Social costs for retail payment instruments in Portugal

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Executive summary

This study presents the estimated social costs for retail payment instruments in Portugal in 2013, detailing the private viewpoints of the banking system and consumers. With regard to the previous editions,[1] this study is an innovative contribution in a number of areas: (i) it includes for the first time the viewpoint of consumers in the estimates of the social costs of retail payment instruments; (ii) it presents possible gains for society with the replacement of payment instruments with higher unit costs for other less expensive instruments (based on a breakdown into variable and fixed costs); and (iii) it identifies a value as of which the use of a given payment instrument has more benefits to society than the other, in terms of costs.

The analysis of the results obtained cannot be separated from the methodological assumptions, namely:

- This study's reference period is 2013 and since then there have been regulatory and technological changes as well as changes in the country's economic and financial situation that may have influenced costs with the use of retail payment instruments in Portugal;
- The study focuses mainly on the costs of payment instruments, with the exception of the banking system, where benefits are also considered. Benefits obtained by merchants and consumers with the use of payment instruments are not considered, due to the difficulty in assigning value to elements such as convenience, anonymity, safety, or prestige. This may have implications on the estimation of the pros and cons of a possible replacement among payment instruments;
- Credit cards have only been considered for their payment function, and thus their costs and revenues as credit granting instrument have not been included;
- Costs borne by merchants have been estimated based on the answers obtained in a 2009 survey, since participation was weak in this exercise.

The methodology adopted for computing private and social costs is in line with the approaches followed in a number of international studies in this field, namely by central banks.

In 2013 costs borne by Portuguese society with the use of retail payment instruments amounted to €2,694.9 million, which accounted for 1.61 per cent of gross domestic product (GDP) that year. Cash contributed with €1,679.5 million (i.e. 1 per cent of GDP and 62.3 per cent of the total cost).

The social cost was borne in virtually identical shares by banks, merchants and consumers. The banking sector bore most social costs in all payment instruments with the exception of cash, where most costs were borne by consumers (45 per cent) and merchants (40 per cent).

Debit cards proved to be more efficient than cash to make payments at points of sale (50 cents versus 53 cents per transaction). The least efficient instruments were cheques and credit cards, which cost society €2.45 and €2.20 per payment respectively. In remote payments, direct debits were more efficient (27 cents) than credit transfers (70 cents).

These costs reflect the pattern of use of retail payment instruments in Portugal and the size of the infrastructure used to process these payments.

Since 2005,[2] the pattern of use of retail payment instruments in Portugal has undergone changes: the use of cheques has declined at an average pace of 12 per cent per year, card payments continued to grow steadily, credit transfers more than doubled, direct debits grew moderately at 4 per cent per year, and cash maintained its prominent role as the most used payment means in day-to-day commercial transactions.

The composition of the social costs of each payment instrument in 2013 shows that cash is the most efficient instrument for making payments below €1.89; above this value, using debit cards is always more beneficial.

Society may benefit from replacing more expensive instruments with more cost-efficient instruments. Hence, the two development scenarios considered show that benefits may amount to: (i) €132 million, with the replacement of all cheques with debit cards and credit transfers; and (ii) €30 million, with the replacement of 10 per cent of cash payments with debit cards.

From the private viewpoint of the banking system there are some findings worth mentioning:

- The private costs borne by the banking sector with payment instruments were estimated at €883.4 million for 2013, i.e. 0.53 per cent of GDP. Revenues were assessed at €627.2 million, resulting in a coverage rate of 71 per cent. The provision of payment instruments thus entails a cross-subsidisation with other products and services offered by the banking sector. Confirming this, the banking system bore a cost of €109 per banking customer with the use of payment instruments, and fees received totalled only €31 per banking customer.
- In comparison with 2009, total costs and revenues declined by 30 per cent and 31 per cent respectively, i.e. the coverage rate remained virtually unchanged.
- In 2013 debit cards and cheques were the only payment instruments whose revenues generated covered the costs borne with their use (130 per cent and 100 per cent respectively). Cash originated a net cost of €239.4 million for banks in 2013 (degree of coverage of 5 per cent), from a total of €256.2 million net costs of the banking system. In credit cards, transfers and direct debits, revenues obtained did not offset costs, with degrees of coverage estimated at 81 per cent, 52 per cent and 84 per cent respectively. The net position of direct debits may worsen with the growing competition among payment service providers within SEPA, insofar as some creditors may relocate their payments to foreign banks. In turn, the net position of cards will be influenced by the recent regulatory changes, notably by Regulation (EU) 2015/751 introducing caps on interchange fees for debit and credit card-based payment transactions, which may result in a reduction of bank revenues.
- Cash was the instrument that entailed more costs for banks (€252.4 million or 29 per cent of total costs). Credit and debit cards generated costs of €441.6 million (50 per cent of the total), i.e. more than cash and cheques as a whole (€362.4 million or 41 per cent of the total). Credit transfers accounted for 5 per cent (€48.3 million) and direct debits 4 per cent (€31.1 million) of total costs.
- Credit cards were the most expensive payment instrument per euro spent (2.95 cents). Cash was more expensive (0.99 cents) than debit cards (0.52 cents). Cheques, credit transfers and direct debits had unit costs of 0.12 cents per euro spent, 0.08 cents and 0.01 cents, for average payments of €1,521, €1,988 and €178 respectively.
- For the banking system the most cost-efficient payment instrument per transaction was cash (8 cents), as a consequence of the high number of payments made with banknotes and coins.[3] This unit cost would be €0.52 if withdrawals and deposits at counters and ATMs were used as reference unit. The unit cost of cash was lower than the unit cost of debit cards (26 cents). Credit cards (€1.69) and cheques (€1.87) were the instruments with the highest unit cost for banks. Credit transfers and direct debits recorded unit costs of 28 cents and 14 cents respectively. Around 72 per cent of bank revenues originated in the use of debit and credit cards and correspond to fees charged to card holders and prices applied to merchants. In comparison with 2009, revenues from payment cards decreased by 29 per cent, as a result of a decline in merchant service fees and annuities applied (particularly in credit cards). Cheques contributed with 18 per cent to total revenues, via the fees charged to customers for the

