

Reducing the Shadow Economy in Albania through Electronic Payments

*This study was commissioned by Mastercard
and was conducted independently by EY.*

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Executive Summary

The shadow economy and its consequences

- ▶ **The shadow economy (non-observed economy) is a complex phenomenon that can have various causes and consequences.** The European Commission defines the non-observed part of the economy as embracing: (1) hidden and underground activities where the transactions themselves are not against the law, but are unreported to avoid official scrutiny (e.g. an unreported part of revenues of a registered company to avoid taxation), (2) informal activities where typically no records are kept (e.g. unregistered street vendors) and (3) illegal activities where the parties are willing partners in economic transactions (e.g. drug selling). This definition may be treated as a benchmark also for countries outside the European Union. According to the OECD, the non-observed economy also includes (4) the household production of goods for own final use (e.g. home grown crops). Under the presented definitions, **the shadow economy may be understood as unreported economic activity of both unregistered and registered entities.**
- ▶ **A high level of the shadow economy has significant economic and social implications.** Its adverse effects include: a reduced tax base, lower quantity and/or quality of public goods, distortions in market competition, the degradation of economic institutions and social attitudes, and—through these channels—lower economic growth. While the shadow economy may also have some advantages, it is evident that they are significantly outweighed by a wide range of negative consequences of unreported activities.
- ▶ **A common factor for most types of the shadow economy activities is that it is cash payments that allow the seller not to report the transaction. With only a few exceptions, if an electronic payment was used instead of cash, it would hardly be possible not to register the transaction.** Consequently, in the EY study we focus on estimating unreported economic activity related to cash transactions. We describe it as the **cash shadow economy** and it includes economic activities (1)-(3) listed above. For this purpose, we use an advanced currency demand modelling approach that addresses many issues encountered in shadow economy literature. In addition to this, we estimate the **non-monetary shadow economy** related to (4) household production of goods for own final use.
- ▶ It needs to be emphasized that the high **share of unregistered employment in the total employment** in Albania (of almost 40% of total employment in 2017) **does not imply the same share of the shadow economy in GDP** (one of the reasons is that the value of many products, despite being generated with a contribution of unregistered employees, may be registered—e.g. a new building).
- ▶ According to EY estimates, **the total level of the shadow economy in Albania amounted to 22.0% of GDP (ALL 341.1bn) in 2017**, of which:
 - ▶ **19.1% of GDP was related to cash payments ("cash shadow economy") and**
 - ▶ **2.8% of GDP** can be attributed to the non-monetary production (non-monetary shadow economy).
- ▶ **The following sectors** (listed in descending order of their share in the total value added), **due to their scale, may contribute to the total size of the shadow economy in Albania relatively strongly: (1) agriculture, forestry and fishing (21.8%), (2) wholesale and retail trade; repair of motor vehicles and motorcycles (12.3%), (3) construction (10.5%), (4) manufacturing (7.0%) and (5) real estate activities (6.4%).** Moreover, research for various OECD countries shows that, in general, the shadow economy may be relatively most prevalent in the following sectors: (1) accommodation and food service activities, (2) construction, (3) agriculture, forestry and fishing as well as (4) wholesale and retail trade, repair of motor vehicles and motorcycles.
- ▶ **The shadow economy consists of various kinds of unreported economic activity and is responsible for a part (often significant) of the tax gap**, which is the difference between the value of taxes that theoretically should be collected (assuming perfect compliance with all binding regulations) and the value of actually collected taxes.
 - ▶ Government revenues are also reduced because of tax fraud/evasion mechanisms that often take place within registered transactions (one example being missing trader fraud), many of which are even paid electronically. These were not subject of our analysis, though.
 - ▶ We estimate that **tax losses due to the existence of the cash shadow economy in Albania in 2017 amounted to 2.85% of GDP (ALL 44.3bn), out of which 2.11% of GDP for VAT (24.2% of total VAT revenues) and 0.75% of GDP for CIT (35.7% of total CIT revenues)**. One should also remember about lost government revenues related to unreported labour income (which are not subject of the EY study, though), especially in light of a high share of informal workers in the total employment of almost 40% in Albania.

Reducing the shadow economy

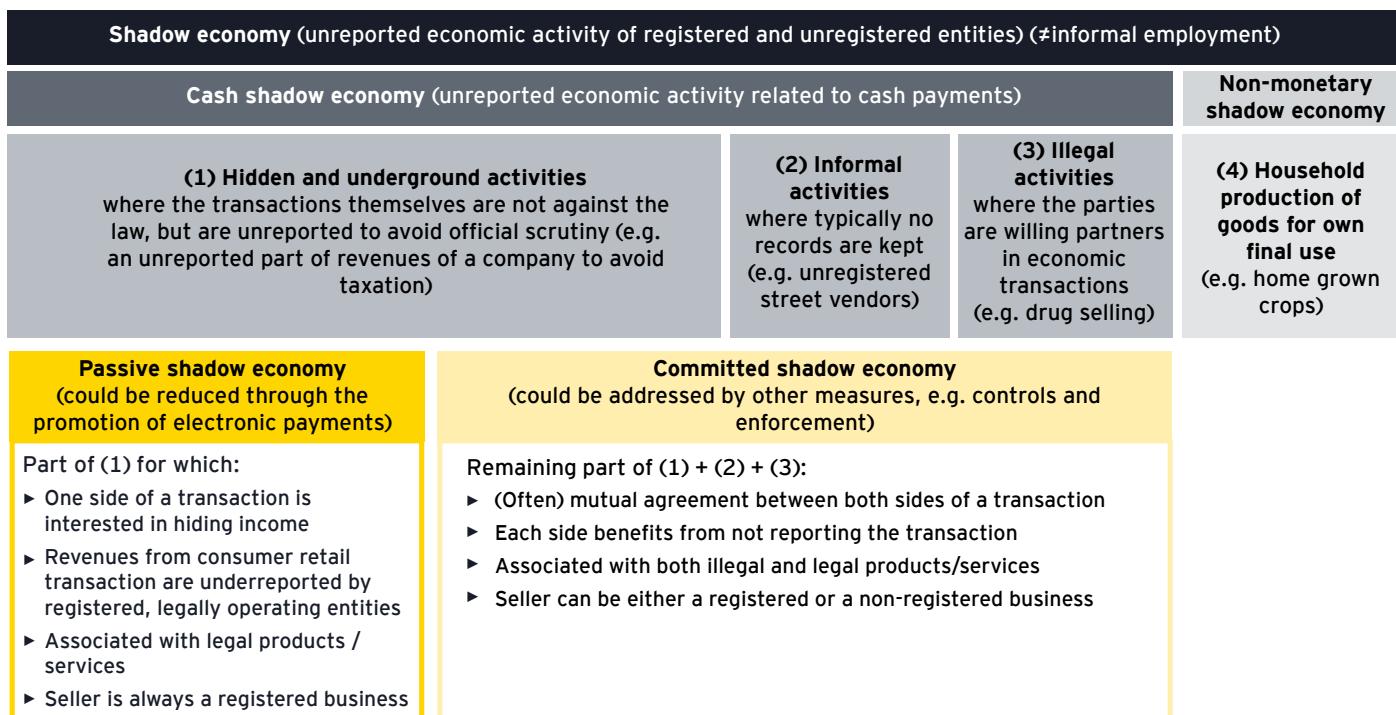
- For the purpose of our analysis, we define the two types of the cash shadow economy, each with a different role of cash:
 - "Passive shadow economy"**—where cash is a **cause of the shadow economy and which could be reduced through the promotion of electronic payments** (e.g. consumer pays at a restaurant in cash and does not ask for a fiscal receipt, which provides the seller with an opportunity not to register the transaction, thereby avoiding VAT and income tax payment). In this case the consumer is "passive" and does not benefit from the shadow economy. If the consumer paid instead electronically, the price would be the same, but it would be much more difficult for the seller not to report the transaction;
 - "Committed shadow economy"**—where cash is a **consequence of the shadow economy** and which could be reduced by other measures, e.g. controls and enforcement. Here, (often) both sides of the transactions are interested in hiding it by using cash. For example, a construction worker

and client agree that the renovation of the apartment will be conducted informally so that both parties can benefit from not paying taxes—VAT in the case of a consumer, PIT or CIT in the case of a service-provider. Another example is the sale of food by an unregistered street vendor).

While in the committed shadow economy the seller can be either a registered or a non-registered business, in the passive shadow economy transaction the seller is always a registered entity.

- Our estimates indicate that **the passive component accounted for 57.1% of the cash shadow economy (10.9% of GDP) in Albania in 2017, while the respective ratio for the committed component has been estimated at 42.9% (8.2% of GDP). Tax losses due to the existence of the passive shadow economy in Albania in 2017 amounted to 1.63% of GDP (ALL 25.3bn)**—1.20% of GDP for VAT (13.8% of collected VAT revenues) and 0.43% of GDP for CIT (20.4% of collected CIT revenues).
- Shadow economy and all of its described components are summarized in Chart 1.

Chart 1. Shadow economy and its components



Note: Sizes of shadow economy components do not correspond to the sizes of areas on the chart.

Source: EY.

- ▶ **The committed shadow economy should be addressed by means other than electronic payments.** They include reduction of the administrative and tax burden (at least for some kinds of businesses) as well as better execution of the existing laws. This should incentivize some informal companies to register their activity (as well as some registered companies to report a larger share of their actual activity). It should be stressed, however, that **contraction of the committed shadow economy may partly translate into the expansion of the passive component**, since a newly registered company may continue to hide some of its income, especially if received in cash. This would lead to an **increased importance of promoting electronic payments**, which make it much more difficult for a seller not to report a received income. As a result, **the effective policy mix addressing the problem of the shadow economy should comprise measures combatting both the passive and the committed shadow economy. In our analysis we concentrate on measures aimed at reducing the passive shadow economy.**
- ▶ Our sectorial analysis suggests that **the passive shadow economy may be relatively more prevalent among the following sectors/merchants in Albania** (ordered by the growing average value of transactions that, to some extent, may reflect the role of the passive shadow economy): **(1) discount stores, (2) food stores and warehouse, (3) other transport.**
- ▶ **Promotion of electronic payments is essential for reducing the passive shadow economy.** However, our analysis shows that there is a huge gap in financial inclusion and development of electronic (card) payments between Albania and other Balkan countries as well as OECD countries. In Albania, (1) share of people with an account at a financial institution, (2) number of payment cards per capita, (3) number of POS terminals per capita, (4) share of cards enabling contactless payments and (5) usage of accounts and debit cards are significantly lower than, on average, in OECD countries, which is also reflected in a very low value share of card payments in households final consumption expenditure (2.8% in Albania in 2018 vs. OECD average of 39.0% in 2017). Moreover, only 22.2% of that value was related to expenditure in Albania, while the rest was spent abroad. In addition, according to EY estimates, the value of card spending on the territory of Albania was almost 50% higher for cards issued abroad than for domestically issued cards, which is likely due to relatively high popularity of card payments among tourists. Furthermore, non-card forms of electronic payments (including various online payments) have not yet become popular in Albania.
- ▶ **In the recent years the Government of Albania, Bank of Albania (BoA) and commercial banks operating in the country have demonstrated significant commitment to improving financial inclusion, developing electronic payments and limiting unregistered transactions** by, among other things, taking the following steps: establishing the Albania National Retail Payment Strategy, introducing electronic payment of public sector wages and incentives for electronic payment of wages in the private sector, imposing a cash payment limit, introducing obligation to use cash registers and conducting a campaign against informality. **Nevertheless, there remains a wide range of potential solutions related to the promotion of electronic payments that may be considered in order to reduce the passive shadow economy in Albania**—many of such measures have already been implemented in other countries.

Measures assessed in this Report

- ▶ In this study we analyse various regulations that, by replacing cash with electronic payments, may reduce the shadow economy in Albania. Many of the considered solutions are already present in other countries. Some of them are based on enforcement or obligation mechanisms, while others focus on providing incentives, either to consumers or merchants. The considered regulations include:
 - ▶ **Improvement in the electronic payments acceptance (ensuring the right of consumers to pay electronically).** This initiative may consist in an obligation or support for businesses in certain sectors to accept electronic payments. This includes operating POS (point of sale) terminals, mobile POS terminals or other devices accepting electronic payments (for instance, an electronic payment could be processed using a QR code presented by merchant to a customer with a smartphone). We consider a scenario in which Albania reaches the best international benchmark in the electronic payments acceptance. The impact of this on the size of the passive shadow economy is the highest for relatively large sectors and sectors where “saturation” with POS terminals is relatively low. **If the benchmark was reached in all the passive shadow economy sectors in Albania, the resulting decrease in the passive shadow economy should amount to 1.294% of GDP.** The lower the cost of the development of electronic payment acceptance network (e.g. due to wholesale purchase, increased market competition or use of less expensive types of devices that accept electronic payments) and the less government financing is used, the less negative/more positive will be the effect of this regulation on net government revenues.

- ▶ **Tax incentives for consumers.** This regulation consists in providing financial incentives to consumers, e.g. in the form of a cash-back awarded for card payments. An optimum level of such intervention that maximises the difference between the additional revenues and the costs incurred by the government in the short term was calculated to amount to 1.33 of card payment value. **This regulation has the potential to reduce the passive shadow economy by 2.77% of GDP.** This kind of consumer incentive may be introduced through various mechanisms, many of which allow the government to reduce the incurred costs. In addition, it seems reasonable to assume that after many consumers have shifted from cash to electronic payments as a result of the cash-back incentive, their payment habits may often change permanently even if the level of cash-back is later reduced. Therefore, **we consider an additional long-term government strategy in which cash-back is introduced at the level of 2.66% of card payment value in the first year and reduced to the level of 0.53% of card payment value in the second year (i.e. by 80%). This would lead to a long-term reduction in the passive shadow economy by 4.43% of GDP and generate more net government revenues than the short-term strategy.** In this additional scenario, we assume that lowering the cash-back reduces government benefits only by 20% due to the formation of the new payment habits.
 - ▶ Consumer incentive may be introduced through various mechanisms, many of which allow the government to reduce the incurred costs. One example is introducing the solution in the form of an income tax deduction mechanism that may additionally include deduction caps and/or may reward electronic payments only beyond a given threshold that may increase with time to further stimulate the development of electronic payments. This kind of approach has been applied in South Korea—currently one of top countries in the world in terms of popularity of electronic payments.
- ▶ **Tax incentives for merchants.** Reduction in the cost of accepting card payments by merchants may stimulate the growth of the electronic payment acceptance network and electronic payments, thereby leading to a reduction in cash payments. In Albania, **introduction of an optimum tax incentive for merchants would bring net benefits for government and reduction in the passive shadow economy in the short term and in the long term as well. In both cases, however, the effects are rather low when compared to optimum cash-back for consumer card payments.** An optimum tax relief of 0.87% of card payment

value has the potential to **reduce the passive shadow economy in Albania by 0.27% of GDP.** The regulation may be introduced temporarily and considered as an investment in payment infrastructure.

- ▶ **Promotion of electronic payment devices that enable contactless payments.** Using the contactless technology one can pay with a card (or a mobile device) by holding it within imminent proximity of a POS terminal (or other accepting device) enabled with the near field communication (NFC) function. Convenience and speed of such transactions encourage people to use electronic payments more often, resulting in reduced cash transactions and contraction of the passive shadow economy. **We estimate that replacing all existing payment cards and POS terminals that do not enable contactless payments with ones that do allow them, would result in the reduction of the passive shadow economy in Albania by 0.117% of GDP.** Since the overall number of cards and POS terminals per capita in Albania is very low, the analysed replacement would generate relatively low effects. **The effects would be much stronger once the electronic payment infrastructure in Albania is better developed.**
- ▶ **Obligation to make an electronic payment of wages and salaries.** The requirement to make an electronic payment of wages and salaries would result in a situation in which people, who previously received their remuneration in cash, would have to make an additional effort to use it, e.g. through ATM withdrawals. Therefore, they should more often perform their transactions electronically, and less frequently in cash. In Albania, salaries in the public sector are generally paid through bank accounts, both at the central and municipal level. Although transferring wages directly into bank accounts is not obligatory for private employers, there are statutory incentives to do so. According to the Income Tax Law, wages and salaries paid outside the banking system cannot be recognized as expenses for the purpose of calculating the taxable profit. Yet, according to our estimates, there are still some registered employees who receive wages in cash and can start receiving them electronically. The results of the estimation indicate that the regulation should lead to the **contraction of the passive shadow economy in Albania by 0.004% of GDP. The effect of the regulation could be larger if it was introduced after the development of electronic payments infrastructure.**
- ▶ **Obligation to make an electronic payment of social security benefits.** The mechanism of this regulation is analogous to the obligation to make an electronic payment

of wages and salaries. **The potential to decrease the passive shadow economy in Albania by the obligatory electronic payment of all the social security benefits has been estimated at 0.012% of GDP.** A negligible estimated impact of this regulation is due to the underdeveloped electronic payment infrastructure in Albania. **The effect of the regulation could be larger if it was introduced after the development of electronic payments infrastructure.**

- ▶ **Threshold for consumer cash payments.** This regulation introduces a threshold for a single transaction above which consumer cash payments are not allowed. Consequently, consumer cash transactions above this level should disappear and be replaced by additional electronic payments, thereby reducing the size of the passive shadow economy and increasing government revenues. **The effect of this regulation depends significantly on the threshold level—the lower it is, the more cash transactions would be replaced by card payments, and the more the passive shadow economy would contract.** While introduction of low thresholds for consumer cash payments would generate very significant effects, the implementation of such a regulation may prove unacceptable and hardly feasible (**effects of low thresholds are presented only for illustrative purposes**). High thresholds, in turn, may have only limited direct impact on the passive shadow economy, since most transactions of this kind are of a low value. However, even high thresholds should promote the development of the electronic payments acceptance network, which should also increase electronic payments of a lower value, thereby reducing the passive shadow economy. High thresholds (incl. B2B) may also hinder some criminal activities (e.g. money laundering). It may be reasonable to first introduce very high thresholds and, subsequently, carefully lower their value.
- ▶ **Receipt lotteries.** The idea of receipt lotteries is to reduce the passive shadow economy by limiting unreported transactions through the increased issue of receipts in

consumer-to-business transactions. Specifically, consumers are provided with an incentive to ask for a receipt, as it may also serve as a free-of-charge ticket in tax lotteries, thereby giving its holder a chance to win attractive prizes. In the longer perspective, this measure aims to get consumers used to asking for fiscal receipts. It is often assumed that, after a certain period of time, people will develop such a habit (e.g. by making asking for receipts socially acceptable and desirable, or by raising awareness of the benefits of combating the shadow economy), and will therefore continue to demand fiscal receipts even without such an additional monetary incentive. Apart from regular receipts, lottery tickets may also use payment card slips (or other proofs of electronic payment). Lotteries effects on the shadow economy contraction and government revenues depend on their specifics (value of prizes, etc.). **Potential positive impact of receipt lotteries on tax compliance is demonstrated by the results of empirical studies examining the policies introduced in China and São Paulo, Brazil.**

- ▶ In summary, some of the **measures described above may significantly reduce the passive shadow economy in Albania** (see Chart 2) **and increase government revenues** (see Chart 3). **In the case of many measures, the costs could be incurred in the short-term only** (e.g. related to the purchase/installation of the new devices that accept electronic payments), **while the generated benefits are long-term**, since they stem from the permanently reduced level of the passive shadow economy. Consequently, the net impact of the considered solutions on the government balance should in the medium and long term be much more favourable than the effects presented in Chart 3, which are mostly of short-term nature. To increase the benefits and reduce the costs, one may also consider implementing some of the measures to selected sectors only (sectors with a particularly high share of unreported transactions).

Chart 2. Estimated impact of regulations: change in the passive shadow economy (% of GDP)

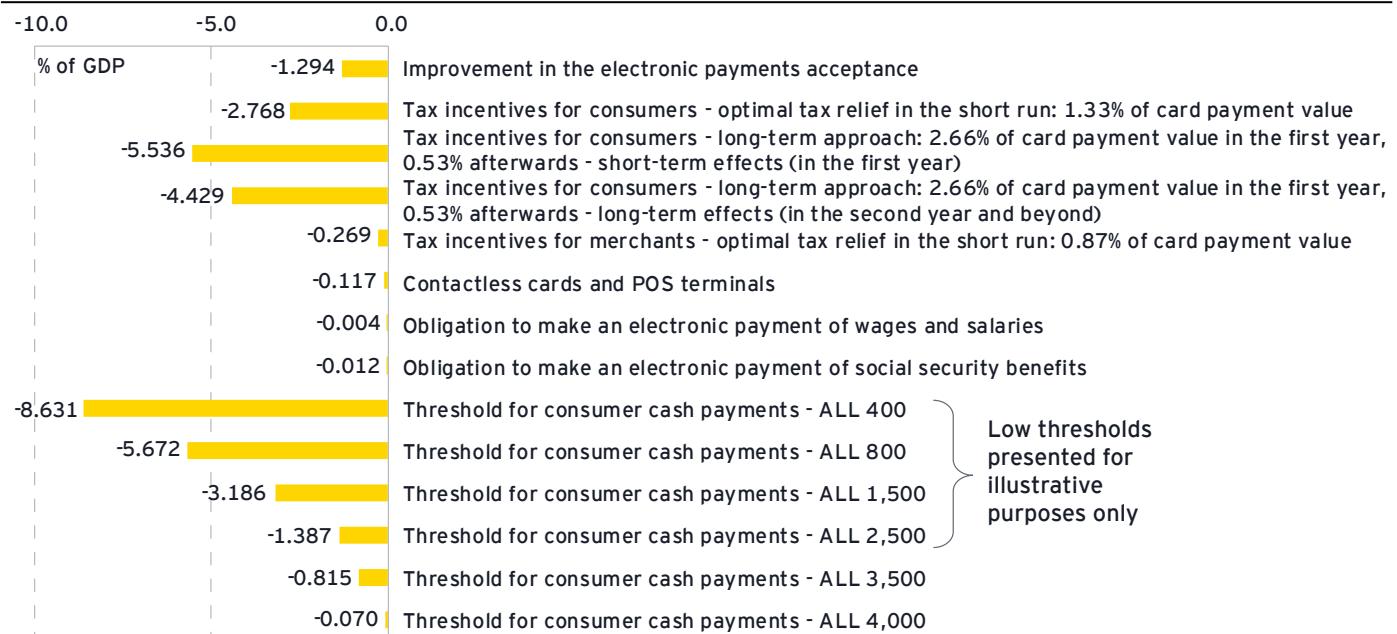
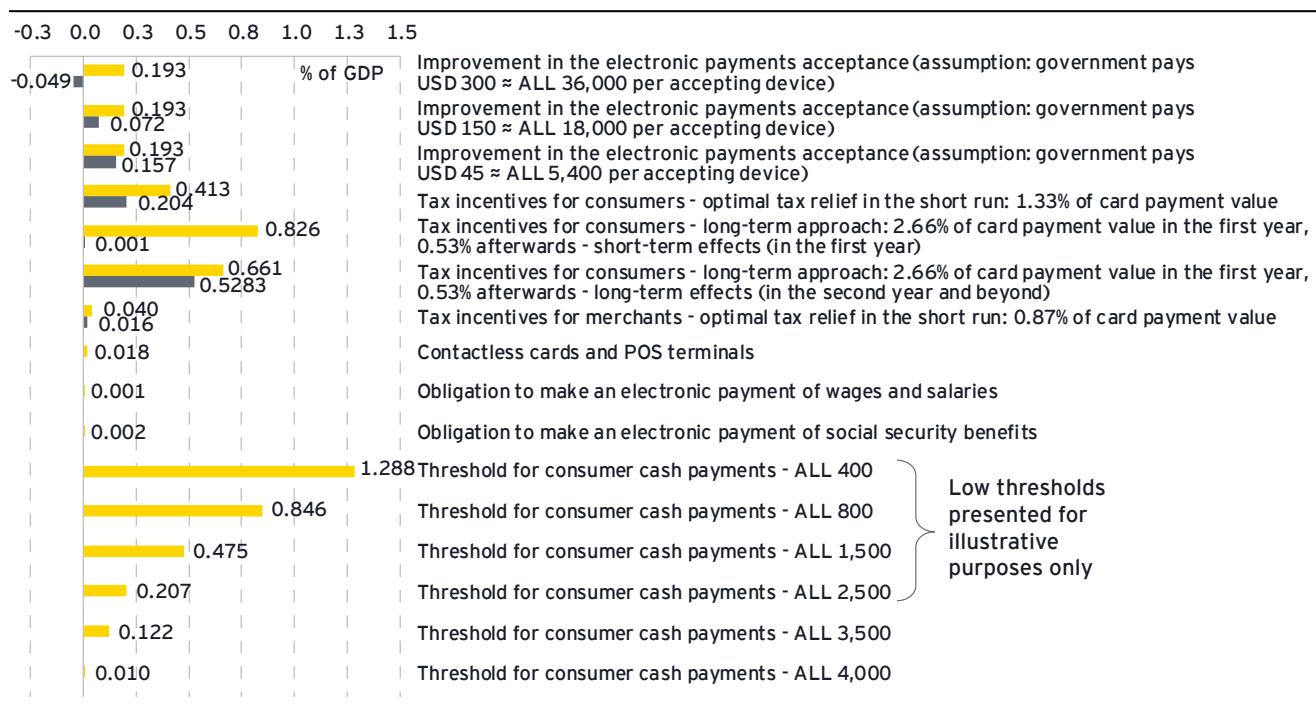


Chart 3. Estimated impact of regulations: change in (net) government revenues (% of GDP)



- ▶ **Considering a potential strategy of introducing various regulations, one should bear in mind the specifics of the Albanian economy.**
 - ▶ In light of the low number of consumer accounts at financial institutions in Albania and common mentioning of insufficient funds/high costs of financial services as related reasons, it is important to continue and develop various programmes supporting (1) affordability, possession and usage of such accounts (which should be linked with payment cards or other means of electronic payments) as well as (2) financial knowledge. Such actions should be conducted by the country authorities, with a potential consultation of international organizations that are familiar with best implementations of such programmes in other countries. In particular, the authorities may consider introducing financial accounts that offer basic features free of charge or at a reasonable cost (such program already works, e.g., in all member states of the European Union).
 - ▶ Since the number of POS terminals is very low in Albania, it seems reasonable to focus also on policies that stimulate development of electronic payments acceptance network. They may include government and/or private sector (e.g. financial institutions) programs supporting the possession/usage of devices that accept electronic payments by merchants in selected sectors. A more developed payments acceptance infrastructure would also influence the effectiveness of the incentive mechanisms aimed at stimulating consumer electronic payments, since otherwise consumers would have a limited ability to shift to cashless transactions.
 - ▶ Costs of financial services in Albania are currently perceived as too high by many financially excluded. To encourage the use of electronic payments by consumers, policymakers may consider introducing (temporary) incentives for such transactions. The design of consumer incentives should take into account rather long- than short-term effects as well as best international practices in this area. An exemplary long-term strategy that is likely to pay off may consist of (1) introducing tax incentives on electronic payments for a relatively short period of time in order to change payment habits of consumers and (2) reducing (or eliminating) the tax relief after that period.
- ▶ While supporting the growth in the number of payment cards and POS terminals, it is worth to ensure that they enable the use of the contactless technology. It additionally encourages electronic payments, especially the ones that substitute cash payments of lower value among which the passive shadow economy transactions are relatively common.
- ▶ Once it becomes relatively easy and popular to pay electronically at points of sales (instead of withdrawing cash from banks/ATMs to pay in cash), it may be useful to ensure that more people obtain their income (including private sector wages and social security benefits) in an electronic form.
- ▶ Solutions promoting B2G and C2G transactions in an electronic form, while not addressing unreported payments directly, should reduce the shadow economy indirectly (by promoting the usage of electronic payments also in different situations).
- ▶ While introducing any measures for small enterprises, one has to be careful not to discourage their registration and operation in the formal economy. All the listed measures will be the more effective, the more (currently informal) companies become registered, which emphasizes the need to reduce the committed component of the shadow economy in Albania.
- ▶ **Each of the presented measures should be regarded as one of many possible variants of a given type of regulation.** Since these solutions may be modified in terms of their scope, timing and other parameters, their actual impact would change accordingly and will depend on the final decision of the regulators. Consequently, the measures analysed in this study should be treated as examples illustrating the effects of the potential regulatory solutions that may be considered by policymakers in Albania in their attempt to address the issue of the passive shadow economy.

Introduction



The shadow economy (non-observed economy) is a complex phenomenon that can have various causes and consequences. The literature uses many definitions for the non-observed or shadow economy, where different authors often focus on different aspects of this issue. The European Commission defines the non-observed economy as consisting of: (1) hidden and underground activities where the transactions themselves are not against the law, but are unreported to avoid official scrutiny, (2) informal activities where typically no records are kept and (3) illegal activities where the parties are willing partners in an economic transaction. This definition may also be treated as a benchmark for countries outside the European Union. According to the OECD, the non-observed economy also includes (4) the household production of goods for own final use (e.g. home-grown crops). Under the presented definitions, the shadow economy may be understood as unreported economic activity of both unregistered and registered entities.

A high level of the shadow economy has significant economic and social implications. Its adverse consequences include a reduced tax base, lower quantity/quality of public goods, distortions in market competition, the degradation of economic institutions and social attitudes, and—through these channels—lower economic growth. All these consequences can become major impediments to development and modernisation of the Albanian economy. Therefore, understanding and reducing the shadow economy might be of particular interest to the Government of Albania as it seeks to foster economic growth and improve the standard of living of the Albanian society.

While the shadow economy may also have some advantages (e.g. some people may be able to find jobs only in the shadow economy), it is evident that they are significantly outweighed by a wide range of negative consequences of unreported activities. Therefore, it is important to seek tools and solutions that might effectively reduce the shadow economy. However, since there is no single measure that would address all the causes of the non-observed economy, such solutions should be tailored to the specifics of activities responsible for a given part of the shadow economy in Albania. In this respect, it is also recommended to distinguish between incentive mechanisms and obligation instruments aimed at contraction of the non-observed economy.

Our approach is based on the observation that a common factor for most types of the shadow economy activities is that it is the cash payments that allow the seller not to report the transaction. With only a few exceptions, if an electronic payment was made instead of cash, it would hardly be possible not to register the transaction. Consequently, in the EY study we focus on estimating unreported economic activity related to cash transactions, which we describe as the “cash shadow

economy" (it includes economic activities (1)-(3) listed above). For this purpose, we use an advanced currency demand modelling approach that addresses many issues identified in shadow economy literature. In addition to this, we estimate the "non-monetary shadow economy" related to (4) the household production of goods for own final use.

Importantly, as we show further in the Report, the motivation to use cash by either side of the transaction varies with the type of activities, which in turn require different solutions. In particular, we propose distinguishing the "passive" component of the shadow economy, where consumer cash payments are the cause rather than the result of unreported activities and consumers are often unaware of contributing to the expansion of the shadow economy. This component of unregistered activities is of particular interest to our analysis, since it may be reduced through the promotion of electronic payments.

While the relation between cash payments and the shadow economy has been broadly discussed in the literature, the influence of payment practices (including the popularity of electronic payments) on the non-observed economy has rarely been investigated in research for Albania. Our Report aims to fill this gap. In particular, our contribution consists in investigating the potential of different regulatory measures to reduce the size of the shadow economy in Albania through the promotion of electronic payments.

The Report has the following structure:

In Chapter 1, based on a review of the literature, we discuss the various definitions of the shadow economy and related concepts, together with the possible causes and potential consequences of this phenomenon. We also point to the fact that the impact of non-cash payments on the non-observed economy has rarely been researched. In order to fill this gap, we introduce a division of the shadow economy into: (1) the passive shadow economy (where cash payments are the cause of the shadow economy) and (2) the committed shadow economy (where cash payments are the consequence of the shadow economy). We argue that only the first component may be reduced through the promotion of

electronic payments, while the latter should be addressed with other measures (e.g. controls and enforcement). However, we also explain how those components are related to each other, in particular how contraction of the committed shadow economy may increase the importance of solutions addressing the problem of the passive component.

In Chapter 2, we outline our approach to estimating of the overall level of the shadow economy, cash shadow economy and its breakdown into passive and committed components. We also present the obtained shadow economy estimates, some sectorial insights as well as lost government revenues due to the existence of the cash and passive shadow economy in Albania.

In Chapter 3, we discuss financial inclusion and assess the level of development of electronic payments in Albania, including such indicators as the share of people with an account at a financial institution, number of payment cards per capita, number of POS terminals per capita and usage of accounts and payment cards as well as the resulting value of electronic (card) payments. We then discuss the policies introduced by the Government of Albania, Bank of Albania (BoA) and commercial banks operating in the country in order to promote financial inclusion and electronic payments.

In Chapter 4, we focus on potential measures aimed at limiting the shadow economy. We analyse the impact of introducing different solutions on replacing consumer cash payments with electronic payments and, through this channel, on the contraction of the shadow economy in Albania. The resulting increase in the value of reported transactions is then translated into additional government revenues, adjusted for potential costs that a given regulation may entail. The final chapter provides conclusions.

The results of various calculations presented in the Report are discussed in greater detail in the Technical Appendices to this study. The appendices also include a detailed description of our methodological approach.

This study was commissioned by Mastercard and was conducted independently by EY.



1

Understanding the shadow economy

In everyday language the term shadow economy is used to describe various phenomena. Therefore, to avoid any potential confusion, in this chapter we (1) discuss various definitions of the shadow economy and related concepts, along with the coverage of the shadow economy applied in this study, (2) consider potential causes and consequences of the shadow economy as well as (3) explain the notion of the cash shadow economy and its division into the passive (where cash is a cause of the shadow economy and which could be reduced through the promotion of electronic payments) and the committed component (where cash is a consequence of the shadow economy and which could be reduced by other measures, e.g., government controls).

1.1 Shadow economy and related concepts

Tax gap and the shadow economy

First, it is important to underline the distinction between the tax gap and the shadow economy:

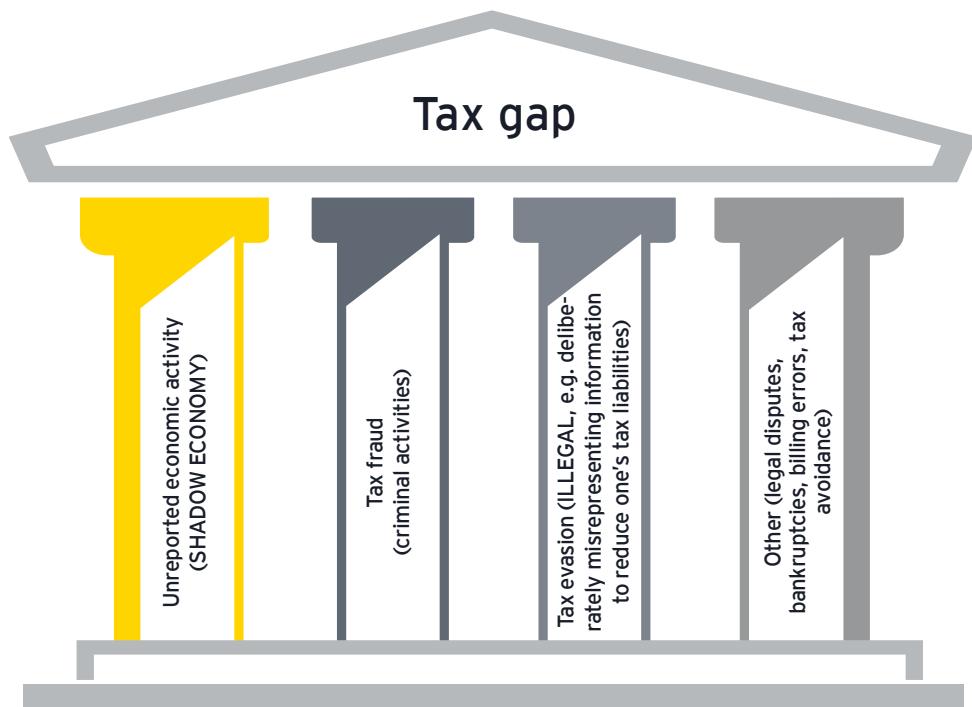
- **Tax gap** is equal to the difference between the value of taxes (or, more broadly, government revenues) that theoretically should be collected (based on the scale of economic activity in a given country and binding regulations) and the value of actually collected taxes.
- **Shadow economy** comprises various kinds of unreported economic activity (see further) and is responsible only for a part (often significant, though) of the total tax gap (see Chart 1.1).

In this report we focus solely on the analysis of the shadow economy and potential measures aimed at its reduction.

Consequently, we do not investigate the scale and solutions targeted at limiting other parts of the tax gap, such as tax fraud or tax evasion.¹

¹ Tax fraud is a form of deliberate evasion of tax that is generally punishable under criminal law. The term includes situations in which deliberately false statements are submitted or fake documents are produced. Tax evasion generally involves illegal arrangements where tax liability is hidden or ignored, i.e. the taxpayer pays less tax than he/she is supposed to pay under the law (e.g. by deliberately misrepresenting information). See, e.g. https://ec.europa.eu/taxation_customs/fight-against-tax-fraud-tax-evasion/missing-part_en

Chart 1.1. Different elements of the tax gap



Source: EY.

Definition of the shadow economy

The shadow economy generates income and employment for people. Therefore, to capture the complete size and state of the economy, statistical offices (often) try to cover the shadow economy in macroeconomic statistics, including gross domestic product (GDP) estimates.² While the literature uses many definitions of the non-observed or shadow economy (we use these terms interchangeably), with different authors focusing on slightly different aspects of the phenomenon, the most relevant definitions are derived from international guidelines on the compilation of national accounts (GDP and other macroeconomic statistics)³ for statistical offices. According to the System of National Accounts 2008 (SNA 2008), adopted by the United Nations⁴, the non-observed economy describes:

"(...) activities that, for one reason or another, are not captured in regular statistical enquiries. The reason may be that the activity is informal and thus escapes the attention of surveys geared to formal activities; it may be that the producer is anxious to conceal a legal activity, or it may be that the activity is illegal. Certain activities may clearly fall within the production boundary of the SNA and also be quite legal (provided certain standards or regulations are complied with) but deliberately concealed from public authorities for the following kinds of reasons:

- a. To avoid the payment of income, value added or other taxes;*
- b. To avoid the payment of social security contributions;*
- c. To avoid having to meet certain legal standards such as minimum wages, maximum hours, safety or health standards, etc.;"*

The European system of accounts (ESA 2010)⁵ is a more detailed version of the SNA 2008 provided by the European Commission for European Union countries, which is used in Albania. The Commission uses the term "non-observed economy", which encompasses:

- **Illegal activities**, where the parties are willing partners in an economic transaction (e.g. drug selling);
- **Hidden and underground activities**, where the transactions themselves are not against the law, but are unreported to avoid official scrutiny (e.g. an unreported part of revenues to avoid taxation);
- **Activities described as "informal"**, typically where no records are kept (e.g. street vendors, etc.).

Household production of goods for own consumption (not sold on the market) may also be treated as a part of the non-observed economy (in this case, however, it is related to non-monetary activities). For example, this is the case presented in the most detailed handbook on measuring the shadow economy in national accounts developed by the OECD.⁶

In addition to this, to clarify the scope of the shadow economy, in Frame 1.1 we present various activities that are not a part of the non-observed economy.

2 Gross domestic product (GDP) is a monetary measure of the market value of all final goods and services produced in a given period of time.

3 Generally, adherence to the guidelines for countries is voluntary and cannot be rigidly enforced. An exception is the European System of Accounts (ESA 2010), which is a more detailed version of SNA 2008. It is in force in the European Union countries by the Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013.

