

## *Chapter 12*

# **A Cashless Society is a Fairer Society: Reducing the Shadow Economy Through Financial Inclusion and the Promotion of Electronic Payments**

*Artur Turemka*

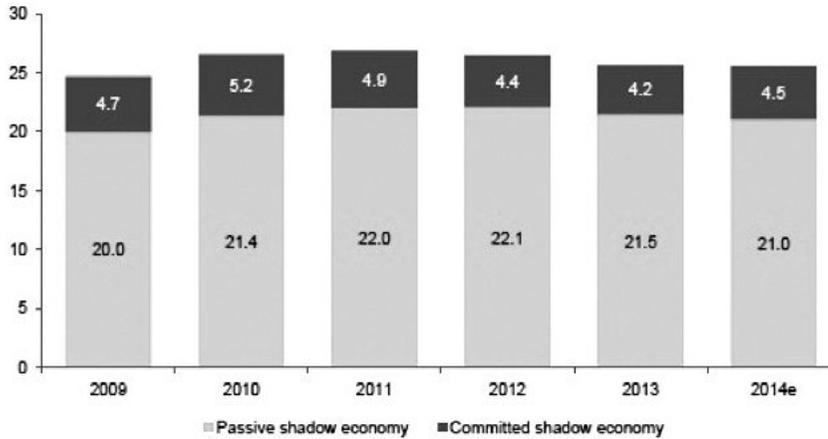
Each year, national governments in Europe lose billions of euros in tax revenue, directly impacting public investments in schools, healthcare, infrastructure, and other structural spending. The European Commission recently published the annual VAT Gap study,<sup>1</sup> indicating the situation has not improved in recent years and is showing an alarming trend. In 2014, over 160 billion euros in tax revenue was lost in the EU. This underscores that an effective tax collection system is paramount to improve a fairer tax collection for citizens and a greater VAT revenue for governments. EU and national governments are stepping up their efforts to clamp down on tax evasion. The same effort is observed in Bosnia and Herzegovina (BiH), a Balkan country on its way to EU accession.

Levels of shadow economy presence vary significantly across Europe, with a particularly high presence in Central and Eastern Europe. A recent EY study adopts an innovative approach to the measurement of the shadow economy, including its development over time, its structure, and sectorial breakdown. The study, commissioned by Mastercard, covers eight countries in Central and Southern Europe—Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Poland, Serbia, Slovakia, and Slovenia. The research also offers a contribution to the analysis of different regulatory measures to reduce the shadow economy through the promotion of electronic payments.

The EY study distinguishes between two categories of the shadow economy: a committed shadow economy, and a passive shadow economy. In the former, both sides of the transaction benefit from using cash, which enables them to evade tax liabilities and to sell and buy illegal products

---

<sup>1</sup> “VAT Gap: Nearly €160 billion lost in uncollected revenues in the EU in 2014.” European Commission . September 6, 2016. [http://europa.eu/rapid/press-release\\_IP-16-2936\\_en.htm](http://europa.eu/rapid/press-release_IP-16-2936_en.htm).

**Figure 1. Shadow economy in BiH as a percentage of GDP**

Notes: Shadow economy figures for 2014 are based on estimates/forecasts of some of the shadow economy determinants.  
Source: EY

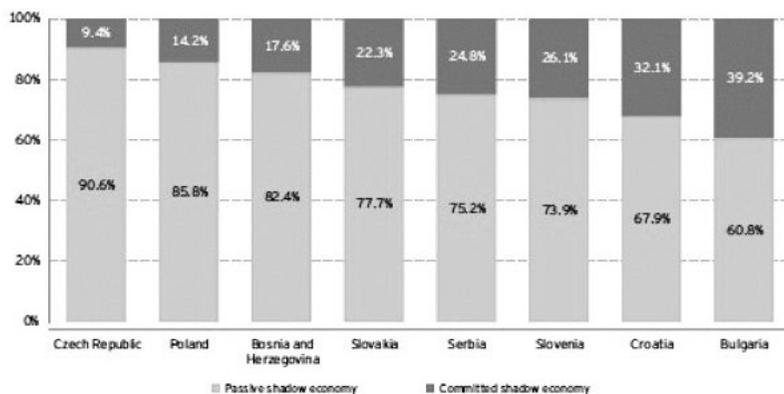
and services. In the latter, one party (the consumer) pays in cash while only the other party (the seller) reaps the benefits by hiding the income. Thus, consumers may not even be aware that they are contributing to the expansion of the shadow economy. In this particular case, cash payments provide an opportunity as well as an incentive not to report the transaction and evade tax payments by the seller.