issuance and delivery of cheques and the settlement of cases of insufficient funds in accounts. The strong reduction in the use of cheques between 2009 and 2013 contributed to a 42 per cent decline in cheque revenues. The only cash-generated revenue corresponds to fees applied to withdrawals and deposits at counters or in the night vault of banking institutions; they accounted for only 2 per cent of total bank revenue.[4] Revenue from direct debits (4 per cent of the total) derived from fees charged to creditors and debtors declined by 33 per cent from 2009, as a corollary of the regulatory developments required by Regulation (EC) No 924/2009, Regulation (EU) No 260/2012, and Decree-Law 42-A/2013. Credit transfers contributed 4 per cent to total bank revenue, with fees charged to customers when issuing transfers at counters and using homebanking.

- Cheques and credit cards were the payment instruments that brought higher unit revenues to banks, to an amount of €1.88 and €1.37 per payment respectively. By contrast, cash originated a lower unit revenue (0.4 cents per payment). Each debit card payment resulted in a revenue of 33 cents, with transfer 13 cents and via direct debit 12 cents.

From the **private viewpoint of consumers** it can be concluded that:

- In 2013 the private costs of consumers with the use of payment instruments in Portugal amounted to €1,139 million, i.e. 0.67 per cent of GDP.
- Cash was the payment means that entailed the most costs for consumers, i.e. €774 million. Around 98 per cent of it stems from the time spent making payments and withdrawing banknotes and coins at ATMs or at bank counters. This cost was converted into monetary values using the hourly average net income of respondents to the payment diary.Payment instruments that recorded lower total costs were credit transfers (€41 million) and direct debits (€5 million). Costs with the use of debit and credit cards and cheques totalled €270 million and €49 million respectively.
- Direct debits were the instrument with the lowest unit cost for consumers, at 3 cents per payment. Debit cards were the second most economical option for consumers (20 cents), after cash (24 cents). Credit transfers had a unit cost of 61 cents and credit cards of 85 cents per payment. Cheques, at €2.05 per payment, were the payment instrument with the highest unit cost for consumers, and also the least used.
- Consumer costs correspond to the valuation of the time needed to make the payment with a given instrument and the fees paid to banks. Overall, these fees amounted to around €253 million, and the time needed to make payments was valued at €886 million. Time costs play a more important role in the case of cash (98 per cent of costs) and credit transfers (77 per cent).[5] Fees borne by consumers were particularly high for credit cards (89 per cent) and cheques (76 per cent).

Studies on the social costs of the use of payment instruments are particularly relevant, insofar as: (i) they contribute to a better understanding of developments in the costs of payment instruments for the banking system, merchants and consumers; (ii) they make it possible to assess the impact of regulatory and operational initiatives on said costs; (ii) they provide the different stakeholders useful information for setting out strategies to generate efficiency gains; and (iii) they make it possible to estimate potential gains for the economy, if measures are applied to promote the use of payment instruments implying fewer costs to society.

Notes

1. *Studies Retail Payment Instruments in Portugal: Costs and Benefits*, July 2007, and *Os custos sociais dos instrumentos de pagamento de retalho em Portugal*, July 2013 (in Portuguese only), available on Banco de Portugal's website.
2. Reference date of the first study prepared by Banco de Portugal.
3. The €0.08 unit cost was obtained by using the number of payments made in cash as reference unit.
4. Decree-Law No 3/2010 of 5 January forbids credit institutions from charging fees on withdrawals and deposits at ATMs.
5. In the case of cash, the time associated with the withdrawal of banknotes and coins at bank counters or ATMs is included.