Assessing financial inclusion in Portugal from the central bank's perspective [1]

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Abstract

Access to financial services is quintessential in fostering the development and competitiveness of an economy and in mitigating the asymmetry in the distribution of income across and within countries. The active promotion of financial inclusion entails several direct and indirect improvements on the conditions for value creation of economic agents, particularly small and medium businesses and low income households. These span from the enablement of risk pooling to the possibility of financing ambitious development projects that would be otherwise impossible. To fully rip these benefits, it is crucial that countries develop infrastructures and continuously monitor and reform their institutions, in order to keep up with the latest innovations, hence capturing their induced development effects. At this point, a question arises: how can financial inclusion be measured and accounted for? The paper discusses the evolution of financial services in Portugal and, in particular, the role and contribution of *Banco de Portugal* as a financial services provider – with emphasis in the services offered by its Central Credit Register and within the context of its Banking Conduct Supervision activities, and how they have been used to pre-empt over-indebtedness and monitor the access to financial services, while shedding light into the usage of innovations in the payment systems. Finally, an attempt at documenting and measuring the evolution financial inclusion in Portugal is made on the basis of the results of the *Banco de Portugal*'s Survey on the Financial Literacy of the Portuguese Population.

Keywords: financial inclusion; financial services; payment systems; central credit register

JEL classification: G20; E42

1. Introduction

Financial inclusion – loosely defined here as the ability of individuals or enterprises to obtain formal financial services that are appropriate to their needs, including access to credit and bank accounts, payments facilities, insurance, and other risk management services – is essential in fostering the development and competitiveness of an economy and in mitigating the asymmetries in the distribution of income across and within countries.
However, while there has been some progress worldwide toward wider access to formal financial services, significant challenges remain – *e.g.*, more than two billion adults do not have access to formal or semi-formal financial services; they are the financially excluded in a world where access to financial

[1] The analysis, opinions and findings of this paper represent the views of the authors, which are not necessarily those of the *Banco de Portugal* or of the Eurosystem.

services can mean the difference between surviving or thriving (ATISG, 2010). What is more, financial exclusion seems to be no longer only a phenomenon in developing and emerging countries, especially in the aftermath of the 2007-08 financial crisis.
Data currently available show that, even in developed countries, many people remain excluded from the financial system, with no access to basic banking products, such as is clearly the case of a current account. According to an European Commission study on financial services provision and prevention of financial exclusion, at the end of 2003, 10 per cent of adults aged 18 and over in the EU15 countries (European Union Members States before May 2004) and 47 per cent of adults in EU10 (Member States which joined the EU in May 2004) had no bank account at all. A further 8 per cent in the EU15 and 6 per cent in the other Member States only had a deposit account with no payment card or cheque book. Seven per cent of all adults in the EU15 countries and 34 per cent in the other Member States had neither a transaction nor a deposit account, revolving credit or savings (European Commission, 2008a).
Meanwhile, increased awareness of this problem led policymakers, regulators and development agencies globally to consider the promotion of financial inclusion as a priority. The G20, for instance, has identified financial inclusion (for individual households as well as enterprises) as a key driver of economic growth, reduced economic vulnerability for individual household, poverty alleviation, and improved quality of life for people around the world. On the occasion of its Seoul Summit in 2010, a number of initiatives directed to improving access to financial services and expanding opportunities for poor households and micro-, small- and medium-sized enterprises was approved (the Financial Inclusion Action Plan, the Global Partnership for Financial Inclusion and a flexible SME Finance Framework).