According to the study, the passive shadow economy is estimated to stand between 9 percent and 25 percent of GDP in Central and Eastern European countries. The obtained results for Bosnia and Herzegovina show that from 2009 to 2011, at the peak time of the global financial crisis, BiH saw an increase in the level of the undeclared economy, which reached between 24.7 percent to 26.9 percent of GDP.<sup>2</sup> After its peak in 2011, the level of the shadow economy started to decline, and in 2014 it was estimated to amount to 25.5 percent of GDP. The food, beverage, and tobacco sector is estimated to be the most affected, with a 42 percent share of the total passive shadow economy in BiH. As the main component of the overall non-observed economy in Bosnia and Herzegovina, the passive shadow economy had an upward trend until 2012, and started to decline in the following year, to amount to 21 percent of GDP in 2014.<sup>3</sup>

<sup>2</sup> EY “Reducing the shadow economy through electronic payments. Bosnia and Herzegovina,” p. 7.

<sup>4</sup> Ibid.

**Figure 2. Structure of the shadow economy in 2014 across the analyzed countries**



Notes: Shadow economy figures for 2014 are based on the estimates/forecasts of some of the shadow economy determinants.  
Source: EY

For the eight countries analyzed, the passive component of shadow economy accounts for a vast majority (61 to 91 percent) of their unregistered economy. It entails some serious consequences, one of them being government losses in VAT and CIT revenues, which range from 1.6 percent of GDP (Slovenia) to 4.2 percent of GDP (Bosnia and Herzegovina).<sup>4</sup> In Bosnia and Herzegovina, the government's loss of revenues is approximately 1.1 billion BAM, or 4.2 percent of GDP.<sup>5</sup>

## Electronic Payments Shed Light on the Shadow

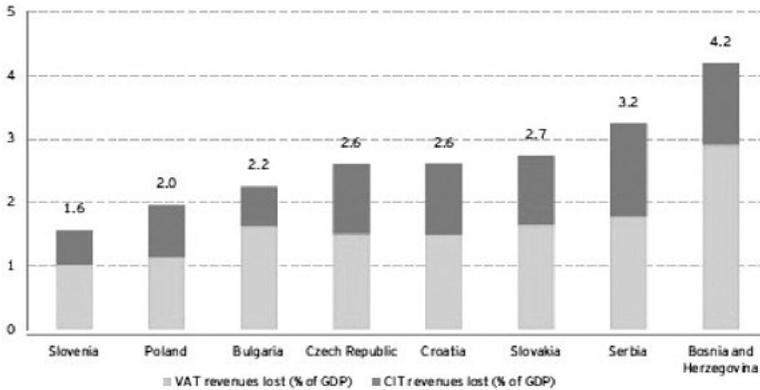
The inability to trace cash transactions translates into the avoidance of taxes and a larger presence of the shadow economy. For a country, this means lower budgetary funds, smaller investments in modernization of production processes, less funds for healthcare, education, and infrastructure—in short, a stalling economy. The solution? Moving away from cash, and encouraging electronic forms of payment.

Policymakers are increasingly aware of the benefits of curbing cash. Dutch MEP Cora Van Nieuwenhuizen recently said, “The number of financial transactions which are unknown to tax authorities has to decrease

<sup>4</sup> EY “Reducing the shadow economy through electronic payments. Bosnia and Herzegovina,” p. 31.

<sup>5</sup> *Ibid.*, p. 10.

