

IOBE/FEIR Notes on Economic Facts

The electronic means of payment and tax evasion

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The objective to increase tax revenues by curbing tax evasion and by reducing the size of the shadow economy plays a key role in the effort to rationalise public finances and to bring the Greek economy back on a growth path. The shadow economy thrives on the underreporting of sales and undeclared labour. One of the available instruments for limiting the shadow economy is the use of electronic means for carrying out transactions. The use of Electronic Means of Payment (EMP)¹ in a transaction implies that the transaction is recorded in the information systems of the banks, facilitating the tax audit of both transactions and incomes.

The use of EMP in our country considerably lags behind, compared to the rest of the EU. Despite the growth recorded since 2001, Greece continues to occupy very low positions in the relevant rankings. Based on the value of transactions with EMP per inhabitant in 2013, Greece ranked higher only compared to Croatia and Bulgaria, while in terms of number of transactions per inhabitant, Greece occupied the last position in the ranking (Figure 1).

The main reasons for the lag in the use of EMP in Greece seem to be rooted in the consumers' distrust regarding the safety of the transactions and generally of the electronic systems, as well as in the fragmented structure of retail trade and entrepreneurship in general. The financial crisis and the relatively low penetration of high speed broadband connections also act as a deterrent to a further increase of the use of EMP. The combined effect of these obstacles prevents the accumulation of a sufficient mass of transactions that could unleash the positive impact of the network effects, characteristic for goods such as EMP, which impedes the payment with electronic means becoming a daily habit of the consumers.

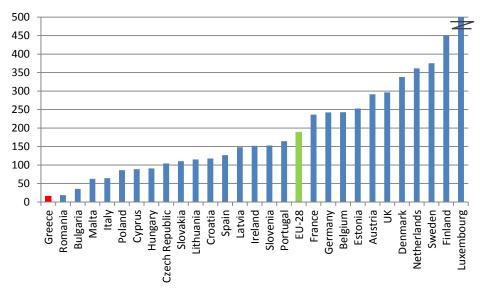
Recognising the significance of EMP for the limitation of the shadow economy and the need for targeted intervention due to the network effects, particularly in the early stages of EMP penetration, several countries with fiscal problems (such as South Korea, Italy, Argentina and Uruguay) have adopted incentives and/or administrative measures to strengthen the use of EMP. The incentives include reductions in the value of transactions when a transaction is carried out with EMP, income tax discounts when households, as well as enterprises, achieve targets for percentages of EMP use in their transactions, and lotteries for EMP transactions. The incentives are often accompanied by administrative measures, such as an obligation of accepting EMP and a prohibition of cash use for higher value transactions.

¹ The electronic means of payment enable their holder to make transfers of funds through a remote access to his bank account or by exchanging electronic units of value stored in a card or another electronic storage device. The electronic means of payment include credit cards, debit cards, delayed debit cards, electronic money stored in cards or other means, direct debits and credit transfers through electronic banking.

The current note is based on an ongoing IOBE study. The series "IOBE /FEIR Notes on Economic Facts" aims to present and interpret significant quantitative data with respect to recent economic developments. It is coordinated by a team of IOBE research associates and collaborating economists: Michalis Vassiliadis, Nikos Vettas, Manolis Galenianos, Christos Genakos, Svetoslav Danchev, Nikos Zonzilos, Stavros Ioannides, Vassilis Manessiotis, Dafni Nikolitsa, Grigoris Pavlou, Aggelos Tsakanikas, Dimitris Christellis. Contact details: email - info@iobe.gr, telephone number - 210 9211200-211, www.iobe.gr



Figure 1: Number of transactions with electronic means of payment per inhabitant (2013)



Source: European Central Bank, Data processing: IOBE

Implementing a series of such measures in South Korea led to an increase in the share of card transactions in private consumption to over 65% in 2010, from 14.7% in 1999. In the same period, the total receipts deriving from income tax in the country were growing by 13.6% annually, significantly surpassing the pace of GDP growth (6.5% on average from 2000 to 2009).² Thus, the experience of South Korea offers indications for the significance of the contribution of electronic transactions in the reduction of tax evasion.

Moreover, the VAT gap is negatively correlated with the use of EMP. It is clear from the righthand chart of Figure 2, which shows the relation between the VAT gap (on the vertical axis) and the diffusion of EMP (on the horizontal axis) in the EU countries, that countries with a low number of EMP transactions per inhabitant also tend to have a higher VAT gap coefficient (correlation coefficient $\rho = -0.57$).

Greece, in particular, occupies the third highest place, among 26 EU member-states with available data, based on the VAT gap, with 39%, behind Romania with 48% and Latvia with 41% (Figure 2, left-hand chart). At the same time, Greece significantly lags behind in the level of EMP diffusion.

In conclusion, higher rates of EMP use improve the transparency in the economy, as transactions carried out with EMP are recorded in the IT systems of the banking institutions, limiting the possibility to hide taxable assets. Meanwhile, the adoption of EMP on a larger scale contributes to the reduction of intermediary service cost, promotes the development of new services, intensifies competition in the markets for products and services and boosts consumption and economic activity. ^{3,4} It is estimated that the growth in the use of cards has

² Jeon, B. M. (2013). Fight against Underground Economy: Credit card and cash receipt income deduction policy. Korea Institute of Public Finance.

³ Schneider, F. (2013). The Shadow Economy in Europe. Using payment systems to combat the shadow economy. ATKearny

⁴ Rogoff, K. (2014). Costs and benefits to phasing out paper currency, NBER Working Papers 20126



led to higher global real GDP growth rates by approximately 0.2 percentage points per annum between 2003 and 2008.⁵

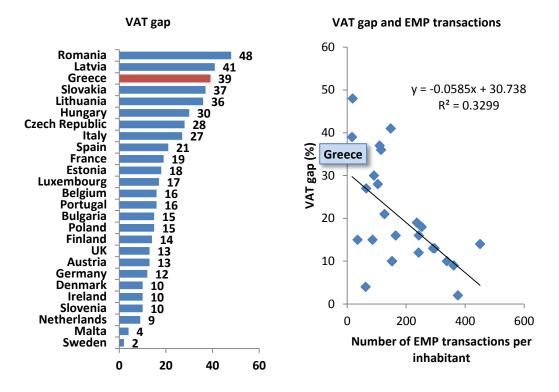


Figure 2: VAT gap and EMP transactions per inhabitant

Source: European Commission, ECB, Data processing: IOBE

With the recent enactment of capital controls, in combination with the extended bank holiday, it appears that the issue and use of cards in Greece has increased considerably. However, with the gradual easing of the limitations, the EMP use is quite likely to retract to a low level. Therefore, a proactive regulatory intervention, with carefully designed and quantified policy measures, is required, in order to preserve the growth of EMP use and as a result achieve a significant and durable reduction of the tax evasion in Greece.

⁵ Zandi, M. and Singh, V. (2013). The Impact of Electronic Payments on Economic Growth. Moody's analytics.