This paper describes the provision of formal financial services in Portugal and, in particular, the role and contribution of *Banco de Portugal* as a financial services provider – with emphasis in the services offered by its Central Credit Register and within the context of its Banking Conduct Supervision activities, and how they have been used to pre-empt over-indebtedness and monitor the access to financial services, while shedding light into the usage of innovations in the payment systems.
The focus of the paper will be more on the provision of financial services than in measuring the access to them, in view of the methodological difficulties inherent to the measurement of access to finance as well as the lack of comprehensive and reliable data on, *inter alia*, the people using financial services, the types and quality of services they receive and the price they pay, and the barriers to broader access. That said, the absence of significant non-price barriers for firms and households in the use of financial services in Portugal, on the one hand, and the fact that the provision of financial services may be seen as an indication of the potential access to financial services, on the other hand, give justifying argument for the approach that has been followed.
Notwithstanding, an attempt at documenting and measuring the evolution financial inclusion in Portugal will be made, on the basis of the results of the *Banco de Portugal*'s Survey on the Financial Literacy of the Portuguese Population.

2. The evolution financial services provision in Portugal

The provision of financial services in Portugal has been growing at a fast pace since 1986, the year that marked the Portuguese accession to the European Economic Community (EEC). This trend was fuelled by a substantial increase in the use of technological innovations (mainly in telecommunications), which made it possible to implement teleprocessing networks, either within the larger banks or through interbank links, with visible benefits to the supply of financial services, particularly in the field of retail payments. This increase was backed by the creation of SIBS ("Sociedade Interbancária de Serviços"), a company that was founded in 1983 by a number of resident banks (as of today, the company's shareholders stand for practically the whole retail banking sector in the country). Its aim was to introduce a single payment platform that met the banking establishments' needs while developing their facilities and technology, and extending their international scope. In 1985, this network became operational under the Multibanco designation.

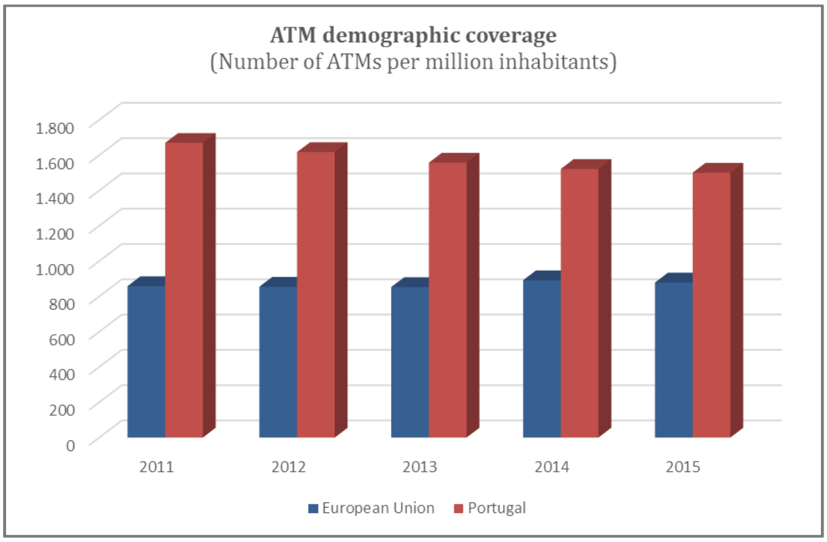
Multibanco, a sophisticated network shared by every bank operating in the economy that fully integrates automated teller machines (ATMs) and electronic funds transfer at point of sale (EFTPOS) terminals, profoundly transformed the way retail payment operations were carried out in Portugal. Since its implementation new features have been constantly added to the system (involving no extra costs to its users): in addition to cash deposits/withdrawals and balance/transactions inquires, customers can undertake a wide range of other operations, *inter alia*: money transfers (both to other customers in the same bank and to other banks), payments for utilities bills, payments to the State and the Social Security, mobile phone top-ups, transport ticketing and event booking and ticketing.