**Figure 3. Lost government revenues due to the existence of a passive shadow economy in 2014**



Source: EY

drastically and there is a concrete way to make this happen: the facilitation and promotion of electronic payments. One of the many advantages of paying electronically is that it is traceable and there is proof of the transaction.”<sup>6</sup>

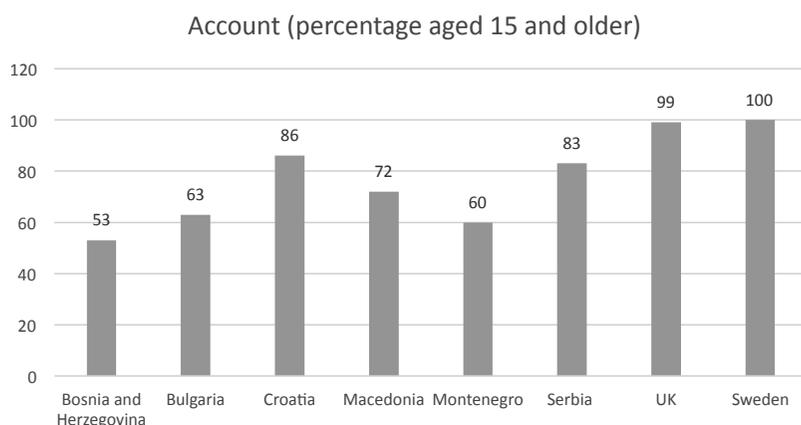
However, the shift from cash to electronic payments is slow. It is a fact that governments that took measures to facilitate the use of electronic payments have seen their tax revenue increase. According to EY, doubling the value of electronic payments should lead to a reduction of the shadow economy of up to 3.7 percent of GDP and an increase in government revenues of up to 0.8 percent of GDP. Moving to a cashless society is a gradual process that requires balanced policy measures which are a combination of incentives and obligations.

### Including the Financially Excluded

The very first step in creating a cashless society must be the inclusion of all those that are financially excluded, i.e., all those who do not have access to basic services we take for granted. According to the World Bank, the percentage of citizens with bank accounts is 52.7 percent in Bosnia and Herzegovina, coming in last in the region and seriously lagging behind developed countries, where the figure is nearly 100 percent. A large number

<sup>6</sup> Lane, Jason. "A cashless society is a fairer society." Euractiv. September 13, 2016. <https://www.euractiv.com/section/euro-finance/opinion/a-cashless-society-is-a-fairer-society/>.

**Figure 4**

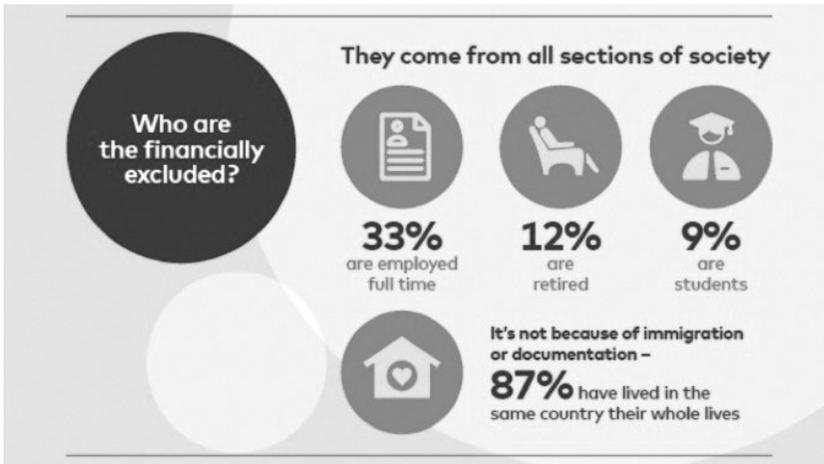


	2011	2014
Account at a financial institution (percentage aged 15 and older)	56.2	52.7
Account (percentage aged 15 and older)	56.2	52.7
Account at a financial institution, female (percentage aged 15 and older)	47.7	47.1
Account at a financial institution, male (percentage aged 15 and older)	67.2	58.8
Account at a financial institution, income, richest 60 percent (percentage aged 15 and older)	63.1	59.6
Account at a financial institution, income, poorest 40 percent (percentage aged 15 and older)	45.9	42.3
Account at a financial institution, older adults (percentage aged 25 and older)	58.1	56.1