4 SNA 2008 is a result of cooperation of the United Nations with the International Monetary Fund, the World Bank, the Organisation for Economic Co-operation and Development and the Statistical Office of the European Communities.

5 European Commission (2013), "European System of Accounts. ESA 2010". The definition provided by the European Commission influences the scope and coverage of the shadow economy estimated by national statistical offices not only in the European Union, but also in other countries.

6 See OECD (2002), *Measuring the Non-Observed Economy. A Handbook*. According to national accounts guidelines, the estimated value of household production of goods for own consumption should be included in GDP, especially if it constitutes a significant part of the total supply of a given good in a country.

Frame 1.1. What is not included in the shadow economy?

The shadow economy and the total economy, according to the national accounts guidelines used by statistical offices (e.g. to estimate the size of GDP), exclude activities that are not related to "production" or that are hard to value. For this reason, the shadow economy and the total economy exclude:

- ▶ **Illegal activities where at least one of the parties is not a willing participant** (e.g. theft) and/or that **do not lead to the creation of goods or services** (e.g. tax frauds, corruption, etc.);
- ▶ **Value of traded second-hand goods**, since such trade leads mostly to a change in ownership of the already existing goods (not to creation of new goods);⁷
- ▶ **Household "production" of services for own consumption** ((e.g. cooking for the family), since it is difficult to assign a specific monetary value to them (they are generally excluded from the national account system, e.g. from GDP calculations; imputed rents of owners-occupiers are an exception to this rule⁸).

Shadow economy in this study

The scope and coverage of the shadow economy in this Report is largely consistent with the quoted definition of the European Commission. It may be understood as unreported economic activity, which is related to both registered and unregistered entities. A very important common factor for most types of the shadow economy is that it is cash payment that allows the seller not to report the transaction. If an electronic payment was made instead of cash, it would hardly be possible not to register the transaction (there are only a few exceptions such as some e-commerce or online gambling transactions, which are done electronically and may still be unregistered). Consequently, in this study we estimate:

- ▶ **Cash shadow economy**, which covers unreported economic activities related to cash transactions that are the main focus of our research. The cash shadow economy should cover nearly all the non-observed economy in the area of (1) hidden and underground activities, (2) informal activities and (3) illegal

7 In contrast to the value of second-hand goods, margins related to their trade are treated as "production" of services and constitute a part of either the registered or shadow economy.

8 Imputed rents are related to housing services that homeowners implicitly provide for themselves. They are estimated to be equal to the rents that homeowners would have paid to live in dwellings of the same type, in the same district and with the same service facilities. They are included in GDP. If they were not, the GDP would be affected by changes in the share of people living in their own dwellings. It is assumed that, for example, a situation in which two homeowners living in their own dwellings start letting their dwellings to each other and paying regular rents should not affect the level of GDP. Indeed, such a change does not impact the level of GDP, since these "new" rents have already been included in GDP as imputed rents. In this Report, the imputed rents are not considered a part of the shadow economy.

activities. In order to estimate the cash shadow economy, we apply a standard approach found in the literature, based on the so called currency demand analysis. However, we use a significantly enhanced version of this approach (see Chapter 2.1).^{9 10}

- ▶ **Non-monetary shadow economy** related to household production of goods for their own use (e.g. home-grown crops). We estimate it to approximate the scale of unreported economic activity that is not related to cash transactions, but may sometimes constitute a significant part of the total economy.

One should note that if the estimated unregistered economic activity related to cash payments were reported, it would

9 We use a more enhanced version of the approach proposed by the co-authors of this Report in the following paper: Dybka P., Kowalcuk M., Olesiński B., Rozkrut M. and Torój A. (2018), "Currency demand and MIMIC models: towards a structured hybrid method of measuring the shadow economy", *International Tax and Public Finance*, <https://doi.org/10.1007/s10797-018-9504-5>. The approach from the paper was described by Medina and Schneider as a "procedure that addresses previous critique of the currency demand approach (CDA)", see Medina L., Schneider F. (2018), "Shadow Economies Around the World: What Did We Learn Over the Last 20 Years?", *IMF Working Papers*, No. 18/17.

10 Since our approach concentrates on cash transactions, it also accounts for the so called "black market" transactions (illegal activities). However, it does not account for those shadow economy transactions that are conducted (1) in the form of barter (in exchange for other goods and services rather than for money), which may partly be covered by the non-monetary shadow economy estimate, though, or (2) with the use of electronic payments (such as some e-commerce transactions).

translate into higher tax collection from corporate income tax (CIT) and value added tax (VAT).¹¹ It would also lead to higher government revenues related to labour income (which are not subject of our analysis, though), especially in light of a very high share of informal workers in the total employment in Albania (see below).

Shadow economy and shadow employment

The share of informal (unregistered) workers in the total employment in Albania was almost 40% in 2017.¹² Yet, it needs to be emphasized that this share does not imply that the shadow economy in Albania amounts to 44% of GDP. The share of the shadow economy in GDP may be lower than the share of informal workers in total employment due to several factors:

- **Lower value of goods and services generated by unregistered (compared to registered) workers**, e.g. due to:
 - Lower level of their education and skills;
 - Their lesser access to capital (machinery, equipment, etc.);
 - Worse organisation of work and production processes in their place of work (unregistered employment is often concentrated in micro enterprises for which it is hard to benefit from labour specialisation, etc.);

▸ **Inclusion of at least part of the value of products and services generated with the use of unregistered employment in the registered (non-shadow) economy** (e.g. a house built with the use of some unregistered workers may be legally sold later and its value may be included in the registered part of GDP) (see Frame 1.2 for an example);

▸ **Potentially relatively lower number of hours worked by unregistered workers** (e.g. some unregistered employment may be related to seasonal employment in agriculture, conducted only part-time in addition to household duties, etc.).

While the factors outlined above explain why the share of the shadow economy in GDP may be lower than the share of informal workers in total employment, the opposite situation may also occur, e.g. when many businesses, despite having registered employees, do not report a significant share of their revenues to avoid paying taxes. Yet, in the case of Albania, this effect rather does not outweigh the factors described above. This is further confirmed by the shadow economy estimation results presented in this study.

11 With the exception of illegal products and services, which by definition are not taxed. Household production of goods for own use (non-monetary shadow economy) is also not subject to taxation.

12 EY estimate based on data of International Labour Organization and Institute of Statistics in Albania (INSTAT).

Frame 1.2. Why at least part of the value of products and services generated by unregistered employment may be included in the registered (non-shadow) economy: illustrative example



- ▶ Suppose that there is a company that sold its products worth ALL 5.0m to consumers, but registered a revenue of only ALL 4.0m.

Unregistered payment for products



- ▶ Suppose that the only cost to this company is wages equal to ALL 3.0m. However, assume that only half of the wage value is officially registered, while the rest is paid in cash "in an envelope" directly to the employees (to avoid taxes, formal actions required to register their employment, etc.).



- ▶ From the perspective of the registered GDP calculation, the labour share in the registered value added is equal to ALL 1.5m (as only half of employees' actual compensation is officially registered), while the rest of the registered value added (4.0m - 1.5m = ALL 2.5m) is reported as a return to the company's capital.

Unregistered payment of wages



- ▶ Even though ALL 1.5m is paid in the form of unreported wages, it is reflected in the registered level of the value added, however "captured" in the form of the inflated company's income. In other words, in this example, the shadow labour market activity results in understating the actual labour share in value added and overstating a return to the company's capital. While it affects the structure of the generated value added, it does not influence the level of the registered economic activity.



- ▶ By contrast, the fact of not reporting some of the company's sales to consumers does result in unreported value added of ALL 1.0m, i.e. it leads to an increase in the level of the shadow economy.

1.2 Possible causes and potential consequences of the shadow economy

The shadow economy is a very complex phenomenon that can have assorted sources, varying over time and among countries. On the basis of the literature¹³ it is possible to divide the **possible causes** of the shadow economy into the following categories:

- **Rule of law and quality of administration.** A sense of being protected by the law, which can be related to stable regulations and an effective judicial system, creates incentives to abide by the law and act in the registered economy. Furthermore, increasing the risk of detection discourages individuals from entering the shadow economy. By contrast, a low quality administration and justice system, along with widespread acceptance of non-compliance, may be conducive to entering or remaining in the non-observed economy;
- **Values and moral aspects.** A high level of social capital and trust in other people discourages cheating behaviour (such as activity in the shadow economy);
- **Administrative burden.** Registered activity may be hindered by a high burden imposed by administrative rules that generate high costs for businesses and are costly to comply with;
- **Taxes.** Avoiding the payment of income, value added and other taxes is often considered as an important factor driving individuals into the non-observed economy;
- **Social security contributions.** Both employees and employers might be interested in entering the shadow economy by paying less (or no) social security contributions, to increase take home earnings and decrease labour costs, respectively;
- **Economic institutions.** The flexibility of employment contracts, minimum wages and other rules defining the economic environment can either encourage or discourage businesses to operate within the legal framework;
- **Business cycle.** An economic slowdown and reduced opportunity for finding a job in the official sector may encourage workers to enter the non-observed economy;
- **Structure of the labour market.** High unemployment, underemployment, prevalence of precarious work and the working poor (i.e. employed with income below the poverty limit) mean that many people have highly unstable income or

no income at all and might need to depend on external financial support. Such persons are often forced to move to the non-observed economy and, e.g., buy unregistered products at lower prices or seek job opportunities in the unofficial labour market due to its relative ease of entry.¹⁴

- **Payment practices and systems.** Cash is easier to hide from the police and other authorities, so transactions that are performed using cash are more likely to be unregistered;
- **Other subjective factors.** People's general satisfaction with public goods and services can increase tax morale and contract the shadow economy.

Some of the presented causes affecting the size of the shadow economy can be difficult to measure. Consequently, in order to analyse and quantify their effect on the size of the non-observed economy, it is necessary to use proper proxies, i.e. observable variables that are assumed to capture the prevalence and intensity of a particular cause of the shadow economy. Therefore, in the further part of our analysis, we use not only official statistical data, but also the results of surveys and reports concerning such areas as public policy quality.

The shadow economy has significant economic and social implications. **The potential adverse consequences** of a (high) shadow economy include:¹⁵

- **Reduced government revenues.** The shadow economy is associated with a willingness of individuals and enterprises to evade taxation, so an increase in its size means that a larger part of the economy is not covered by the tax system, which leads to a decline in government revenues.
- **Lower quantity and/or quality of public goods.** By decreasing government revenues, the shadow economy negatively impacts the provision of public goods (e.g. public infrastructure);
- **Distortions in competition.** Companies operating in the shadow economy benefit from reduced costs and thereby increase their competitiveness compared to companies operating exclusively on the official market;

14 International Labour Organization (2014), "Transitioning from the informal to the formal economy", pages 1-86.

15 For a review of the literature on the consequences of the shadow economy see: Enste D. H. and Schneider F. (2000), "Shadow Economies: Size, Causes, and Consequences", Journal of Economic Literature, vol. 38(1), pages 77-114.

13 See, for example, Thiessen U. (2010), "The Shadow Economy in International Comparison: Options for Economic Policy Derived from an OECD Panel Analysis", *International Economic Journal*, vol. 24(4), pages 481-509.

► **Degradation of economic institutions and social attitudes.**

Lowered tax revenues may force the government to additionally increase tax rates to cover its expenses, which would mostly affect legally operating companies. As a result, many honest companies might be forced to move to the shadow economy or leave the market;

► **Economic growth.** The shadow economy can adversely affect legal economy activity by degrading the quality of economic and social institutions, decreasing the availability of public goods, etc.

In some areas, the effects of the shadow economy are subject to vigorous debate. For example, some authors present evidence that the shadow economy and corruption can be complementary (the larger the shadow economy, the more prevalent is corruption).¹⁶ On the other hand, some claim that the shadow economy can mitigate government-induced distortions¹⁷ and work as a substitute for corruption (decreasing its scale).

Another controversial aspect of the shadow economy consequences is related to the labour market. It is likely that some people are only able to find jobs in the shadow economy, especially in a period of economic downturn when the unemployment rate is high.¹⁸ In this context, it could be argued that a job in the shadow economy is better than no job. Moreover, even if a person is

employed "off the books", there is some evidence that a vast majority of his or her income¹⁹ is usually spent on products and services provided by legal businesses. However, such a form of employment entails many risks and costs. People who are unofficially employed most often lack social and legal protection. They may also find it very hard to develop skills, be promoted, increase their earnings and get a legal employment contract in the future, thus being trapped in the shadow economy.^{20 21} Moreover, the reduced cost of work due to using unregistered employment provides some companies with an unfair competitive advantage over other companies that report their employment and pay all required taxes and social contributions.

The above examples illustrate that, while the shadow economy may have some advantages (controversial though they may be), it is rather evident that they are significantly outweighed by the wide range of negative consequences of the non-observed economy. Therefore, it is important to seek tools and solutions that might effectively reduce the shadow economy and its negative outcomes. Such solutions should be tailored to the specifics of activities leading to the expansion of the shadow economy. In particular, one should first investigate the size, dynamics and structure of the shadow economy as well as available sectorial insights in a given country.

16 Dreher A., Schneider F. (2010), "Corruption and the shadow economy: an empirical analysis", *Public Choice*, vol. 144(1), pages 215-238.

17 Choi J. P., Thum M. (2005), "Corruption and the Shadow Economy", *International Economic Review*, vol. 46(3), pages 817-836.

18 Bajada Ch., Schneider F. (2009), "Unemployment and the Shadow Economy in the OECD", *Revue économique, Presses de Sciences-Po*, vol. 60(5), pages 1033-1067.

19 At least two-thirds in the case of Germany and Austria. See: Enste and Schneider (2000), *op. cit.*

20 Bajada and Schneider (2009), *op. cit.*

21 ILO (2014), *op. cit.*

1.3 Passive and committed shadow economy

While approximating the size of the cash shadow economy by estimating the value of unreported cash transactions, we distinguish two categories of the cash shadow economy, each to be addressed by different measures. The first component of the cash shadow economy can be reduced by promoting electronic payments and limiting the use of cash. Since cash payments leave no electronic trace, it is relatively easy to avoid reporting them. Cash payments can thus generate shadow economy activity, as they may provide an incentive for a merchant not to report a transaction and evade paying tax. The second component is the remaining part of the cash shadow economy, where it is not the cash payment that influences the decision of the seller not to report the transaction, but the motivation of both sides of the transaction to benefit from evading tax liabilities or to sell/buy illegal products/services. The cash form of payment is (usually) still required to hide the transaction, but it is no longer the source of illegal activity, but rather its outcome.

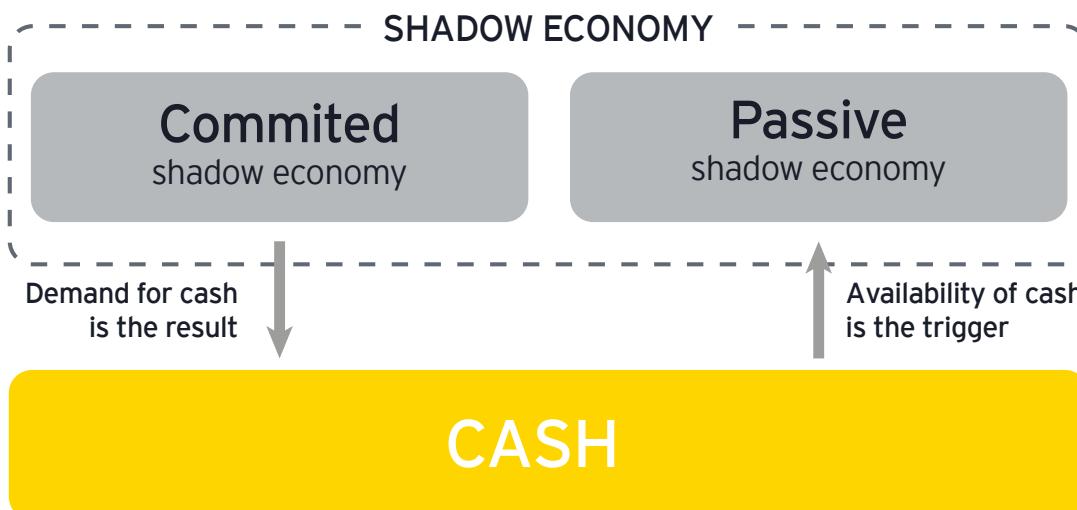
The key differentiating factor between these two components of the cash shadow economy is the causal relationship between cash payments and the shadow economy. In the first category, cash payments contribute to the expansion of the shadow economy, while in the second component the increased cash payments are

simply a result of the shadow economy activities. We therefore distinguish situations where:

- ▶ Cash is a **cause** (or one of the causes) of the shadow economy, from situations where
- ▶ Cash is a **consequence** of the shadow economy.

The part of the cash shadow economy where cash is its **cause** we label as the "**passive shadow economy**", because one side of the transaction, the consumer, is "passive" in the sense that he/she does not benefit from not reporting the transaction, and may not even be aware that he or she is contributing to the expansion of the shadow economy through cash payments. The part of the cash shadow economy where cash is its **consequence** we define as the "**committed shadow economy**" (see Chart 1.2), because (often) both sides of the transaction are "committed" to use cash as a means of payment in order not to report a transaction, and thereby benefit from a lower price stemming from evaded tax payments. While in the committed shadow economy the seller can be either a registered or a non-registered business, in the passive shadow economy transaction the seller is always a registered entity. Table 1.1 includes a more detailed description and examples of both shadow economy components.

Chart 1.2. Types of the shadow economy with respect to the role of cash



Source: EY.

As this shows, the cash shadow economy is not homogenous—there are different shades of grey. Therefore, the consequences and measures to limit the shadow economy may also differ depending on its type.

Actions aimed at limiting the **committed shadow economy** should result in a lower demand for cash and thus lead to an increase in the use of electronic payments. Nevertheless, measures to reduce the **committed shadow economy** are not related to promoting cashless payments, and would rather

include, for example, increasing labour inspections at building sites, reduction of administrative burden related to compliance with some regulations (especially to registration of enterprises), etc.

In contrast to the committed shadow economy, the **passive shadow economy** is caused by cash payments. Therefore, it could be reduced either through actions promoting electronic payments or through measures increasing the share of cash transactions being registered.

Table 1.1. Differences between the committed and the passive shadow economy

Committed shadow economy	Passive shadow economy
<p>Description:</p> <ul style="list-style-type: none"> ▶ (Often) mutual agreement between both sides of a transaction ▶ Each side benefits from not reporting the transaction ▶ Associated with both illegal and legal products/services ▶ Seller can be either a registered or a non-registered business 	<p>Description:</p> <ul style="list-style-type: none"> ▶ Only one side of a transaction is interested in hiding income, whereas the other side is not directly interested in the fraud (and has no benefit from it) ▶ Consists in underreporting revenues from consumer retail transactions by registered, legally operating entities ▶ Associated with legal products/services ▶ Seller is always a registered business
<p>Examples:</p> <ul style="list-style-type: none"> ▶ A construction worker and his client agree that the renovation of a flat will be conducted in the shadow economy, i.e. without invoicing or any formal contract. In this way both parties can benefit from not paying taxes (e.g. VAT in the case of a consumer, income tax in the case of a service-provider) ▶ A street vendor that has not registered her/his business sells food to a buyer. Thanks to avoiding costs related to the registration and running of a legal business as well as avoiding any taxation, the seller receives more money in net terms and the buyer pays less 	<p>Example:</p> <ul style="list-style-type: none"> ▶ A consumer pays for a service (for example in a restaurant) in cash. The seller does not register the transaction and does not pay VAT or income tax from the revenue obtained for the service provided
<p>Shadow economy trigger:</p> <ul style="list-style-type: none"> ▶ Explicit or implicit agreement between both sides of the transaction to benefit from tax evasion or buying/selling illegal products/services. Their behaviour would not be influenced by an improved access to electronic payments infrastructure 	<p>Shadow economy trigger:</p> <ul style="list-style-type: none"> ▶ Cash payment. If an electronic payment was made, the possibility of not registering the transaction would be significantly reduced

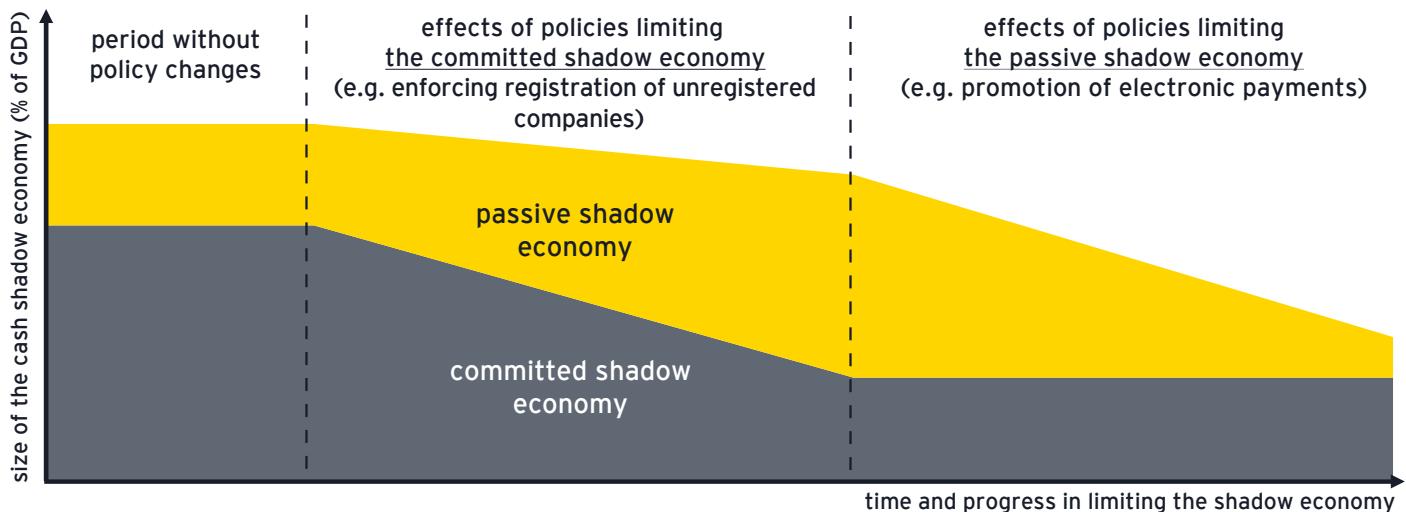
Committed shadow economy	Passive shadow economy
<p>Examples of solutions:</p> <ul style="list-style-type: none"> ▸ Labour inspections / tax controls ▸ Reduction of administrative burden related to compliance with the regulations (especially to the registration of enterprises) 	<p>Examples of solutions:</p> <ul style="list-style-type: none"> ▸ Promotion of electronic payments ▸ Receipt lotteries ▸ Information campaign, e.g. promoting the collection of receipts
<p>Main beneficiaries:</p> <ul style="list-style-type: none"> ▸ Two sides of the transaction (seller and buyer) 	<p>Main beneficiary:</p> <ul style="list-style-type: none"> ▸ One side of the transaction (seller)

Source: EY.

A large committed shadow economy may be associated with a significant number of unregistered companies that, by definition, have unregistered employees. As a result, in some developing countries the committed component may account for a significant share of the cash shadow economy due to a relatively high prevalence of unregistered companies and employment. In such a situation consumers will often not have the option of making an electronic payment. Even if electronic payments were formally promoted, transactions with unregistered companies would continue to be made in cash. Therefore, the government may first want to reduce the committed shadow economy, e.g., through policies aimed at registration of informal companies.

However, one should note that the effects of the contraction of the committed shadow economy may partly be reversed as a result of an accompanying increase in its passive component. This is due to the fact that even if some regulations or other measures made more entrepreneurs register their businesses (often associated with an increased registered employment), they might report only part of their revenues and benefit from paying only part of their tax liabilities. Such a situation seems to be quite likely, if we take into account the fact that these companies previously ran their businesses informally. However, the ability of these entrepreneurs not to register conducted transactions would be conditional upon receiving their payments in cash. By contrast, if consumers were provided with an option to make an electronic payment, the ability of the seller not to report his income would be limited.

Chart 1.3. Potential approach to limiting the cash shadow economy



Source: EY.

Therefore, the more companies are registered, the more effective and needed become policies aimed at limiting the passive shadow economy, e.g. through the promotion of electronic payments. Consequently, measures addressing the problem of the committed shadow economy should be accompanied by solutions aimed at reducing the passive component of the shadow economy, which might otherwise expand (see Chart 1.3).

In this Report, we concentrate on solutions related to the development of non-cash payments (e.g. through an increased use of payment cards) as a means of reducing the passive

shadow economy (however, in Chapter 4 we also include a literature review on measures that could reduce the committed shadow economy). While the relation of cash payments and the shadow economy has been broadly discussed in the literature (it constitutes, among other things, a basis for the currency demand analysis—an estimation method of the size of the shadow economy, see Chapter 2.1), the influence of electronic payments on the non-observed economy has rarely been investigated.²² Our Report aims to fill this gap.

22 Data on electronic payments was used in e.g.: Ardizzi G., Petraglia C., Piacenza M., and Turati G. (2014), "Measuring the Underground Economy with the Currency Demand Approach: A Reinterpretation of the Methodology, With an Application to Italy", *Review of Income and Wealth*, vol. 60(4), pages 747-772.



2

Shadow economy in Albania

In this section, we briefly discuss our approach to estimating the shadow economy and present the obtained estimates for Albania. The estimates show the overall level of the shadow economy, its decomposition into the non-monetary and cash shadow economy (including passive and committed components), their evolution over time and sectorial insights regarding the shadow economy in Albania. We also demonstrate lost government revenues due to the existence of the cash and passive shadow economy in Albania.

More details on the applied methodology and obtained results are presented in the Technical Appendices.

2.1 Our approach to the estimation and analysis of the shadow economy

There are many methods for estimating the shadow economy, as discussed in the economic literature. The most common include:

- **Currency Demand Analysis (CDA),²³** which is based on the idea that the currency in circulation (cash) conveys useful information about all (not only officially registered) economic activities;
- **Multiple Indicators Multiple Causes Model (MIMIC),²⁴** which allows the changes over time of unobservable variables (such as the shadow economy size) to be estimated on the basis of their observable causes and consequences;
- **Energy Demand Approach,²⁵** which assumes that electric energy is demanded by both official and shadow market entities.

There are also other, less common methods of estimating the shadow economy. These include direct surveys or analyses of the structural aspects of the labour market (for example, a comparison of official and survey-based labour statistics).²⁶

We adopt a combined and innovative approach that utilizes Currency Demand Analysis, Labour Market Data analysis and other studies to provide a deep insight into developments in the shadow economy. Chart 2.1 provides a brief introduction to the methods used and various types of shadow economy analysed in this study. Frame 2.1 presents the main advantages of our approach to estimating and analysing the shadow economy.

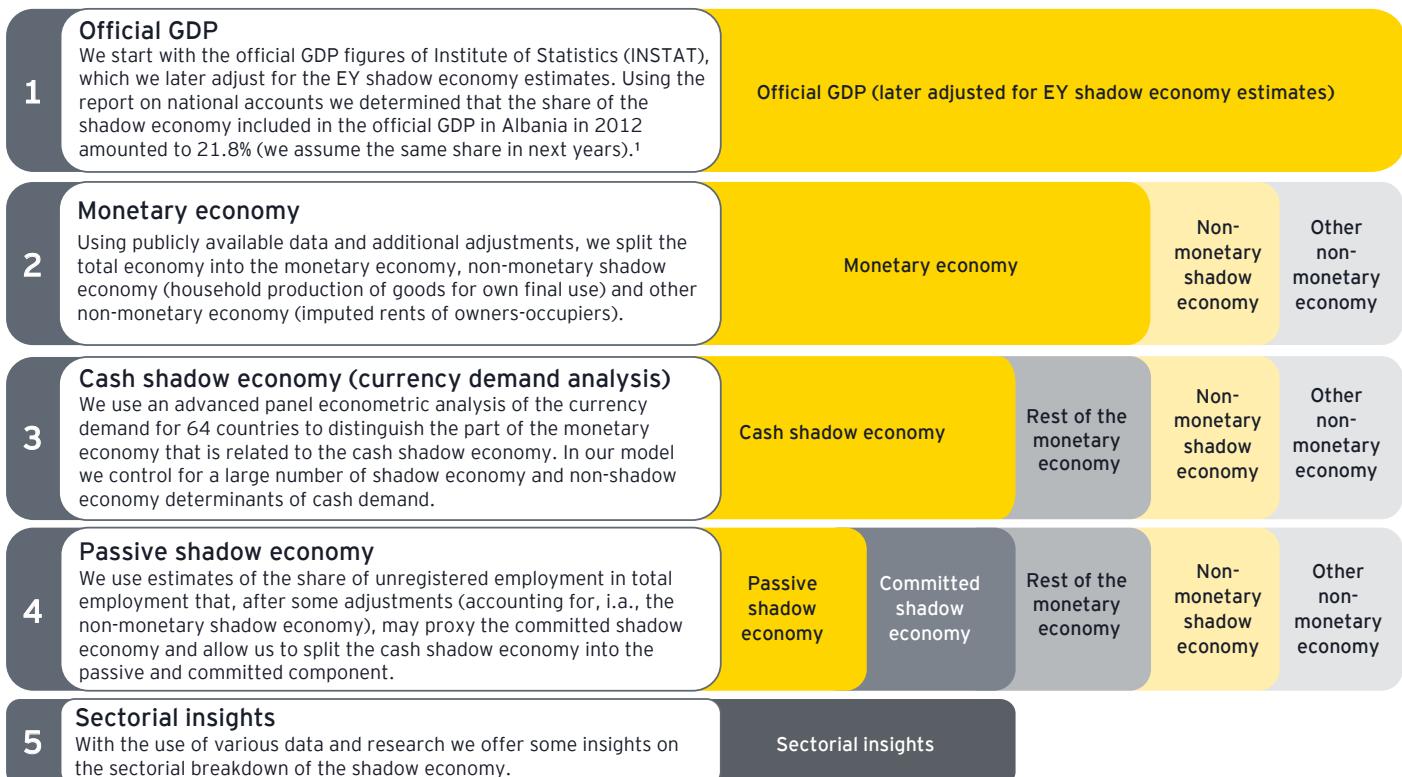
23 See, for example, Tanzi V. (1983), "The Underground Economy in the United States: Annual Estimates, 1930-80", *Staff Papers - International Monetary Fund*, vol. 30(2), pages 283-305 and Ardizzi G., Petraglia C., Piacenza M., and Turati G. (2014), *op. cit.*

24 See, for example, Schneider F. (editor) (2011), "Handbook on the Shadow Economy", Cheltenham (UK): Edward Elgar Publishing Company, and Buehn A. (2010), "The Shadow Economy in German Regions: An Empirical Assessment", *German Economic Review*, vol. 13(3), pages 275-290.

25 See, for example, Lacko M. (2000), "Hidden Economy - an Unknown Quantity? Comparative Analysis of Hidden Economies in Transition Countries, 1989-95", *Economics of Transition*, vol. 8(1), pages 117-149.

26 The pros and cons of the various methods of estimating the shadow economy are discussed in greater detail in the Technical Appendices.

Chart 2.1. Our general approach to estimating the size of the shadow economy



Notes: The proportions of the areas above do not reflect the proportions of different components of the total economy.

¹ Data on the value of the non-observed economy in the GDP of Albania can be found in national accounts methodological reports (e.g. <http://www.instat.gov.al/media/2254/part-a-gni-compilation-albania.pdf>; accessed 25.04.2019).

Source: EY.

A more detailed description of our approach to estimating the size of the shadow economy and its components is included in the Technical Appendices.

Frame 2.1. How does the EY approach to estimating and analysing the shadow economy differ from other shadow economy studies?

The key factors distinguishing our study include:

- (1) **Improved methodology of shadow economy estimation.** We used an advanced currency demand modelling approach (for 64 countries) that addresses many issues encountered in the shadow economy literature (see also footnote 10). Key improvements:
 - a. **Identification of shadow economy determinants and extensive robustness checks based on frequentist and Bayesian model averaging techniques;**
 - b. **Accounting for a complex set of cash demand determinants** (including some not covered by previous literature):
 - i. **Shadow economy related:** rule of law, ethics of companies, state and structure of the labour market;
 - ii. **Non-shadow economy related:** inflation, deposit interest rate, financial development, economic development;
 - iii. **Shadow and non-shadow economy related:** number of active payment cards;
 - c. **Econometric specification accounting for the uniqueness of each country included in the analysis** (including the so-called interaction terms).
- (2) **Breakdown of the shadow economy into the "passive"** (where cash is a cause of the shadow economy) **and committed components** (where cash is a consequence of the shadow economy). Distinguishing the passive component allows us to **identify the part of the shadow economy that can be reduced through the increased use of electronic payments.**
- (3) **Building a framework and a set of models that allow us to quantify the economic impact of different measures** that, by crowding out cash payments, lead to an increase in the registered economic activity (through the contraction of the shadow economy) and government revenues.
- (4) **Transparency of our approach.** While many publicly available analyses of the shadow economy do not provide methodological insights, the methodology applied in this study is described in detail (see Technical Appendices). Since it is impossible to avoid adopting certain assumptions in the procedure for estimating the shadow economy, our approach can also be questioned on some grounds. Nevertheless, we would not seek to avoid criticism by limiting our transparency and think that openness is crucial. Importantly, we have improved some methodologies applied in the shadow economy literature so far, which has allowed us to significantly reduce the number of required assumptions and discretionary steps to be taken in the estimation procedure. Consequently, we believe that our estimates of the shadow economy should be more objective, and thus more reliable, than the results of many other studies based on the CDA and/or MIMIC approaches.

2.2 Estimated size and structure of the shadow economy, sectorial insights and lost government revenues

In this section, we present estimates of the shadow economy in Albania. These estimates comprise the overall level of the shadow economy, its breakdown into the non-monetary and cash shadow economy (including the passive and committed

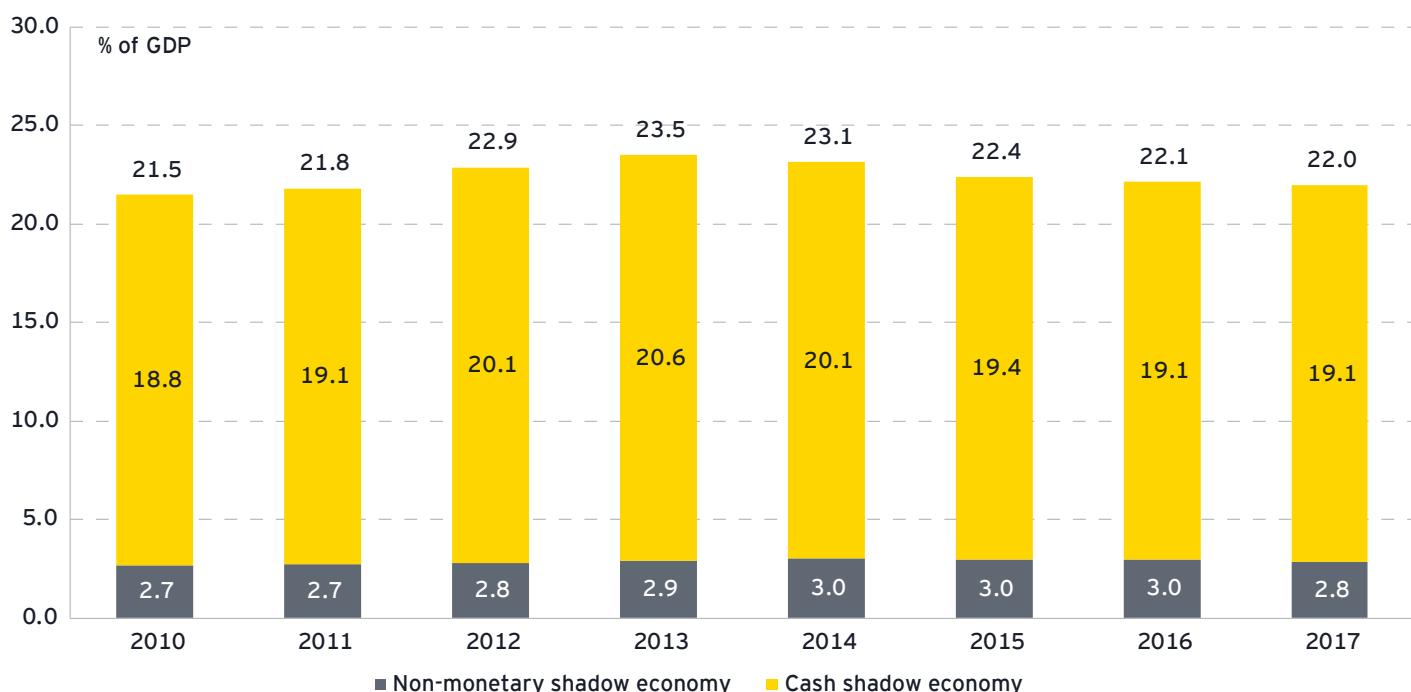
components), their evolution over time as well as some sectorial insights regarding the shadow economy. We also demonstrate lost government revenues due to the existence of the cash and passive shadow economy in Albania.

Overall level of the shadow economy

The obtained results show the total level of the shadow economy in Albania amounted to 22.0% of GDP²⁷ in 2017 (ALL 341.1bn, see Chart 2.2), of which 19.1% of GDP (ALL 297.0bn) was related to cash payments and the remaining 2.8% of GDP (ALL 44.2bn)

can be attributed to non-monetary production (household production of goods for own final use—the non-monetary shadow economy).²⁸

Chart 2.2. Estimated size of the shadow economy in Albania (% of GDP)



Source: EY.

27 We present our shadow economy estimates as % of the official GDP figures of the Institute of Statistics (INSTAT) that already include non-observed economy estimates.

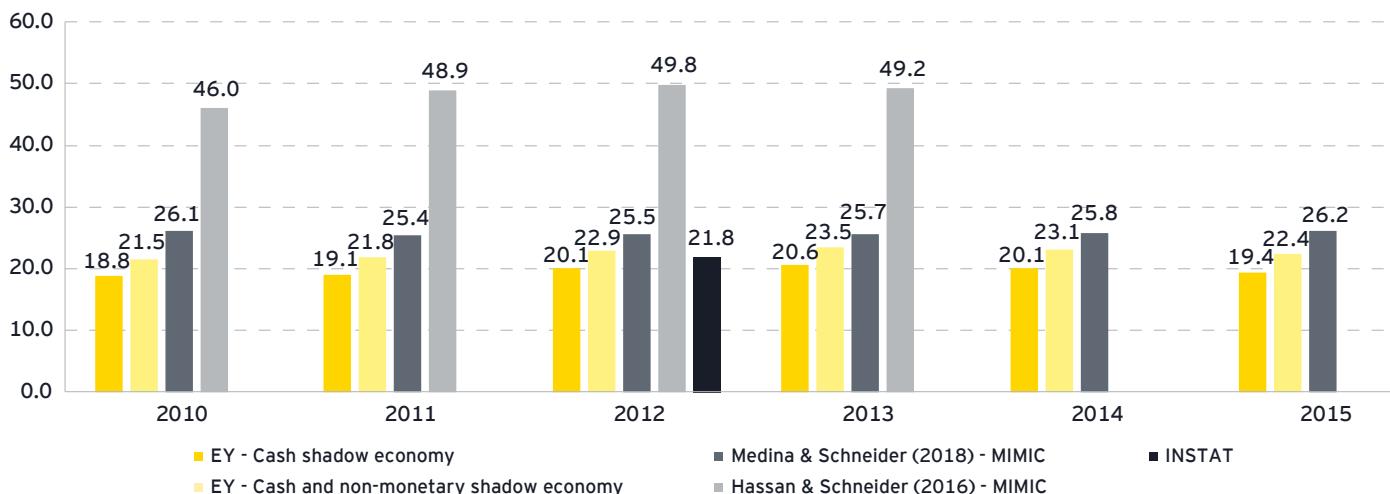
28 The non-monetary shadow economy (household production of goods for own final use) estimates were obtained by EY with the use of, i.a., the methodological report on national accounts in Albania (see <http://www.instat.gov.al/media/2254/part-a-gni-compilation-albania.pdf>; accessed 25.04.2019).