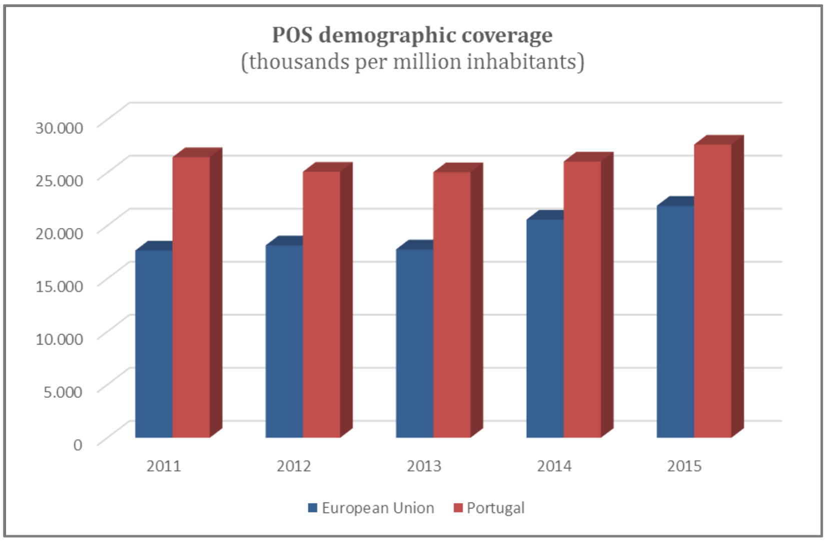
The activity of SIBS was instrumental in generating economies of scale deriving from a more rational and effective use of the financial, technical and human resources needed to develop more advanced payment instruments and systems. Also, SIBS made the Multibanco network open to all those taking part in payment systems operations, which allowed for network economies and the safety inherent in a single system.

In addition, this scheme has returned to its users a substantial part of the productivity gains generated from on-going technological and organisational developments, both directly, through the supply of a service that is ever wider, of better quality and at a better price, and indirectly, through increasing efficiency in the banking system as a whole.

Quantitative relevance

The Payments and Settlement Systems Statistics dataset of the European Central Bank Statistical Data Warehouse offers ample coverage about the characteristics and the dimension of the Portuguese payments system as well as of the other European Union Member States. Looking into the dataset, one sees, inter alia, that the value of transactions carried through card payments with cards issued by resident Payment Service Providers (PSPs) in Portugal has been growing steadily for the last five years, totalling 65.4 EUR billions in 2015 (55.7 EUR billions in 2011); also, the demographic and geographic coverage of the ATM and POS networks are shown to rank amongst the highest in the European Union and the Euro area.