Source: World Bank

of students are also underserved. Of young adults aged between 15–24 only 34.4 percent have an account.<sup>7</sup> Only 18.6 percent of adults aged 15+ use an account to receive wages, and a mere 2.1 percent use it for government transfers. There are instances where merchants are willing to give a small discount to customers if they pay in cash because it enables them to not pay a banking fee and not to report the transaction and consequently not pay the tax.

<sup>7</sup> "Financial Inclusion Data/Global Findex." World Bank. <http://datatopics.worldbank.org/financialinclusion/country/bosnia-and-herzegovina>.

**Figure 5**

Source: "The Road to Inclusion." Mastercard Financial Inclusion Survey. December 5, 2016. [https://newsroom.mastercard.com/wp-content/uploads/2016/12/Road-to-Inclusion\\_Mastercard-Financial-Inclusion-Survey-2016.pdf](https://newsroom.mastercard.com/wp-content/uploads/2016/12/Road-to-Inclusion_Mastercard-Financial-Inclusion-Survey-2016.pdf).

As these numbers clearly show, financial exclusion is not a problem isolated to the developing world. Some 138 million people across Europe still live outside the financial system, pay inflated costs to cash paychecks or borrow money to cover immediate needs. They live in urban centers, they are mothers, students and farmers.

According to a new research conducted by Mastercard, which comprised a face-to-face survey among 635 respondents in France, Italy, Poland, Russia, and the UK, a third (33 percent) of financially excluded people have full-time employment. The research highlighted some of the existing misconceptions around financial inclusion revealing that 87 percent of the financially excluded people surveyed have lived in the same country their whole lives.<sup>8</sup>

The World Bank regards technology as one of the main facilitators of financial inclusion. In the last three years, access to technology has increased

<sup>8</sup> Mastercard conducted a face-to-face survey among 635 respondents in 6 markets (UK, Poland, Italy, Russia, France and Spain) across Europe. Interviewing for these surveys took place between 18th July and 10th August 2016. The margin of error for this study is  $\pm 3.0$  percent at the total level, and  $\pm 6.0$  percent at the market level. The survey was administered by Ipsos, a global research and survey company.

### **Bosnia and Herzegovina Market Trends: Mastercard Perspective**

Bosnia and Herzegovina is a predominantly debit market, as debit cards make up for 83 percent of all products.

According to the official data of the Central bank, there has been a 4.5 percent increase in the number of cards issued in BiH. The total annual overturn per card has increased, while average transactions have slightly decreased. This clearly shows that people have recognized the value of cards for everyday use. And these transactions are safe, fast, and convenient.

Despite this positive trend, Bosnia and Herzegovina remains a cash heavy economy—90 percent of all transactions are in cash. Practicality, convenience and safety of payment are all advantages of electronic payments over cash, and these are key elements of our communication strategy. Cash creates costs for all parties involved—retailers, banks, consumers, and governments.

In the Balkan region, and in Bosnia and Herzegovina in particular, there is a serious need for greater education on the benefits of electronic payments, and the long term challenge is to correct the false perceptions of cash payments. Greater card acceptance could contribute to reducing the presence of a passive shadow economy and drive greater financial inclusion.

significantly (in 2013 it was 29 percent; in 2016, it was 49 percent). Yet, access to financial services is not growing at the same rate. Advances in technology create greater opportunities, but if access to it is not inclusive for all members of society, it can have the reverse effect on financial inclusion.

Every digital device has the potential to be a commercial device. But if we simply digitize the tools without extending them to those outside the system, we risk having the “Internet of Everything” without the “Inclusion of Everyone.”