Below we compare our shadow economy estimates for Albania with estimates from other research. Apart from the estimate of the Institute of Statistics (INSTAT)²⁹, which draw on internal analyses and data not publicly available, shadow economy estimates are based on the two leading methods –the currency demand approach (CDA) and the multiple-indicators multiple-causes model (MIMIC). However, the MIMIC approach is heavily criticized in the literature. The reason is that it requires the adoption of a set of controversial assumptions and external estimates of the shadow economy level (MIMIC can only generate estimates of the shadow economy *dynamics*).³⁰ Furthermore, research papers³¹ show that MIMIC estimates of the shadow economy are almost completely determined by the external

shadow economy estimates used (usually from CDA). Literature also discusses some limitations of the CDA approach.³²

In this study we apply the significantly enhanced currency demand approach to the shadow economy estimation (see Chapter 2.1 for details), which has been recognized to effectively address many weaknesses identified previously in the literature. Bearing in mind limitations of the shadow economy estimates in other studies, one may notice that for Albania our estimates of the cash and non-cash shadow economy are quite similar to the estimates of Medina and Schneider, and significantly lower than the ones of Hassan and Schneider (see Chart 2.3). Also, 2012 INSTAT estimates, which take non-monetary GDP into account, are on a similar level to the ones obtained by EY.

Chart 2.3. Comparison of various shadow economy estimates for Albania (% of GDP)



Source: Hassan, Mai & Schneider, Friedrich, 2016. "Size and Development of the Shadow Economies of 157 Countries Worldwide: Updated and New Measures from 1999 to 2013," IZA Discussion Papers 10281, Institute for the Study of Labor (IZA). Medina, Leandro & Schneider, Friedrich, 2018. "Shadow Economies Around the World: What Did We Learn Over the Last 20 Years?", IMF Working Paper No. 18/17. INSTAT <http://www.instat.gov.al/media/2254/part-a-gni-compilation-albania.pdf> [accessed 25.04.2019]

29 Data on the value of the non-observed economy in the GDP of Albania (inc. non-monetary shadow economy) can be found in national accounts methodological reports (e.g. <http://www.instat.gov.al/media/2254/part-a-gni-compilation-albania.pdf>; accessed 25.04.2019).

30 Examples of studies criticising MIMIC approach: Breusch T. (2016), "Estimating the Underground Economy using MIMIC Models", *Journal of Tax Administration*, vol. 2(1), Feige E. L. (2016), "Reflections on the Meaning and Measurement of Unobserved Economies: What do we really know about the "Shadow Economy"?", *Journal of Tax Administration*, vol. 2(1).

31 Examples of studies showing that the variance of MIMIC estimates of the shadow economy is in over 95% determined by the variance of the external estimates of the shadow economy include: Feige E.L. (2016), "Professor Schneider's Shadow Economy (SSE): What Do We Really Know? A Rejoinder", *Journal of Tax Administration*, vol. 2(2), pages 5-40, Dybka P., Kowalcuk M., Olesiński B., Rozkrut M., Torój A. (2018), *op. cit.*

32 Medina L. and Schneider F. (2018), *op. cit.*

Passive and committed shadow economies

Splitting the cash shadow economy into its passive and committed components provides a more detailed insight into the situation in Albania. To our knowledge, no such breakdown has been done in other research, and thus constitutes a contribution of this study to the literature. As discussed in Chapter 1.3, the passive component is that part of the cash shadow economy that can be reduced by promoting electronic payments, and so limiting the use of cash that otherwise facilitates unregistered transactions. The committed shadow economy is the remaining part of the cash non-observed economy and should be dealt with using other tools.

Our approach to distinguishing the two components is based on the assumption that the output of the committed shadow economy is correlated with and mirrored by shadow labour force inputs (for a more detailed description of the methodology see the Technical Appendices). It should be noted, however, that unreported employment is also possible in registered companies that are not involved in the committed shadow economy. Therefore, from this perspective, our assumption can result in an overestimation of the committed and an underestimation of the passive component. On the other hand, however, we do not account for the fact that some companies with no unregistered labour force may also be involved in the committed shadow economy.

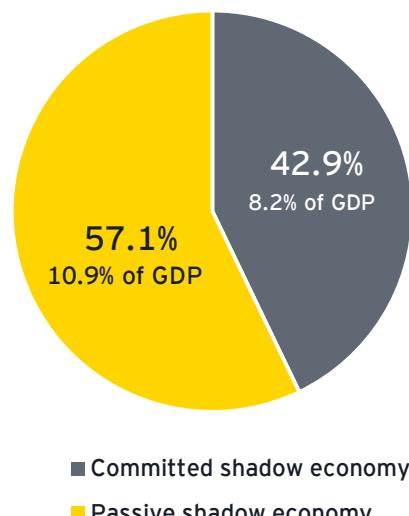
Our estimates presented in Chart 2.4 indicate that the passive component (for which cash is a cause) accounted for 57.1% of the cash shadow economy (10.9% of GDP, ALL 164.5bn), while the committed component (for which cash is a consequence) has

been estimated at 42.9% (8.2% of GDP, ALL 148.1bn) in Albania in 2017. This indicates that a majority of the shadow economy in Albania may be reduced through the promotion of electronic payments. Moreover, reduction of the committed shadow economy may further increase the importance of measures addressing the problem of the passive shadow economy.

A large committed shadow economy may be associated with a significant number of unregistered companies that, by definition, have unregistered employees. In such a situation the passive shadow economy may be limited, since consumers will often have no option to make an electronic payment. Even if electronic payments were formally promoted, transactions with unregistered companies would continue to be made in cash.

If, however, some regulations or other changes make entrepreneurs register their businesses (often associated with an increased registered employment), this may reduce the level of the shadow economy, but also change its structure. In particular, such a company, although now registered, may report only part of its revenues to evade taxes. This, however, would be conditional upon receiving its payments in cash. By contrast, if consumers were provided with an option to make an electronic payment, the ability of the seller not to report its income would be limited. Consequently, contraction of the shadow economy due to reduction of its committed component would also depend on the simultaneous measures addressing the passive shadow economy.

Chart 2.4. Estimated structure of the cash shadow economy in Albania (% of GDP)



Source: EY.

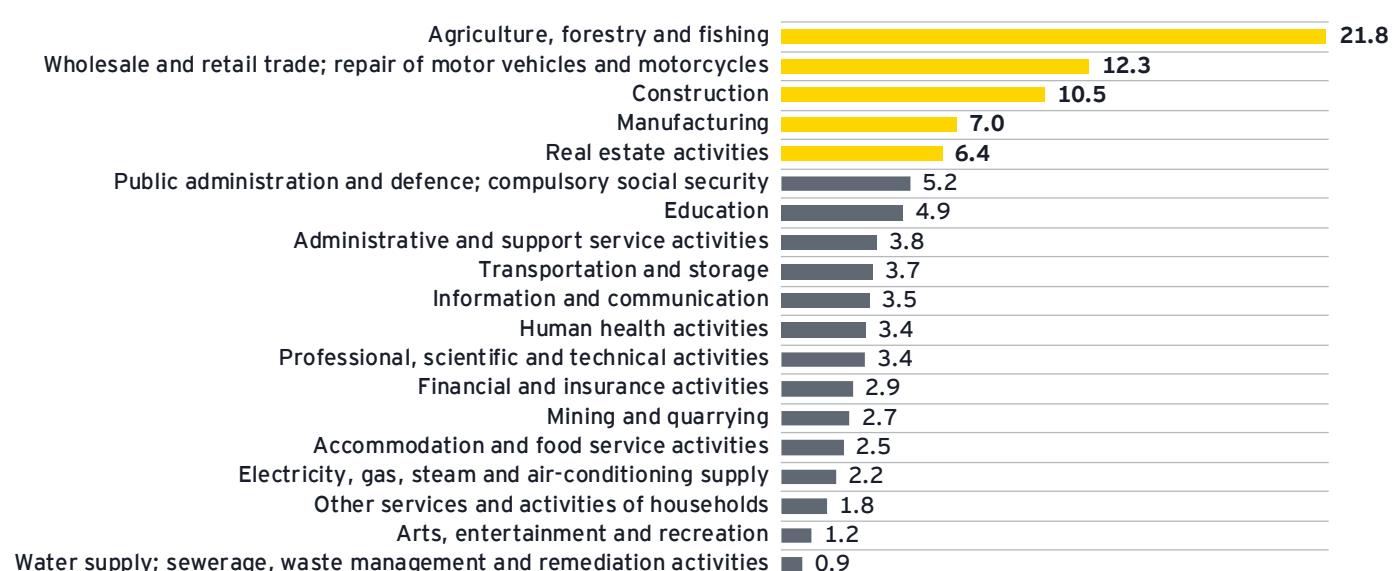
Sectorial insights

There is no single data source or analytical approach that would allow us to make strong conclusions about the sectorial breakdown of the shadow economy in Albania. Yet, information is available that enabled us to present insights on: (1) sectors that may contribute the most to the total shadow economy size and (2) sectors in which the shadow economy may be relatively most prevalent (i.e. sectors with relatively high shares of the shadow economy in their value added).³³

First, it is useful to identify large sectors that, due to their scale, may significantly contribute to the total size of the shadow economy. The "size" of different sectors in Albania may be approximated utilising the publicly available data on the sector shares in the total value added (see Chart 2.5). In 2017,

the following sectors contributed the most to the total value added in Albania: (1) agriculture, forestry and fishing (21.8%), (2) wholesale and retail trade; repair of motor vehicles and motorcycles (12.3%), (3) construction (10.5%), (4) manufacturing (7.0%) and (5) real estate activities (6.4%). Policies aimed at tackling the shadow economy in the largest sectors may generate the highest decline in the total size of the shadow economy in Albania.³⁴ Furthermore, research for various OECD countries shows that, in general, the shadow economy may be relatively most prevalent in the following sectors: (1) accommodation and food service activities, (2) construction, (3) agriculture, forestry and fishing, and (4) wholesale and retail trade, repair of motor vehicles and motorcycles.³⁵

Chart 2.5. Shares of sectors in the total value added in Albania, 2017 (%)



Notes: The yellow bars indicate large sectors in which the policies aimed at tackling unreported transactions may generate the highest decline in the total size of the shadow economy in Albania.

Source: Albanian Institute of Statistics (INSTAT).

³³ It is worth noting that the further presented sectorial data is based on different data sources which use different sectorial breakdowns/ classifications (e.g. by producer/service provider, by consumer expenditure, by type of merchant, etc.).

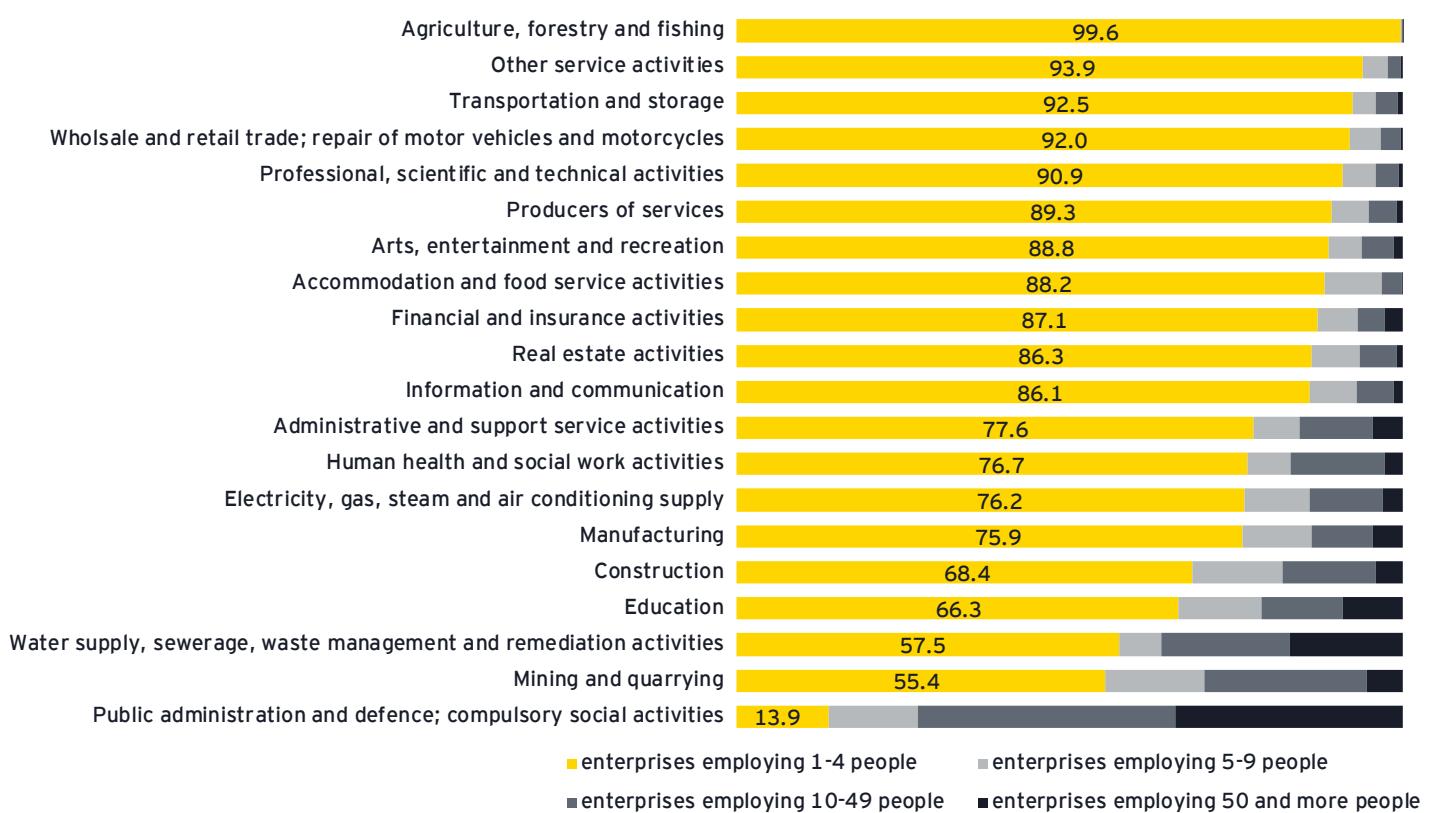
³⁴ For illustrative purposes, let's assume, e.g., that the share of the shadow economy in a sector's value added is equal to 40% for (a) agriculture, forestry and fishing and equal to 80% for (b) arts, entertainment and recreation. Since sectors (a) and (b) account for, respectively, 21.8% and 1.2% of the total value added in Albania, the shadow economy in these sectors accounts for (a) 8.7% ($=40\% \times 21.8\%$) and (b) 1.0% ($=80\% \times 1.2\%$) of the total value added. Therefore, sectorial policies reducing the shadow economy by, e.g., 50% in these sectors would increase the total registered economy by (a) 4.4% and (b) 0.5% of the total value added ($\approx \text{GDP}$). Consequently, the effect of policy will be more relevant for the economy in the case of sector (a) than (b), even though the shadow economy accounts for a smaller part of economic activity (value added) in sector (a) than (b).

³⁵ Gyomai, G. and van de Ven, P. (2014), "The Non-Observed Economy in the System of National Accounts", OECD Statistics Brief.

Second, shadow economy is more likely to be active in small businesses than in larger entities. In 2017, businesses with less than 5 workers were most prevalent in the following sectors in Albania: (1) agriculture, forestry and fishing (99.6% of the registered enterprises in the sector), (2) other service activities

(93.9%), (3) transportation and storage (92.5%), (4) wholesale and retail trade; repair of motor vehicles and motorcycles (92.0%), (5) professional, scientific and technical activities (90.9%) (see Chart 2.6).

Chart 2.6. Enterprise size distribution by sectors in Albania, 2017 (%)



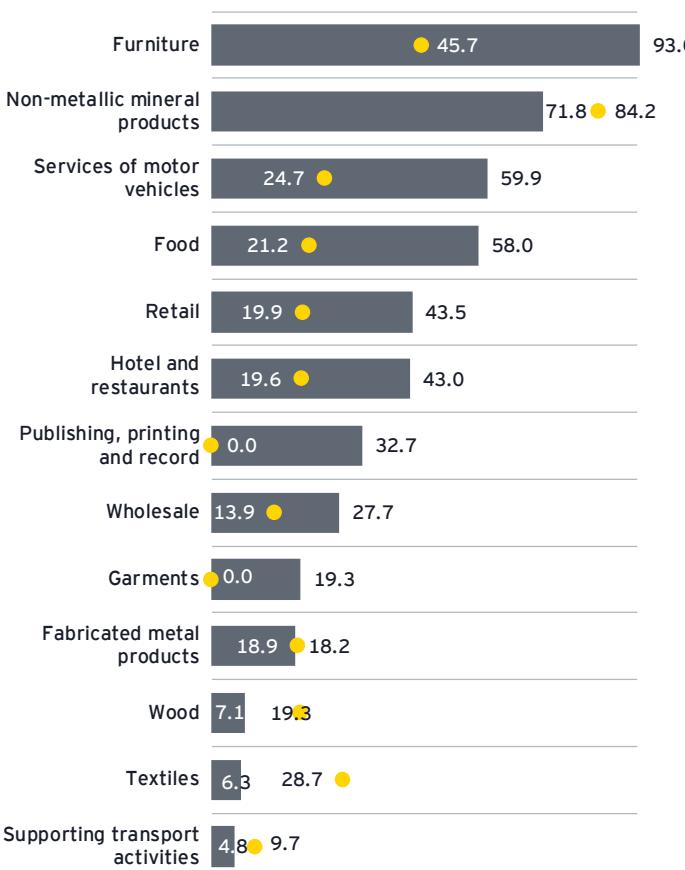
Source: Albanian Institute of Statistics (INSTAT), Business Register.

Third, Enterprise Survey Albania, a study conducted by the World Bank in 2013 (no newer version was available when we were conducting this study) gives information about problems with informal competition in the Albanian market. In 2013, registered Albanian firms reported competing against unregistered firms most often in the following sectors: (1) furniture (93.0% of firms), (2) non-metallic mineral products (71.8%), (3) services of motor vehicles (59.9%) and (4) food (58.0%) (see Chart 2.7a).

Also, firms that do not have a bank account may more often underreport transactions and operate in the (passive) shadow economy. In Albania, the lowest shares of registered firms with a bank account were observed in 2013 in the sectors of: (1) supporting transport activities (19.4%), (2) hotel and restaurants (57.8%), (3) publishing, printing and record (58.6%) and (4) food (62.2%) (see Chart 2.7b).

Chart 2.7. Shadow-economy related obstacles to the registered business activity in Albania

a. Problems with informal competition, 2013 (% of registered non-agricultural firms)



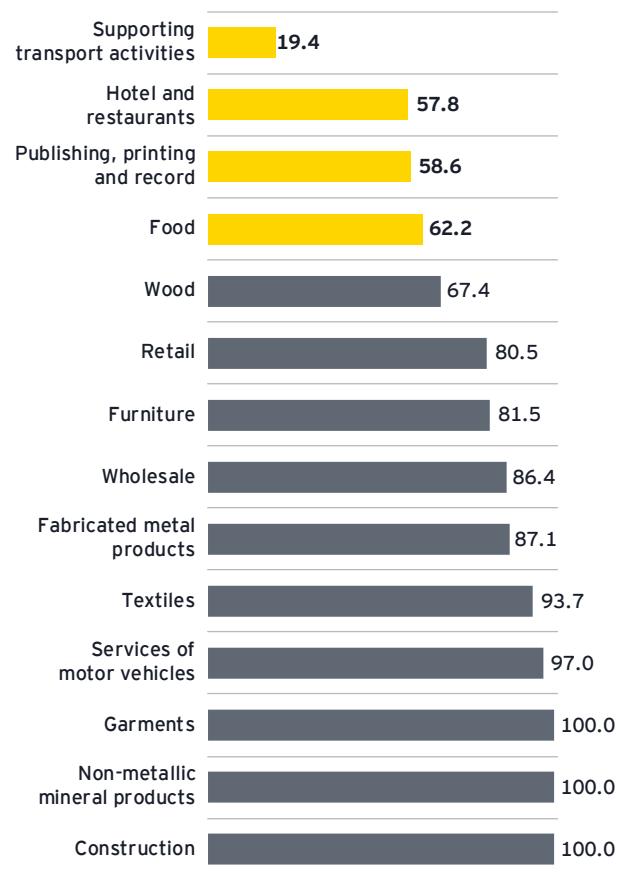
- Competing against unregistered firms (%)
- Competitors in informal sector as a major or severe obstacle to business activity (%)

Notes: The research does not cover unregistered firms and agriculture. The data is not presented for sectors with less than 5 answers to a given question.

Source: World Bank, Enterprise Survey Albania 2013 (no newer version of the research was available when we were conducting the study)

Fourth, passive shadow economy is related to consumer payments with cash. Therefore, sectors accounting for the largest share of consumer expenditure such as food and beverages (37.0% of total consumer expenditure) (see Chart 2.8a) and with the highest estimated gap in the number of POS terminals (difference between the current number and the estimated maximum of POS terminals) (see Chart 2.8b) may contribute relatively more to the passive shadow economy. It is worth to

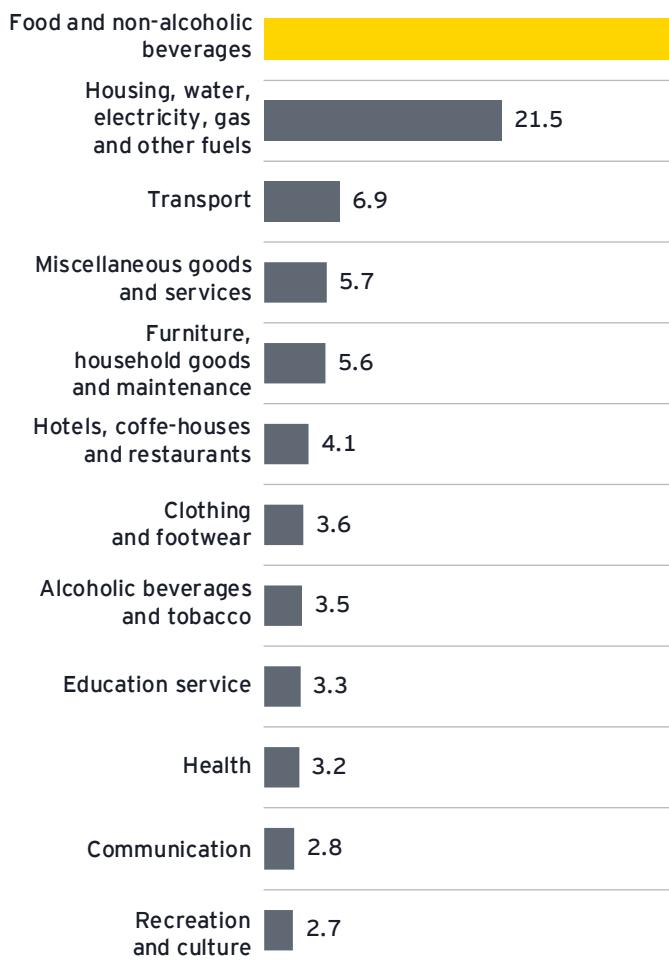
b. Checking and/or saving account, 2013 (% of registered non-agricultural firms)



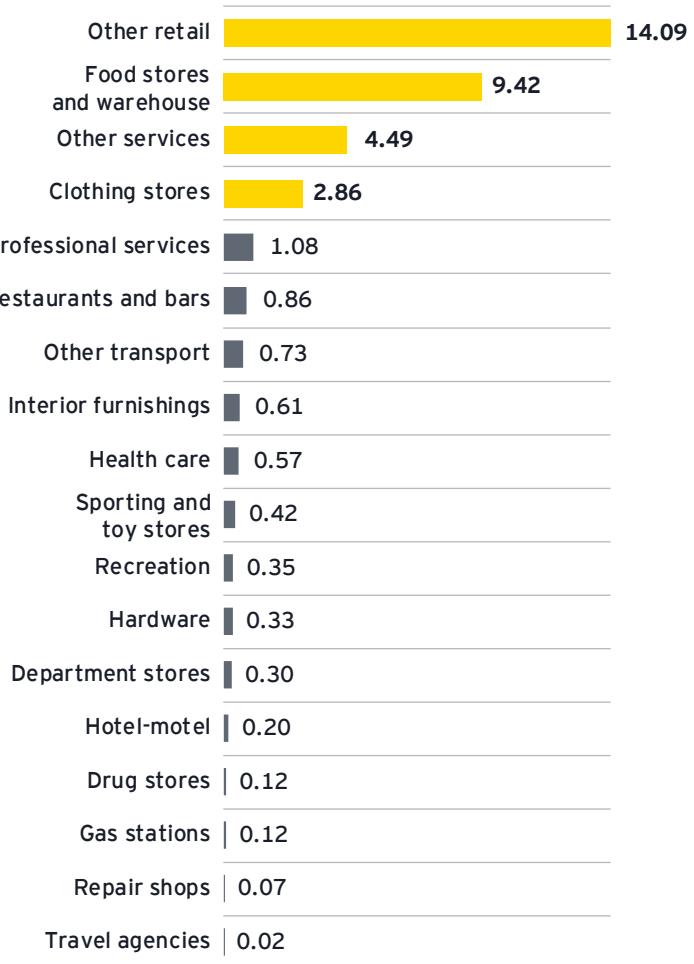
stress that in Albania the number of POS terminals is very low in almost all sectors. Therefore, the differences in the estimated gaps by sectors mostly reflect the differences in the total estimated number of merchants in these sectors. Sectors in which the biggest POS terminals shortage was identified are (1) other retail (14.09 per 1000 inhabitants), (2) food stores and warehouses (9.42), (3) other services (4.49), and (4) clothing stores (2.86).

Chart 2.8. Consumer spending in Albania

a. Consumer expenditure by categories, 2017 (% of total consumer expenditure)



b. Estimated gap in the number of POS terminals per 1000 inhabitants by type of merchant, 2017



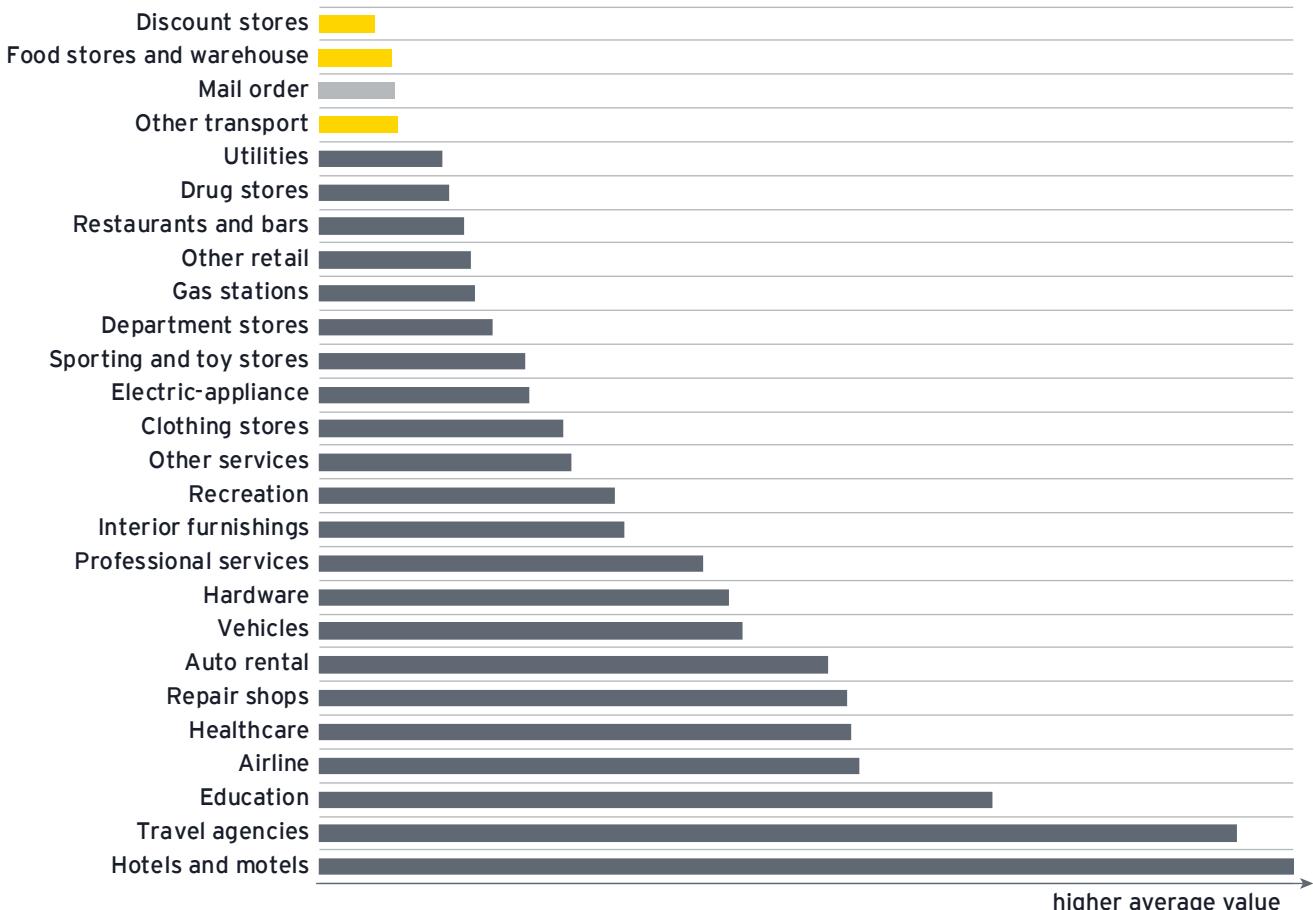
Notes: The yellow bars indicate the sectors/merchants that may contribute relatively more to the total passive shadow economy size.

Source: a. Albanian Institute of Statistics (INSTAT), CPI weights, b. EY.

Finally, it is worth recalling that the passive shadow economy is related mostly to low value consumer payments (higher value transactions are harder to hide, e.g. consumers may want to obtain a receipt). Consequently, the passive shadow economy

may be more prevalent among sectors and merchants that accept mostly payments of relatively low value. Such sectors/merchants include: (1) discount stores, (2) food stores and warehouses and (3) other transport (see Chart 2.9).

Chart 2.9. Average value of card payment at POS terminals for different merchant categories in Albania, 2018



Note: The yellow bars indicate the sectors in which the passive shadow economy may be relatively prevalent. Since mail order transactions often include telemarketing and other indirect purchases, which often require electronic payments and issuing receipts, they are rather not related to the passive shadow economy

Source: Mastercard.

Cash shadow economy and lost government revenues

The cash shadow economy may entail serious consequences, many of which have been discussed in Chapter 1.2. Here, we present the estimates of additional government revenues that would be collected if all the cash shadow economy transactions were reported. This allows us to illustrate the potential budgetary benefits from addressing the issue of the cash shadow economy.

The categories of government revenues that we consider in our analysis are the value added tax (VAT) and the corporate income tax (CIT)³⁶, since they are the most important budgetary consequences of the cash shadow economy. If a consumer

transaction is not registered, then VAT, even if included in the consumer price (as in the passive shadow economy), will not be paid by the seller. Moreover, the merchant's revenue from this transaction would not be reported either. Consequently, it would translate into lower than otherwise CIT revenues collected by the government.³⁷ One should also be aware that the cash

³⁶ To calculate lost government revenues from the corporate income tax (CIT) due to the cash shadow economy existence, we have estimated the "effective corporate income tax (CIT) rate" for companies.

³⁷ We are aware of the fact that in some countries merchants may not be CIT payers, but, for example, individual income tax payers or another category of tax payers. In our approach we conservatively estimate government revenues lost due to VAT and CIT only. We omit lost government revenues due to other income taxes than CIT that may only partly be related to business income and that only to a minor extent may be limited by the reduction of the passive shadow economy through the promotion of electronic payments.

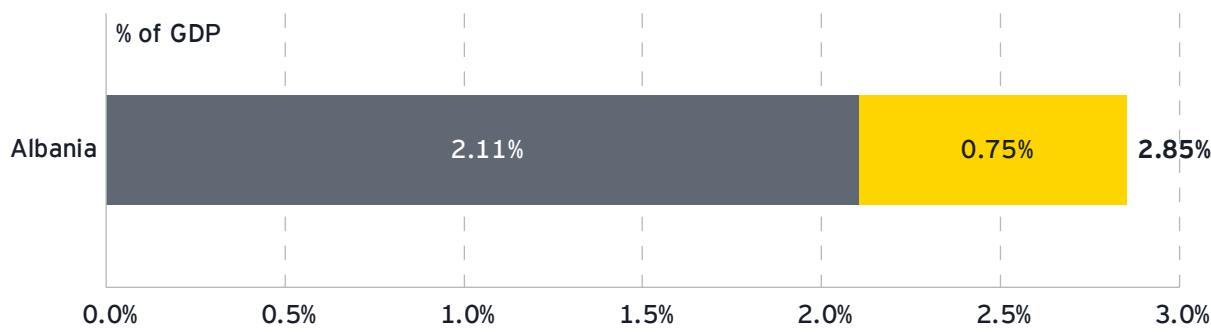
shadow economy generates lost government revenues related to unregistered work and unregistered labour income (e.g. from income taxes for individuals and social security contributions, which are not subject of our analysis, though), especially in light of a high share of informal workers in the total employment in Albania.

The details of how we have calculated the VAT and CIT revenue shortfall due to cash shadow economy activities are described in the Technical Appendices. Here we just indicate that we do not

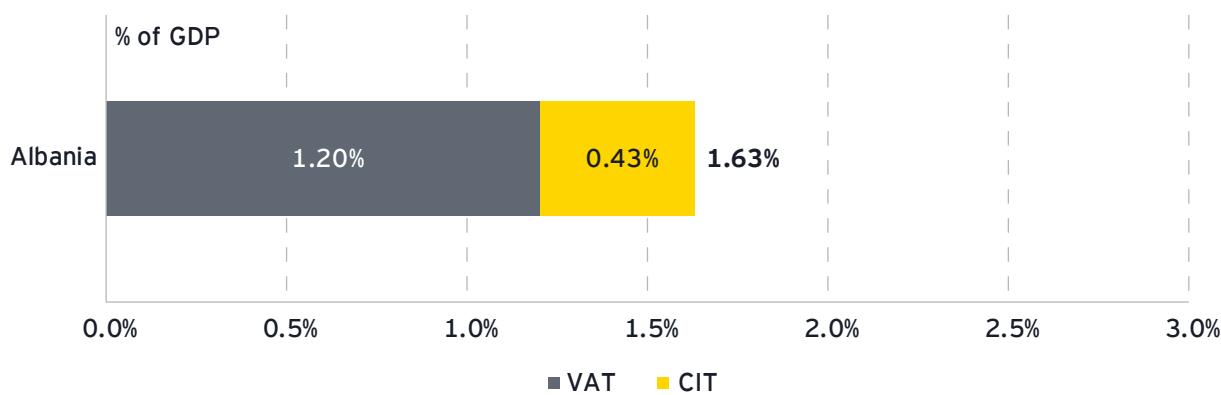
apply the standard VAT or CIT rates in our calculations, since this would lead to an overestimation of the budgetary effect. In particular, in our approach we take into account how VAT rates differ among various sectors in Albania,³⁸ and what is the effective CIT rate for companies. This is consistent with our preference to be on the conservative side rather than presenting biased, overestimated figures that could weaken the credibility of our conclusions.

Chart 2.10. Lost government revenues in Albania in 2017 due to the existence of:

Cash shadow economy



Out of which: passive shadow economy



Source: EY.

³⁸ Currently, in Albania there are different VAT rates (standard 20%, reduced rate 6% (e.g. for accommodation)) and some products/services are exempt from VAT (e.g. educational services), thus resulting in differences in the average VAT rates for different goods and services.

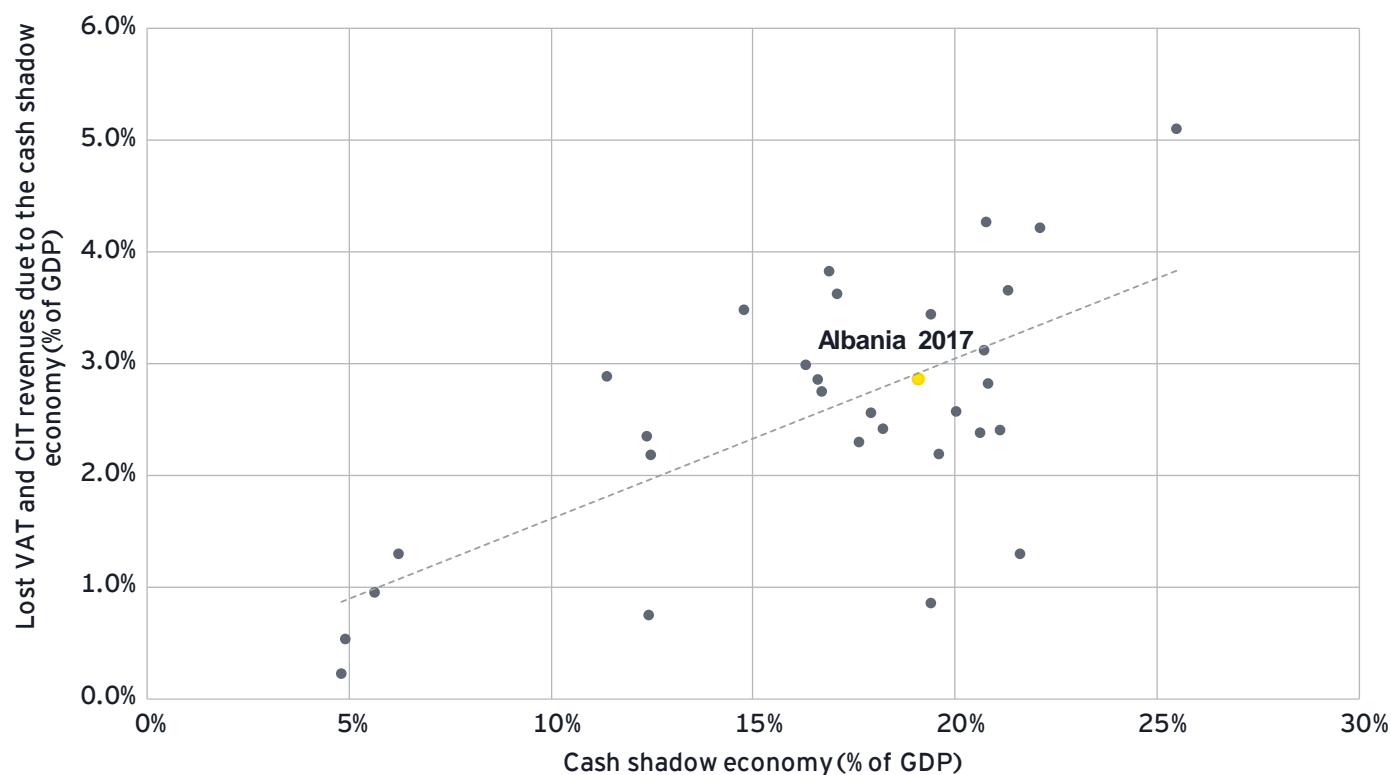
The obtained results (see Chart 2.10) show that the game is worth the candle, since potential government revenues from eliminating the cash shadow economy in Albania in 2017 amounted to 2.85% of GDP (ALL 44.3bn), out of which 1.63% of GDP (ALL 25.3bn) was related to the passive shadow economy.³⁹

Applying the theoretical VAT rate, calculated on the basis of the current VAT rates, the estimated VAT losses associated with the cash shadow economy in Albania in 2017 amounted to 2.11% of GDP (24.2% of total collected VAT revenues in 2017), out of which 1.20% of GDP (13.8% of total collected VAT revenues)

was related to the passive component. CIT revenues lost due to the existence of the cash shadow economy in Albania in 2017 were estimated at 0.75% of GDP (35.7% of total collected CIT revenues), out of which 0.43% of GDP (20.4% of total collected CIT revenues) was related to the passive component.