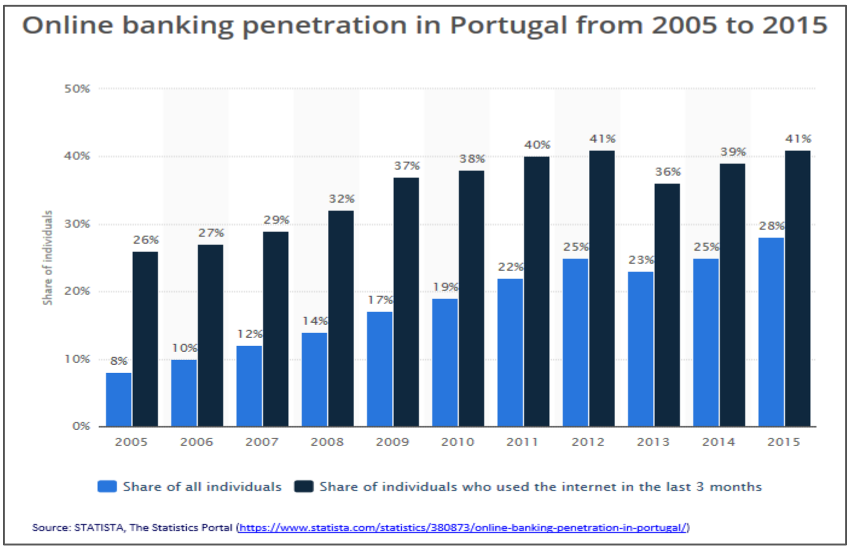


The number of ATMs provided by resident PSPs in Portugal reached 15.6 thousands in 2015 – about 1500 per million inhabitants (the 2nd highest demographic coverage in both the European Union and the Euro area) and 169 per thousand Km^2. In addition, the number of POS terminals provided by PSPs in Portugal amounted to 286.4 thousands in 2015 – around 27640 per million people (the 6th highest demographic penetration in the European Union and the 5th in the Euro area) and 3106 per 1000 Km^2.
The number of cards with a cash function issued by resident PSPs totalled almost 20 million in 2015 (19 million in 2011). The number of payments with cards issued by PSPs totalled about 1375 million in this year (1237 million in 2011) and the related value of transactions reached approximately Euro 65.4 billion (55.7 EUR billions in 2011).
A *Banco de Portugal*'s study of July 2007 estimates that, during 2005, cash withdrawals from ATMs, rather than at bank counters, saved consumers 11.2 million hours in processing time and banks participating in this study cut costs by 46 per cent. For cash deposits at ATMs, estimated gains were around 443 thousand hours for customers in terms of processing time and cost cuts for the banks to the order of 4.3 EUR millions. With credit transfers through ATMs, gains were estimated to be around 491 thousand hours in processing and 5.1 EUR millions in transaction costs. Consumers also gained around 1.5 million hours in checking balances and account entries through ATMs in place of over the counter. Taking gross average salaries as a point of reference (as detailed in statistics for OECD countries in 2005), the benefit for the consumer comes in at around 86 EUR millions, corresponding to 13.6 million hours of processing time.

Home banking and mobile banking in Portugal

The availability of information and communication technologies has also led the Portuguese banks to make considerable efforts to modernise customer access to financial services, in new, cheaper ways, and to more people. As a complement to in-person services, online connections with corporate customers, home banking and mobile banking (m-banking) are now extensively available in Portugal and increasingly used by firms and households.
Home banking has become the third preferred channel to get in touch with a bank – next to ATMs and to face-to-face contact with the bank teller. In 2007, around 19 per cent of those people in Portugal that have access to a wide range of transaction banking services that are appropriate to their needs and socio-economic status (*i.e.*, the "fully banked", following the terminology in the 2008 Commission's report) favoured that channel – more than seven times the percentage in 2000 (2.7 per cent). The rising number of Portuguese households that have at least one computer at home (in the period 2004 – 2008 the average annual growth rate was 6 per cent) and access to a broadband Internet connection (35 per cent) will likely strengthen the use of home-banking as an alternative to traditional outreach.

Information about on-line bank penetration in Portugal (from the *Statista* website) show that, in 2015, 28 per cent of all individuals used the internet for on-line banking, and that usage was higher for those who had used the internet within the last three months, at 41 per cent (see picture below).



With m-banking, banks get information to their customers no matter where they are and at reduced costs. This is vital for a number of banking services (*e.g.*, alerts), as well as for traditional marketing campaigns. From the demand-side viewpoint, people often do not have time to get to a bank branch, and the Internet may not be an option in some cases – circumstances that favour the use of a more straightforward channel. For a sizeable part of the Portuguese population, using mobile phones to have access to certain financial services, like checking bank balances or conduct other basic operations, should be like a second nature. The Portuguese are clearly a phone-savvy nation. For many, the mobile phone is the organizational hub of their lives.

In 2008, the number of mobile phone subscribers amounted to almost 15 million, corresponding to a market penetration rate of about 152 per cent,[2] one of the highest among the EU-25 Member States and well above the EU-25 average (119 per cent). Also, the total number of possible users of Universal Mobile Telecommunication System services was 4.3 million. (European Commission 2008b)

The continuous expansion of Internet banking and m-banking in Portugal should contribute to improve noticeably the access to financial services, by offering services that are, concurrently, more affordable and more suited to the prospective customers, particularly to that segment of the so-called "marginally banked" (*i.e.*, people with a deposit account that has no electronic payment facilities and no payment card or cheque book) that have a bank account but rarely use the related electronic payment facilities and cards.