The challenges to financial inclusion governments around the world are facing are similar.

- Ensure financial access and services extend to hard-to-reach populations;

- Increase citizens' financial literacy;
- Devise useful and relevant financial products, tailored to consumer needs;
- Drive best practice guidelines to ensure fees and pricing are clear and visible to the consumer—to encourage take up and usage and thus avoiding unexpected charges to leading to nervousness or continued cash usage/gray economy.

In partnership with financial institutions, merchants, telecommunications companies, governments, and non-governmental organizations (NGOs), Mastercard has been using its technology, scale and capacity to address inequalities. We have already helped make the financial system more accessible to hundreds of millions of people who were previously excluded through more than 1,000 government programs in more than 60 countries. We have committed to bringing 500 million people and 40 million small merchants and micro-entrepreneurs into the financial mainstream by 2020.

The lack of financial inclusion for so many, weakens the economic and social stability in Bosnia and Herzegovina. Access to basic financial tools creates economic opportunity and growth, individual empowerment and dignity, and can help reduce poverty. These tools provide greater opportunity for more people to lead self-determined lives. They give a world which is currently only operating at half capacity and harnessing only half the talent, an opportunity to operate closer to full capacity.

## **Development of Payment Infrastructure**

Another important step in the fight against shadow economy would be the development of a payment infrastructure.

Despite the positive trends observed in the Bosnian market, financial infrastructure is still underdeveloped. Both the number of cards and terminals in Bosnia and Herzegovina is the lowest in the region, while the value of card transactions (in GDP percentage) is one of the lowest among selected European countries. In 2014, in Bosnia and Herzegovina there were 5.474 POS terminals per 1,000 inhabitants.

By simply growing the acceptance infrastructure to 37 POS terminals per 1,000 inhabitants (the same penetration level as in Finland) in the sectors most affected by the shadow economy (food, beverage, and tobacco supply, the fuel sector and the hospitality industry), the effect of the

measure will contribute to the contraction of the passive shadow economy with -0.64 percent of GDP.<sup>9</sup> In government revenues, this translates into 35.5 million BAM per year. Therefore, changes in merchants' willingness to accept electronic payments, as well as improvement in the payment infrastructure are highly desirable.<sup>10</sup>

In an effort to support accessibility and modernize payment infrastructure in rural areas, the Romanian government adopted a bill that regulates cash-back at the point of sale and obliges merchants to install a terminal as of a certain turnover threshold.

### **Incentives for Consumers**

Introducing incentives for consumers to use electronic payments is estimated to have significantly positive effects on the presence of a shadow economy in Bosnia and Herzegovina.

Special benefits directly related to consumer payments cards provided by private financial institutions such as cash back, reward points or discounts have already proven to be effective method of incentivizing consumers to use their cards more often.

According to the EY study, similar incentives can be provided by the government through appropriately designed tax incentives that reduce the tax component of retail prices such as VAT, if the consumer decides to pay electronically for his/her purchase.<sup>11</sup>

A similar measure has been adopted recently in Bulgaria. The parliament adopted a tax relief for physical entities that receive 100 percent of their income via bank account and spend 80 percent of it via electronic form of payment.

Merchants and consumers however only represent one side of the story. Governments manage millions of payments every day such as taxes, invoices, etc. Promoting electronic payments for government acceptance and disbursements is therefore critical.