It is worth noting that the relationship between the level of Albania's cash shadow economy and lost government revenues turn out to be consistent with the average pattern identified for other countries analysed by EY (from various continents and at the different level of the economic development) (see Chart 2.11)

Chart 2.11. EY cash shadow economy estimates vs lost VAT and CIT revenues for different countries (%GDP)



³⁹ Our analysis does not take into account the fact that some merchants whose activity has so far been based on unfair competition by not declaring part of their profits, may become worse-off as a result of being forced to register all of their profits and pay more taxes, accordingly. In order to defend their previous level of net disposable income, some merchants might try to increase prices, which should be limited by market competition, or to decrease the wages of their employees, which should be tempered by competition on the labour market, or might simply accept lower margins.



3

Financial inclusion and electronic payments in Albania

As discussed in the previous chapters, the passive shadow economy may be reduced through the promotion of electronic payments. In this part of the Report, we assess the current level of financial inclusion and development of electronic payments in Albania. We conduct such an assessment by comparing various available statistics for Albania, other Balkan countries as well as OECD countries. Next, we briefly describe various public policies related to financial inclusion and electronic payments that have already been introduced in Albania.

3.1 Assessment of the current state

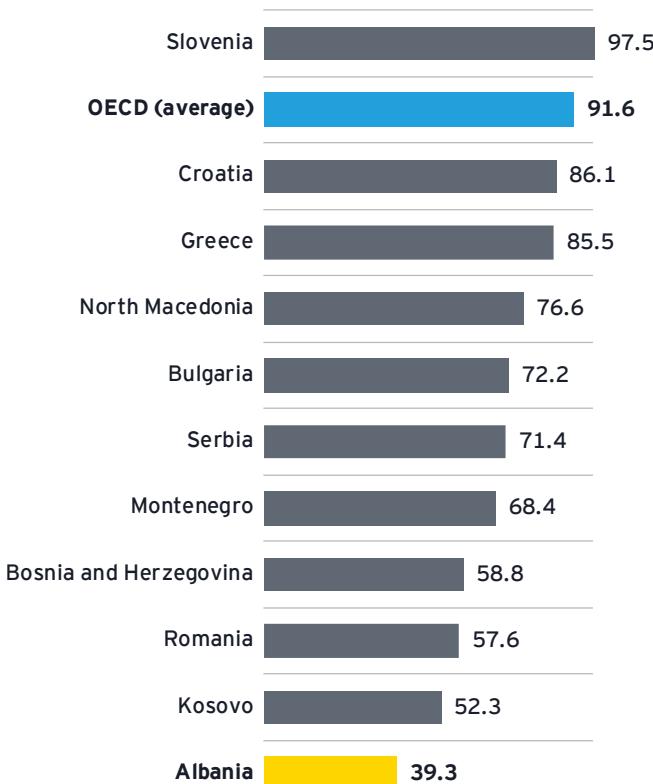
We divide our assessment of the current level of financial inclusion and the development of electronic payments into a few interlinked areas.

First, it is essential to provide people and companies with access to financial services, especially to bank accounts that allow them to store money as well as to make and receive electronic payments. In Albania, only 39.3% of respondents aged 15+ declared having an account at a financial institution in 2017, which is the lowest share among countries in the Balkan region and 52.3 pp lower than the OECD average (91.6%) (see Chart 3.1.a). In this context, it is interesting to analyse declared reasons for not having an account at a financial institution in Albania (see

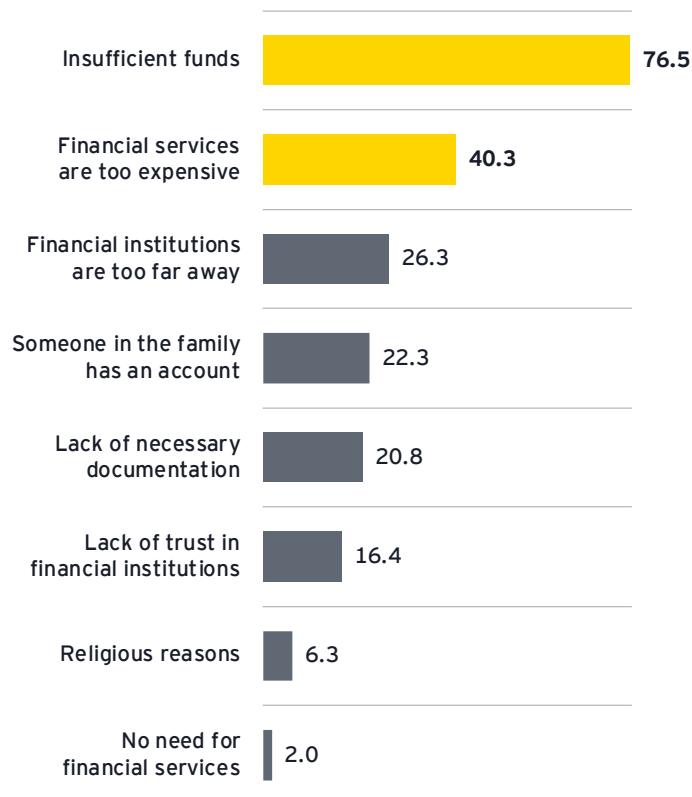
Chart 3.1.b). In 2017, as many as 76.5% of respondents (persons without an account, aged 15+) pointed at insufficient funds. Such an issue may mostly be tackled in the long term through the continued economic development and/or through increased income redistribution. In addition, 40.3% of respondents claimed that financial services are too expensive. It is worth noting that only in, respectively, 16 and 25 (out of 150) researched countries these reasons were mentioned more often. It suggests that many unbanked Albanians perceive accounts/financial services as not affordable to them. Low affordability may be, at least to some extent, addressed by the public policy (e.g. by ensuring free of charge access to basic accounts).

Chart 3.1. Access to financial services of consumers

a. Account at a financial institution, 2017 (% age 15+)



b. Albania 2017: reasons for not having an account at a financial institution (% without account, age 15+, multiple choice question)

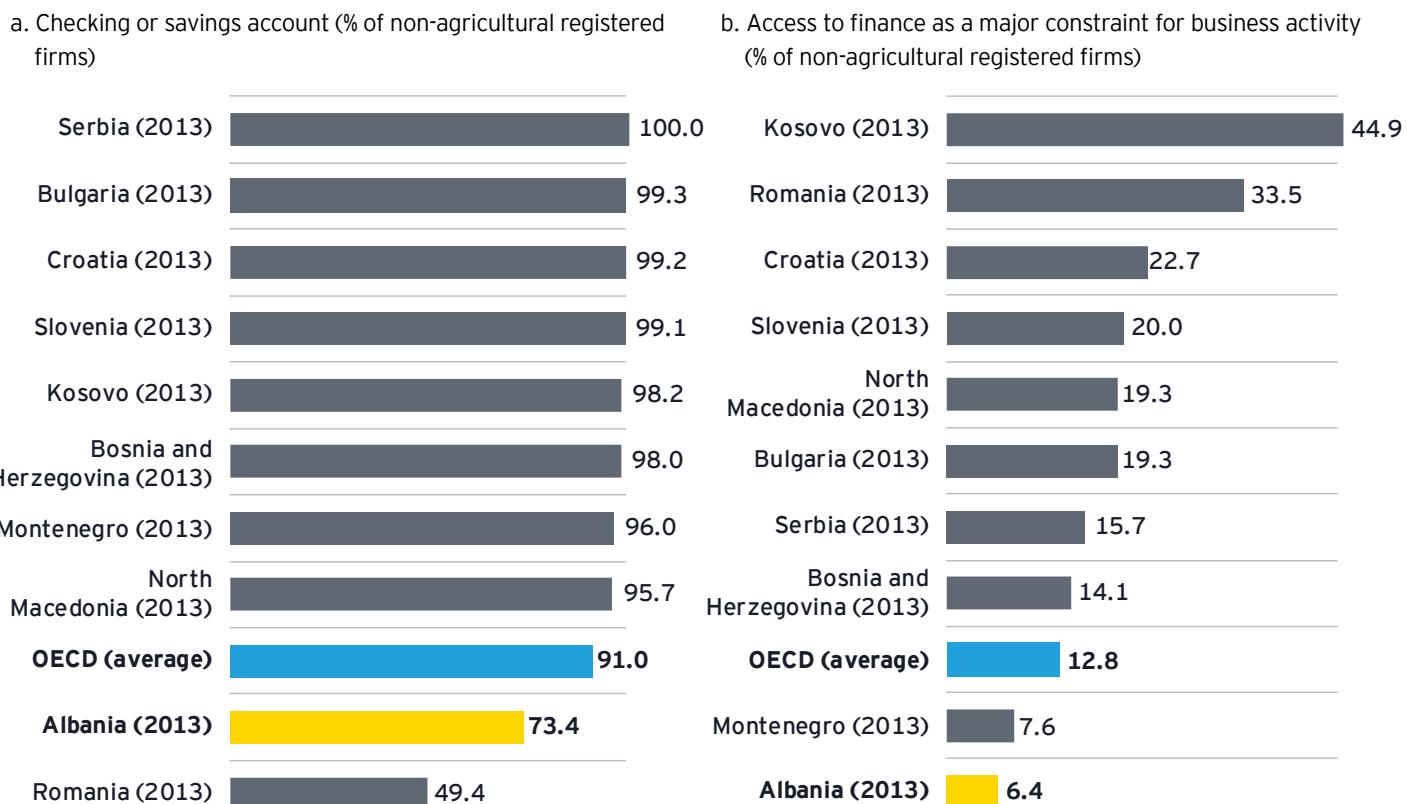


Source: World Bank (Global Findex).

According to the World Bank Enterprise Survey, among the registered non-agricultural firms in Albania in 2013, 73.4% had a checking or savings account. This share was lower than the OECD countries average—the respective ratio for OECD amounted to 91.0% (see Chart 3.2). Nonetheless, 6.4% of the firms in Albania identified access to finance as a major constraint for business

activity in 2013 (OECD average: 12.8%). However, it is worth noting that in Albania more companies are unregistered than, on average, in OECD countries. Such companies are more likely to be unbanked and financially constrained than the registered enterprises.

Chart 3.2. Access to financial services of companies



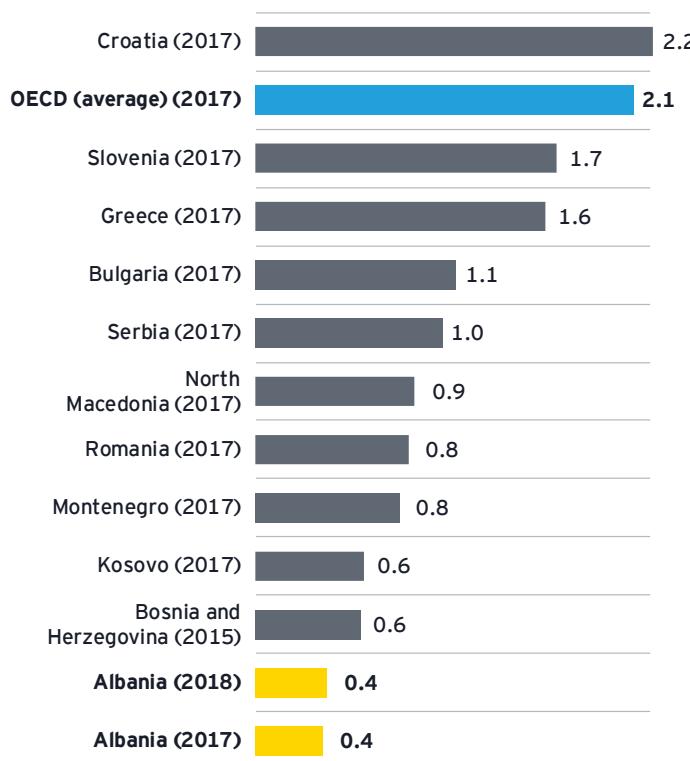
Source: World Bank (Enterprise Survey) (latest available edition of the research for a given country).

Second, it is important to develop electronic payment infrastructure. Since card payments are the most common form of electronic consumer payments in most countries and the availability of data on other kinds of electronic payments is limited, we focus on the analysis of card payment infrastructure (see Chart 3.3 and 3.4). Number of payment cards per capita in Albania amounted to 0.37 in 2017 and 0.39 in 2018, which was the lowest level among Balkan countries and approx. 81.1% lower than the average for OECD countries in 2017 (2.08) (see Chart 3.3a). POS terminals availability is a crucial part of the electronic payment infrastructure, however in 2018 the number

of POS terminals per 1000 inhabitants in Albania (3.0) was the lowest among Balkan countries and approx. 88.4% lower than the average for OECD countries in 2017 (26.2) (see Chart 3.3b). The analysis of payment infrastructure indicates that there is a huge gap in the card payment infrastructure and acceptance network between Albania and other countries in Balkans as well as more developed countries. It is a crucial aspect of electronic payments, because even if more Albanians were to obtain their income in electronic form and/or hold their money at bank accounts, they would spend most of it in cash, unless the card payment infrastructure and acceptance network is better developed.

Chart 3.3. Card payment infrastructure

a. Payment cards per capita



b. POS terminals per 1000 inhabitants



Note: OECD average was calculated excluding Luxembourg (which was an outlier).

Source: Mastercard, central banks, World Bank (Global Payment Systems Survey), Bank for International Settlements, statistical offices.

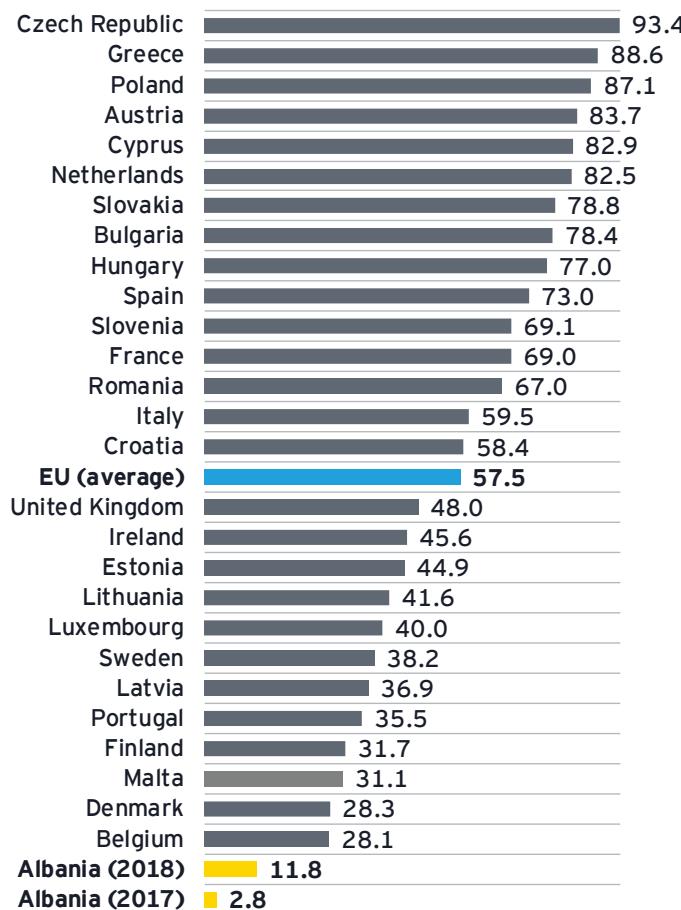
Contactless payments have become a substantial part of electronic payments in many countries due to their convenience and speed of conducting the payment. However, in 2018 only 11.8% of cards and 54.1% of POS terminals in Albania enabled the use of the contactless payments technology⁴⁰ (see Chart 3.4). In the EU the average shares amounted to 57.5% and 72.8%,

respectively. Yet, there are some countries in which they reached almost 100%. It is worth noting that to perform a contactless payment one needs both—a contactless card and contactless POS terminal (or other device that accepts contactless electronic payments), so in order for a change to occur, development in both areas is required.

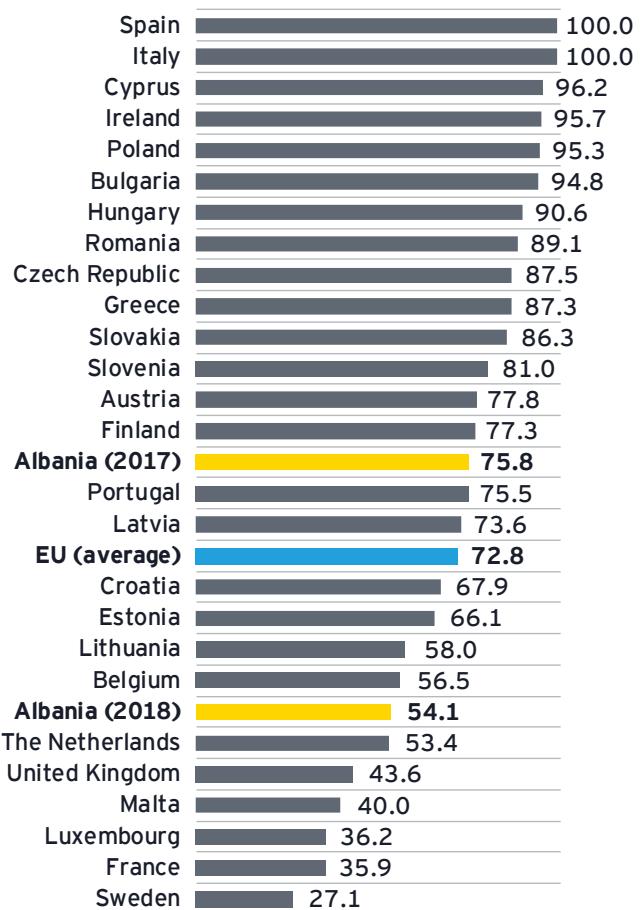
⁴⁰ These are shares for Mastercard payment cards and Mastercard approved POS terminals, respectively. Data for the whole card payment market was not available to us.

Chart 3.4. Contactless payment infrastructure

a. Contactless share in Mastercard payment cards, 2018 (%)



b. Contactless share in POS terminals, 2018 (%)



Notes: The collected data was for 27 European Union countries and Albania. For this reason we show the average for EU (not OECD) countries. Yet, many EU countries are also OECD members.

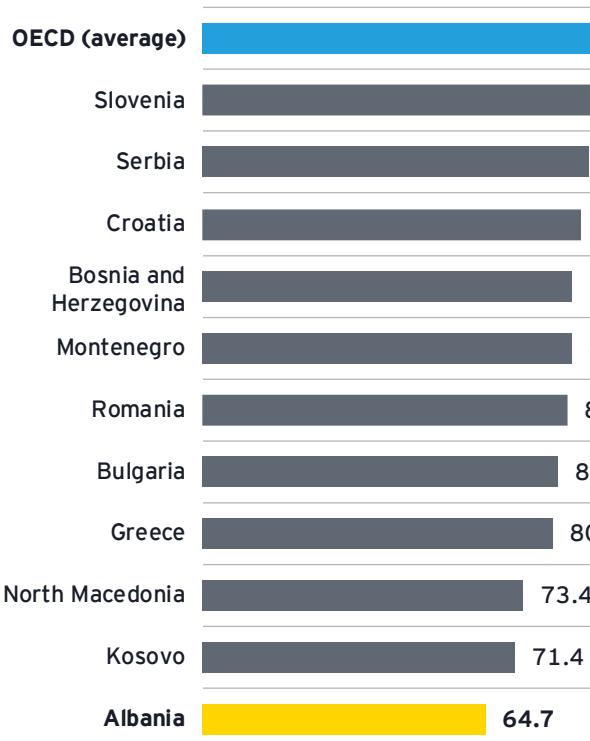
Source: Mastercard

Third, once people have accounts at financial institutions and linked payment cards, they should use them frequently. However, in 2017, the reported usage of existing consumer accounts

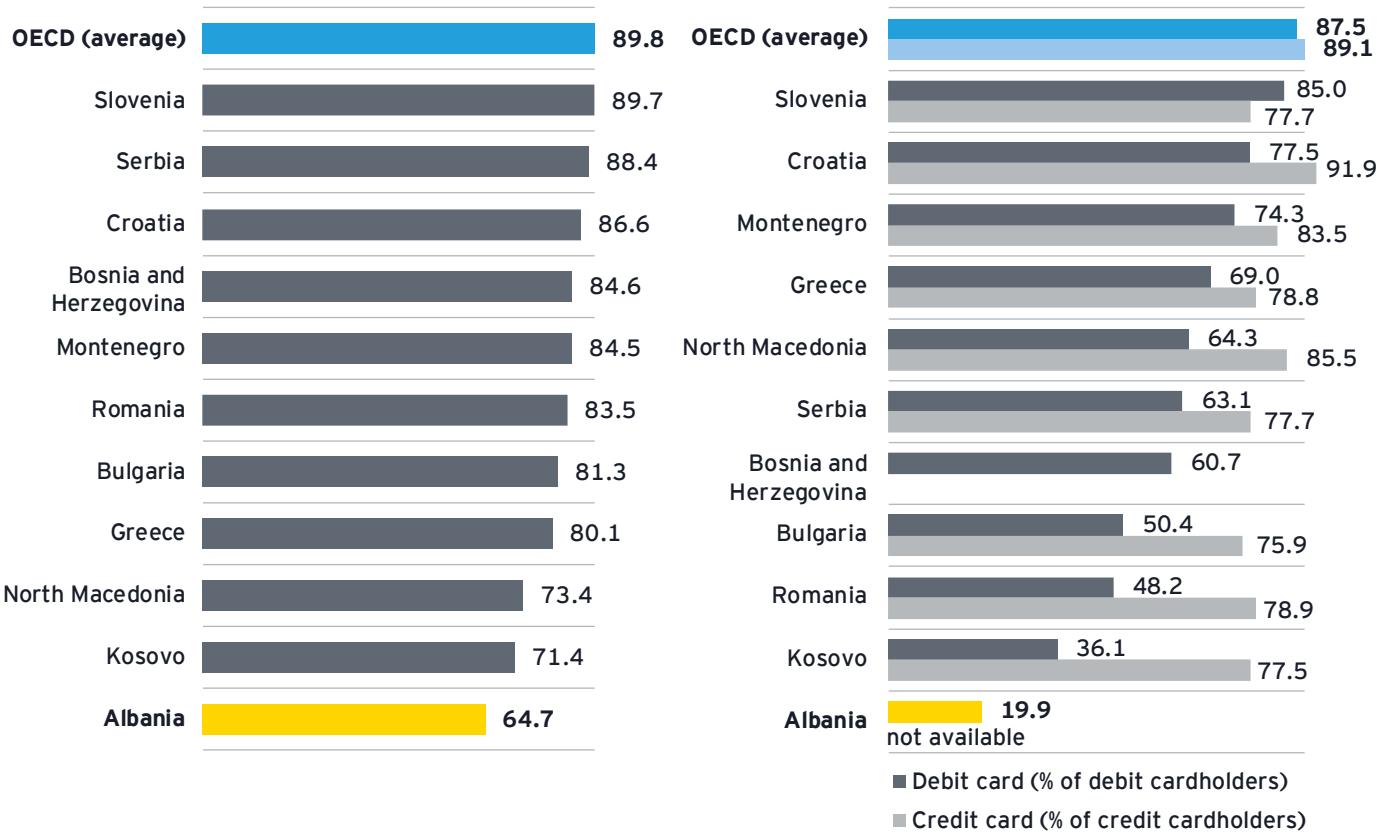
in the past year (64.7%) and debit cards (19.9%) in Albania was significantly lower than in OECD countries (OECD average amounted to 89.8% and 87.5%, respectively) (see Chart 3.5).

Chart 3.5. Use of consumer accounts and payment cards

a. Deposited any money at a financial institution in the past year, 2017 (% with account age 15+)



b. Used debit/credit card for payments in the past year, 2017 (% cardholders age 15+)

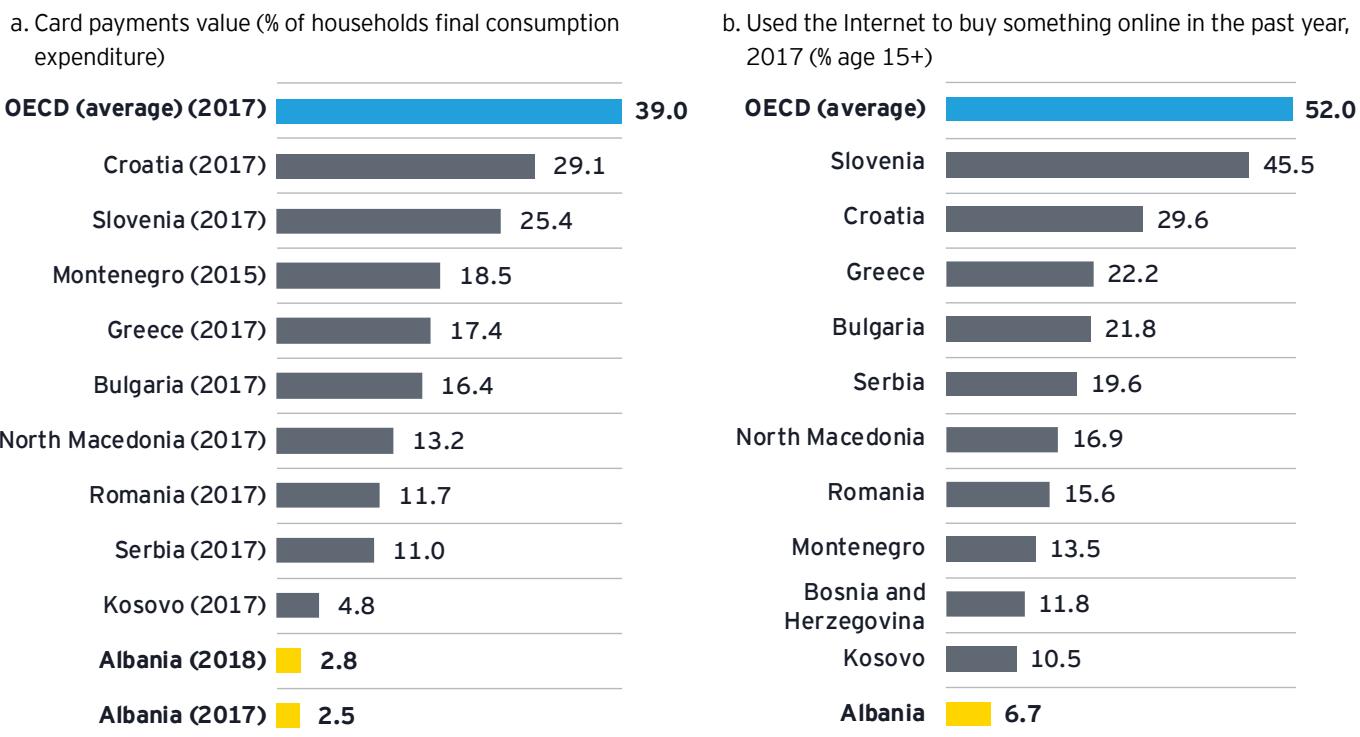


Source: World Bank (Global Findex).

In Albania, (1) share of people with an account at a financial institution, (2) number of payment cards per capita, (3) number of POS terminals per capita, (4) share of cards enabling contactless payments and (5) usage of accounts and debit cards are significantly lower than, on average, in OECD countries, which is reflected in a very low value share of card payments in households final consumption expenditure (2.8% in Albania in 2018 vs. OECD average of 39.0% in 2017) (see Chart 3.6).

Moreover, only 22.2% of that value was related to expenditure in Albania, while the rest was spent abroad. In addition, according to EY estimates, the value of card spending on the territory of Albania was almost 50% higher for cards issued abroad than for domestically issued cards, which is likely due to relatively high popularity of card payments among tourists. Furthermore, other forms of electronic payments (including online payments) have not yet become popular in Albania.

Chart 3.6. Role of electronic payments for consumers

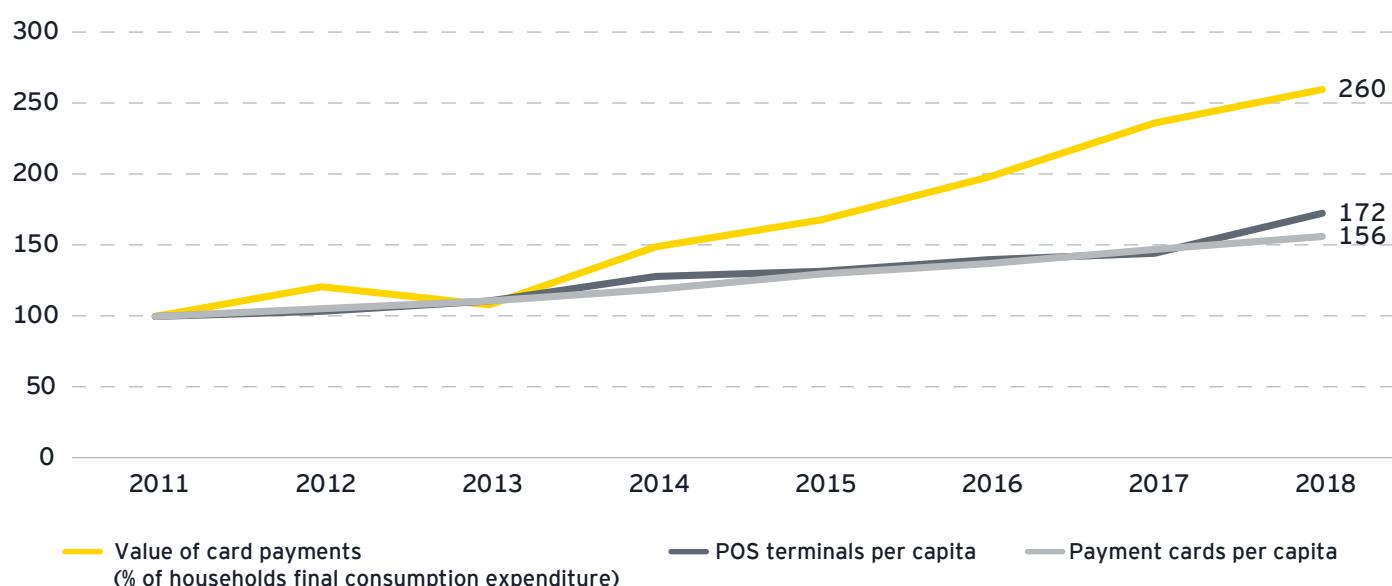


Note: Whenever the data was available, we used data on payments done with domestic cards domestically and abroad (it was the case for Albania).

Source: World Bank (Global Findex).

Source: Mastercard, central banks, World Bank (Global Payments System Survey, Global Findex), Bank for International Settlements, statistical offices.

Chart 3.7. Evolution of different areas of card payment market in Albania (2011 = 100)



Source: Bank of Albania, Mastercard, Eurostat, World Bank.

While the card payment market in Albania is still underdeveloped in certain dimensions, it recorded a strong percentage growth in various areas between 2011 and 2018 (see Chart 3.7). However, it is worth stressing that it is to large extent related to a "low

base effect". Value of card payments (as % of households final consumption expenditure) has increased by 160% in this period, number of POS terminals per capita noted a 72% growth and number of payment cards per capita has grown by 56%.

3.2 Developments in the public policy

It is worth noting that financial inclusion and related electronic payments development may have much broader positive socioeconomic effects than reduction of the shadow economy, on which we concentrate in this report. According to the World Bank⁴¹, accountholders are more likely to use other financial services, such as credit and insurance, to start and expand businesses, invest in education or health, manage risk, and weather financial shocks, which can improve the overall quality of their lives. World Bank indicates that financial inclusion is becoming a priority for policymakers, regulators and development agencies globally:

- Financial inclusion has been identified as an enabler for 7 of the 17 Sustainable Development Goals.
- The G20 committed to advance financial inclusion worldwide and reaffirmed its commitment to implement the G20 High-Level Principles for Digital Financial Inclusion.
- The World Bank Group considers financial inclusion a key enabler to reduce extreme poverty and boost shared prosperity, and has put forward an ambitious global goal to reach Universal Financial Access (UFA) by 2020.

In the past years the Government of Albania, Bank of Albania (BoA) and commercial banks operating in the country have demonstrated significant commitment to promoting financial inclusion, developing electronic means of payments and limiting unregistered transactions in Albania.

Since 2010 there has been a binding obligation to possess and use cash register by businesses in Albania (on the basis of Tax Procedures Law). All taxpayers who sell goods and services need to record their transactions and provide customers with fiscal receipts.⁴² The regulation foresees relatively severe administrative penalties for non-compliance: the first breach is fined with ALL 100,000, the second with ALL 500,000, the

third—with closing the business for six months.⁴³ Cash registers are supposed to collect data on transactions and send it to tax authorities at the end of each business day, however, because of low quality of devices (mainly poor mechanisms of transmitting data from them), as well as costly and vulnerable central system of collecting the information, the regulation is viewed as not very effective. Due to abovementioned difficulties, improvement of the state budget has not been noted.⁴⁴ There are plans to upgrade cash registers to transmit the data in real time, yet, it could potentially be an expensive solution.⁴⁵

Disbursement of wages and social transfers

There are still many persons that obtain government transfers in the form of cash in Albania (e.g. old-age pensions are disbursed very often in cash at the locations of the Albania Post). However, salaries in the public sector are generally paid through bank accounts, both at the central, as well as municipal level.⁴⁶ Yet, the impact of this action can be limited, as in many cases workers use their debit card only for withdrawing the whole amount of their remuneration (often on the pay-day).⁴⁷ Although transferring wages directly into bank accounts is not obligatory for private employers, there are statutory incentives to do so. According to the Income Tax Law, wages and salaries paid outside the banking system cannot be recognized as expenses in the process of determining the taxable profit for the purpose of income tax.⁴⁸

43 Eurofast Global (2015), "Priority to Cash Registers to Cut Down on Fiscal Evasion", <https://eurofast.eu/priority-to-cash-registers-to-cut-down-on-fiscal-evasion/> [online; accessed 29.03.2019].

44 Exit (2018), "Millions of Euros Spent on Non-Functional Cash Registers", <https://exit.al/en/2018/08/29/millions-of-euros-spent-on-non-functional-cash-registers/> [online; accessed 29.03.2019].

45 Tirana Times (2018), <http://www.tiranatimes.com/?p=138348>; [online; accessed 29.03.2019].

46 The World Bank (2017), „Achieving Effective Financial Inclusion in Albania: A Payments Perspective”, https://www.bankofalbania.org/rc/doc/raporti_i_Perfshirjes_finaciare_12072_13686.pdf [online; accessed 29.03.2019].

47 According to the data, 78% cardholders use debit card only for cash withdrawal. The World Bank (2017), *op. cit.*

48 Për Tatimin Mbi Të Ardhurat, http://aida.gov.al/images/ckeditor/legislacioni_tatimor.pdf [online; accessed 29.03.2019].

41 <http://www.worldbank.org/en/topic/financialinclusion/overview> [online; accessed 29.03.2019].

42 The Ministry of Finance of Republic of Albania, <http://www.salesdatacontroller.com/wp-content/uploads/2015/08/udhezimi-39-ne-anglisht.pdf> [online; accessed 29.03.2019].

e-Albania

In 2012 the Ministry of Innovation and ICT (Information and Communication Technology), with a support of National Agency for Information Society, launched e-Albania portal.⁴⁹ The platform can be described as a single point of access to information and public services, comprising various types of systems and registries. Moreover, the portal allows to conduct payments to government in electronic form (using debit or credit card or through e-money institution) and comprises approximately 30 types of payments (including taxes), with portfolio subject to constant expansion.⁵⁰ Thanks to high automation and reliable way of user authentication, the platform reduces bureaucracy and minimizes risk of potential errors, which are often encountered during manual filling of forms (which is still a standard procedure during the process of collecting payments to the government handled by banks). At the same time, the risk of corruption is minimized.

Cash payment limit

In 2013, it was specified by the law that when the value of transaction between taxpayers is higher than ALL 150,000, it cannot be performed in cash. According to the Tax Procedures Law, only payments through credit/debit card or electronic money institutions (licensed by the BoA) are allowed.⁵¹ The regulation is intended to serve mainly as an anti-money laundering measure. However, as a large part of the Albanian population has no access to financial services, the level of compliance may be limited.⁵²

Payment system regulation

Payment System Law, which was adopted in 2013, constitutes a legal framework for functioning of payment system in Albania.⁵³

It enables the presence of non-bank financial institutions (NBFIs) on the market in the role of providers of payment services, as well as operators of payment systems. Although NBFIs licensed by the BoA are able to issue e-money equally to banks, they do not have direct access to full payment system infrastructure (e.g. to automated clearing house). Therefore NBFIs still have to cooperate with banks to some extent. As a consequence, activities of NBFIs (such as incentivizing electronic payments by lower price) can be limited by various bank policies (e.g. fees and charges). Furthermore, legal framework for agent-based banking has not yet been developed, while the use of banking agents may seem recommended due to sparse network of bank outlets and ATMs in the country.⁵⁴

Campaign against informality

In response to government revenue shortfall, which was noted in the first half of 2015, the government of Albania undertook a number of initiatives to combat tax evasion and reduce informality.⁵⁵ A public awareness campaign was launched in line with the increase in the penalties for non-compliance with the law (the amendment of the Tax Procedures Law in November 2015). As a measure to enhance the law enforcement level, 500 new tax inspectors were hired. On the other hand, previous penalties for businesses that became fully compliant till the end of 2015 were revoked as an incentive for firms to become fully transparent. Last but not least, a receipt lottery was introduced in 2015 in order to encourage consumers to demand a confirmation of the registration of their transactions.⁵⁶ These measures could have contributed (at least in the short-term) to positive effects in terms of registration rates: at the end of 2015 the number of registered employees and self-employed was higher by 14% with respect to the end of previous year, while in the same period the number of registered business increased by 35%.⁵⁷ While receipts from social contributions from newly registered employees were estimated to increase by 0.25% of GDP in 2016, the impact on tax revenues

49 <https://e-albania.al/>, https://www.b2match.eu/system/egovernment2014/files/01_E-ALBANIA-_20_October_2014_EN.pdf?1414056012, <https://www.opengovpartnership.org/commitment/25-e-albania-portal> [online; accessed 29.03.2019].

50 <https://e-albania.al/>, https://www.b2match.eu/system/egovernment2014/files/01_E-ALBANIA-_20_October_2014_EN.pdf?1414056012 [online; accessed 29.03.2019].

51 <https://www.tatime.gov.al/eng/c/6/69/tax-procedures> [online; accessed 29.03.2019].