In view of the above, it is safe to say that the Portuguese retail payment system is widely recognised today as a highly developed system, in terms of technology, accessibility, time-saving features and nationwide coverage. The system processes millions of operations on a daily basis, both counter-based at thousands of bank branches and electronically through the ATM/POS system. Last but not least, its overall quality can be recognised by what is in relative terms a very small number of complaints on the part of the banks' clientele.

[2] According to the Portuguese Authority for Communications (ANACOM), at the end of the third quarter of 2016, the penetration of mobile services was reported at 165.8 per 100 inhabitants. The penetration rate of mobile stations with actual use was 123 per 100 inhabitants. There were 17.1 million mobile stations eligible to use the service. Of these, 12.7 million (74.2 per cent of the total) saw actual use. There were around 6.3 million actual users of services which are typical of mobile broadband (i.e. video telephony, broadband data transmission, mobile TV, etc.), representing 49.2 per cent of mobile stations in actual use.

3. The role of the *Banco de Portugal* as provider of financial services

Banco de Portugal is the Portuguese central bank and is an integral part of the European System of Central Banks (ESCB). As such, it pursues the objectives and participates in the performance of the tasks entrusted to the ESCB, particularly the maintenance of price stability, viewed as a pre-condition for increasing economic welfare and the growth potential of an economy. The *Banco de Portugal* is also accountable for the efficient and safe functioning of the country's payment systems – including the issue of banknotes and clearing services –, an essential condition for the sound operation of the economy. In addition, the *Banco de Portugal* provides a wide range of services to the banks – *e.g.*, the running of the Central Credit Register (including the centralization of information on protested bills and on cheque defaulters) – and to the non-financial companies – *e.g.*, the maintenance of the Central Balance-Sheet Data Office. Moreover, the *Banco de Portugal* supervises the resident credit institutions and other financial companies, thus providing for the stability and the soundness of the financial system and ensuring the efficiency of its operation, the safety of deposits and of depositors and the protection of consumers of financial services. Also, Banco *de Portugal* regulates, oversees and sanctions the conduct of credit institutions, financial companies, payment institutions and electronic money institutions offering retail banking products and services. It also promotes the financial information and education of bank customers. Last but not least, another service provided by the *Banco de Portugal* to the community includes the compilation, analysis and dissemination of monetary, financial, exchange and balance-of-payments statistics, which are instrumental to decision-making and, in this way, influence the financial activity in the economy.

Services related with the Central Credit Register

The Central Credit Register (CCR) is a database managed by the *Banco de Portugal* on the basis of credit-related information (including potential liabilities, such as, for instance, unused amounts on credit cards and open credit lines) that is supplied by the participants (all resident credit-granting institutions). The main aim of the CCR is to provide information to back-up the participants in their appraisal of the risks attached to extending credit. To this end, the participants can assess aggregate information on the credit liabilities of each client *vis-à-vis* the financial system. Any individual person has the right to be informed about the data recorded in his/her name in CCR and, where necessary, ask the participant responsible for the reporting to *Banco de Portugal* to correct and update such information. The CCR database is also used for: (i) the supervision of credit institutions and other financial companies; (ii) the analysis of the stability of the financial system; (iii) monetary policy operations and intra-daily credit; and (ii) the compilation of statistics on, *e.g.*, the distribution of credit by branch of activity. The CCR database fulfils all the requirements for data protection, as laid down by the National Commission for Data Protection. The *Banco de Portugal* is legally authorised to use the CCR information for purposes such as the supervision of financial institutions, the analysis of financial system stability, the conduct of monetary policy and intraday credit operations, and the compilation of statistics.

Banco de Portugal ensures the centralisation and the subsequent dissemination throughout the banking system (generally on a daily basis) of credit incidents (protested bills) submitted to the Notary Public Offices by financial institutions, thus providing the financial institutions with additional means to better evaluate the risks of their active operations. Legally, any citizen or company is entitled to have access to the information on their own situation in the protested bills data base existing at the CCR.

