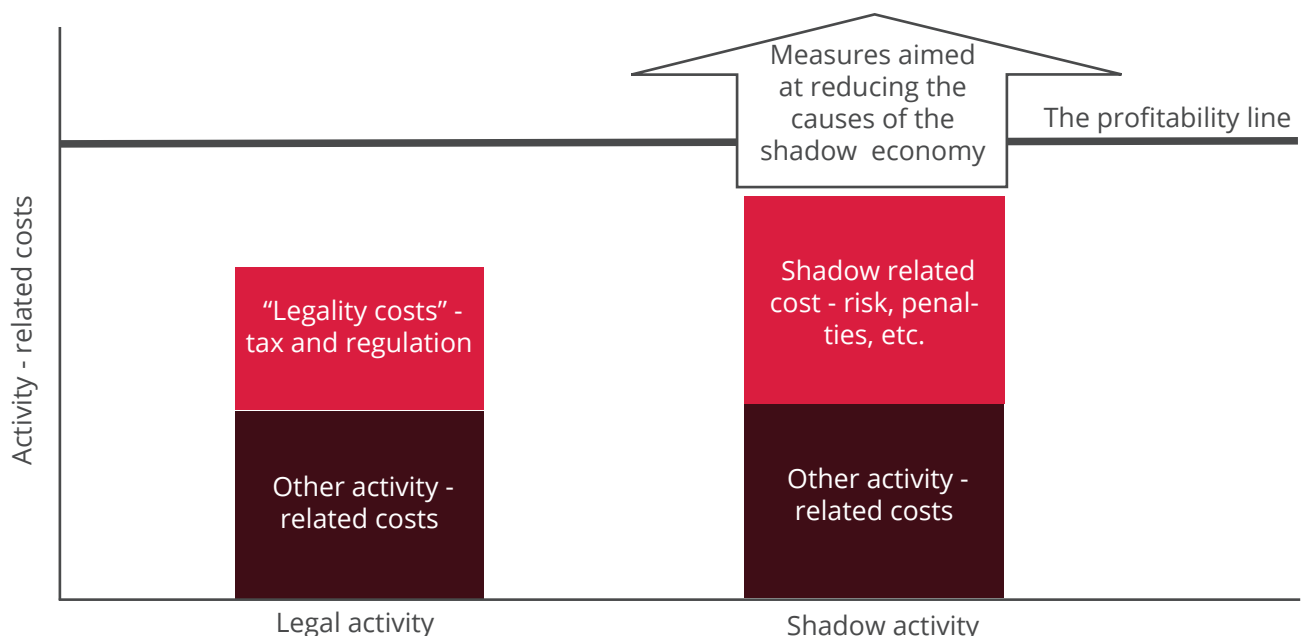
The fight against the shadow economy may embrace a number of measures aimed at increasing operational costs. Such solutions include strengthening and increasing the efficiency of the institutions combating the shadow economy, the provision of more severe penalties for engaging in illegal activities, a proactive identification of potential irregularities, and the implementation of

anti-corruption measures in state institutions that would decrease the possibility of bribing state officials in order to avoid liability.

Indeed, the majority of the aforementioned measures to combat the shadow economy, in both practice and literature, belong to the second category which is aimed at burdening the participation in shadow economy activities by increasing the risk and costs. These measures may be subdivided further, but their common feature is that they are aimed at increasing the efficiency of the fight against existing illegal activities by increasing the risk and costs, rather than reducing their causes.

The second category of measures to combat the shadow economy is aimed at increasing the risk and costs of engaging in shadow economy activities. In this case, the aim is to reduce the incentives to engage in the shadow economy as well as to make it unprofitable.

Figure 36: Measures aimed at tighter control and more severe punishment



- **Monetary and non-monetary penalties** (e.g., monetary fines, prohibitions for participation in public procurement, confiscation of detained goods, etc.)
- **Additional regulation and restrictions on economic activity** (e.g., restrictions on cash payments, the reverse charge principle applied to VAT in particular sectors, monitoring of social allowance recipients for illegal employment, linking pensions and other public benefits with a person's state of employment, stricter accounting requirements of employees, etc.)
- **Operational coordination of the authorities, data dissemination and cooperation** (e.g., the exchange of information between law enforcement authorities, cooperation with foreign institutions, the exchange of information regarding the number of employees, wages, taxes paid, and workload between state institutions, strategic coordination between public institutions engaged in the fight against the shadow economy, etc.)
- **More effective identification** (e.g., the identification of risky business operators by means of analysing available data [a comparison of the real and declared income as well as the consistency of, for example, electricity consumption and the amount of production declared], the collection, accumulation and evaluation of data regarding legally sold production, better labelling [excise stamps, for example] of legal goods, etc.)
- **Utilisation of information technology (IT) and other equipment** (e.g., the improvement of tax administration and monitoring the movement of goods by employing IT, electronic cash registers, cash registers with a "black box", etc.)