52 Council of Europe (2018), "Anti-money laundering and counter-terrorist financing measures. Albania", <http://www.fatf-gafi.org/media/fatf/documents/reports/mer-fsr/MONEYVAL-MER-Albania-2018.pdf> [online; accessed 29.03.2019].

53 The World Bank (2017), *op. cit.*

54 The World Bank (2017), *op. cit.*

55 Erebara, G (2015), "Albania PM Declares 'War' on Fiscal Evasion", *BalkanInsight*, <https://balkaninsight.com/2015/09/01/albania-government-starts-major-crackdown-against-fiscal-evasion-09-01-2015/#sthash.Y4xeKWdm.dpuf> [online; accessed 29.03.2019].

56 Likmeta, B. (2014), "Albania Hopes New Lottery Will Curb Tax Cheats", *BalkanInsight*, <https://balkaninsight.com/2014/10/07/albania-to-launch-receipt-lottery/> [online; accessed 29.03.2019], International Monetary Fund (2016), "IMF Country Report No. 16/61" <https://www.imf.org/external/pubs/ft/scr/2016/cr1661.pdf> [online; accessed 29.03.2019], Chiriac, M. (2015), "Romania to Launch Receipts Lottery at Easter", *BalkanInsight*, <https://balkaninsight.com/2015/01/23/romania-to-launch-fiscal-receipts-lottery/> [online; accessed 29.03.2019].

57 International Monetary Fund (2016), *op.cit.*

was estimated as insignificant, which might be attributed to the fact that most of newly registered entities fall under the micro or small business turnover brackets. In addition, some sources point to excessive severity of the described initiatives, what could potentially deteriorate the general business environment, employment rate⁵⁸ and economic growth.⁵⁹ What is more, some of the provisions of the amendments to the Tax Procedures Law were found unconstitutional by the Albanian Constitutional Court and therefore withdrawn (e.g. high interests for a delay in payment of CIT and severe punishments for intentionally false tax declarations).⁶⁰

Albania National Retail Payment Strategy (2018-2023)

The Albania National Retail Payments Strategy (NRPS) was launched in 2018 by the Bank of Albania with support of the World Bank Group and Albanian both public and private sector stakeholders.⁶¹ ⁶² It aims at creating an effective inclusive retail payments market in Albania while reducing transaction costs for citizens. Furthermore, NRPS has set two measurable objectives, which should be met by the end of the NRPS timeline: first, achieving an adult bank account ownership ratio among aged 15+ of 70% by 2022 (from 39% in 2017) and second, boosting the annual number of cashless payments per capita by 130%, that is to 10 by 2023 (from 4.3 in 2016).⁶³ Moreover, monitoring of the program implementation can be supported by intermediate indices, such as ATMs and POS terminal number per 1000

58 Vast majority of Albanian workers are employed in micro small businesses. Erebara, G (2015), "Tax Evasion Arrests Strike Fear Into Albanians", *BalkanInsight*, <https://balkaninsight.com/2015/09/11/albania-arrests-hairdressers-and-cattle-traders-it-its-war-against-fiscal-evasion-09-11-2015/> [online; accessed 29.03.2019].

59 Shurkov, E., Mickovska-Raleva, A., Cami, O., Delibashzade, R. (2017), "The Hidden Tax Heaven - Hidden Economy and Tax Evasion in Macedonia, Albania and Kosovo", <http://www.crpm.org.mk/wp-content/uploads/2017/05/20.-PB2-RHEM-02.05.2017-Final.pdf> [online; accessed 29.03.2019], Erebara, G (2015), "Tax Evasion Arrests Strike Fear Into Albanians", *op. cit.*

60 International Monetary Fund (2016), *op. cit.*, Deloitte Tax News (2016), https://www2.deloitte.com/content/dam/Deloitte/al/Documents/tax/en_tax_news_Deloitte_February_2016.pdf [online; accessed 29.03.2019].

61 Among others: Albanian Association of Banks, National Payment System Committee, Ministry of Finance, payment system operators, etc.

62 Bank of Albania (2018), "Albania Remittances and Payments Program (RPP). National Retail Payments Strategy 2018-2023", https://www.bankofalbania.org/rc/doc/Main_objectives_of_NRPS_of_Albania_June_2018_12068.pptx [online; accessed 29.03.2019].

63 Bank of Albania (2018), *op. cit.*

inhabitants. The NRPS comprises seven specific areas: (1) stronger stakeholder commitment, (2) consolidation of regulatory environment, (3) strengthening payment (and supporting) infrastructure, (4) customer-focused and affordable payment services based on accounts, (5) broadening access points network, (6) boosting financial literacy and (7) oversight of the payments market by the BoA.⁶⁴

Study on retail payment costs

In 2018, the study on "The retail payment costs and savings in Albania" was published as a result of cooperation between the staff of the World Bank and Bank of Albania.⁶⁵ The report aims to establish a sound economic baseline for the national retail payments system in terms of costs of different payment instruments to better guide system development and enable high-impact changes. According to the report, Albanian consumers report making and receiving day-to-day payments overwhelmingly in cash. The study shows that savings for up to 0.9% of GDP (almost half of all costs related to paper-based payment instruments) can be achieved for the Albanian economy by substituting paper-based with electronic payment instruments. To achieve at least a part of this effect, certain actions are recommended in the report. They include, among other things, (1) improving the access to bank accounts (e.g. by exploring the viability of providing a basic transaction account at little or no cost to all individuals and businesses), (2) considering government and industry incentives (such as fiscal, monetary incentives, but also innovative business models underpinned by technology) to boost the acceptance of electronic payments as well as (3) switching to electronic payment instruments by the government (especially in the area of social security payments).

64 https://www.bankofalbania.org/rc/doc/Ledia_Bregu_the_Role_of_Bank_of_Albania_in_implementing_the_NRPS_Strategy_2018_2023_12357.pdf [online; accessed 29.03.2019].

65 The World Bank (2018), "the retail payment costs and savings in Albania", <http://documents.worldbank.org/curated/en/318231529480715381/The-retail-payment-costs-and-savings-in-Albania> [online; accessed 05.06.2019].



4

Potential measures to reduce the passive shadow economy in Albania⁶⁶

A high level of the shadow economy has significant economic and social implications. Its adverse consequences include a reduced tax base, lower quantity/quality of public goods, distortions in market competition, the degradation of economic institutions and social attitudes, and—through these channels—lower economic growth. While the shadow economy may also have some advantages, it is evident that they are significantly outweighed by a wide range of negative consequences of unreported activities. Therefore, having estimated the size and structure of the shadow economy in Albania, in this section we focus on measures that could reduce the non-observed economy in the country.

⁶⁶ In this chapter, information on binding regulations in Albania and other quoted countries, as well as their details, are based, to a large extent, on information obtained from Mastercard.

There are various factors potentially contributing to the shadow economy that include, among others: the rule of law and quality of administration, values and moral aspects (including the so called "tax morale"), administrative burden, taxes and social security contributions, economic institutions, business cycle, structure of the labour market as well as payment practises and systems (see Chapter 1.2 for their description and the Technical Appendices for variables included in our currency demand model for estimating the cash shadow economy). For policymakers, it may be easier to influence some of the determinants of the shadow economy, while it may be difficult to affect others. For example, changes in the rule of law or people's values seem very relevant with regard to overall and passive shadow economy levels. However, a significant improvement in this area may require introducing many, often difficult, reforms by the government, which may additionally take a long time. It is also not easy to significantly change the situation on the labour market, as it usually requires profound and time-consuming structural reforms. By contrast, public policies leading to an increase in the popularity of non-cash payments (especially card payments, which can be used to increase the value of reported income, not least by small businesses⁶⁷) seem relatively easier to implement.⁶⁸

To tackle the cash shadow economy, one should reduce both of its components—the passive shadow economy (which could be reduced through the promotion of electronic payments) and the committed shadow economy (which should be addressed by other means). A large committed shadow economy may be associated with a significant number of unregistered companies that, by definition, have unregistered employees. While in this Report we do not concentrate on policies that may limit the committed shadow economy, we present in Frame 4.1 main findings of the existing literature in this area. We also note that contraction of the committed shadow economy may partly translate into the expansion of the passive component and, consequently, into an increased importance of promoting electronic payments (see Chapter 1.3).

67 See for example: Slemrod J., Collins B., Hoopes J.L., Reck D., Sebastiani M. (2017), "Does credit-card information reporting improve small-business tax compliance?", *Journal of Public Economics*, vol. 149, pages 1-19.

68 Another tool for tax administration that facilitates detection of non-compliance is the process of fiscalisation, where a (wider) group of businesses (depending on the type of business activity or the value of yearly turnover) is obliged to use cash registers or related fiscal devices in order to record every individual transaction, regardless of the means of payment. To further increase the efficacy of such solution, governments often organise receipt lotteries, where consumers can win prizes in exchange for collecting fiscal receipts (so that consumers urge merchants to register transaction more often). More information regarding solutions based on fiscal cash registers and receipt lotteries can be found in EY reports for selected Central and Southern European (CSE) countries: <http://www.ey.com/pl/electronic-payments> [online; accessed 20.07.2018].

Frame 4.1. Reducing the committed shadow economy: a literature review

The high level of the committed shadow economy is usually related to the high number of informal (i.e. unregistered) firms and workers (further: "informality"). These phenomena are especially prevalent in developing countries and are inextricably linked—many informal businesses serve as a form of self-employment (86% of global own-account workers are informal¹), while unregistered employees often work in informal entities (85% of global informal employment takes place in the informal sector²). Among negative consequences of informality literature distinguishes misallocation of resources (unregistered businesses remain sub-optimally small because of legal and financial barriers), lower productivity (both at the micro and macro level), lower government revenues and, last but not least, a signal from the authorities that violation of the law is accepted—a factor especially detrimental to the rule of law in developing countries.³

There are several theories explaining determinants of informality. Some of them concentrate on structural problems that could be addressed mostly in the long term, such as modernisation theory (informality as a result of the country's insufficient economic development), institutional theory (as an effect of asymmetry between the laws of formal institutions and the unwritten socially shared rules of informal institutions), political economy theory (inadequate state intervention to protect workers from poverty) and neo-liberal theory (as a result of excessive tax and regulatory burden).⁴ Econometric analyses suggest that all of these theories are relevant.⁵

Many researchers focus on the relation between informality and binding regulations. De Soto, for example, indicates that firms stay informal because the cost of entry and bureaucracy is too high for them.⁶ Maloney argues that small firms rationally decide not to register, as they would not benefit from doing so.⁷ Both approaches point out the problem of cost-benefit analysis undertaken by enterprises: until the cost of becoming formal exceeds the benefit, an entity prefers to stay informal. A conclusion can be drawn that a regulation should create appropriate stimuli—either incentives or deterrents—to influence the balance between the costs and benefits, and induce a desired behaviour. Dabla-Norris and Inchauste conducted an econometric analysis of relationship between the regulations and informal status of enterprises in 41 countries. They find that a higher regulatory and fiscal burden decreases the share of registered companies in the total number of firms. On the other hand, an improvement in the rule of law index (including the level of law enforcement) and firms' perception of the fairness of courts as well as lower level of corruption and anticompetitive practises among other firms have the opposite effect.⁸

Many experiments in developing countries have been undertaken in order to identify the most effective regulatory measures for reducing informality. In most instances, a reduction of entry barriers, such as shortening the time of the registration procedure, integrating different procedures into one and lowering the taxes for newly registered companies had a statistically significant, but small effect. That was the case in Colombia, Benin, Mexico and Peru.⁹ The assistance of professional legal and tax advisors strengthened

1 International Labor Organization (2018), "Women and Men in the Informal Economy: A Statistical Picture", http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_626831.pdf [online, accessed 07.08.2018].

2 International Labor Organization (2018), *op. cit.*

3 Bruhn, M., McKenzie, D. (2013), "Entry regulation and the Formalization of Microenterprises in Developing Countries", *Policy Research Working Paper*, No. 6507. World Bank.

4 Williams C. (2018), "Explaining cross-national variations in the prevalence of informal sector entrepreneurship: lessons from a survey of 142 countries", *Journal of Developmental Entrepreneurship*, vol. 23(1).

5 Williams C. (2018), *op. cit.* and some research discussed below.

6 De Soto, H. (1989), "The Other Path", Harper and Row Publishers.

7 Maloney, W. (2004), "Informality Revisited", *World Development* 32 (7), pages 1159-78.

8 Dabla-Norris, E., Inchauste, G. (2007), "Informality and Regulations: What Drives Firm Growth?", *IMF Working Paper WP/07/112*, International Monetary Fund.

9 Galiani, S., Mendez, M., Ahumada, C. N. (2017), "On the effect of the costs of operating formally: New experimental evidence", *Labour Economics*, vol. 45(C), pages 143-157; Benhassine, N., McKenzie, D., Pouliquen, V. and Santini, M. (2018) "Does inducing informal firms to formalize make sense? Experimental evidence from Benin", *Journal of Public Economics*, vol. 157, pages 1-14; Bruhn, M. (2011), "License to sell: the effect of business registration reform on entrepreneurial activity in Mexico" *Review of Economics and Statistics*, vol. 93 (1), pages 382-6; Kaplan, D. S., Piedra E., Seira, E. (2011), "Entry regulation and business start-ups: Evidence from Mexico", *Journal of Public Economics*, vol. 95 (11-12), pages 1501-15; Mullainathan, S., Schnabl, P. (2010), "Does Less Market Entry Regulation Generate More Entrepreneurs? Evidence from a Regulatory Reform in Peru" in Lerner, J., Schoar A., *International Differences in Entrepreneurship*. Chicago: National Bureau of Economic Research; Alcazar, L., Andrade,

the positive result, although such a solution is expensive. Nevertheless, an increase in the number of registered firms turned out to be temporal. It was visible especially in Colombia and Peru, where entrepreneurs are obliged to renew their business license every year. Despite being exempted from taxation, majority of the newly registered firms did not decide to continue formal operations¹⁰, which suggests seeing no net benefits from the legal activity (and that the duty of a license renewal may itself be a significant burden). Moreover, lowering entry barriers did not cause a significant increase in the number of registered firms in Brazil and Sri Lanka. Therefore, simplifying the registration procedure and (temporarily) lowering taxes may be a necessary but not sufficient step in fighting informality.¹¹ That was evident especially in Sri Lanka, where firms did not want to register despite being offered a financial reward because of unclear legal status of the land (many firms were not able to provide authorities with a required proof of ownership of the land, as they operate on the basis of informal agreements and leases). High responsiveness to changes in the regulatory burden seems to be confirmed by experiences of Pakistan, where a high increase in tax burden for partnerships resulted in a 57% drop in the number of legally operating firms of this type (some might have changed the legal form of operations instead of becoming informal, though), while the rest of partnerships noticeably lowered reported revenues.¹² In Uruguay, in turn, the share of unregistered employment in total employment significantly declined from 44% in 2006 to 24% in 2014.¹³ Some publications suggest that it may be related to offering social security and access to health care in combination with a simplified tax regime, where a firm is obliged to pay only one contribution to the government (monotax).¹⁴ Yet, the limited number of firms participating in this regime (below 25,000 in 2013) indicate that some other factors were also responsible for this change. It is worth noting that the World Bank's Doing Business survey may serve as a helpful guide in identification of barriers to business activity.¹⁵ However, one should bear in mind that this analysis comprises mainly limited liability companies—their situation is not always relevant for very small enterprises which should be the main entities targeted by regulations addressing the problem of the committed shadow economy.

Improving the level of law enforcement and legal awareness, for example by conducting inspections, can bring a larger and more permanent increase in formalisation of firms than a sole reduction of entry barriers. Otherwise, without negative consequences of informal operations, unregistered entities perceive such an activity as highly beneficial, since it allows them to evade tax burden practically at no cost. For example, Andrade et al. found that receiving a visit from a municipal inspector resulted in a 21–27 percentage point increase in the likelihood of formalising among Brazilian entrepreneurs (while pure reduction of entry barriers yielded no positive effect).¹⁶ Furthermore, in order to trigger the intended effect of firms registration, a risk of obtaining the fine should be significant. Data shows that in several countries where experiments were conducted¹⁷ inspections took place on a regular basis, but the proportion of fined firms to visited informal entities was negligible (0.8–2.1%) and, therefore, insufficient to cause a substantial increase in the registration of companies.¹⁸ Bearing in mind the high number of unregistered entities in developing economies, it may hardly be feasible to control a significant part of them in such countries. Yet, one should note that inspections may generate a relatively low cost for the government in net terms, as the cost of additional controls may be, at least partly, covered from the

R., Jaramillo, M. (2010), "Panel/tracer study on the impact of business facilitation processes on enterprises and identification of priorities for future business enabling environment projects in Lima, Peru – Report 5: impact evaluation after the third round", *Report to the International Finance Corporation*, World Bank Group.

10 Galiani S. et al (2017), *op. cit.*; Mullainathan, S., Schnabl, P. (2010), *op. cit.*; Alcazar L. et al (2010), *op. cit.*

11 Bruhn, M., McKenzie, D. (2013), "Using Administrative Data to Evaluate Municipal Reforms: An Evaluation of the Impact of Minas Facil Expresso", *World Bank Policy Research Working Paper 6358*, World Bank; De Mel, S., McKenzie, D., Woodruff, C. (2013), "The Demand for, and Consequences of, Formalization among Informal Firms in Sri Lanka", *American Economic Journal: Applied Economics*, vol. 5(2), pages 122-50.

12 Waseem, M. (2013), "Taxes, informality, and income shifting: Evidence from a recent Pakistani tax reform", *IGC Working Paper*, International Growth Centre.

13 International Labor Organization (2018), *op. cit.*

14 International Labor Office (2014), "Monotax: Promoting formalization and protection of independent workers" <http://www.social-protection.org/gimi/RessourcePDF.action?ressource.ressourceld=48020> [online; accessed 03.08.2018].

15 World Bank (2018), "Doing Business 2018. Reforming to Create Jobs" <http://www.doingbusiness.org/~media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB2018-Full-Report.pdf> [online, accessed 07.08.2018].

16 Andrade H., Bruhn M., McKenzie, D. (2013), "A Helping Hand or the Long Arm of the Law? Experimental Evidence on What Governments Can Do to Formalize Firms", *Policy Research Working Paper No. 6435*, World Bank.

17 Those countries were Sri Lanka, Bolivia and Brazil (the latter was analysed before the experiment scrutinized by Andrade et al).

18 Bruhn, M., McKenzie, D. (2013), *op. cit.*

collected fines.¹⁹ Importantly, while strengthening the enforcement, the government should be careful not to discourage various economic activity (it should concentrate on substituting informal activity with the formal one) and not to harm vulnerable groups of citizens (informally employed often earn a very low income). In addition, the government should try to limit situations in which the inspections may foster corruption.

Finally, an important step to take is a comprehensive informational campaign. It is more than likely that any reform may have no effect if the firm owners are not aware of the location of the business registry office or even of an obligation to register a company.²⁰ In this context the need of clear and simple regulations is even more evident. The cases of Benin, Sri Lanka and Bangladesh show that spreading informational brochures is insufficient to encourage firms to legalise their operations, while workshops and free advisory services may be more effective.²¹ However, it is important that an informational campaign underline the benefits of going formal or negative consequences of not doing so. If it is not the case, firm owners may not internalise the need of changing the status quo.

An alternative approach to informality consists in legalising the current state, i.e. allowing small firms (with revenues below a certain threshold) to operate without registration (i.e. releasing them from this duty).²² Such a proposition is based on the observation that a vast majority of informal firms are of small size. Therefore, tax revenues resulting from their formalisation might be limited (especially in comparison with the cost of a potential reform). Once an entity exceeds a given revenue threshold, tax obligation becomes effective. Since such a regulation may deter firms from increasing the scale of their operations (or revealing it), a gradual increase in tax rates (or other administrative obligations) may be considered. By legalising the current state, the costly effort of formalisation can concentrate on relatively big entities, while ensuring the compliance of small entities with the law at the same time. Such an approach may be convenient and less costly in the short term. Yet, accepting different rules for small companies activity, especially by allowing their operations without registration, may reduce their growth and limit social mobility of their workers in the long term (e.g. due to the lack of necessary documentation such companies and their workers may have lesser access to credit from the banking system, the companies may have problems with selling their products to larger registered enterprises, etc.).

To summarise, reducing entry and registration barriers may be necessary but not sufficient to substantially limit informality and the committed shadow economy. In order to become and stay formal, firms need an additional stimulus—either incentive or deterrent. A potential incentive should be quickly perceptible, otherwise firms may not believe in a promise of receiving something in the future, especially in the countries with a track record of unstable legal regime. A potential deterrent (e.g. a fine for operations without a license) should also be known and the risk in the case of no compliance should be significant. Apparently, no single measure can be recommended to reduce the level of informality in different countries. It rather requires a package of country-specific regulations, as well as time for the intended changes to take effect. Importantly, to account for local specifics, before introducing any public policy aimed at reducing informality, it is worthwhile to first conduct field experiments (e.g. in a selected region of the country or selected sector of the economy) and quantitatively assess their results.

19 Andrade H. et al (2013), *op. cit.*

20 According to McKenzie and Sakho, only one-thirds of informal firms' owners knew the location of the nearest registration office and only 10% of them were aware of the existence of commerce registry. See: McKenzie, D., Sakho, Y. S., (2010), "Does it pay firms to register for taxes? The impact of formality on firm profitability", *Journal of Development Economics*, vol. 91(1), pages 15-24.

21 Benhassine, N. et al. (2018), *op. cit.*; De Mel, S. et al, *op. cit.*; De Giorgi, G., Rahman, R. (2013), "SME's Registration: Evidence from an RCT in Bangladesh." Stanford University and World Bank.

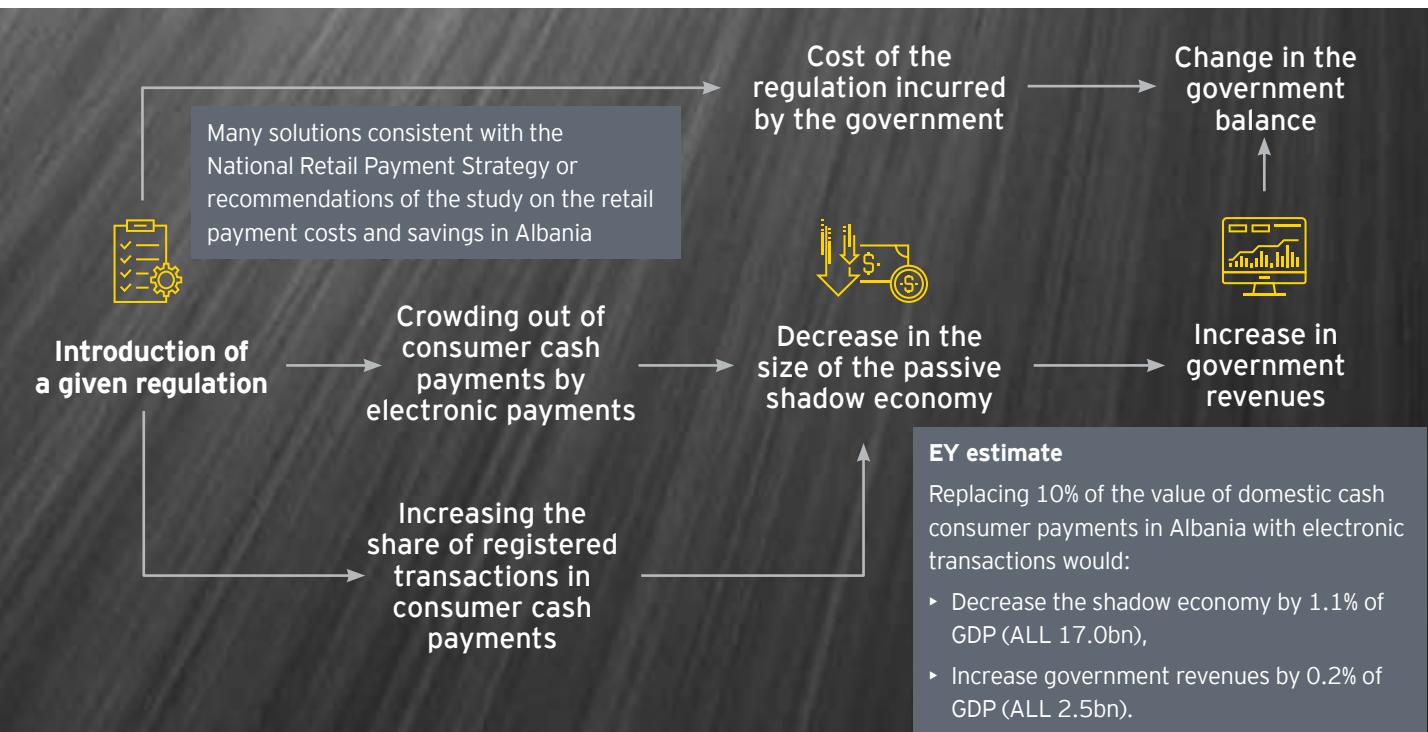
22 Bruhn, M., McKenzie, D. (2013), *op. cit.*

In this Report, we conduct an impact assessment of various measures that promote electronic payments and thereby reduce the value of cash transactions in Albania. We present the quantitative impact of the considered regulations on the contraction of the passive shadow economy, and on the resulting growth in government revenues. Chart 4.1 presents the mechanisms of our approach to the impact assessment analysis. It shows, among others, that we discuss the effect on public finance in net terms, since we also account for some potential costs that a given regulation may entail for the government (for methodological details, see the Technical Appendices). In addition, it presents the estimated relation between replacing cash payments, contraction of the shadow economy and increase in government revenues for Albania. The overall effect of the proposed solutions on government revenues depends on various

factors outlined in Chart 4.2. They include the initial popularity of cash payments, size of the shadow economy, taxation level and costs related to the implementation of a given measure.

Furthermore, when the net impact on the public finance balance is considered, one should remember that it may change over time. This is due to the fact that the cost of many measures promoting electronic payments is often incurred in the short term only (e.g. costs of temporary tax incentives to change consumers/merchants behaviour), while the generated benefits are long-term, since they stem from the permanently reduced level of the passive shadow economy. This time-varying aspect of the net impact on public finance is characteristic of many solutions discussed in the following sections of this chapter.

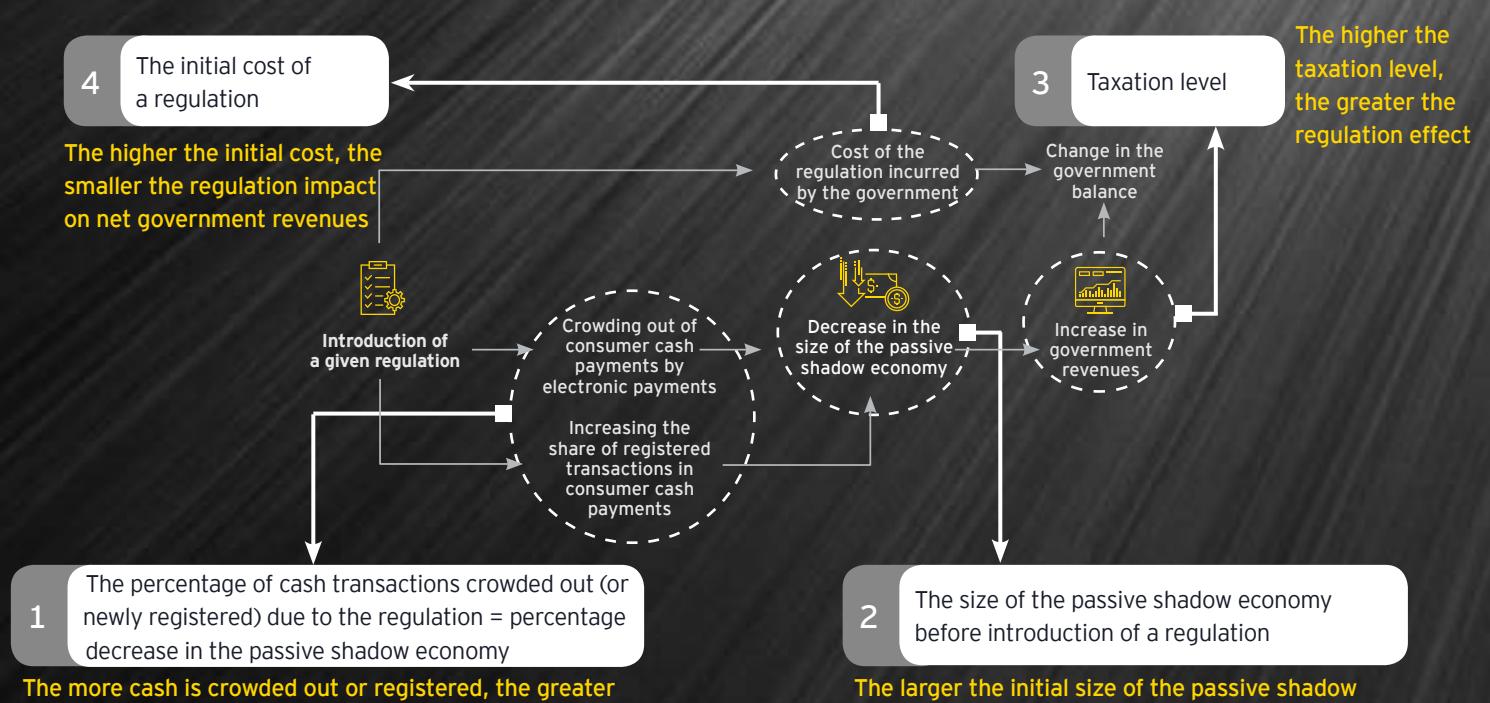
Chart 4.1. Considered mechanisms of the impact of regulations aimed at combating the passive shadow economy



Notes: In addition to impact mechanisms related to crowding out consumer cash payments, which is our focus in this chapter, the chart presents a similar impact mechanism related to increasing the share of registered consumer cash payments (e.g. through introduction of receipt lotteries that we also discuss in the Report).

Source: EY.

Chart 4.2. Factors determining regulations effects on (net) government revenues



Source: EY.

Many of the considered regulations (or similar solutions) are consistent with the National Retail Payment Strategy or recommendations of the study on the retail payment costs and savings in Albania. In addition, the regulations are already in force in various countries. As shown in Table 4.1, some of them are based on obligation mechanisms, whereas others focus on

providing incentives either to consumers or merchants. Some instruments promote the development of electronic payment infrastructure, while others promote changes in payment habits. E-government (G2C, G2E, G2B) development can also contribute to the contraction of the shadow economy, though indirectly.

Table 4.1. Examples of regulations implemented in different countries

Regulation	Countries of implementation: examples
Tax incentives for consumers	Argentina, Brazil–Sao Paulo, Bulgaria, Colombia, India, North Macedonia (for submitted cash receipts), Uruguay and South Korea
Tax incentives for merchants	India, South Korea
Obligation to operate POS terminals/accept electronic payments	Algeria (not yet binding), Argentina, Greece and South Korea
Obligation to make an electronic payment of wages and salaries	Bosnia and Herzegovina, Croatia, India (at the discretion of central and local governments), Slovenia, Saudi Arabia, Slovenia, United Arab Emirates, Uruguay and Vietnam (excluding the private sector).
Obligation to make an electronic payment of social security benefits	Bulgaria, Croatia, Denmark, India (partly), Italy, Slovenia, Sweden, Tanzania and Uruguay

Regulation	Countries of implementation: examples
Threshold for (B2B/C2B) cash payments	Albania , Argentina (limited scope), Bulgaria, India, Slovakia, Slovenia, Czech Republic (though in majority of countries at relatively high levels*)
Obligation to possess and use cash registers (incl. increasing popularity of connecting online cash registers with tax authorities' servers)	Albania , Argentina, Bosnia and Herzegovina, Bulgaria, Croatia, Hungary, Italy, Poland, Serbia, Slovakia, Sweden and Tanzania
Receipt (card) lotteries	Albania , Brazil, Bulgaria, China, Croatia, Poland, Serbia, Slovakia, Taiwan
Tax levied on ATM withdrawals	Hungary and Ireland

* In some of these countries, consumer cash payments above a given threshold may be accepted, but generate a lot of administrative obligations for the merchant.

Source: EY, Mastercard.

Finally, we need to emphasise that the analysed regulations may differ in terms of their scope and other parameters that may play a critical role in the ultimate impact of the considered instrument. Therefore, our analyses of the effects of different regulations should be regarded as **examples** of the impact that

various solutions may have on the shadow economy and public finance. Since these solutions may be modified in terms of their scope, timing and other parameters, their actual effect would change accordingly and would depend on the final decision of the regulators.

4.1 Improvement in the electronic payments acceptance (ensuring the right of consumers to pay electronically)

Mechanism of the initiative/regulation

Improvement in the electronic payments acceptance (ensuring the right of consumers to pay electronically) may be obtained through an obligation or support for certain types of businesses to accept electronic payments. This includes operating POS (point of sale) terminals, mobile POS (mPOS) terminals or other devices accepting electronic payments (for instance, an electronic payment could be processed using a QR code presented by merchant to a customer with a smartphone). For the illustrative purposes we further analyse a scenario in which Albania reaches the best international benchmark in the electronic payments acceptance, which should have similar effects to the obligation for all merchants to accept electronic payments. If some initiative/regulation leads to closing only X% of the gap between Albania and the benchmark, X% of further discussed effects should be expected.

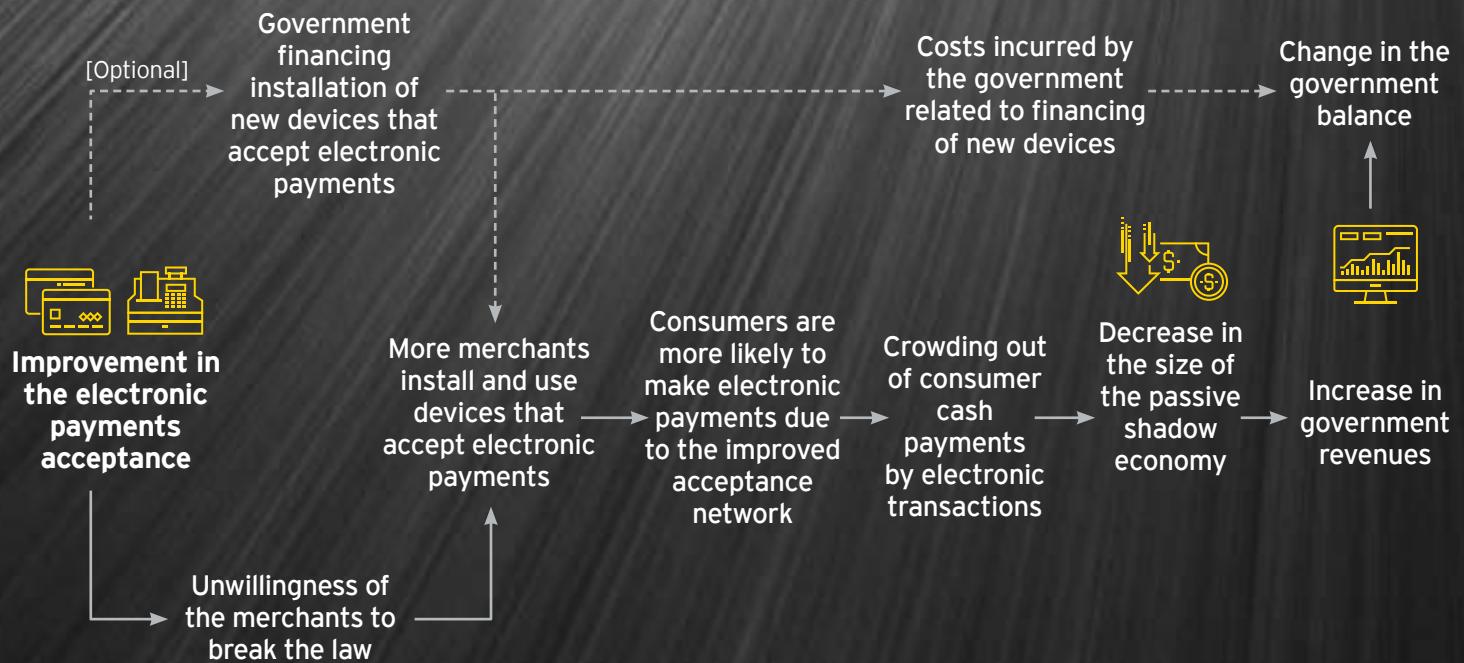
Different forms of electronic payments can be used to ensure the right of consumers to pay electronically (should the consumers wish to do so). Due to data availability, we carry out quantitative

analysis for POS terminals and card payments, but it is likely that increased acceptance and use of mobile payments would have similar effects, possibly with lower costs.

Since the development of the acceptance network is an important determinant of the popularity of electronic transactions, it is possible to stimulate the growth of electronic payments (replacing consumer cash payments) through the obligation to accept electronic payments in selected sectors.

The considered initiative/regulation would be most effective in the sectors accounting for a high share of the total passive shadow economy and for business activities where the prevalence of POS terminals and other devices accepting electronic payments is currently relatively low. An increase in the popularity of electronic payments triggered by the regulation leads to crowding out consumer cash transactions. This, in turn, reduces the size of the passive shadow economy and increases government revenues (Chart 4.3).

Chart 4.3. Improvement in the electronic payments acceptance: mechanism of the initiative/regulation



Source: EY.

This type of regulation was implemented, for example, in South Korea, Argentina, Algeria and Greece (see Frame 4.2). In Albania, there is no such regulation in place.

Frame 4.2. Obligation to accept electronic payments: examples

South Korea is known for promoting electronic transactions by applying a wide range of policy tools. In 2001, card acceptance was mandated for all VAT-paying businesses in the country. Moreover, in 2002 South Korea imposed fines for card payments refusal.

In Argentina, the Law No. 27,253 was introduced by the government in 2016. Article 10 of the act obliged merchants to accept electronic means of payment, such as debit cards, prepaid non-bank cards and their equivalents. Starting from April 2017, the obligation was gradually applied according to business sector and annual gross income. Since 31st March 2018, all merchants have been bound to accept specified non-cash payments—only companies operating in localities with less than one thousand inhabitants and transactions not exceeding ARS 10 (USD 0.36 in 2018) were exempt (the limit was later raised to ARS 100 (USD 3.6 in 2018)). In return, merchants have been offered a number of benefits (e.g., temporary discounts on rental costs of POS terminals and ability to calculate 50% of them as a tax credit) varying by the type of business.

In Algeria, under the new Finance Act that came into force on 1 January 2018, all merchants are required to possess POS terminals in order to enable customers to pay with cards for their purchases if they wish to do so. Initially, the merchants were obliged to adapt to this new requirement by the end of 2018. However, at the beginning of 2019 the Ministry of Finance postponed the requirement until 2020 and announced a need for a field study assessing technological readiness for its implementation. In October 2019, new Minister of Finance informed the press that the draft of 2020 Finance Act provides the possibility to comply with the obligation by installing also other electronic payment accepting devices (in addition to POS terminals) as well as another extension of the deadline to December 31, 2020. Failure to comply with the new rule will constitute an offence punishable by a fine of DZD 50,000 (approx. USD 440). Available information suggests that it will be the merchants who will cover the costs of the purchase of new POS terminals. The success of this regulation would shift Algeria from a country with one of the lowest availability of POS terminals in the region into a fully equipped one.