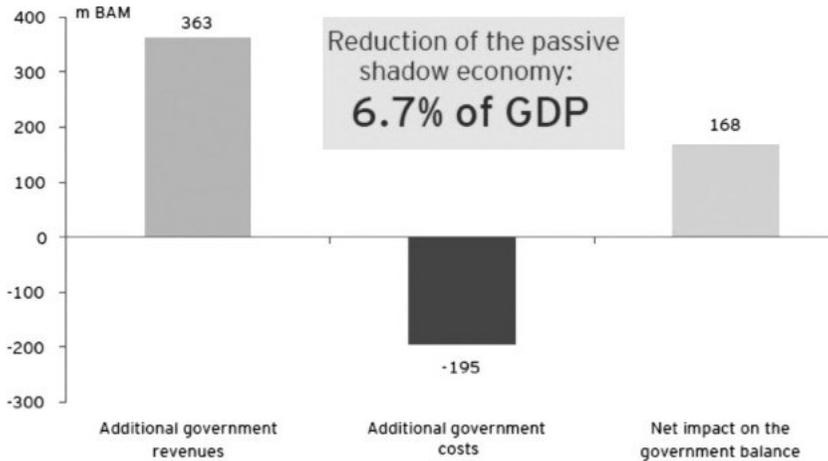
---

<sup>9</sup> EY "Reducing the shadow economy through electronic payments. Bosnia and Herzegovina," p. 25.

<sup>10</sup> *Ibid*, p. 13.

<sup>11</sup> *Ibid*, p. 27.

**Figure 6. The impact of the optimum cash-back for card payments (1.7 percent of card payment value) on government revenues in Bosnia and Herzegovina**



Source: EY

## Government Disbursements

Bosnia and Herzegovina spent over 12 percent of GDP on public sector wages in 2013, a substantially greater amount than countries such as Macedonia and Albania, which spent around 5 percent of GDP in the same year. Bosnia and Herzegovina's spending on non-contributory social assistance is by far the largest in the region and the largest in Emerging Europe at close to 4 percent of GDP.<sup>12</sup>

The introduction of electronic payments for social and health welfare disbursements to citizens has proven to be an effective method for reducing fraud, raising legitimate claim rates, and reducing process and administrative savings. In South Africa, the move of social welfare payments from cash to cards generated an estimated 320 million euros in cost savings by 2017, and the catching of 150,000 fraudulent applications.

In Italy, millions of citizens can now pay their taxes and utility bills faster and more easily because the government enabled the acceptance of electronic payments at nearly 70,000 new locations and more than 100,000 points of sale nationwide.

<sup>12</sup> IMF Country Report No. 15/299, October 15, 2015, p. 8.

## **Fiscal Receipt Lotteries**

Once the infrastructure is there, governments can change consumer and merchant behavior. Examples of this were the recent campaigns launched in Romania, Serbia, Bulgaria, and Croatia to leverage lotteries to drive card usage.

There are many other concrete examples that governments can follow to fight the shadow economy and build a more sustainable and transparent tax collection system. As illustrated above, the total payment value chain needs to be targeted and measures should range from strengthening payment infrastructures, encouraging merchant and government acceptance and incentivising consumer use. While the results of the European Commission's VAT Gap Study remind us how important the fight against tax evasion is, best practices in Europe show that policymakers can make a difference by adopting the right policy solutions.<sup>13</sup>

---

<sup>13</sup> For more reference on the EY study and its methodology: <http://www.ey.com/pl/pl/services/tax/vat—gst-and-other-sales-taxes/electronic-payments-en>; [http://www.ey.com/Publication/vwLUAssets/Shadow\\_Economy\\_-\\_Bosnia/\\$FILE/REPORT\\_ShadowEconomy\\_Bosnia\\_and\\_Herzegovina\\_17.pdf](http://www.ey.com/Publication/vwLUAssets/Shadow_Economy_-_Bosnia/$FILE/REPORT_ShadowEconomy_Bosnia_and_Herzegovina_17.pdf); [http://www.ey.com/Publication/vwLUAssets/Report\\_Shadow\\_Economy/\\$FILE/REPORT\\_ShadowEconomy\\_FINAL\\_17.pdf](http://www.ey.com/Publication/vwLUAssets/Report_Shadow_Economy/$FILE/REPORT_ShadowEconomy_FINAL_17.pdf); [http://www.ey.com/Publication/vwLUAssets/EY\\_Polska\\_-\\_Raport/\\$FILE/Technical\\_APPENDICES\\_17.pdf](http://www.ey.com/Publication/vwLUAssets/EY_Polska_-_Raport/$FILE/Technical_APPENDICES_17.pdf).