When addressing measures to combat the shadow economy designed to burden the participation in illegal activities by increasing the risk and costs, it is of vital importance to take into account their relationship with the measures of the first category (aimed at reducing the primary causes of the shadow economy). It is therefore important, besides estimating the costs of such measures and their influence on the risk of engaging in the shadow economy, to keep in mind that such measures frequently pose a significant additional administrative and regulatory burden on legally acting people and enterprises.

For example, although cash payment restrictions are regarded as a means of burdening shadow

economy activities, they do not come without additional expenditure for legally working people and enterprises. Therefore, measures that provide a disproportionate burden on legitimate market players should not be implemented. If applied, they would create a vicious circle because the shadow economy, created by restrictions on economic activity, cannot be reduced by introducing additional limitations.

There are two major advantages of such measures:

- some are free of charge in the initial stages of implementation (e.g., increasing fines); and
- compared to the first category, some are more politically attractive as they do not imply the rejection of other objectives of the regulation and a loss of budgetary revenue.

The disadvantages of such measures include the following:

- research shows that the second category is less effective compared to the first one;
- measures are frequently associated with an increase in public spending (e.g., an increase in the effectiveness of state institutions is usually extremely costly);
- measures may be detrimental to transparent market participants and pose additional administrative and regulatory burdens (tighter controls also affect legal market participants);
- tighter control of legislation without the support of society which does not see the requirements as justified may result in the opposite effect – a deteriorating view on the legal framework and compliance with the law.

3) Raising public awareness

People's engagement in the shadow economy depends on their attitude towards it. The more favourable the attitude is, the stronger the incentives to engage in shadow economy activities are (other conditions being constant). This category of the measures to combat the shadow economy is aimed at diminishing people's tolerance for illegal activities. This may be achieved by raising public awareness about the negative effects of the shadow economy (e.g., a decrease in budgetary revenue) and the risks related to the engagement in the shadow economy (e.g., fines or faulty goods and services).

Another way of raising public awareness is by showing the relationship between the state revenue and public services. Normally, these measures

include a variety of publicity campaigns aimed at youth, as well as people or enterprises involved in the shadow labour market. Such campaigns are generally focused on:

- risks and damages related to the shadow economy;
- the benefits of engaging in legal activities;
- the ways of legalising shadow economy activities;
- the ways in which people's actions can reduce the shadow economy (by demanding a receipt for purchases, etc.);
- raising the awareness about the objectives of the tax and regulatory framework;
- informing about increasing quality of public services;
- the identification and publicity of legal and transparent businesses;
- raising awareness about the legal framework, its requirements and structure, and the elements of justice.

The advantages of such measures are twofold:

- public attitudes towards the shadow economy have a strong impact on people's engagement in the shadow economy;
 - a positive way which does not pose any additional burden on legal market players.
- And the disadvantages are as follows:
- shaping public attitudes is difficult, costly and time-consuming; and
 - given a low standard of living, the impact of educational measures is very limited.

4) Increasing personal income and the standard of living

A country's economic situation affects the size of its shadow economy too. Depending on the level of economic development, labour productivity and average income, and the same amount of tax and regulation may have a different impact on the shadow economy in different countries.

Taxes and regulations will create fewer incentives to engage in illegal activities in economically strong countries with a high standard of living and higher income. Therefore, measures designed to improve the economic situation and increase the standard of living are effective means of combating the shadow economy. In order to reduce the shadow economy by employing these measures, it is of primary importance to consider solutions that would create the most favourable conditions for the development of economic activity as well as the growth of investment, labour productivity

and income.

Therefore, this category consists of economic policy responses aimed at ensuring the conditions for accelerated growth of the country's economy:

- a low tax burden;
- a low and stable regulation of economic activity;
- a stable monetary and a responsible fiscal policy;
- the implementation of reforms necessary for achieving economic growth.

By their nature and content these measures are similar to the first category aimed at reducing the primary causes of the shadow economy. However, these categories may be distinguished on the basis of two aspects.