In December 2016, a law introducing mandatory cards acceptance for firms and sole proprietors (excluding wholesalers that provide goods or other services to businesses) was imposed in Greece. Entrepreneurs had to purchase devices accepting electronic payments by 27 July 2017. The main aim of the legislation was fighting tax evasion and improving monitoring of money flows in the country. Additionally to the initiative on the merchant side of transaction, consumers are encouraged to pay with their cards by tax discounts that accompany the law. As a result, even though some merchants are said to still refuse to accept card payments, a change is visible since the total turnover of payment cards in 2016 in Greece amounted to EUR 17 billion, while in 2017 it was estimated to equal EUR 22 billion.

The analysed solution assumes that businesses are obliged (or supported) not only to have devices allowing to accept electronic payments (e.g. a POS terminal or a mobile phone allowing for mobile payments), but also to use it in retail transactions, if requested by the customer. This regulation may be addressed to all sectors of the Albanian economy. However, we also consider situations where the regulation is binding either for a group of sectors or for individual branches where the passive shadow economy exists, in order to demonstrate the role individual sectors might play in the implementation process. Instruments that would enable the tax authorities to inspect the merchants' compliance with the potential regulation should also accompany implementation of this measure.

The considered regulation may be facilitated by supporting merchants, e.g. in the form of tax allowances or government (co)financing the electronic payments accepting devices. This solution could also exploit a high potential of mobile payment

systems (or some other new payment methods) in Albania by allowing or promoting POS terminals or other devices that accept payments with mobile phones.

Impact of the initiative/regulation on the passive shadow economy and government revenues

We evaluated the impact of the considered initiative/regulation on the value of card and cash payments using a simulation approach. We base our calculations on "standard" POS terminals that allow for card payments, which is due to data availability.⁶⁹ However, it is likely that increased acceptance and use of mobile payments would have similar effects.

⁶⁹ Many forms of mobile payments have developed only in recent years and currently not much international data is available in this area.

The crucial element of our analysis is estimating the gap between the best international benchmark and the current number of POS terminals in Albania⁷⁰ (benchmark-implied number of POS terminals per capita in a given sector is equal to such a ratio for a country with the most developed POS terminal network adjusted for differences in the consumption structure between Albania and this reference country). Importantly, we estimated this gap

and the resulting increase in the number of terminals taking into account the sectorial breakdown of the economy. In addition, we assumed that the change in the number of POS terminals may happen/be enforced among registered companies only (see Table 4.2; for details on the methodological approach see the Technical Appendices).

Table 4.2. Estimated number of POS terminals per million inhabitants before and after introducing the regulation/initiative for top 10 sectors (with the highest gap in the number of POS terminals) and all the passive shadow economy sectors in Albania

	situation in 2017 (1)	after regulation (adjusted international benchmark) (2)	existing gap (2)-(1)
Other retail	239	14 329	14 090
Food stores and warehouse	400	9 823	9 423
Other services	145	4 636	4 491
Clothing stores	413	3 269	2 856
Professional services	34	1 111	1 077
Restaurants and bars	103	966	863
Other transport	65	799	734
Interior furnishings	29	642	613
Health care	17	592	574
Sporting and toy stores	19	443	424
All passive shadow economy sectors¹	2 013	38 654	36 641

¹ We do not consider the regulation for sectors for which the passive shadow economy transactions are much less likely: airline, auto rental, education, utilities, purchase of vehicles, etc.

Notes: Presented sectors reflect the classification of Mastercard based on merchant category codes (MCC).

Source: EY.

In the next step, based on a regression analysis, we translated the estimated changes in the number of terminals into growth in the value of card payments, which in turn allowed us to calculate the

value of crowded out cash payments and the resulting decrease in the size of the passive shadow economy.⁷¹

The estimated effect of the regulation/initiative on the size of the passive shadow economy in Albania is presented in Table 4.3. The impact of the analysed measure is the highest for: (1) the sectors in which “saturation” with POS terminals is relatively and (2) relatively large sectors. Such “large” sectors account for a high share of Albanian consumer expenditure and have the biggest potential for an increase in the number of POS terminals (or other devices that accept electronic payments) in absolute terms.

⁷⁰ In practice, some merchants that do not have POS terminals may accept other electronic payments, e.g., mobile payments. Therefore, the gap in the number of devices accepting electronic payments for the analysed country may be lower than the gap in the number of POS terminals, especially bearing in mind that mobile payments are not popular in developed countries with the highest number of POS terminals per capita (data for developed countries is used as a benchmark to estimate the gap in the number of POS terminals). Yet, since statistics on the number of devices that accept mobile payments are not available, we are not able to account for this in our calculations.

⁷¹ For more details on the applied approach and obtained results see the Technical Appendices.

Table 4.3. Improvement in the electronic payments acceptance (effects of reaching the best international benchmark): impact on the passive shadow economy and (net) government revenues for top 10 and all passive shadow economy sectors in Albania (% of GDP)

	passive shadow economy in the first and next years (permanent effect)	government revenues in the first and next years (permanent effect) (=net government revenues after the first year when there are no more gov. costs)	net government revenues (gov. revenues minus costs) in the first year if a POS terminal costs USD 300 (ca. ALL 36,000)	net government revenues (gov. revenues minus costs) in the first year if a POS terminal costs USD 150 (ca. ALL 18,000)	net government revenues (gov. revenues minus costs) in the first year if a POS terminal costs USD 45 (ca. ALL 5,400)
Other retail	-0.498	0.074	-0.019	0.028	0.060
Food stores and warehouse	-0.333	0.050	-0.013	0.019	0.040
Other services	-0.159	0.024	-0.006	0.009	0.019
Clothing stores	-0.101	0.015	-0.004	0.006	0.012
Professional services	-0.038	0.006	-0.001	0.002	0.005
Restaurants and bars	-0.030	0.005	-0.001	0.002	0.004
Other transport	-0.026	0.004	-0.001	0.001	0.003
Interior furnishings	-0.022	0.003	-0.001	0.001	0.003
Health care	-0.020	0.003	-0.001	0.001	0.002
Sporting and toy stores	-0.015	0.002	-0.001	0.001	0.002
All passive shadow economy sectors¹	-1.294	0.193	-0.049	0.072	0.157

¹ We do not consider the regulation for sectors for which the passive shadow economy transactions are much less likely: airline, auto rental, education, utilities, purchase of vehicles, etc.

Notes: The cost related to installing POS terminals was obtained from Mastercard.

We consider scenarios in which a single POS terminal costs USD 300 (estimate of the typical cost of a POS terminal in Albania obtained from Mastercard). It is worth noting that in some markets cost of POS terminals is significantly lower. Therefore, for illustrative purposes, we also consider scenarios in which a POS terminal cost USD 150 and USD 45 (the latter cost is observed in some CSE countries).

Source: Mastercard (costs of POS terminals and data for estimation of the current number of POS terminals by sectors), EY (calculations).

The estimated effect is the highest for the sector of other retail (a contraction of the passive shadow economy by 0.498% of GDP, followed by food stores and warehouse (passive shadow economy falls by 0.333% of GDP). If the regulation was applied to all the passive shadow economy sectors in Albania, the resulting increase in the registered activities should amount to 1.294% of GDP. This in turn would translate into an increase in government revenues by 0.193% of GDP.

The devices or solutions necessary to accept electronic payments constitute a major cost of the considered regulation, which might vary depending on the electronic payment method. This cost may be borne by businesses, the government or shared between them. For illustration purposes, we consider three variants of the scenario when the government finances 100% of the costs. i.e.

when the POS terminal cost equals USD 300 (ca. ALL 36,000) per device, USD 150 (ca. ALL 18,000) per device, and USD 45 (ca. ALL 5,400) per device.

The estimated impact of this measure on (net) government revenues is presented in Table 4.3 as well. The net short-term impact on the government balance would be negative for all the analysed sectors in the first year following the introduction of the regulation assuming that each POS terminal cost is USD 300. For the other scenarios net government revenue is positive starting from the first year. Hence, the above effects on net government revenues will be less negative/more positive the lower the costs of the regulation and the less government financing is used. If the regulation applied to all the sectors considered, its short-term net impact on the Albanian government revenues would range from

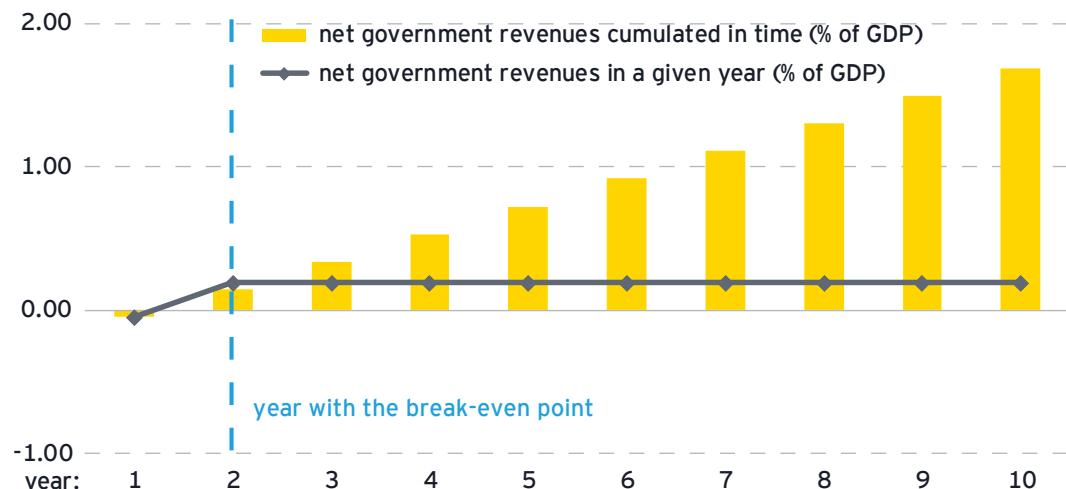
-0.049% to (plus) 0.157% of GDP, depending on the type of POS terminal financed by the government.

Crucially, once the regulation has been introduced, the installation cost is no longer incurred, while government revenues stemming from the contraction of the passive shadow economy remain. Therefore, in the following years the net effects of the regulation could be approximated by government revenues of 0.193% (see Chart 4.4). In the longer term, reaching the best international benchmark in the electronic payments acceptance should generate positive net government revenues regardless

of the amount paid by the government in the first year. In other words, additional government revenues related to the decline in the passive shadow economy, after accumulation in time, will exceed government costs related to the development of electronic payments acceptance network in the second year (variant a. on Chart 4.4) or already in the first year (variants b. and c.) of the regulation. The lower the cost of the development and the lower its (co)financing by the government, the sooner cumulated net government revenues will become positive. Similar conclusions, related to a longer-term perspective, also apply to other regulations considered in this study.

Chart 4.4. Improvement in the electronic payments acceptance (effects of reaching the best international benchmark): effects on net government revenues in different scenarios over time (% of GDP)

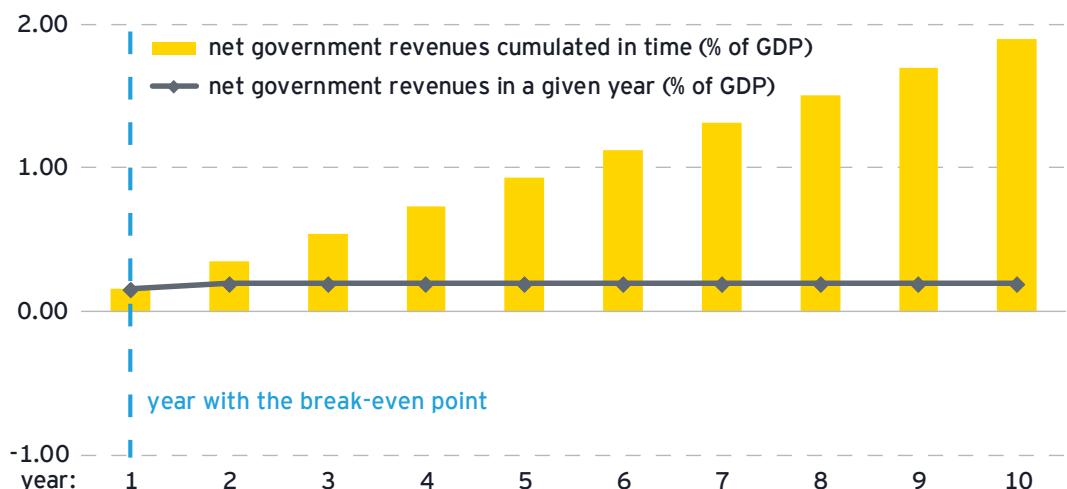
a. Government pays USD 300 (ca. ALL 36,000) for a POS terminal



b. Government pays USD 150 (ca. ALL 18,000) for a POS terminal



c. Government pays USD 450 (ca. ALL 5,400) for a POS terminal



Source: Mastercard (costs of POS terminals and data for estimation of the current number of POS terminals by sectors), EY (calculations).

Estimated timing of the impact of the initiative/regulation

Most of the estimated benefits should materialise almost immediately after the introduction of the potential regulation (or increase in the compliance) and continue in the years that follow. Some effects may take place even before the introduction of the

regulation, since some entities may start acting in compliance with the regulation soon after its announcement (most companies, however, are likely to wait for government financing to commence).

4.2 Tax incentives for consumers

Mechanism of the regulation

One way to promote electronic payments is to make them financially more attractive for consumers as compared to cash payments. This can be achieved by providing electronic payment users with special benefits directly related to their card payments, such as discounts, cash-back or reward points redeemable for prizes. Such methods have been widely used by many private financial institutions and their effectiveness has been confirmed by a number of studies based on survey data.^{72 73 74}

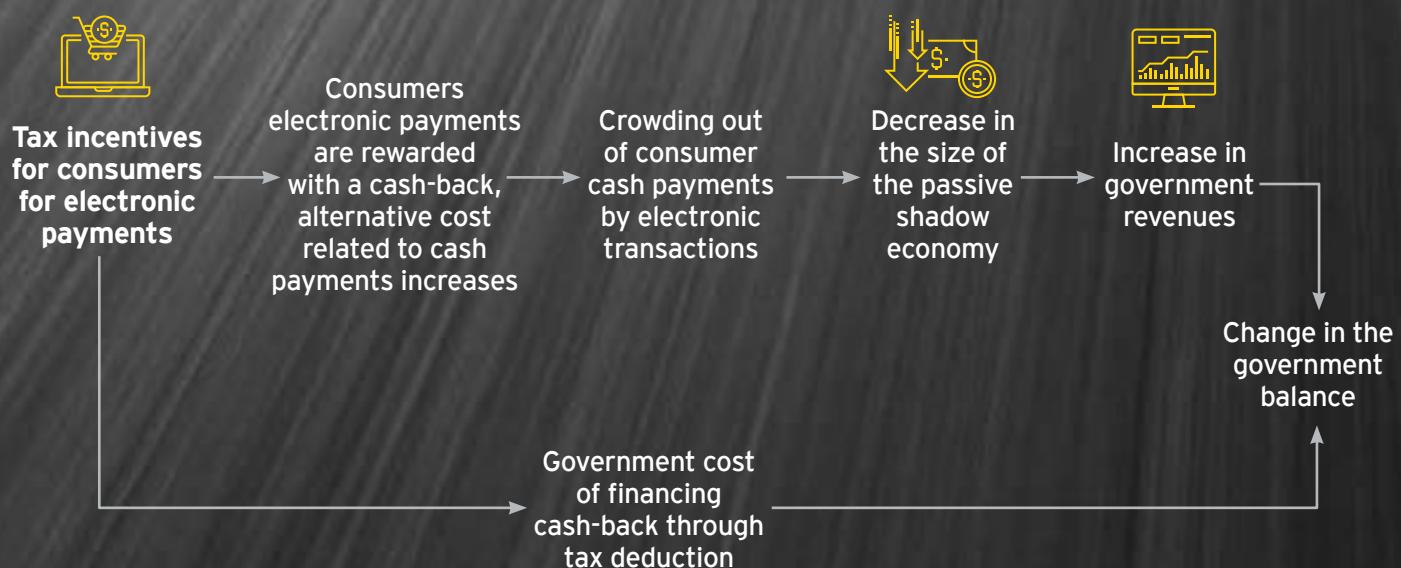
By analogy, such financial motivation may be provided by the government, for example, through appropriately designed tax incentives that reduce the tax component of retail prices such as the value added tax, or through tax incentives via the individual income tax system, provided that a consumer makes a card (or other electronic) payment at the point of sale. This should then lead to a reduction in cash payments and, as a result, to a decrease in the size of the passive shadow economy coupled with an increase in government revenues (Chart 4.5). It should be stressed that such incentives for consumers may be introduced through various mechanisms, many of which allow the government to reduce incurred costs, but at the same time lower potential benefits in terms of crowded out cash payments. An example of such a regulation is programs introduced in South Korea, Uruguay, and Colombia (see Frame 4.3).

72 Carbó-Valverde S., Líñares-Zegarra J. M. (2011), "How effective are rewards programs in promoting payment card usage? Empirical evidence", *Journal of Banking & Finance*, vol. 35(12), pages 3275-3291.

73 Arango C., Huynh K.P., Sabetti L. (2015), "Consumer payment choice: Merchant card acceptance versus pricing incentives", *Journal of Banking & Finance*, vol. 55, pages 130-141.

74 Simon J., Smith K., West T. (2010), "Price incentives and consumer payment behaviour", *Journal of Banking & Finance*, vol. 34, pages 1759-1772.

Chart 4.5. Tax incentives for consumers: mechanism of the regulation



Source: EY.

An interesting variant of tax incentives is an individual income tax-based solution enabling taxpayers to deduct a certain percentage of their card expenses on specific types of expenditure, up to a pre-defined limit set for a given tax year. These expenses could be deducted from the taxpayer's income. In order to use such an income tax allowance, the taxpayer would need to document expenditures incurred by submitting electronic transaction receipts/bank statements. Alternatively, an appropriate electronic system might allow the automatic verification of such transactions. For example, in South Korea the confirmation of a taxpayer's expenditure is available through the Simplified Year-end Tax Settlement website. This is an Internet-based service that shows the allowable amount of deduction for each taxpayer. A printout of the screen displaying the records is a valid support document.

To combine the high efficiency of the considered solution (in terms of shadow economy contraction) with limiting the costs

of the tax relief incurred by the government, the regulation may focus on the selected sectors that account for the largest share of the passive shadow economy. Therefore, expenditure qualifying for the individual income tax allowance or the VAT deduction may be limited to certain sectors or predefined goods or services. By contrast, if the solution was implemented at a national level (covering all sectors), it might reduce the shadow economy to a somewhat larger extent, but at a disproportionately higher cost. The reason is that card payments made in non-shadow economy sectors would also allow taxpayers to apply for the tax relief. Consequently, many consumers who already pay electronically or will replace already registered cash payments with new electronic payments would benefit from this tax allowance, despite there being no impact on the shadow economy. In such a case the regulation would entail only costs with no benefits for the government (the registered economic activity and the related tax base would remain unchanged).

Frame 4.3. Tax incentives for consumers: examples

In 1999 South Korea introduced a program whereby consumers could deduct 10% of the amount paid through credit or debit cards ("deduction rate") in excess of 10% of the person's total annual salary ("deduction threshold") from the income tax base.⁷⁵ If the value of the taxpayer's electronic transactions did not exceed the threshold of 10% of annual salary, the deduction was not applicable. To prevent excessive tax deductions, a deduction cap was set at 3m wons (KRW) or 10% of total labour income (depending on which amount was effectively lower). In the following years, the program was extended through inclusion of mobile transactions and cash payments for which electronically traceable cash receipts (ETCRs) were issued. In addition, the deduction rate has so far been revised (increased or decreased) several times. As of 2017 it was set at 15% for credit card payments and 30% for debit card, mobile and ETCR payments and capped at the amount of 3m wons or 20% of total labour income (though the cap was reduced to 2m wons for taxpayers with total labour income over 120m wons). The deduction threshold has also been elevated over the years, thereby reducing the scale of the incentive. As of 2017 it amounted to 25% of total labour income.

All in all, the structure of the regulation allows the government to react (relatively) flexibly to a changing environment and to control the level of the incurred costs. For example, the government in South Korea decided to favour debit card over credit card transactions as, in the first years after introduction of the tax incentive, excessive consumption led to numerous credit card defaults.

Importantly, the Korean National Tax Service (NTS) succeeded in making the tax refund process easy and convenient by providing salary earners with prefilled data on their transactions eligible for deduction (credit and debit card companies are obliged to regularly report their payment data to the NTS). The simplicity of the whole process for consumers is a key factor ensuring the effectiveness of such a regulatory measure.

Credit card transactions (representing almost all payment card transactions in South Korea at the time) grew rapidly from 4.9% of GDP in 1999 to 34.3% in 2002. In 2014 the value of electronic payments (credit, debit, check and prepaid cards) reached 42.5% of GDP. Certainly some part of this increase is due to the introduction of the income tax incentive for consumers, but other factors (e.g. development of modern payment infrastructure) have most likely also contributed to this growth. According to the study of Sung et al. (2017) based on the analysis of microdata from the Korean Household Income and Expenditure Survey, the estimated net impact of the introduced tax incentive on personal income tax revenues in South Korea (accounting for an increase in the effective Personal Income Tax (PIT) rate for self-employed due to a reduction of underreporting as well as a decrease in the effective PIT rate for wage and salary earners due to deductions of electronic payments) is positive - the net gain calculated for 2014 amounted to 1.4 trillion wons (4.2% of PIT revenues in 2014). The impact on the value of electronic payments, total size of the shadow economy and other government revenues in South Korea has not been directly assessed by the authors of the study.

In Uruguay in April 2014 the Financial Inclusion Law (Law No. 19,210) was approved.⁷⁶ It established a VAT rebate of 2 percentage points for sales to final consumers if payment is performed with a debit card or electronic money instrument, effective from August 2014. In other words, VAT on purchased products and services is reduced from 22% to 20% in the case of standard rate and from 10% to 8% in the case of reduced rate. In addition, transactions of the value below 4,000 Indexed Units (i.e. approximately UYU 17,000≈USD 483 as of May 2019⁷⁷) are covered by an additional 2 p.p. incentive, resulting in a total VAT rebate of 4 p.p. Importantly, consumers are awarded with cash-backs automatically at the moment of transaction. The law also established a temporary 2 p.p. VAT reduction for credit card payments of the value below 4,000 Indexed Units which was in effect until 31 July, 2016.⁷⁸ It is worth



75 The following information is based mostly on Sung M.J., Awasthi R., Lee H. C. (2017), "Can tax incentives for electronic payments reduce the shadow economy?: Korea's attempt to reduce underreporting in retail businesses", *Policy Research working paper*, no. WPS 7936, Washington, D.C.: World Bank Group.

76 <https://www.rsm.global/insights/tax-news/uruguay-financial-inclusion-law> [online; accessed 15.05.2019].

77 <http://www.ine.gub.uy/ui-unidad-indexada> [online; accessed 15.05.2019].

78 <http://inclusionfinanciera.mef.gub.uy/19087/15/areas/rebaja-del-iva.html#1>, <https://www.americaeconomia.com/economia-mercados/finanzas/uruguay-rebaja-del-iva-en-marcha> [online; accessed 15.05.2019].

noting that in the following years Uruguay combined the tax incentives for consumers with other regulations that promoted electronic payments such as: (1) a gradual introduction of an obligation of electronic payment of wages with accounts offering basic services at zero costs⁷⁹, (2) requiring taxpayers to pay their national taxes of the amount greater than 10,000 Indexed Units (i.e. approximately UYU 42,000≈USD 1,192 as of May 2019) by non-cash means since April 2016 as well as (3) obliging buyers to use non-cash payment methods while purchasing goods or services of the value above 40,000 Indexed Units⁸⁰ (i.e. approximately UYU 170,000≈USD 4,825 as of May 2019) since April 2018. It is very likely that the discussed policies significantly contributed to a relatively large growth in the value share of card payments in household final consumption expenditure in Uruguay between 2014 (13.2%) and 2017 (22.1%).

Another example of a tax incentive for consumers is a regulation in Colombia, where consumers making card payments were entitled to a 2 p.p. VAT rebate, however the incentive was discontinued.

One of many examples of regulation focusing on a selected sector is the construction/renovation allowance implemented in Poland. It allowed taxpayers to deduct 19% of their expenses incurred in 1992-2003 relating to house purchase, building construction and renovation. From 1997 onwards, a limit on this kind of expense was established.

Impact of the regulation on the passive shadow economy and government revenues

In the remainder of this section we assume that there is no card payment surcharge paid by the consumers in Albania (high prevalence of such surcharge may limit the effects of the considered regulation). To approximate the effect of tax incentives for consumers, we use the available research on consumer reactions to card payment rewards. Based on these results, we ran the necessary transformations and calculated the effect of a given level of cash-back awarded to all card transactions on the reduction in the popularity of cash payments. For more details on the applied approach see the Technical Appendices.

We therefore analysed the impact of the tax relief, which was provided in the form of a cash-back equal to a given percentage of the card transaction value, on the increase in electronic payments and the respective decline in consumer cash transactions. We assumed that the regulation does not cover non-resident card payments. The quicker the tax relief works and the simpler its structure, the higher is the chance that it will affect consumer behaviour significantly. It is likely that, for example, an immediate benefit for the consumer in the form of a VAT deduction (corresponding to the predefined percentage value of

a card transaction) would be more effective in stimulating card payments than any complicated mechanisms of a tax refund based on the collection of electronic payment receipts, or the South Korean example of an income tax deduction. The latter mechanisms might allow the government to control regulation-driven costs more effectively, which is their great advantage, but at the same time would reduce the number of electronic transactions covered by the regulation and limit the interest of some consumers in the implemented solution due to the additional administrative burden.

The analysed regulation not only provides benefits in the form of the contraction of the shadow economy and the resulting increase in government revenues, but also entails costs in the form of reduced government revenues per registered card transaction as the authorities give up a fraction of the tax payment (e.g., income tax for individuals or VAT). The illustration of the relationship between the tax relief level and the associated costs and benefits is demonstrated in Chart 4.6.⁸¹

It should be noted that the potential benefits of the regulation in terms of additional government revenues are proportional to the fall in the value of shadow economy transactions, which in turn is proportional to a decrease in cash usage by consumers. The shape of the cost curve is determined by the following two factors: the value of the tax benefit (as a percentage of the

⁸¹ This regulation entails certain costs, while the benefits take the form of potential additional revenues that have been estimated using the existing research for Canada and additional EY assumptions. Therefore, the estimated effects could be obtained in the environment with a well-developed electronic payments acceptance network (and could be lower if it is not the case for the analysed country). On the other hand, since the income level in Albania is lower than in Canada, the reaction of consumers in Albania could be stronger (due to higher marginal utility of income). Further research dedicated to and accounting for the specifics of the Albanian economy, including the behaviour of domestic consumers and their reaction to financial incentives, might be desirable.

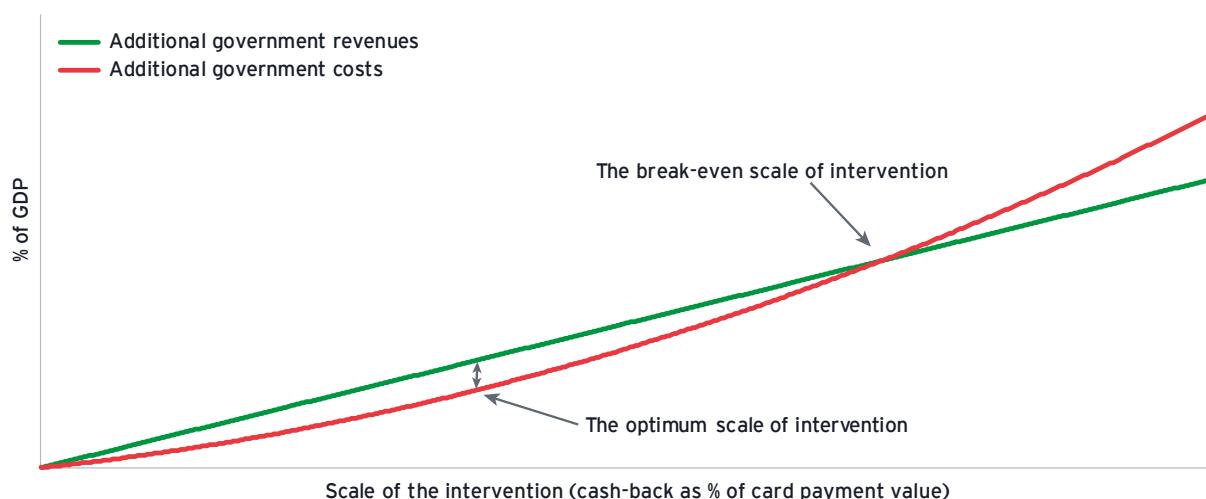
⁷⁹ <https://www.mef.gub.uy/21766/1/mef/inclusion-financiera:-pago-de-remuneraciones.html> [online; accessed 15.05.2019].

⁸⁰ <https://www.dca.com.uy/2018/04/03/ya-rigen-las-restricciones-para-pago-en-efectivo/> [online; accessed 15.05.2019].

card transaction value) and the overall value of card payments. Therefore, an increase in the level of cash-back awarded to consumer card payments elevates the costs incurred by the government, because this encourages an increase in the value of card transactions, and each unit of electronic payment is now rewarded with a higher prize.

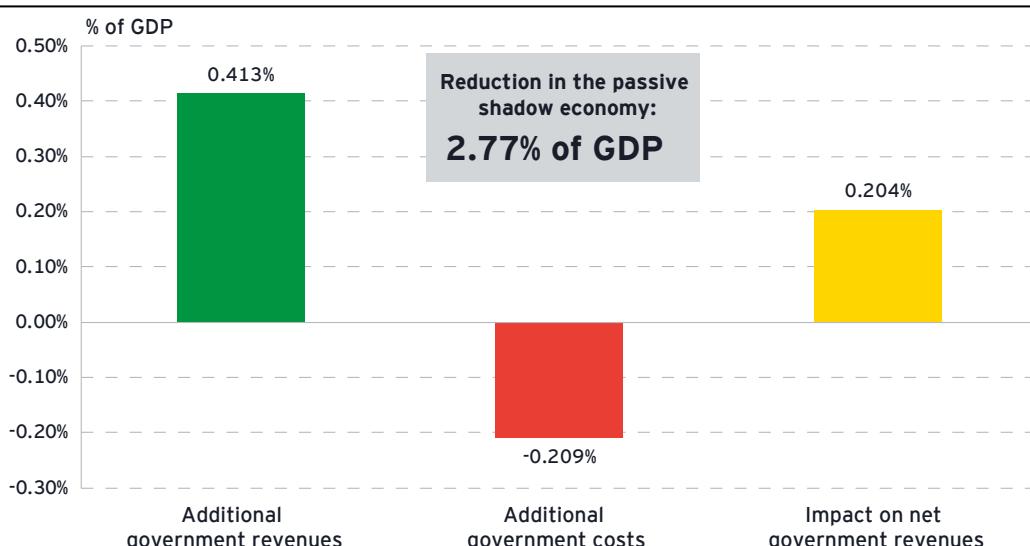
We therefore seek the optimum level of the tax incentive for consumers that maximises the difference between the benefits and costs of the regulation in Albania. It has been estimated at the level of 1.33% of the card payment value (see Chart 4.7). The analysis shows that this regulation could reduce the shadow economy by 2.77% of GDP with an accompanying net increase in government revenues by 0.204% of GDP.

Chart 4.6. The impact of tax relief for consumer card payments on the government balance: an illustrative example



Source: EY.

Chart 4.7. The impact of the optimum cash-back for card payments on government revenues in Albania (short-term approach) (optimum cash-back: 1.33% of card payment value)



Source: EY.

The effects that the considered regulation will have over time may also play a critical role in the cost-benefit analysis. It might be assumed that after many consumers have shifted from cash to electronic payments as a result of the cash-back incentive, their payment habits may often change permanently. Therefore, if the government reduces the level of the tax incentive, or even withdraws from the regulation completely, a significant proportion of consumers may not be willing to shift back to cash payments. Consequently, the costs of the regulation may be reduced (or eliminated) over time with a limited impact on the achieved benefits. As a result, net effects of the regulation on the government balance may increase over time.

To illustrate this, we consider an additional, long-term variant of the tax incentive for consumers, in which the government adopts the following approach:

- ▶ In year one, a cash-back award at a level of 2.66% of card payment value is introduced that results in additional

government revenues being equal to additional government costs (a 'break-even' level). That cash-back level is higher than in the case of the previously presented optimum cash-back;

- ▶ In year two, the cash-back is reduced by 80%, i.e. to a level of 0.53% of card payment value and maintained at that level in the years that follow (see Table 4.4.).

Even if the government significantly reduces the cash-back in year two (as in the considered scenario), a large proportion of consumers may not be willing to shift back to cash payments, since their payment habits may change permanently as a result of the cash-back incentive provided in year one. To illustrate this, here we assume that a reduction of cash-back by 80% reduces government benefits from the shadow economy contraction only by 20%. The costs of the regulation drop by more than 80% due to a reduction in electronic transaction value after the incentive reduction.

Table 4.4. Considered amount of cash-back under different government strategies (% of card payment value)

Government strategy	Year 1	Year 2	Years beyond
short-term	1.33	1.33	1.33
long-term	2.66	0.53	0.53

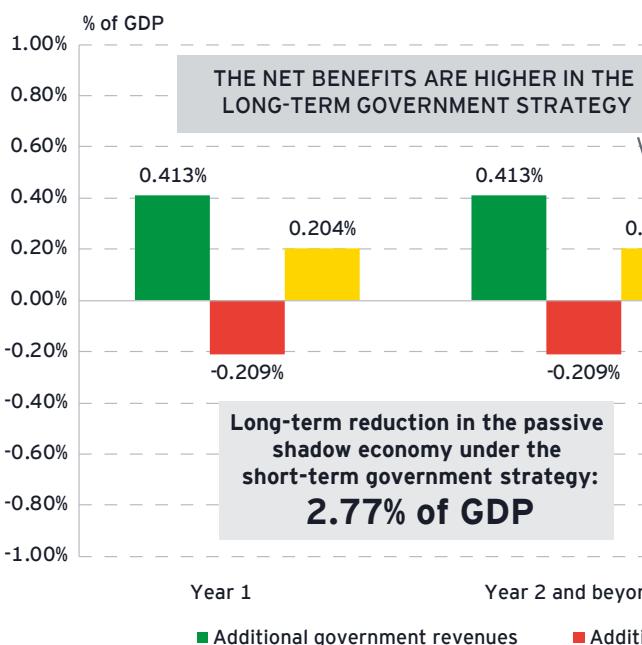
Source: EY.

A comparison of results for short-term and long-term strategies is presented in Chart 4.8. Should the government adopt the long-term strategy, the reduction in the passive shadow economy would amount to 4.43% of GDP compared to 2.77% of GDP in the case of choosing the short-term approach. Introduction of this policy in the long-term variant would be

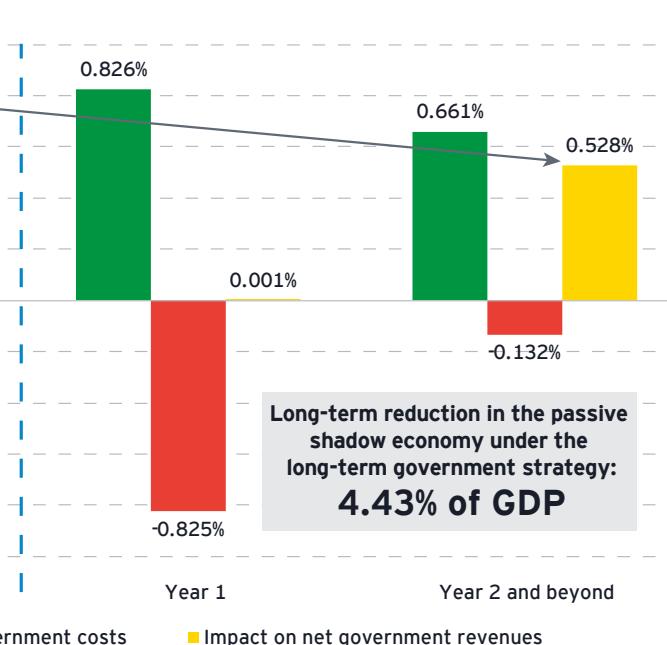
neutral for the net government revenues in the first year of cash-back availability, while bringing additional net government revenues equal to 0.528% of GDP per year from the second year onwards. Meanwhile, implementation of the short-term strategy is associated with a net increase in government revenues by 0.204% of GDP annually per year from the first year.

Chart 4.8 The impact of cash-back on government revenues in Albania under short-term and long-term government strategies—illustrative examples

a. Short-term government strategy



b. Long-term government strategy



Source: EY.

One concern from the perspective of public finance, might be that this regulation entails certain and quite significant costs, while the benefits—although estimated to be higher—take the form of potential additional revenues. Therefore, further research dedicated to and accounting for the specifics of the Albanian economy, including the behaviour of domestic consumers and their reaction to financial incentives, might be desirable. Moreover, there may be interest in adopting a solution that would allow the government to control the cost of the regulation more effectively. In this context, an example worth considering is that of South Korea, where an income tax deduction mechanism, including a deduction cap, was introduced. However, this is just one of many variants of this regulation, which may be modified in many ways.

Estimated timing of the impact of the regulation

A significant part of the estimated impact that is related to the behaviour of current card/account holders should take place almost immediately after the regulation has been introduced. For those who do not own a payment card, the effects may emerge more gradually (and should materialise almost completely within one to two years, according to our expert judgement). It is also likely that a relatively high incentive for consumers would accelerate this process (higher benefits should encourage people to apply for payment cards more quickly).

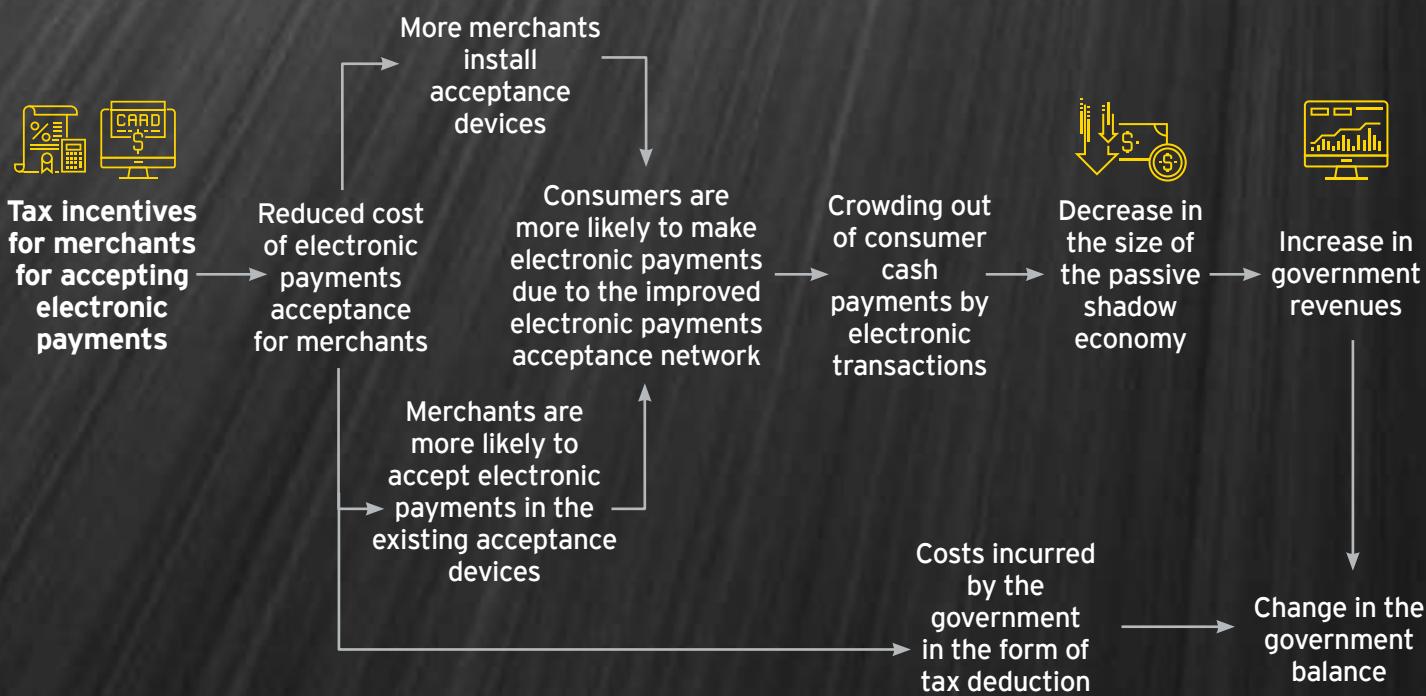
4.3 Tax incentives for merchants

Mechanism of the regulation

In many countries, consumers are discouraged from using electronic payments because of the limited number of places where they are accepted. The slow development of electronic payment acceptance network can be a result of the high costs of accepting card payments in some countries. On the other hand, large fees imposed on merchants may be an effect of the insufficient prevalence of electronic payments in the economy. If relatively few people make electronic payments, the maintenance costs incurred by merchants are divided over a small number of transactions, resulting in large fees per transaction for merchants.