Firstly, the measures of the fourth category are aimed at a long-term reduction of the shadow economy (it takes time to increase income and the standard of living). Secondly, the measures of the first category are aimed at those taxes and regulations that create incentives to engage in illegal activities while the measures of the fourth category are focused on increasing economic growth and the income level. Therefore, although the measures of the first and fourth categories may overlap, in addition to the former, the latter also covers the measures indirectly related to the shadow economy, but effective in increasing the growth prospects of a country (e.g., structural reforms).

The advantages of such measures are as follows:

- they are aimed at both reducing the size of the shadow economy and improving the economic situation of the country.

The disadvantages of such measures are:

- the improvement of the country's economic situation and the growth of income are long-term processes. Economic policy is only capable of formulating the conditions and establishing the foundations for a sustainable growth of a country's economy.

To summarise, all of the measures to combat the shadow economy can be divided into four categories:

- 1) **Reducing the primary causes of the shadow economy.** The more legal activities are restricted or even prohibited, the greater the potential for shadow activities. Therefore, the shadow economy may be reduced by diminishing its economic motive (profit) by means of decreasing taxation and regulation of legal activities as well as removing prohibitions to engage

in certain activities, thereby making transparent activities more attractive.

2) **Burdening the participation in shadow economy activities by increasing the risk and costs.** This category includes measures to combat the shadow economy aimed at increasing the risk and costs of engaging in shadow economy activities.

3) **Raising public awareness.** People's engagement in the shadow economy depends on their attitude towards it. The more favourable the attitude is, the stronger the incentives to engage in shadow economy activities are. This category of measures is aimed at diminishing people's tolerance for illegal activities. These measures include a variety of publicity campaigns aimed at youth, as well as people or enterprises involved in the shadow labor market.

4) **Increasing personal income and the standard of living.** Taxes and regulations will create fewer incentives to engage in illegal activities in economically strong countries with a high stan-

dard of living and higher income. Therefore, this category consists of economic policy measures aimed at ensuring the conditions for accelerated growth of the country's economy.

The overview of factors behind the shadow economy (chapter 2.1.) suggests that the tax rate and the amount of social security contributions are the key factors influencing the shadow economy. The second major factor is tax morality. The quality of public institutions and labour market regulation come third and fourth respectively.

Conclusions

Survey of the shadow economy

- The extent of the shadow economic activities and public attitudes towards the shadow economy vary in Lithuania, Latvia, Estonia, Poland, Sweden, and Belarus. The likelihood of being detected both working in the shadow labour market and engaging in unregistered purchases is generally perceived as low rather than high in all countries. The majority of survey respondents do not justify any kind of shadow activity. Yet, a significant proportion of people do, and working with a legal job contract when part of the wage is paid as an “envelope wage” is the most justified activity.
- Public perceptions of the reasons behind shadow economic activities are similar in all the countries under analysis. Most respondents in all of the countries consider high costs of legal goods and services to be the main reason for engaging in unregistered purchases. High payroll taxes are seen as the key driver of undeclared labour, followed by dissatisfaction with government services.
- People in Lithuania appear to have the most experience when it comes to purchases from legal sellers who do not report their income (63% of respondents have such experiences), while people in Latvia are the most experienced with buying from illegal sellers (45%). Respondents in Sweden have the least experience in both cases (21% and 12% respectively). Overall, people in all of the surveyed countries have less experience with purchases from illegal providers than with purchases from legal sources when the income is not registered.
- The levels of shadow employment differ significantly across countries. Latvia has the highest share of respondents who have friends or relatives working in the shadow labour market (36%). Sweden has the lowest proportion of such population (8%). In most of the countries the majority of friends or relatives reportedly work legally but receive part of their wages under the table. In Sweden, most relatives and

friends with shadow employment experience work illegally and receive the entire wage as an “envelope wage.”

Drivers of the shadow economy

- The incentive to engage in illegal activities always arises from taxation and regulatory restrictions on legal activities. Therefore, the shadow economy is caused by the restriction of economic activities: there can be no shadow economy without restriction.
- There are always other factors that determine to what extent high taxation and burdensome regulation of economic activity influence the shadow economy. By their nature, these factors can be economic (e.g., the standard of living or a country’s economic situation), social (e.g., public tolerance of the shadow economy), legal (e.g., laws regulating the activities of the institutions combatting the shadow economy) or other.
- **Latvia.** Participation in shadow economy activities in Latvia seems to be driven by public perceptions of the likelihood of being detected and punished for such practices. Many respondents do not consider punishment for illegal work or “envelope wages” to be severe. Shadow activities also tend to be justified by the society. A strong dissatisfaction with the tax system and the government, in particular with public spending, is likely to be one of the main factors behind the country’s shadow economy. Fairly administered and non-corrupt tax collection is associated with higher tax morale. Tax avoidance for the purpose of optimizing expenses and thus increasing the competitive advantage seems to be a rather common pattern in all three Baltic countries.
- **Estonia.** The main reason why people and businesses use envelope wages is the high tax burden on labour. The tax burden on labour is still considered to be relatively high even with respect to wealthier countries. Revising minimum wage policies and labor legislation could offer a solution and would open up a legal labour mar-

ket for people not yet in occupation, especially young people/students. Some employees deliberately ask for envelope wages in order to hide their income from public institutions and to avoid certain liabilities, such as debt repayment and child support and alimonies, or to keep their unemployment benefits. As dissatisfaction with the government does provide incentives for shadow practices, it is advisable to provide more access to private markets while limiting the burden of the government. Research shows that decisions about unrecorded purchases are closely related to people's relative wealth and the prices of legal goods. Harsh punishments for shadow activities are likely to be superfluous and not supportive of public satisfaction with the government.

- **Lithuania.** The main reason behind unregistered purchases in Lithuania is the perception that goods and services are too expensive on the legal market. At first glance it might seem that prices of goods and services in Lithuania are rather low compared to other EU countries. Yet, average monthly expenses on basic goods or services account for almost half of the average household income. With such income and price levels people find opportunities to get cheaper goods or services on the illegal market quite tempting. High excise duties, in combination with low income, result in one of the lowest levels of affordability in the entire EU. Also, it might appear that legal wages and tax rates in Lithuania are reasonable, but the actual tax burden in the country is higher than the EU average. High labour costs leave the net income of workers very low compared to other countries, and this incentivizes greater participation in the shadow economy. High labour taxation, together with the country's relatively low labour productivity, translates into one of the lowest wages in the EU.

- **Poland.** Tax wedge is the most obvious driver of shadow employment in Poland, but noticeably its impact is not linear. Low-income earners are more likely to work in the shadow economy. Thus, lowering the tax wedge for this particular group could lead to a reduction of shadow employment. Poorly designed social protection schemes also create incentives to remain in the shadow economy. In Poland the bulk of support provided through the tax and benefit system is conditional on income with rigid thresholds. The complexity of tax regulation in Poland is the single biggest obstacle reported by business, so avoiding tax regulations can be an important benefit from staying in

the shadow. The results of twelve different surveys concerning major obstacles for businesses point to the complexity of the tax code, not tax rates, as the biggest problem for enterprises in Poland. To a large extent taxes are responsible for the fact that administrative costs in Poland are much higher than on average in other countries. The tax system in Poland is not only complicated, but also unstable. Every tax law and the general tax code are amended, on average, at least a few times a year.

- **Sweden.** Taxes are the most important driver of the shadow economy in Sweden, and their impact is the most pronounced in sectors where evading taxes is more entrenched because of more prevalent self-reporting of income, such as construction and renovation, catering and hotel services, housework and auto repair. High tax rates on, and consequently high prices of, certain products, such as alcoholic beverages and cigarettes, seem to be the most evident driving factor behind unregistered purchases in Sweden. Taxes charged on alcohol and tobacco should therefore be calibrated not to increase smuggling and illegal sales. Another factor behind the widespread prevalence of undeclared alcohol purchases is fairly strict regulation applicable to the sale of alcohol. Previous experience with some deregulation shows it to be quite impactful in addressing unregistered consumption of alcohol. Extensive bureaucracy and overly stringent labour market regulation also play a role in driving shadow employment. Employers see these factors as serious impediments for firms to grow, and it is likely that the desire to circumvent them is a key factor behind the shadow economy in Sweden. High minimum wages as set within the collective bargaining system have led to unemployment being concentrated among people with low education and/or little experience, potentially pushing such people to pursue lower-income jobs in the shadow economy. Reducing minimum wages and simplifying employment regulation might thus be a way to lower the level of undeclared labour within this segment. Negative perceptions of the government also seem to be conducive to incentivizing shadow practices. Finally, a perceived risk of detection does not counter the shadow economy in Sweden, so strengthening control is not likely to produce a major effect.