Reduction in the merchants' costs related to the acceptance of card payments may stimulate the growth of electronic payments, thereby leading to a reduction in cash transactions. In addition, reduction of merchant fees (e.g. in the form of tax relief) could further spur the growth of electronic payment acceptance network as some merchants would possibly be encouraged to install new POS terminals or other acceptance devices. All this, in turn, would translate into a contraction of the passive shadow economy and a subsequent increase in government revenues (see Chart 4.9).

Chart 4.9. Tax incentives for merchants: mechanism of the regulation



Source: EY.

An example of reduction in merchant costs in the form of tax incentives is the experience of South Korea and India (see Frame 4.4).

Frame 4.4. Tax incentives for merchants: examples

Merchant-targeted policies of South Korea included VAT deduction and income tax deduction schemes, both providing merchants with tax benefits for accepting card payments. The VAT deduction ratio (accompanied by a deduction cap) varied over time and across categories of goods and services.

In December 2017, the Government of India announced that it will bear the Merchant Discount Rate (MDR) charges on debit card, BHIM UPI and AEPS small-value transactions (up to INR 2,000≈USD 30), thus relieving merchants from those fees for two years.

Other incentives provided for merchants might be considered in order to reinforce the effects of the considered regulation. One example includes direct support for merchants in purchasing or leasing POS terminals via, e.g., tax allowances or government financing (to give a similar example involving Poland, the cost of purchasing cash registers could partially be deducted from the company's commercial tax liability). Another way to promote electronic payments could be the introduction of the CIT/PIT allowance for businesses in the form of a lowering of the tax base by a certain number of percentage points, provided that the taxpayer exceeds a predefined percentage of non-cash turnover in a given tax year.

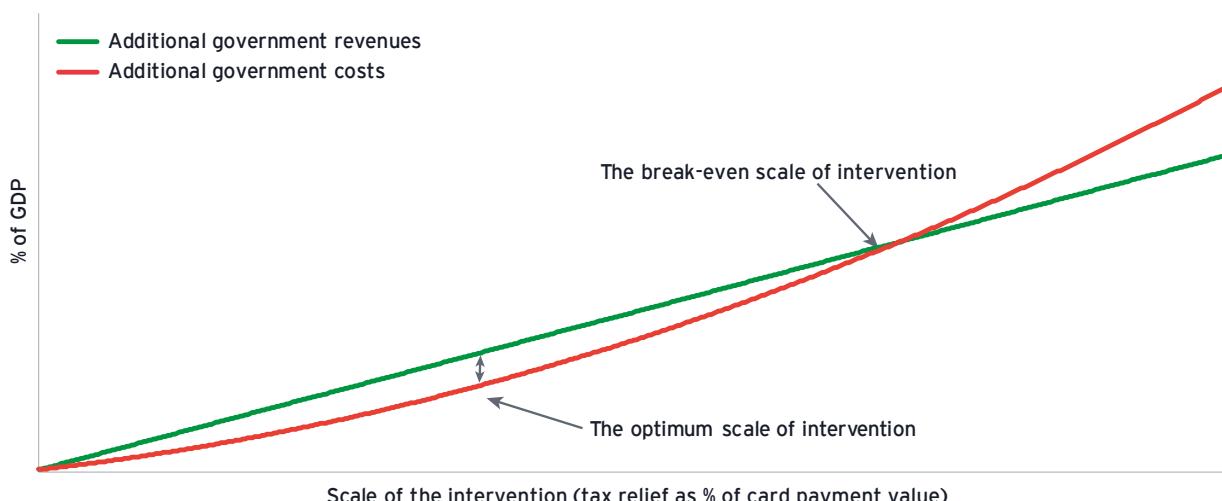
Impact of the regulation on the passive shadow economy and government revenues

Using the econometric model prepared by EY (see the Technical Appendices), we calculated how changes in merchant costs affect the value of card transactions. In the next step, we translated the

increase in consumer card payments into a decrease in consumer cash payments and calculated the resulting change in the Albanian passive shadow economy. The reduction in the passive shadow economy was associated with growth in government revenues.

We assumed that the government finances reduction in merchant costs in the form of tax relief. Therefore, as in the case of tax incentive for consumers, the regulation considered here provides not only benefits in the form of shadow economy contraction and a resulting increase in government revenues, but also costs in the form of reduced government revenues per registered card transaction, due to deducting of a fraction of the tax burden. An example relationship between the tax relief level and the associated costs and benefits is demonstrated in Chart 4.10. The reasons for the constant slope of the benefits curve and the increasing slope of the costs curve are the same as described in the section on tax incentives for consumers.

Chart 4.10. The impact of tax relief for merchants on the government revenues: an illustrative example

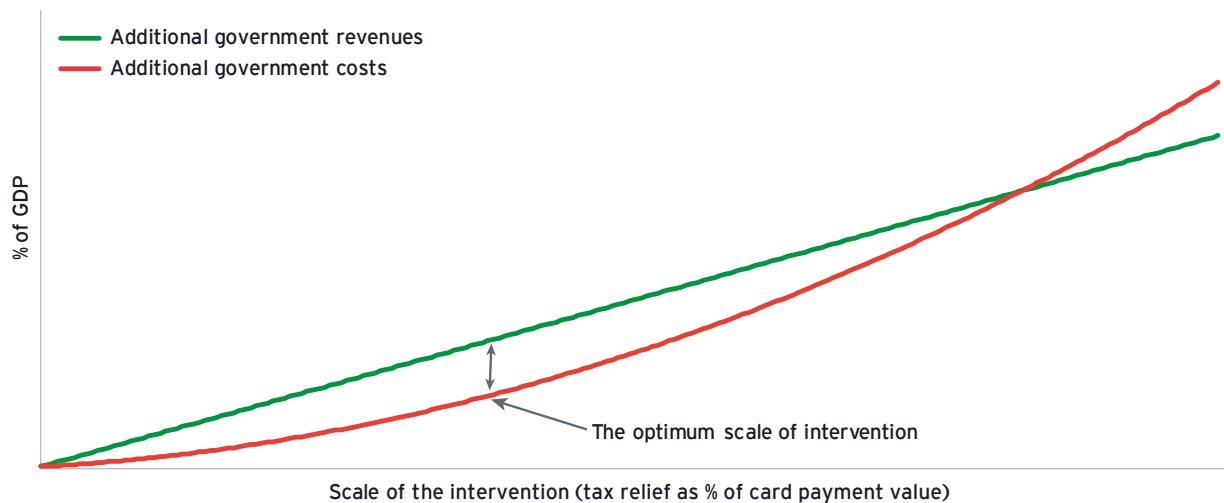


Source: EY.

In Albania, introduction of an optimum tax incentive for merchants of 0.87% of card payment value would bring net benefits for government (0.016% of GDP) and reduction in the passive shadow economy (0.27% of GDP) (see Chart 4.12). In both cases, however, the effects are rather low when compared to optimum cash-back for consumer card payments. Importantly, costs generated by the incentive for merchants may be short-term, while benefits should be long-term, since the improved

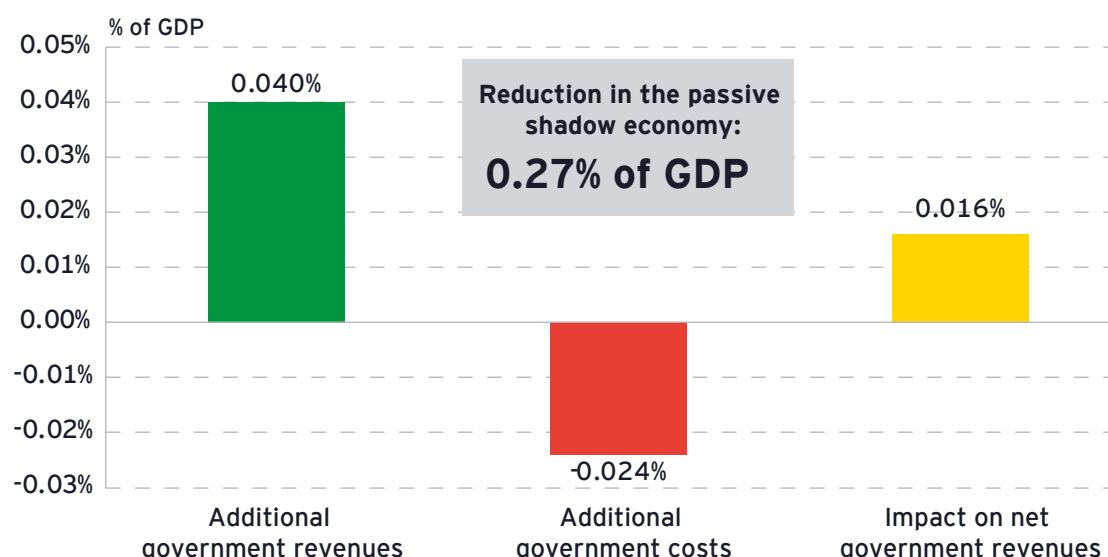
electronic payment infrastructure should prevail even after the tax relief for merchants has been abolished. We assume that the tax incentive would be available for all the merchants that accept card payments, including those that already possess and use POS terminals. Nevertheless, net government revenues would be higher if the incentive applied only to selected merchants, e.g., with newly installed POS terminals, in selected sectors or types of businesses (e.g. with relatively low revenues), etc.

Chart 4.11. The impact of tax relief for merchants on the government revenues in Albania



Source: EY.

Chart 4.12. The impact of an exemplary tax relief for merchants (0.87% of card payment value) on the government revenues in Albania



Source: EY.

Furthermore, while we opt for a conservative approach in every situation subject to uncertainty, we have to admit that for this particular regulation the presented impact on government revenues may have been overestimated. The reason is that the optimum level of tax relief seems to be too low to incentivise merchants who benefit much more from not reporting some cash transactions to start registering these transactions by accepting card payments. Therefore, it is likely that it would be mostly those merchants who have so far registered cash transactions that may have the strongest motivation to replace cash transactions with card payments. In the latter case, however, the shift into electronic payments would not reduce the passive shadow economy, since crowded out cash payments were already reported and included in the registered tax base. Taking that into account, and the fact that in our approach we assume that a given percentage of crowded out consumer cash payments leads to a proportional decline in the passive shadow economy, the obtained results for the impact of the regulation on the contraction of the shadow economy and increase in government revenues may be overestimated.

On the other hand, it can be claimed that this regulation should contribute to the development of card payment infrastructure and stimulate electronic transactions. When the electronic payment network is sufficiently developed, the maintenance costs (in terms of fees per transaction) should be reduced and tax incentives for merchants may no longer be necessary. The government may therefore withdraw from the regulation and no longer incur the cost of tax relief. In this context, the regulation may be considered as an investment in payment infrastructure and as well as card acceptance.

In addition, in our calculations we assumed that the tax incentive would be available for all the merchants that accept card payments, including ones that already possess and use devices that accept electronic payments. Net government revenues would be higher if the incentive applied only to selected merchants,

e.g., with newly installed accepting devices, in selected sectors or types of businesses (e.g. with relatively low revenues), etc.

As with the regulation on tax incentives for consumer electronic payments, the tax relief for merchants entails certain, and quite significant costs, while the benefits—although usually estimated to be higher—take the form of potential additional revenues. Therefore, further research dedicated to and accounting for the specifics of the Albanian economy, including the behaviour of domestic merchants and their reaction to financial incentives, might be desirable.

Estimated timing of the impact of the regulation

A significant part of the estimated impact concerning the behaviour of merchants who already operate POS terminals and other electronic payment acceptance devices should take place almost immediately after the regulation has been introduced. For those merchants who do not have such devices, the effect would materialise more gradually. It is also likely that a relatively high tax incentive would accelerate this process. However, it might take some time for consumers to get used to the improved electronic payment acceptance network and to use cashless payments more frequently.

Effects that the considered regulation will have over time may also play a critical role in the cost-benefit analysis. It might be assumed that, after the electronic payment acceptance network has been improved as a result of the tax incentive for merchants, this process would not be reversed even if the government reduced the level of the tax incentive, or even completely withdrew from the regulation. Consequently, the costs of the regulation may be reduced (or eliminated) over time, with a limited impact on the achieved benefits. Therefore, the net effects of the regulation on the government balance may increase over time.

4.4 Promotion of electronic payment devices that enable contactless payments

Mechanism of the initiative

In contrast to some other measures considered in this study, substitution of electronic payment devices (e.g. cards and POS terminals) with ones that enable contactless payments may be hard to obtain through a regulation (which may be also needed

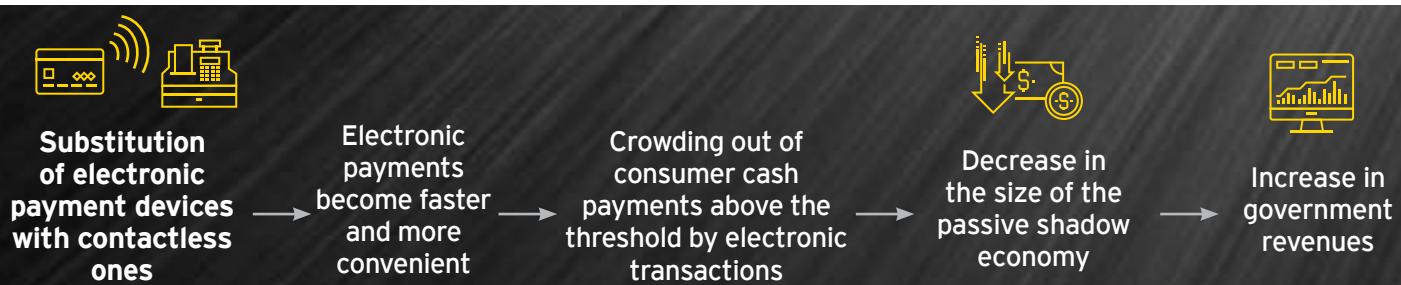
in some areas, though). It rather requires a joint initiative of different stakeholders engaged in the development of the electronic payments system (regulators, banks, electronic payment providers, etc.).

The contactless technology allows one to pay with a card, mobile phone or other device by holding it within a few centimeters of a POS terminal (or other accepting device) enabled with the near field communication (NFC) function (which is the most prevalent technology for contactless payments). Unlike mobile and online payments which require only access to cellular or WiFi networks, contactless payments involve a physical proximity of the payment and accepting devices. Due to their specifics, contactless transactions are often described as “tap-and-go” payments. In case of card payments, the contactless technology frees payers from the need of inserting or swiping a card in the POS terminal. Yet, the main benefit of contactless payments is that they often can be done without entering a PIN code or giving a signature, which significantly reduces the time of payment. For example, according to the research for Germany, the average payment times (in seconds) were the following for different types of payments: cash payments—24, contact payments with cards—23, contactless payments with cards—11.⁸². It is also possible that the perceived ease of use of electronic payments vs cash payments may be influenced by the popularity of the fast contactless transactions. For example, in Germany in 2017 (when contactless payments were not popular in this country) “ease of use”/“quick payment” feature was mentioned by 94%/89% of consumers for cash payments and 71%/66% for debit card payments.⁸³ Yet, for example in Poland in 2016 (the country with relatively high popularity of contactless payments) 66% of consumers agreed that card payments were more convenient than cash payments.⁸⁴

New/potential users of contactless payments are sometimes worried about their security. To reduce the risk of frauds, different limits for contactless payments are set. Usually they concern the maximum value of a single payment or the maximum number of consecutive payments that could be performed without authentication. Such limits are country-specific and set by regulators, financial institutions or, less often, account owners. To convince potential users to use contactless payments, the limits are usually set at a relatively low value/number of transactions after launching the technology in a given country. Afterwards, they could be increased if not many frauds are reported and contactless payments gain trust. Because of the limits, the contactless technology is most frequently used for low-value payments. This is an important feature, since without this technology low-value payments are particularly often done with cash, supporting the activity in the passive shadow economy. One should also note that during a contact payment (when, e.g., a card is handed to the merchant) a dishonest seller may easier obtain a piece of sensitive information (e.g. card number) than in the case of a contactless payment.

Contactless payment function may be available not only for payment cards but also for mobile phones, city/smart cards (e.g. cards enabling the access to and the payment for the public transport) as well as to various wearable devices (e.g. smart watches). This together with general convenience and speed of contactless transactions stimulates the growth of electronic payments, resulting in reduced cash transactions and contraction of the passive shadow economy (see Chart 4.13).

Chart 4.13. Promotion of electronic payment devices that enable contactless payments: mechanism of the initiative



Source: EY.

82 Girocard (2019), "GfK-Messung Bezahlgeschwindigkeit". https://www.girocard.eu/media/190415_gfk_messung_bezahlgeschwindigkeit_managementsummary.pdf [online, accessed 26.08.2019]

83 Deutsche Bundesbank (2018), "Payment behaviour in Germany in 2017".

84 NBP (2017), "Postawy Polaków wobec obrotu bezgotówkowego. Raport z badania 2016 i analiza porównawcza z danymi z 2009 i 2013 roku".

Contactless payments are quite a new and rapidly developing technology. To gain a better understanding of its specifics, the Euro Retail Payments Board (a group of different stakeholders in the retail payment market created and chaired by the European Central Bank) conducted a special survey. Its results were described in the report which was published in 2015.⁸⁵ Among others, the following potential barriers for the development of contactless payments were identified:

- (1) lack of a common (open) set of specifications and implementation guidelines for contactless payments transactions,
- (2) lack of customer demand and contactless payment experience,
- (3) lack of ubiquity of POS terminals and other devices,
- (4) security and privacy issues as well as
- (5) problems of consumer interaction with POS terminals and other devices (where card/mobile device should be waved, how to identify that a given device accepts contactless payments, etc.).

The board also listed a few factors that may accelerate the development of contactless payments:

- (1) central coordination of the implementation,
- (2) introduction of transaction limits and monitoring their effects,
- (3) involvement of certain sectors: large retail stores/transit sector (they may help to change the existing payment habits),
- (4) merchant staff training (knowledge of contactless technology and asking customers if they want to use this method of payment) and
- (5) consumer communication and awareness (e.g. informing about average payment time for different payment methods).

Impact of the initiative on the passive shadow economy and government revenues

We assessed the impact of the considered initiative on the value of card and cash payments using a simulation approach. We analysed the effects of the scenario in which all contact payment cards and POS terminals in Albania would be substituted with ones that enable contactless payments. We concentrated on

payment cards and POS terminals, since such electronic payment devices are the most popular in many countries around the world and availability of the data on their numbers (required for the econometric analysis) was the highest for us. However, replacing other electronic payment devices with ones that enable contactless payments should generate similar effects.

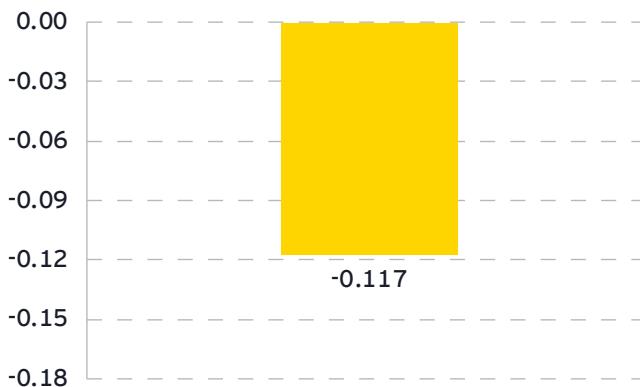
We conducted our calculations in the following steps. First, for the analysed year, we calculated the product of the shares of: (1) contactless cards in the total number of payments cards and (2) contactless POS terminals in the total number of POS terminals. We concentrated on the product of the shares (instead of analysing the two shares separately), reasoning that contactless card payments require both the contactless cards and POS terminals. For example, if all POS terminals were contactless but no cards were contactless, the calculated product would be equal to 0 (the lowest possible value) and no contactless card payments would happen. Second, we estimated the gap between the product from step 1 and the maximum value of the product equal to 1, reflecting the situation in which all payment cards and terminals would become contactless. Third, based on a regression analysis, we translated the elimination of the estimated gap into the percentage growth of the value of card payments (so the absolute growth depends on the current value of card payments which, among others, depends on the overall number of payment cards and POS terminals in a given country). This way we separated the effect of "contactlessness" of payment cards and POS terminals from the effect of the growth in their number (effects for the growth in the number of POS terminals are estimated in chapter 4.1). Next, we translated the percentage growth in the value of card payments into their absolute value growth which was equal to the value of crowded out cash payments. In the last step we calculated the resulting decrease in the size of the passive shadow economy and related increase in government revenues. For more details on the methodological approach see the Technical Appendices.

We estimated that replacing all existing payment cards and POS terminals that do not enable contactless payments with ones that allow them, would result in the reduction of the passive shadow economy in Albania by 0.117% of GDP and an increase in government revenues by 0.0193% (see Chart 4.14). These effects should be deemed conservative, since we do not account for the fact that contactless payments relatively often crowd out cash payments of lower value among which the passive shadow economy transactions are more prevalent. Since the overall number of cards and POS terminals per capita in Albania is very low, the analysed substitution would generate relatively low effects. The effects would be much stronger once the electronic payment infrastructure in Albania is better developed.

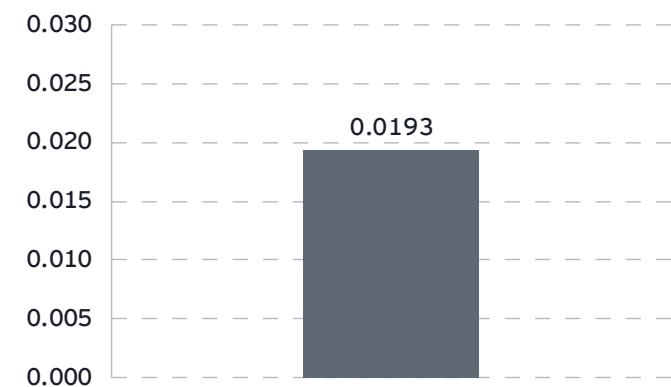
⁸⁵ Euro Retail Payments Board (2015), "ERPB Final Report Mobile and Card-based Contactless Proximity Payments".

Chart 4.14. Promotion of electronic payment devices that enable contactless payments in Albania

a. Change in the passive shadow economy (% of GDP)



b. Change in government revenues (% of GDP)



Source: EY.

Potential costs of the initiative

For the considered initiative the main costs are related to the technical adoption of the payment system to the contactless technology (rather one-off expenditure) and to the production/purchase of new devices that enable contactless payments. Yet, it is worth noting that, for example, payment cards are often valid only for a few years and replaced after that time. Therefore, if the replacement with contactless cards takes place only once the contact cards become invalid, the actual costs constitute only the difference between the costs of producing/purchasing contactless and contact cards. Similar reasoning applies to POS terminals and other devices that due to different reasons are replaced every few years.

What is more, some entities may borne costs related to frauds which may happen due to the use of the contactless technology. Once a payment card or a mobile device enabling contactless payment is stolen it may be possible to make a few low-value transactions without a PIN code or signature before the access to money is blocked. While there are not many statistics on frauds related to contactless payments, the report of the European Central Bank suggests that for card payments in Europe their value remained quite low in absolute terms.⁸⁶ In addition, it

should be noted that in the case of losing a wallet with cash (instead of a wallet with a device that enables contactless payments), the financial loss may be sometimes even larger.

Estimated timing of the impact of the initiative

Experiences of many European countries show that when the contactless technology becomes available and supported by different stakeholders, it is possible to replace all contact payment cards and POS terminals with contactless ones within a few years' time. Once they are replaced, most of the estimated benefits should materialise quite soon. Yet, there might be some consumers and merchants who, even after the replacement, will not know that they can use the contactless technology or will not want to change their payment habits. To encourage a trial, it is worthwhile to consider an informational campaign on advantages of contactless payments as well as to offer some additional benefits for a first (few) contactless payments done/accepted by a given consumer/merchant.

86 European Central Bank (2018), "Fifth report on card fraud".

4.5 Obligation to make an electronic payment of wages and salaries

Mechanism of the regulation

This regulation introduces the obligation to make an electronic (non-cash) payment of wages and salaries. In its basic form, the regulation requires that this kind of payment be performed via a bank transfer, though it is possible to allow payment in the form

of prepaid cards as well.⁸⁷ The examples of regulatory obligations to make an electronic payment of wages and salaries are discussed in the Frame 4.5.

Frame 4.5. Obligation to make an electronic payment of wages and salaries: other examples

This regulation is in force, e.g., in Croatia, Slovenia and in one region of Bosnia and Herzegovina (Republika Srpska). In those countries, employers are obliged to pay remuneration via bank transfers. Consequently, some employees have had to open bank accounts in order to receive their salaries. The regulation is also present in Vietnam (excluding employees in the private sector, though) and Uruguay.

A similar solution (Wages Protection System) was also implemented in the United Arab Emirates, where wages are paid electronically to accounts held at approved financial institutions, which are monitored by the Ministry of Labour. Interestingly, the main aim of the policy was not to limit cash wages, but rather to ensure that wages are paid on time and at full value (if not, violating companies are penalised). The UAE's regulation is included in the database of good practices of the International Labour Organization.⁸⁸ Apparently, electronic payment of wages, apart from limiting the passive shadow economy and being generally convenient, may also bring other significant benefits to employees.

It is worth adding that some governments, e.g. in Poland, instead of directly banning cash wages, decided to discourage this practice by making the electronic payment of wages a default option for new employees (that can be changed upon the special request of the employee). Yet, the impact on electronic payments of such a solution is likely to be limited in comparison to an obligation to make an electronic payment of wages.

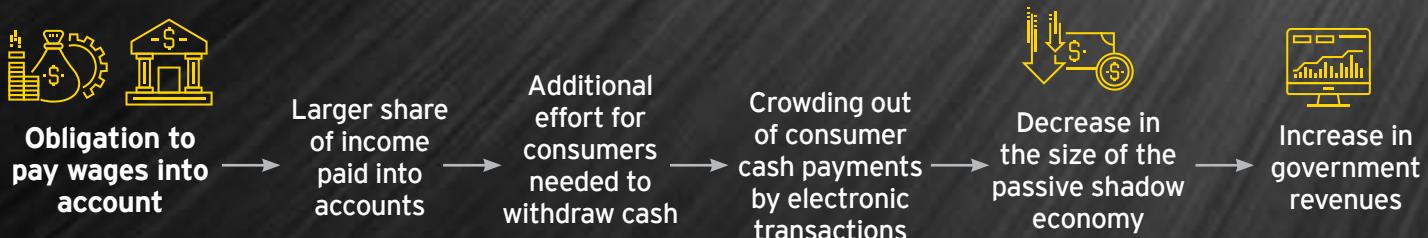
⁸⁷ The employer can load prepaid payment cards with the net salary or wage and give them to employees who can use the card for their everyday payment transactions in the same way as a regular debit or credit card. We assume that the effects discussed here are similar for wage and salary payments whether paid by bank transfers or as prepaid cards.

⁸⁸ http://www.ilo.org/dyn/migpractice/migmain.showPractice?p_lang=en&p_practice_id=186 [online; accessed 20.07.2018]

It is very likely that most of the wages and salaries received in cash is later spent also in the cash form, part of which may contribute to the passive shadow economy transactions. The introduction of the considered regulation, in turn, should shift all or most of the reported wages and salaries that were so far paid in cash to bank accounts (or prepaid cards).⁸⁹ This should also refer to all sorts of bonuses and prizes granted to employees.

The electronic payment of wages means that people who previously received their remuneration in cash would have to make additional effort, e.g. through making ATM withdrawals, if they would like to continue to use cash. Therefore, they should more often perform their transactions with payment cards or mobile phones and, consequently, make less cash payments. This, in turn, should contribute to the reduction of the passive shadow economy (see Chart 4.15).

Chart 4.15. Obligation to make an electronic payment of wages and salaries: mechanism of the regulation



Source: EY.

If there are obstacles to introducing this regulation at an economy-wide level, the implementation of such a measure might first be considered in the sectors where remuneration in cash dominates, or in relatively large companies, or only in selected regions of the country where ATM/electronic payments infrastructure is better developed.

In Albania, salaries in the public sector are generally paid through bank accounts, both at the central and municipal level. Although transferring wages directly into bank accounts is not obligatory for private employers, there are statutory incentives to do so. According to the Income Tax Law, wages and salaries paid outside the banking system cannot be recognised as expenses for the purpose of calculating the taxable profit. Yet, according to our estimates, there are still some registered employees who receive wages in cash and can start receiving them electronically.

Impact of the regulation on the passive shadow economy and government revenues

We estimated the impact of this regulation on the value of cash payments replaced with card payments in a few steps. First, we use the World Bank's survey data (Global Findex Database) to

estimate the number of people receiving their wages only in cash. Second, we assume that all unregistered employees receive their remuneration in cash. Third, we assume that cash recipients among the registered employees are paid the average wage for their work. Finally, with the use of data on taxes, savings and the payment behaviour of a typical card/account holder, we estimate the value of cash expenditure replaced with electronic payments in the situation when all registered employees receive their wages in an electronic form. For more details on the applied approach and calculations see the Technical Appendices.

The results of the estimation indicate that the regulation should lead to the contraction of the passive shadow economy in Albania by 0.004% of GDP. This, in turn, should result in additional government revenues, estimated at 0.0006% of GDP (Chart 4.16). The presented estimates should be deemed conservative.⁹⁰ A negligible estimated impact of this regulation is due to the underdeveloped electronic payment infrastructure and low number of registered employees who still obtain wages in cash. The effect of the regulation could be larger if it was introduced after the development of electronic payments infrastructure.

⁸⁹ We account for the fact that this regulation will not influence the form of compensation received by unregistered employees, who will continue to receive their remuneration in cash—for more details see Technical Appendices.

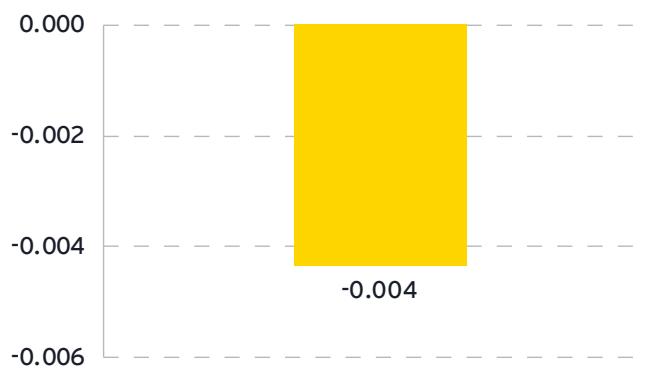
⁹⁰ This is due to the fact that our calculations accounted for the impact of the regulation on the employees that receive wages in cash only, while there are also some employees who receive just part of their wages in cash. Accounting for the impact of the regulation on the latter would increase the presented effects, respectively (however, there is no sufficient data available that would allow us to present such calculations).

Moreover, it is worth noting that an obligation to make an electronic payment of wages and salaries may include features that generate additional positive effects for employees, such as

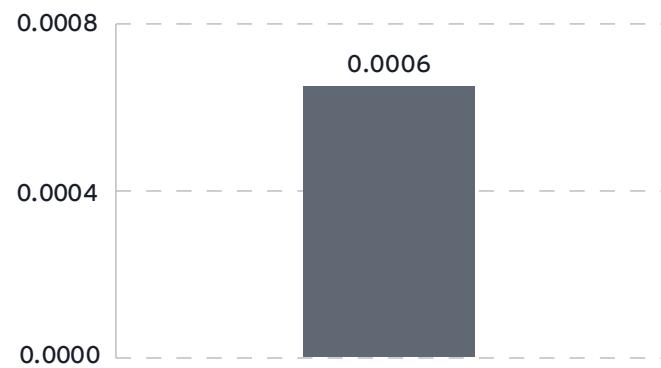
government monitoring of timeliness and completeness of the wage transfer (see the case of the United Arab Emirates quoted in Frame 4.5).

Chart 4.16. Obligation to make an electronic payment of wages and salaries in Albania

a. Change in the passive shadow economy (% of GDP)



b. Change in government revenues (% of GDP)



Source: EY.

Potential costs of the regulation

The introduction of obligatory electronic payment of wages and salaries for all wage earners in Albania should not generate significant costs. The likely costs are associated with fees related to maintaining additional bank accounts (or to the issuance and use of prepaid cards). These costs, depending on the legislation, may be covered either by the employer, the employee or the government (or shared among them). For example, the European Parliament in 2014 passed legislation⁹¹ aimed at increasing the availability of financial accounts for all types of consumers. It states that all Member States must introduce laws that oblige banks and other financial institutions to offer accounts with basic features⁹² free of charge or at a reasonable cost.

Estimated timing of the impact of the regulation

The majority of the estimated impact should take place almost immediately after the introduction of the regulation. The remainder should materialise within one to two years, when the behaviour of new electronic wage recipients will converge to the behaviour of a typical card/account holder (e.g. in terms of the frequency of electronic payments and cash withdrawals). However, some of the estimated effects may occur even before the introduction of the regulation (but after its announcement), since some entities will start acting in compliance with the regulation already in the transition period.

91 Article 46 of DIRECTIVE 2014/92/EU of 23 July 2014 on the comparability of fees related to payment accounts, payment account switching and access to payment accounts with basic features. <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014L0092> [online; accessed: 20.08.2015]

92 These features are not defined in the EU's legislation and should be determined at a national level.

4.6 Obligation to make an electronic payment of social security benefits

Mechanism of the regulation

This regulation obliges the government to provide various social benefits in the form of electronic payments, e.g. through bank transfers or prepaid cards. The mechanism of this measure is analogous to the obligation to make an electronic payment of wages and salaries (see above). The main difference is the targeted group and the fact that social security benefits

payments are performed by (or—in some countries—on behalf of) public institutions, so, once the regulation has been introduced, there should be no violations of the law (which may sometimes take place in the case of legislation concerning wages and salaries).

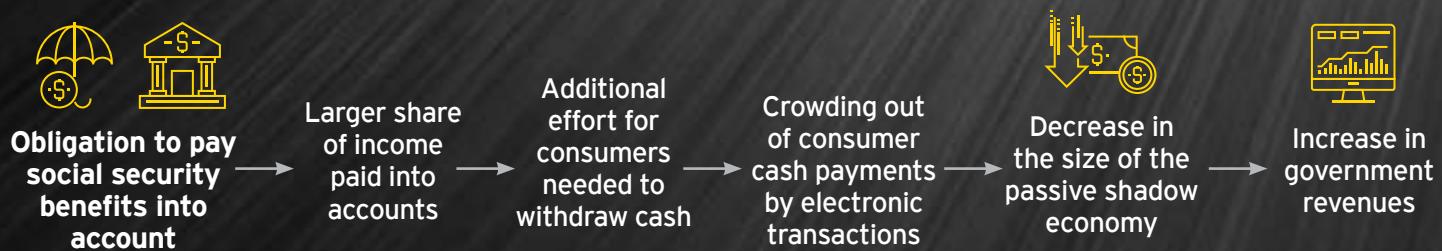
Frame 4.6. Obligation to make an electronic payment of social security benefits: other examples

The payment of unemployment and sickness benefits via bank transfer is already obligatory in Bulgaria, Croatia and Slovenia. In Italy, all social aid disbursements are made using prepaid cards. In addition, all social security benefits (including pensions) are paid electronically in Denmark, while in Sweden they are paid electronically or using prepaid cards. A mandatory electronic payment of social security benefits is also in force in Uruguay.

The electronic payment of social security benefits would mean that people who previously received their pensions and other benefits in cash would have to make an additional effort, e.g. through cash withdrawals, if they would like to continue to

use cash. Therefore, they should perform their transactions electronically more often and, consequently, make fewer cash payments. This, in turn, should contribute to the reduction of the passive shadow economy (see Chart 4.17).

Chart 4.17. Obligation to make an electronic payment of social security benefits: mechanism of the regulation



Source: EY.

Impact of the regulation on the passive shadow economy and government revenues

The estimation of the impact of this regulation on the value of cash transactions replaced with electronic payments is similar to the approach applied to the obligation to make an electronic payment of wages and salaries. First, we used the Ministry of Finance data to estimate the total value of various social security benefits in Albania in 2017 (approx. ALL 144.066 bn). Second,

we used the World Bank's survey data (Global Findex Database) on the percentage of government payments (transfers) recipients in Albania in 2017 who received these transfers in cash only. We assumed that this figure, equal to 46.2%, corresponds to the value share of social security benefits obtained in cash in the total value of such benefits in Albania. In the last step, with the use of

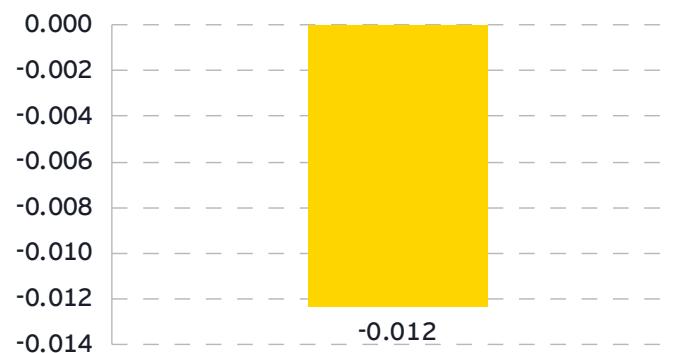
data on taxes, savings and the payment behaviour of a typical card/account holder, we estimated the value of cash expenditure replaced with card payments in the situation when all social security benefits are received in an electronic form. For more details on the applied approach and calculations see the Technical Appendices.

The potential decrease in the passive shadow economy in Albania caused by the obligatory electronic payment of social security benefits has been estimated at 0.012% of GDP. The associated increase in government revenues has been estimated at 0.0018% of GDP (Chart 4.18). The presented estimates should be deemed conservative.⁹³

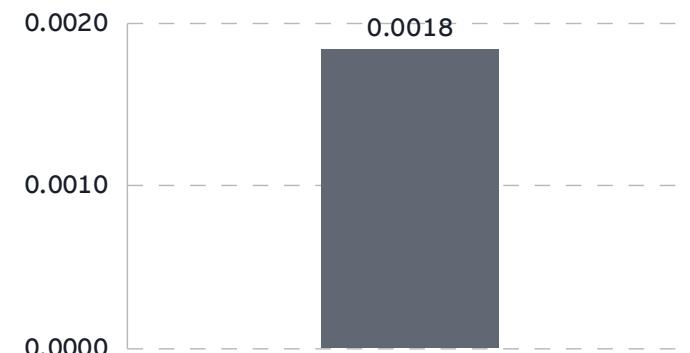
A negligible estimated impact of this regulation is due to the underdeveloped electronic payment infrastructure in Albania. The regulation's effect, as for an obligation to make an electronic payment of wages, would be higher if the considered solution was introduced after improving the electronic payments acceptance network (ensuring the right of consumers to pay electronically). This would allow electronic transfer recipients to pay more often at POS terminals or other devices accepting electronic payments instead of withdrawing money from banks and ATMs to pay in cash.

Chart 4.18. Obligation to make an electronic payment of social security benefits in Albania

a. Change in the passive shadow economy (% of GDP)



b. Change in government revenues (% of GDP)



Source: EY.

Potential costs of the regulation

The costs of this measure are analogous to those of an electronic payment of wages and salaries, and comprise mainly the costs of maintaining additional bank accounts and/or prepaid cards (see above).

Estimated timing of the impact of the regulation

While the electronic payment of social security benefits may constitute a technological barrier for some people, most of the estimated impact should take place soon after introducing the regulation and ensuring that bank accounts are used by all the benefit recipients. The remainder of the effect should materialise when the behaviour of new card/account holders will converge to the behaviour of a typical card/account holder (e.g. in terms of the frequency of card/mobile payments and cash withdrawals).

⁹³ This is caused by the fact that, due to data availability, our calculations accounted for the impact of the regulation on the people that receive government transfers in cash only, while there are also some people who receive just part of transfers in cash (or one type of transfers in cash and another electronically). Accounting for the impact of the regulation on the latter would increase the presented effects, respectively.

4.7 Threshold for C2B cash payments

Mechanism of the regulation

This regulation defines a certain monetary value (threshold) for a single transaction above which consumer cash payments are not allowed. Consequently, consumer cash transactions (those that are registered and those in the passive shadow economy)

above the introduced threshold should disappear and be replaced by additional electronic payments, thus reducing the size of the passive shadow economy and increasing government revenues (see Chart 4.19).

Chart 4.19. Threshold for cash payments: mechanism of the regulation



Source: EY.

Frame 4.7. Threshold for cash payments: examples

Prohibitions for consumer cash payments above a certain value are already in place in several EU countries including, among others, France, Italy, Greece, Portugal, Romania, the Czech Republic and Slovakia. Moreover, the European Commission has recently conducted public consultations on an EU initiative on restrictions on payments in cash.⁹⁴

In some of the EU countries, consumer payments above the threshold may be accepted, but generate a lot of administrative obligations for a merchant. Yet, the current thresholds are relatively high (between EUR 1,000 and 15,000, i.e., between ca. USD 1,200 and 17,600)⁹⁵, so their impact on reducing cash payments is marginal, as cash is mostly used for lower-value transactions. Moreover, as we argue in this section, such high cash payments in retailing are already reported (unless they are conducted in the committed shadow economy), not least of all for the sake of a consumer warranty. Therefore, replacing them with card payments has no effect on the passive shadow economy. Similar regulations for B2B payments are more popular among EU countries, but they do not directly influence the passive shadow economy, since it is related to consumer transactions.

94 See: https://ec.europa.eu/info/consultations/eu-initiative-restrictions-payments-cash_en [online; accessed 05.07.2018].

95 See, for example: <https://www.evz.de/en/consumer-topics/buying-goods-and-services/shopping-in-the-eu/cash-payment-limitations/> [online; accessed 05.07.2018]; https://www.europe-consommateurs.eu/fileadmin/user_upload/eu-consommateurs/PDFs/PDF_EN/Limit_for_cash_payments_in_EU.pdf [online; accessed 05.10.2018].

It seems reasonable to first introduce high thresholds and subsequently lower their value. This has already been observed in some countries, for example:

- ▶ In Bulgaria, payments exceeding the threshold of BGN 10,000 (approx. USD 6,000) must be paid electronically as of 1 January 2016 (previous limit: BGN 15,000, approx. USD 9,000).⁹⁶
- ▶ In Poland, the B2B limit was lowered from EUR 15,000 (approx. USD 17,600) to PLN 15,000 (approx. USD 4,100) in January 2017.⁹⁷ Under the new law, non-electronic payment for a transaction above the limit results in a situation where such cash expense cannot be treated as a tax-deductible cost.

However, even high thresholds (including B2B) may promote the development of the POS terminal network (or other devices accepting electronic payments), which should increase electronic payments also of a lower value and, through this channel, indirectly reduce the passive shadow economy. Such thresholds may also hinder criminal activities such as money laundering, etc. (which are not a subject of the current analysis, though).

In Albania, it was specified by the law in 2013 that when the value of transaction between taxpayers is higher than ALL 150,000, it cannot be performed in cash; only payments through credit/debit card or electronic money institutions (licensed by the Bank of Albania) are allowed. The regulation is intended to serve mainly as an anti-money laundering measure.

Impact of the regulation on the passive shadow economy and government revenues

In order to estimate the effect of a given threshold on consumer cash payments in Albania, we need to know the distribution of consumer cash transactions in the country. Such data, however, is not available. Instead, we benefited from the research conducted by the Polish central bank on the distribution of consumer cash payments in Poland. The obtained data has been adjusted accordingly to estimate such a distribution for Albania (for more details see the Technical Appendices).

We account for the fact that, above a (relatively) high threshold of transaction value, there should be almost no passive shadow economy because one can expect that consumers tend to demand receipts for more expensive, durable goods in order to obtain a warranty. Obviously, there are high-value cash payments in the committed shadow economy. However, these would remain unaffected by the considered regulation, as both parties benefiting from this kind of activity would continue to use cash in order to avoid reporting the transaction. Consequently, we assume that there is no passive shadow economy among the top

7% of consumer cash transactions (in terms of their value)⁹⁸, i.e. for transactions above ALL 3,443. In such a case, introducing thresholds above ALL 3,443 would have no effect on the passive shadow economy size and related government revenues. Such an assumption is consistent with the conservative approach that we adopted towards estimating the effects of measures promoting electronic payments.

It should be emphasised that the thresholds considered are presented as nothing more than examples of different maximum levels of allowed consumer cash payments. We do agree that the presented limits, especially the lowest ones, may seem unacceptable and hardly possible to implement. Nevertheless, these thresholds have largely been determined by the availability of data from research conducted by the National Bank of Poland. Crucially, the value of consumer cash payments is marginal above transaction levels higher than those selected for our analysis.

To estimate the effect of establishing different thresholds for consumer cash transactions on the value of cash and card payments, we applied a simulation approach (for more details see the Technical Appendices). The impact of the regulation on the change in size of the passive shadow economy and government revenues is presented in Chart 4.20 and Chart 4.21, respectively. The lower the threshold level, the more cash transactions would be replaced by electronic payments, implying a stronger impact of the regulation on the passive shadow economy. The obtained results show that the contraction of the non-observed economy in response to a drop in the level of the threshold is more than proportional, which reflects the distribution of consumer cash payments cumulating around the lower value transactions.

96 See: <https://www.tpa-group.ro/en/rpublications-newsnewsletterbulgaria-tax-changes-2016/> [online; accessed 05.10.2018].

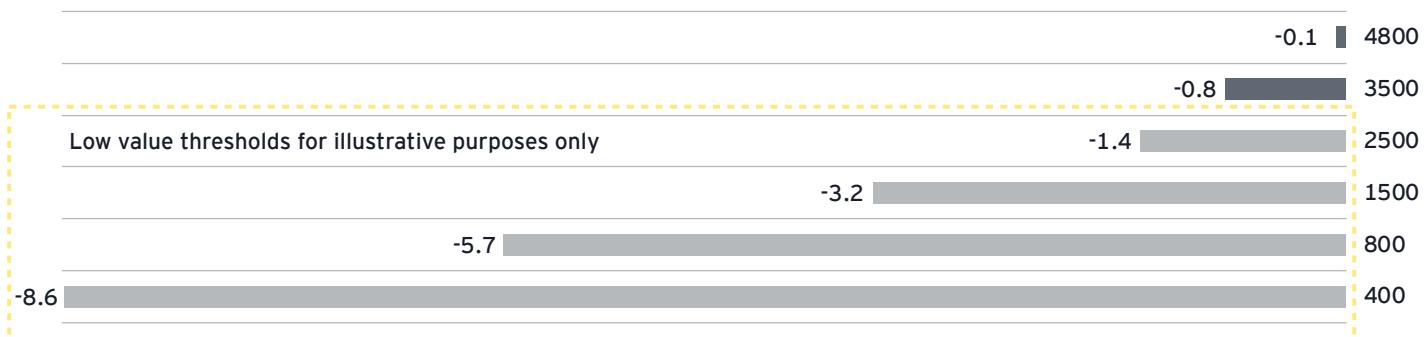
97 See: <https://www.tmf-group.com/en/news-insights/articles/2016/october-poland-cash-payment-changes/> [online; accessed 05.07.2018].

98 This corresponds to the percentage of consumer cash transactions value being recorded above the highest threshold considered in the Polish central bank's research that we draw on.

Therefore, the arguments outlined above strongly suggest that establishing high thresholds for consumer cash payments would have only a limited direct impact on the passive shadow economy in Albania. On the other hand, one may claim that even high thresholds should promote the development of electronic payments acceptance network, which should increase electronic payments also of a lower value, thereby reducing the passive shadow economy. Moreover, it should be emphasised that cash payment thresholds, even when established at a high level, may hinder criminal activities such as money laundering, etc. (which are not a subject of the current analysis, though).

While introduction of low thresholds for consumer cash payments would generate a relatively high change in the passive shadow economy and government revenues, such a regulation may seem unacceptable and hardly feasible to implement. If that is the case with imposing a low-value threshold for all the sectors in the economy, alternatively such thresholds might be established for B2B (to generate indirect effects related to the general promotion of electronic payments) and consumer cash payments in selected sectors/areas only, not least those accounting for a large share of the passive shadow economy in Albania. Taking all of the above into account, from the public policy perspective, it also seems reasonable to first introduce high thresholds and subsequently gradually lower their value.

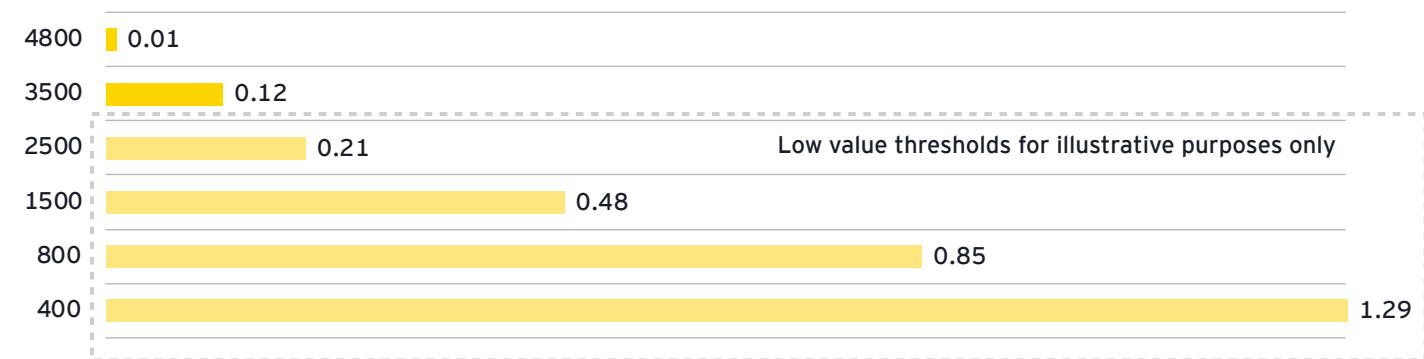
Chart 4.20. Thresholds for consumer cash payments: impact on the passive shadow economy in Albania (% of GDP)



Note: *Less conservative approach to the estimation of the regulation's effects (see more details in the text of the report).

Source: EY.

Chart 4.21. Thresholds for consumer cash payments: impact on government revenues in Albania (% of GDP)



Note: *Less conservative approach to the estimation of the regulation's effects (see more details in the text of the report).

Source: EY.

In addition, as we have already mentioned, this regulation may encourage the lease of POS terminals/other devices accepting electronic payments and, through increased merchant acceptance, additionally stimulate growth in the value of electronic payments below the established threshold. This effect will be stronger, the lower the threshold for consumer cash payments. However, we do not account for this additional impact in our calculations, which makes our results, at least in this context, conservative.

On the other hand, we have assumed that the passive shadow economy is uniformly distributed in the considered range of unit transaction values, while it is likely that a relatively large share of the passive shadow economy is “concentrated” around lower-value transactions. Moreover, we do not account for the fact that some consumers might split their cash payments into several transactions, so that the value of each cash transaction is lower than the imposed threshold. Consequently, these factors, if accounted for, would reduce the estimated effect of the considered thresholds.

Potential costs of the regulation

The likely costs of this regulatory measure are linked to the use of additional bank accounts (or prepaid cards) that enable the conducting of transactions whose value exceeds a given threshold. This is why the regulators may consider ensuring more universal usage of bank accounts before establishing such thresholds. Moreover, the regulation may force some merchants to lease POS terminals/other devices accepting electronic payments and incur respective costs.

Estimated timing of the impact of the regulation

The estimated impact of the regulation should materialise almost immediately after its introduction. In the longer run, the regulation may also stimulate growth in the value of electronic payments below the threshold.

4.8 Receipt lotteries

Mechanism of the regulation

The idea of receipt lotteries is to reduce the passive shadow economy by limiting unreported transactions through the increased issuance of receipts in consumer-to-business transactions. Specifically, consumers are provided with an incentive to ask for a receipt, as it may also serve as a free of charge ticket in lotteries (e.g. VAT lotteries), thereby giving its holder a chance to win attractive prizes. In the longer perspective, this measure aims to get consumers used to asking for fiscal receipts. It is often assumed that, after a certain period of time, people will develop such a habit (e.g. by making asking for receipts socially acceptable and desirable, or by raising awareness of the benefits of combatting the shadow economy) and thus will continue to demand fiscal receipts even without an additional (lottery) incentive.

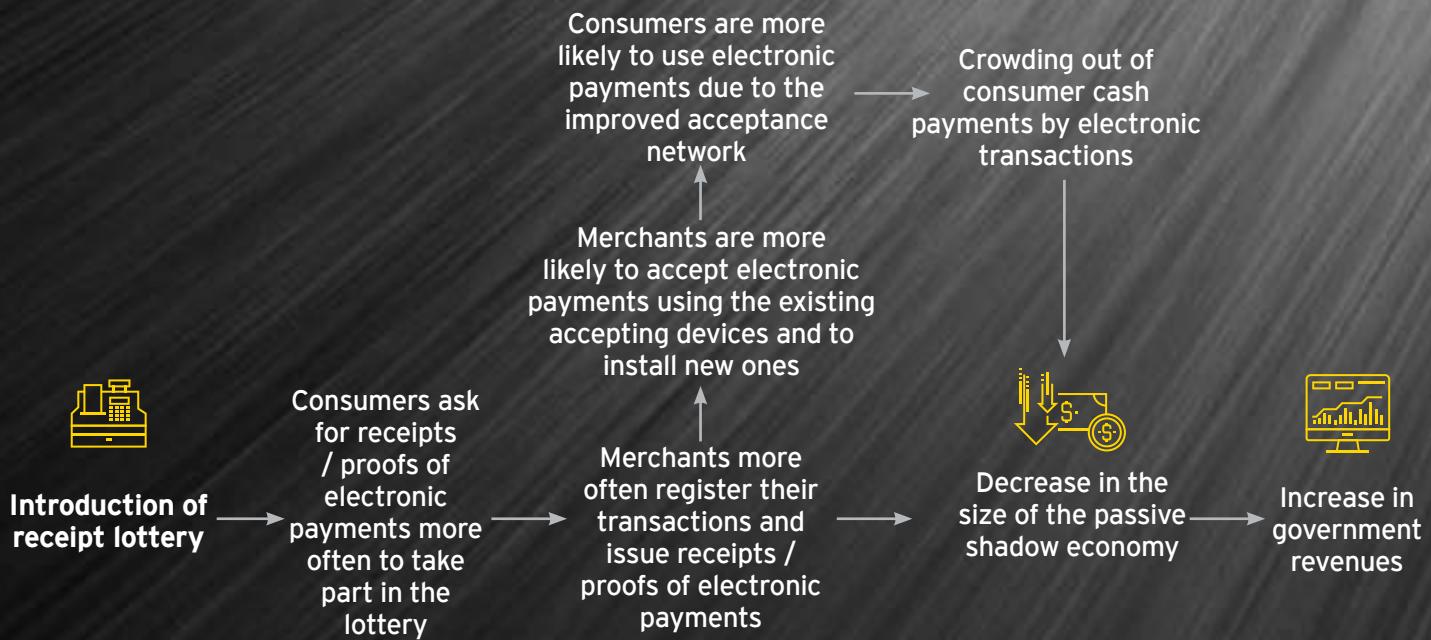
It must be emphasised that the impact of this regulation on the shadow market may be twofold. Firstly, it is likely to have an impact on customers’ “demand for receipts”, and hence directly reduce the number of unreported transactions. Secondly, it can increase (at least to some extent) the propensity of merchants to accept electronic payments. In these new circumstances, in which more transactions have to be registered after all, electronic payments are not as unattractive for merchants when compared

to registered cash payments as they would be when compared to unregistered cash transactions (see Chart 4.22).

Furthermore, by accepting proofs of consumer electronic payments as lottery tickets (which was done, e.g., in South Korea and Serbia), the government may additionally stimulate development of electronic payments, which may have a higher long-term impact on the shadow economy contraction than a regular fiscal receipt lottery (while many people may stop asking for fiscal receipts once the lottery is finished, by that time a significant share of such consumers may have changed their payment habits permanently and continue to use electronic payments).

In addition, it is worth noting that with the use of receipt lotteries the regulator may stimulate registration of payments in sectors where the shadow economy may be more prevalent, e.g., by offering higher prizes for transactions at merchants in such sectors. Differentiating the value of prizes among sectors or organising the lottery in selected sectors only can also be used to control the costs of the regulation more flexibly and to maximise its efficiency in terms of additionally collected tax revenues.

Chart 4.22. Receipt lotteries: mechanism of the regulation



Source: EY.

Frame 4.8. Receipt lotteries: other examples

National receipt lotteries have been introduced in several countries (starting from Taiwan in the early 1950s) in order to increase the issuance of receipts in consumer transactions. In China, Brazil (Sao Paulo), Slovakia, Malta and Portugal, the lottery is considered as a continuous solution, whereas in some other countries it is designed to run only for a specific period of time.

For instance, in Poland the receipt lottery lasted for 1.5 years—initially the programme was explicitly introduced for a year but was later extended for another 6 months. In South Korea, a cash receipt lottery was organised for several years but was discontinued in 2010 after user involvement reached a desirable level. Furthermore, receipt lotteries were carried out in Argentina in 1990s and in Puerto Rico between 2011 and 2015 (in those cases, termination of lotteries was to some extent related to their low effectiveness, as perceived by policymakers). Another example is Bulgaria and Croatia, where several rounds of VAT lotteries have been organised, though not on a regular basis and on a relatively small scale (usually as a part of the national educational campaigns to raise awareness of the existence of the shadow economy).

Interestingly, for several years (starting from 2000) South Korea used the lottery scheme to motivate buyers to make payments with the use of credit and debit cards (with credit and debit card slips serving as lottery tickets). Similar rule allowing customers to treat electronic payment slips as lottery tickets applies to the fiscal lottery introduced in 2017 in Serbia.

Impact of the regulation on the passive shadow economy and government revenues

Effects of a receipt lottery on the shadow economy contraction and increase in government revenues strongly depend on the lottery specifics (value of prizes, frequency of awarding prizes, time period in which the lottery is binding, required effort for participation, scale of the lottery advertising, etc.). To our knowledge, the efficiency of receipt lotteries in combatting the

shadow economy has not yet been thoroughly investigated in the literature. In our previous research conducted for Central and Southern Europe⁹⁹, we found that receipt lotteries seem to have had some positive impact on card payments (and through

⁹⁹ EY (2016), "Reducing the Shadow Economy through Electronic Payments"

that channel also on the passive shadow economy), though no quantitative conclusions on the strength of this impact could be drawn. Since it is very difficult to generalise the impact of receipt lotteries (due to their varying specifics), in this chapter we discuss a few empirical studies that analyse the impact of specific lotteries introduced in other countries. Albania had some experience with a receipt lottery which was run in 2015.¹⁰⁰ If authorities still consider using this measure, the more similar would be the Albanian lottery to the described cases, the more likely it would generate similar effects.

Several empirical studies have confirmed a positive effect of receipt lotteries on tax compliance and, consequently, government revenues. For example, Wan (2010)¹⁰¹ examined the effects of Chinese fiscal receipt lotteries (each receipt, called “fapiao”, is a scratch-off lottery ticket) on tax revenues, based on econometric modelling of panel data covering 18 districts in Beijing and 19 districts in Tianjin during 1998-2003. According to the study, fiscal receipt lotteries that were introduced in Beijing districts between January 2001 and October 2002 and in one of Tianjin districts in January 2003¹⁰², increased sales tax revenues by 17.1% in those districts. In addition, author’s estimates indicate that the real growth rate of sales tax was 21.5% higher in districts issuing lottery receipts. The study concludes that receipt lotteries proved to be successful in combatting tax evasion in Chinese cities and should therefore be considered as an important measure to reduce the shadow economy.

Naritomi (2016)¹⁰³ investigated the effects of another anti-tax evasion program introduced in São Paulo state, Brazil, between 2007 and 2008 (“Nota Fiscal Paulista” program, NFP). NFP provides monetary incentives (in the form of both lottery prizes and VAT rebates) for consumers who ensured that enterprises accurately report the value of transactions to fiscal administration. Relying on the econometric analysis¹⁰⁴ of unique administrative panel data on establishment-level tax returns from

100 Likmeta, B. (2014), “Albania Hopes New Lottery Will Curb Tax Cheats”, *BalkanInsight*, <https://balkaninsight.com/2014/10/07/albania-to-launch-receipt-lottery/> [online; accessed 29.03.2019]

101 Wan J. (2010), “The Incentive to Declare Taxes and Tax Revenue: The Lottery Receipt Experiment in China”, *Review of Development Economics*, vol. 14(3), pages 611-624.

102 The other districts of Tianjin have issued lottery receipts since 2004 (which exceeds the time frame of the dataset) but were included in a model as a control group.

103 Naritomi J. (2016), “Consumers as Tax Auditors”, *LSE Working Paper*.

104 The study exploits a difference-in-differences research design based on a comparison of changes in reported revenue between retail firms (that due to selling mostly to consumers constitute a treatment group in this quasi-experiment) and wholesale firms (that due to selling mostly to other firms constitute a control group).

January 2004 to December 2011, the author found that NFP raised the reported revenue in the retail sector by 22% over four years. However, it should be noted that the scope of São Paulo program is much broader than the “basic” receipt lottery scheme. Therefore, its efficiency in fighting tax evasion is, most likely, also greater. NFP introduced a possibility for sellers to include customer-specific tax-payer numbers on the receipts reported to tax authority. After creating an online account at NFP website, customers can collect rewards in the form of not only lottery tickets, but also VAT rebates. Importantly, the size of rewards depends on the value of reported transactions, which creates an incentive for consumers to ask for a receipt as well as to double-check the value on a receipt. Consequently, NFP deals with two types of tax evasion: (1) not reporting the transaction at all and (2) under-reporting the transaction value. Finally, consumers can track the receipts including their tax-payer numbers online (while the entire receipt reporting process is handled by firms) and file complaints against establishments that did not issue the receipt or under-reported the value of transaction. Whistle-blowers may then receive a reward in the form of a proportion of a fine paid by the non-complying company. According to Naritomi analysis, companies report 14% more receipts and 6% more revenue after receiving the first complaint.

Potential costs of the regulation

The main costs are linked to prizes and expenditures related to organising a lottery, such as advertising, setting up a website, etc. The overall value of prizes offered in the lottery should be low in relation to the expected gains in terms of additional tax inflows from the newly registered transactions. Such costs can easily be controlled by the regulator.

Estimated timing of the impact of the regulation

The direct effects of lotteries should be visible almost immediately after introducing the regulation. However, the assessment of how many receipts have been recorded only due to the lottery remains hard to estimate.

Conclusions



A high level of the shadow economy has significant economic and social implications. Its adverse consequences include, among other things, a reduced tax base, a lower quantity/quality of public goods, more distortions in market competition, the degradation of economic institutions and social attitudes, and, through the above-mentioned channels, lower economic growth. **Therefore, it is important to seek tools and solutions that might effectively reduce the shadow economy.**

A common factor for most types of the shadow economy activities is that it is cash payments that allow the seller not to report the transaction. With only a few exceptions, if an electronic payment was used instead of cash, it would hardly be possible not to register the transaction. Consequently, in this report we focus on estimating unreported economic activity related to cash transactions, which we describe as the **cash shadow economy**. For this purpose, we use an advanced currency demand modelling approach that addresses many issues encountered in shadow economy literature.

According to our estimates, **the total level of the shadow economy in Albania amounted to 22.0% of GDP (ALL 341.1bn) in 2017**, of which **19.1% of GDP was related to cash payments** and 2.8% of GDP can be attributed to the non-monetary production.

A critical element of our research is the budgetary cost related to the existence of the cash shadow economy in Albania. Our calculations show that in 2017 it amounted to **2.85% of GDP (ALL 44.3bn)**—**2.11% of GDP for VAT (24.2% of collected VAT)** and **0.75% of GDP for CIT (35.7% of collected CIT revenues)**. One should also remember about lost government revenues related to unreported labour income (which are not subject of our analysis, though), especially in light of a high share of informal workers in the total employment of almost 40% in Albania.

For the purpose of our analysis, we define the two types of the cash shadow economy, each with a different role played by cash: **(1) the "passive shadow economy"—where cash is a cause of the shadow economy and which could be reduced through the promotion of electronic payments; and (2) the "committed shadow economy"—where cash is a consequence of the shadow economy and which could be reduced by other measures.** Our estimates indicate that **the passive component accounted for 57.1% of the cash shadow economy (10.9% of GDP) in Albania in 2017**, while the respective share for the committed component has been estimated at 42.9% (8.2% of GDP). **Tax losses due to the existence of the passive shadow economy in Albania in 2017 amounted to 1.63% of GDP (ALL 25.3bn)**—1.20% of GDP for VAT (13.8% of collected VAT revenues) and 0.43% of GDP for CIT (20.4% of collected CIT revenues).

While we show that promotion of electronic payments is essential for reducing the passive shadow economy, our analysis indicates that there is a huge gap in financial inclusion and development of electronic payments between Albania and OECD countries. On the one hand, over the **past few years the Government of Albania, Bank of Albania (BoA) and commercial banks operating in the country have demonstrated significant commitment to promoting financial inclusion, developing electronic means of payments and limiting unregistered transactions.** On the other hand, **there remain many potential solutions related to the promotion of electronic payments that may be considered in order to reduce the passive shadow economy in Albania.**

One may list **the following sectors** (in descending order of their share in total value added) which, due to their scale and specifics, **may contribute to the total size of the shadow economy in Albania relatively strongly: (1) agriculture, forestry and fishing (21.8%), (2) wholesale and retail trade; repair of motor vehicles and motorcycles (12.3%), (3) construction (10.5%), (4) manufacturing (7.0%) and (5) real estate activities (6.4%).** Moreover, research for various OECD countries shows that, in general, the shadow economy may be relatively most prevalent in the following sectors: (1) accommodation and food service activities, (2) construction, (3) agriculture, forestry and fishing as well as (4) wholesale and retail trade, repair of motor vehicles and motorcycles.

We analyse a set of varied regulations that, by replacing cash with electronic payments, may lead to a reduction of the passive shadow economy in Albania. Many of the considered solutions are already present in countries around the world. Some of them are based on enforcement or obligation mechanisms, whereas others focus on providing incentives, either to consumers or merchants. **The measures analysed in this Report include:**

- Improvement in the electronic payments acceptance (for selected types of businesses),

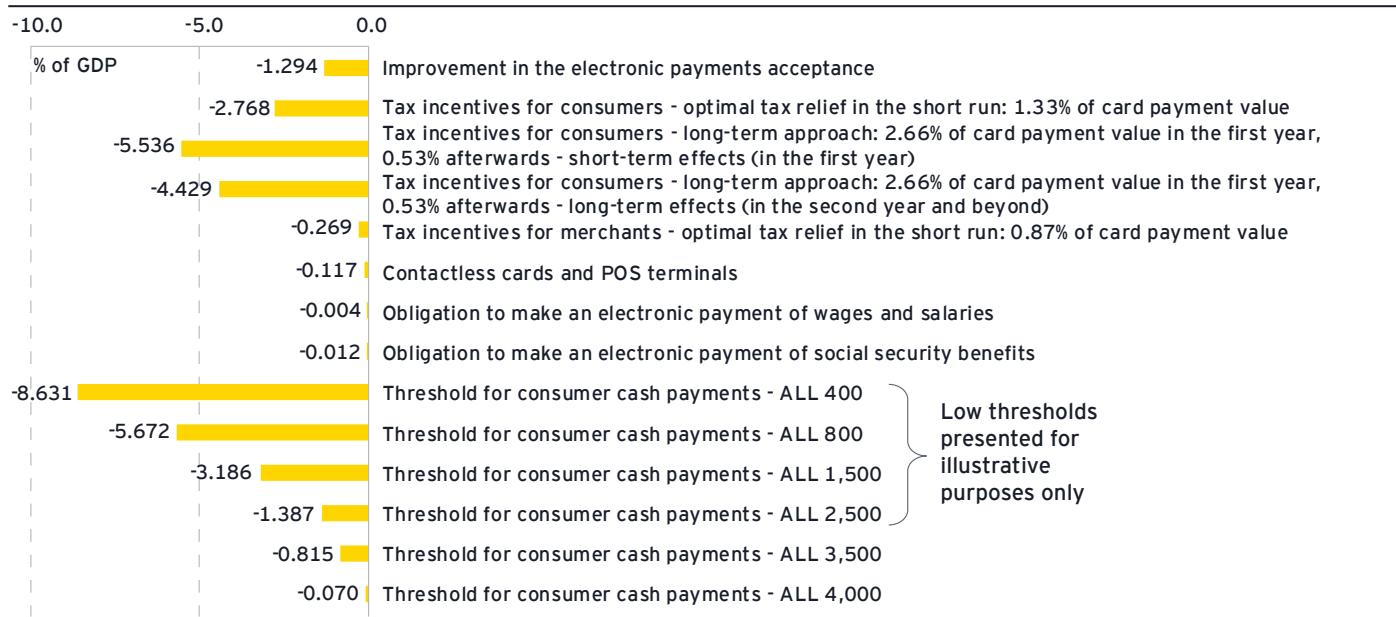
- Tax incentives for consumers,
- Tax incentives for merchants,
- Promotion of electronic payment devices that enable contactless payments,
- Obligation to make an electronic payment of wages and salaries,
- Obligation to make an electronic payment of social security benefits,
- Introduction of thresholds for the maximum allowed consumer cash payments and
- Receipt lotteries (case studies analysis).

The effects of the considered regulations have been calculated using econometric modelling and/or a simulation approach. The obtained results show that **some of the considered measures turn out to have the potential to significantly reduce the passive shadow economy in Albania** (see Chart C1) and increase government revenues (see Chart C2).

We emphasise that for many of the considered measures, the costs could be incurred in the short-term only (e.g. costs of temporary tax incentives to change consumers/merchants behaviour), **while the generated benefits are long-term**, since they stem from the permanently reduced level of the passive shadow economy. Consequently, the net impact of the considered solutions on the government balance should, in the longer term, be much more favourable than the effects presented in Chart C2, which are mostly of a short-term nature. To increase the benefits and reduce the costs, one may also consider implementing some of the measures to the selected sectors only (sectors with a particularly high share of unreported transactions).

Conclusions

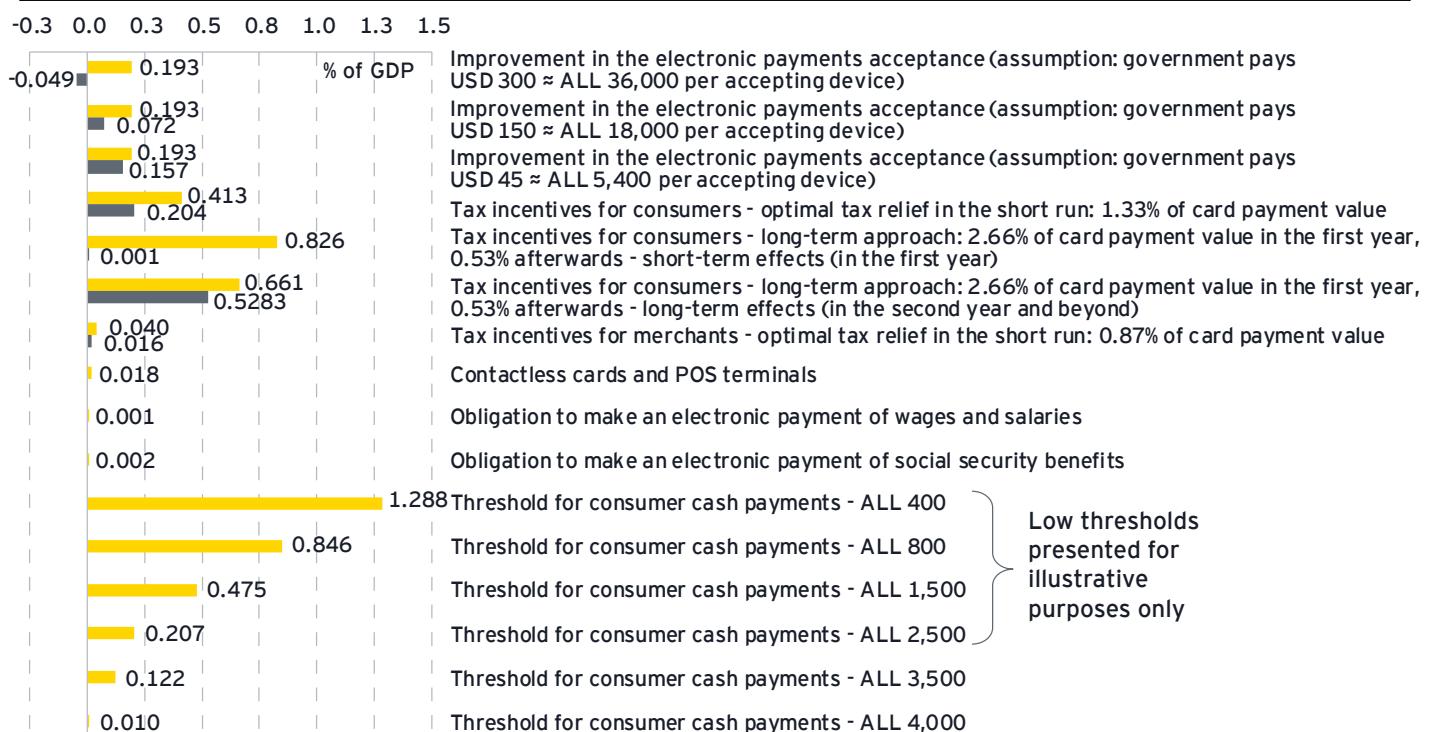
Chart C1. Estimated impact of regulations: change in the passive shadow economy (% of GDP)



Notes: Long-term effects of the tax incentive for consumers are presented as an illustrative example, based on additional assumptions.

Source: EY.

Chart C2. Estimated impact of regulations: change in (net) government revenues (% of GDP)



Notes: Long-term effects of the tax incentive for consumers are presented as an illustrative example, based on additional assumptions. *Net government revenues = government revenues minus government costs. Many costs to the government are incurred in the short term only (e.g. purchase/installation of new devices that accept electronic payments), while the generated benefits are long-term, since they stem from the permanently reduced level of the passive shadow economy. Consequently, the net impact of the considered solutions on government balance should in the longer term be much more favourable than the effects presented in Chart 2, which are mostly of short-term nature.

Source: EY.

We emphasise that for many of the considered measures, the costs to the government should be incurred in the short term only (e.g. purchase/installation of new devices accepting electronic payments), **while the generated benefits would be long-term**, since they stem from the permanently reduced level of the passive shadow economy. Consequently, the net impact of the considered solutions on the government balance should be much more favourable in the longer term than the effects presented in Chart C2, which are mostly of short-term nature. To increase the benefits and reduce the costs, one may also consider implementing some of the measures to the selected sectors only (with a particularly high share of unreported transactions).

Considering a potential strategy of introducing various regulations, one should bear in mind the specifics of the Albanian economy.

- ▶ In light of the low number of consumer accounts at financial institutions in Albania and common mentioning of insufficient funds/high costs of financial services as related reasons, it is important to continue and develop various programmes supporting (1) affordability, possession and usage of such accounts (which should be linked with payment cards or other means of electronic payments) as well as (2) financial knowledge. Such actions should be conducted by the country authorities, with a potential consultation of international organizations that are familiar with best implementations of such programmes in other countries. In particular, the authorities may consider introducing financial accounts that offer basic features free of charge or at a reasonable cost (such program already works, e.g., in all member states of the European Union).
- ▶ Since the number of POS terminals is very low in Albania, it seems reasonable to focus also on policies that stimulate development of electronic payments acceptance network. They may include government and/or private sector programs supporting the possession/usage of devices that accept electronic payments by merchants in selected sectors. A more developed payments acceptance infrastructure would also influence the effectiveness of the incentive mechanisms aimed at stimulating consumer electronic payments, since otherwise consumers would have a limited ability to shift to cashless transactions.
- ▶ Costs of financial services in Albania are currently perceived as too high by many financially excluded. To encourage the use of

electronic payments by consumers, policymakers may consider introducing (temporary) incentives for such transactions. The design of consumer incentives should take into account rather long- than short-term effects as well as best international practices in this area. An exemplary long-term strategy that is likely to pay off may consist of (1) introducing tax incentives on electronic payments for a relatively short period of time in order to change payment habits of consumers and (2) reducing (or eliminating) the tax relief after that period.

- ▶ While supporting the growth in the number of payment cards and POS terminals, it is worth to ensure that they enable the use of the contactless technology. It additionally encourages electronic payments, especially the ones that substitute cash payments of lower value among which the passive shadow economy transactions are relatively common.
- ▶ Once it becomes relatively easy and popular to pay electronically at points of sales (instead of withdrawing cash from banks/ATMs to pay in cash), it may be useful to ensure that more people obtain their income (including private sector wages and social security benefits) in an electronic form.
- ▶ Solutions promoting B2G and C2G transactions in an electronic form, while not addressing unreported payments directly, should reduce the shadow economy indirectly (by promoting the usage of electronic payments also in different situations).
- ▶ While introducing any measures for small enterprises, one has to be careful not to discourage their registration and operation in the formal economy. All the listed measures will be the more effective, the more (currently informal) companies become registered, which emphasizes the need to reduce the committed component of the shadow economy in Albania.

Each of the presented measures should be regarded as one of many possible variants of a given type of regulation. Since these solutions may be modified in terms of their scope, timing and other parameters, their actual impact would change accordingly and will depend on the final decision of the regulators. Consequently, the measures analysed in this study should be treated as examples illustrating the effects of the potential regulatory solutions that may be considered by policymakers in Albania in their attempt to address the issue of the passive shadow economy.

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