- **Belarus.** The main reason why people make unregistered purchases in Belarus is the perception that legally sold products are too costly. In this context price decreases and the

growth in the level of income can lead to a reduction of the scope of illegal purchases. Policy should therefore be tailored to ensure better conditions for accelerating the growth of the country's economy and creating better conditions for economic activity, investment and increased labour productivity. Low salary levels and high payroll taxes are found to be the key factors influencing the extent of undeclared labour, where envelop wages seem to typically constitute the entire wage. Working in the shadow economy is more typical for less socially protected groups with lower income, young people, and rural dwellers. Finally, an important driver of the shadow economy is a rather high level of justification of undeclared economic practices.

licity campaigns targeting youth as well as people or enterprises involved in the shadow labor market.

- **Increasing personal income and the standard of living.** Taxes and regulations will create fewer incentives to engage in illegal activities in economically strong countries with a high standard of living and higher income. Therefore, this category consists of economic policy measures aimed at ensuring conditions for accelerating a country's economic growth.

Strategies to fight shadow economy

The fight against the shadow economy is the most effective not when shadow economy activities are completely eradicated, but when they are transferred from the undeclared domain to the formal sector. In order to do that, one should consider what the legal environment for carrying out economic activities. Therefore, the primary way to curb the shadow economy is by creating a favourable legal environment for legal activities is.

The measures to combat the shadow economy can be divided into four categories (below). Effective strategies to fight shadow economy must not be concentrated only on one category of measures.

- **Reducing the primary causes of the shadow economy.** The more legal activities are restricted or even prohibited, the greater the potential for shadow activities. The shadow economy may be combatted by diminishing its economic motive (profit) through tax reduction and deregulation of legal activities as well as removing prohibitions to engage in certain activities and thus incentivizing transparent practices.

- **Burdening participation in the shadow economy by increasing the risk and costs.** This category includes measures to combat the shadow economy designed to increase the risk and costs of engaging in unregistered activities.

- **Raising public awareness. People's engagement in the shadow economy depends on their attitudes towards it.** The more favourable the attitude is, the stronger the incentives to engage in shadow practices. This category of measures is aimed at diminishing people's tolerance of illegal activities. Solutions include a variety of pub-

References

- Allingham, M. G. and Sandmo, A. (1972), 'Income tax evasion: a theoretical analysis', *Journal of Public Economics*, 1(3): 323–38.
- Deloitte (2010), *Pomiar obciazen administracyjnych w przepisach prawa gospodarczego*, Deloitte Business Consulting S.A., Ministerstwo Gospodarki.
- Estonian Tax and Customs Board, (2015), *Maksumäärad 2015. aastal*. Retrieved from <http://www.emta.ee/index.php?id=35954>
- Feld, L. P. and Frey, B. S. (2007), 'Tax compliance as the result of a psychological tax contract: the role of incentives and responsive regulation', *Law and Policy*, 29(1): 102–20.
- Feld, L. P., and Larsen, C. (2005), *Black Activities in Germany in 2001 and in 2004. A comparison based on survey data . Study no. 12*. The Rockwool Foundation Research Unit
- Feld, L. P., and Schneider, F. (2011), *Survey on the shadow economy and undeclared work in OECD countries*. In F. Schneider (Ed.), *Handbook on the Shadow Economy* (pp. 78-131). Cheltenham, UK; Northampton, MA, USA: Edward Elgar Publishing.
- Friedman, E., Johnson, S., Kaufmann, D., and Zoido-Lobaton, P. (2000), 'Dodging the grabbing hand: the determinants of unofficial activity in 69 countries', *Journal of Public Economics*.
- Helm, M. (2012), *Halduskoormus – oht varimajandusele?*
- Johnson, S., Kaufmann, D. and A. Shleifer (1997), 'The unofficial economy in transition', *Brookings Papers on Economic Activity* no. 2, pp. 159–221.
- Johnson, S., Kaufmann, D., and P. Zoido-Lobaton, P. (1998a), 'Regulatory discretion and the unofficial economy', *American Economic Review, Papers and Proceedings*, 88(2): 387–92.
- Johnson, S., Kaufmann, D. and Zoido-Lobaton, P. (1998b), 'Corruption, public finances and the unofficial economy', *World Bank Policy Research Working Paper Series* no. 2169, Washington, DC: World Bank.
- Kalvet, T., Tiits, M., Hinsberg, H., (toimetajad) (2013), *E-teenuste kasutamise tulemuslikkus ja mõju*. Tallinn: Balti Uuringute Instituut ja Poliitikauuringute Keskus Praxis.
- Kanniainen, V., Pääkönen, J., and Schneider, F. (2004), 'Fiscal and ethical determinants of shadow economy: theory and evidence', *Discussion paper*, Department of Economics, Johannes Kepler University of Linz, Linz, Austria.
- Kleven, Jacobsen, H., Knudsen, M., B., Kreiner, C., T., Pedersen, S., and Saez, E., (2011), "Unwilling or Unable to Cheat? Evidence from a Tax Audit Experiment in Denmark." *Econometrica* 79(3), 651-692.
- Mickiewicz, T., Rebmann, A., Sauka, A., (2015), *To pay or not to pay. A neo-institutional framework to analyse business owners' tax morale*. Unpublished manuscript (early version of this paper is available at SSRN: <http://dx.doi.org/10.2139/ssrn.2041240>).

Myck, M., Kurowska, A., & Kundera, M., (2013), "Financial Support for Families with Children and its Trade-offs: Balancing Redistribution and Parental Work Incentives," IZA Discussion Papers 7506, Institute for the Study of Labor (IZA).

Numbeo, (2015), Cost of Living Index for Country 2015 Mid Year. Retrieved from http://www.numbeo.com/cost-of-living/rankings_by_country.jsp

OECD, (2015), Taxing Wages 2015. OECD Publishing, Paris. p. 556.

Pedersen, S. (2003). The Shadow Economy in Germany, Great Britain and Scandinavia. A measurement based on questionnaire surveys. Study no. 10. The Rockwool Foundation Research Unit.

Putnins, T., Sauka, A., (2015), Measuring the Shadow Economy Using Company Managers. Journal of Comparative Economics, 43(2), 471-490.

Sauka, A., (2011), Determinants of shadow economy in Latvia. Unpublished manuscript.

Schneider, F. and Williams, C., (2010), The Shadow Economy, The Institute of Economic Affairs.

Schneider, F. and Williams, C., (2013), The shadow economy, The Institute of Economic Affairs.

Skedinger, Per (2015), "Employment Effects of Union-Bargained Minimum Wages: Evidence from Sweden's Retail Sector". International Journal of Manpower 36(5), 694-710.

Swedish National Tax Agency (2015), En ren städbransch.

Swedish National Tax Agency (2014), Taxes in Sweden. A summary of the Tax Statistical Yearbook of Sweden, SKV 104.

Thornton, G., (2015), Urzedy zasypuja przedsiebiorców sterta formularzy: Badanie skali obowiazków sprawozdawczych polskich przedsiebiorstw wobec instytucji publicznych.

Torgler, B., F. Schneider (2009), The impact of tax morale and institutional quality on the shadow economy. Journal of Economic Psychology, 30(2), 228-245.

European Commission, (2015, September 8), Weekly Oil Bulletin. Retrieved from http://ec.europa.eu/energy/observatory/reports/latest_prices_with_taxes.pdf

Eurostat Statistics explained. (2014). Wages and labour costs. Retrieved from [http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Annual_net_earnings,_2014_\(EUR\)_YB15.png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Annual_net_earnings,_2014_(EUR)_YB15.png)

European Commission, (2015, November), Living and working conditions – Lithuania. Retrieved from <https://ec.europa.eu/eures/main.jsp?catId=8278&acro=living&lang=en&parentId=7786&countryId=LT&living=>

Eurostat, (2014), Average number of usual weekly hours of work in main job, by sex, professional status, full-time/part-time and occupation (hours). Retrieved from <http://ec.europa.eu/eurostat/data/database>

Eurostat, (2014), Gross domestic product, current prices. Retrieved from <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=teina010>

Eurostat, (2014), Population by educational attainment level, sex, age and labour status. Retrieved from <http://ec.europa.eu/eurostat/data/database>

Eurostat, (2014), Population on 1 January by age and sex. Retrieved from <http://ec.europa.eu/eurostat/data/database>

Eurostat Statistical Books, (2014), Taxation trends in the European Union. Retrieved from http://ec.europa.eu/taxation_customs/resources/documents/taxation/gen_info/economic_analysis/tax_structures/2014/report.pdf

Eurostat Statistics explained, (2014), Wages and labour costs. Retrieved from [http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Annual_net_earnings,_2014_\(EUR\)_YB15.png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Annual_net_earnings,_2014_(EUR)_YB15.png)

World Bank, (2015), Doing Business in Poland 2015, Washington, DC: World Bank.

European Commission, (2015, November 2), Weekly Oil Bulletin. Retrieved from http://ec.europa.eu/energy/observatory/reports/Oil_Bulletin_Duties_and_taxes.pdf