Banco de Portugal is also responsible for checking compliance with the duties assigned to the credit institutions as regards the use of cheques. In particular, *Banco de Portugal* centralises the information reported by credit institutions and discloses through the banking system the list of cheque defaulters. This database is authorised by the National Commission for the Protection of Data, insofar as the legal and constitutional provisions protecting the citizens are observed. All entities concerned have access to the information on their own situations.

Services related with the market conduct supervision of credit institutions

In a market characterized by contractual freedom and financial innovation, it is incumbent upon the *Banco de Portugal* to check for compliance with the minimum requirements of information to customers on the financial conditions applied to the different operations and services, as well as on the respective risks, a mission that will be referred here as banking conduct supervision, as opposed to prudential supervision, which is more focused on guaranteeing the soundness of financial undertakings and contributing to the stability of the financial system.

Informed decision-making by the banks' clientele especially aware of the risks inherent to financial products and services is a key requirement to the efficient operation of the retail financial markets and to mitigate the level of risk in the financial system. The disclosure by credit institutions of relevant information concerning their products and services, in a transparent, intelligible and standardised way, promotes such decision-making. However, the dissemination of information along those lines may not be enough, given that clients' decisions are also determined by their level of financial literacy. Therefore, is also necessary to foster financial education among the public at large.

Banco de Portugal's banking conduct supervision is structured on the basis of a number of reciprocally complementing guiding rules, ranging from the requirement for credit institutions to observe the principle of transparency and rigour when informing their clients along the various stages of the marketing of banking products and services, to the development of the normative framework that governs the conduct of credit institutions in the retail financial markets. Concurrently, they include monitoring compliance with regulations – *e.g.*, via surveillance activity related to the commercialization or promotion of financial products and services, by responding to clients' complaints and through comprehensive on-site inspections – as well as fixing cases of non-compliance and, in the most serious situations, applying administrative sanctions.

Another guiding principle consists of promoting the quality of the demand for financial products and services, by fostering initiatives that contribute to raising the clients' competences in assessing costs, expected income and risks related to those products and services.

4. Measuring financial inclusion in Portugal

The international financial crisis has highlighted the importance of financial literacy and informed decision making by bank customers as a form of fostering financial inclusion and improving the efficiency and stability of the financial system. In this context, central banks and financial supervisors have attributed increasing importance to initiatives promoting financial literacy and becoming more involved in the definition and implementation of national strategies on financial education.

The promotion of financial literacy contributes to foster the benefits of the instruments regulating transparency and duties of information of credit institutions and, therefore, to the more efficient functioning of financial markets. Citizens who are better informed have greater capacity to understand the information that is conveyed to them by the credit institutions, helping, thereby, to monitor the markets. By choosing financial products that are suited to their risk profile and financial needs, bank customers allocate their funds in the most efficient manner and contribute to the stability of the financial system.

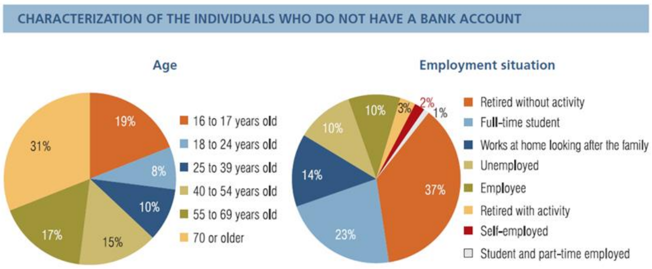
In recognition of the importance for the citizens of taking informed and careful decisions in the management of their personal finance, the *Banco de Portugal* decided to carry out a Survey on the Financial Literacy of the Portuguese Population, taking into account the principles and best practices adopted internationally. The Survey was structured so as to enable obtaining information about the financial attitudes, behaviour and level of understanding of financial matters by the population. Through the assessment of the various dimensions of the concept of financial literacy, the Survey contributes towards identifying the population groups and financial topics with the most significant gaps in terms of literacy. This represents an important means of diagnosis of the degree of financial literacy of the population and, as such, is an indispensable step towards the definition of financial education priorities.

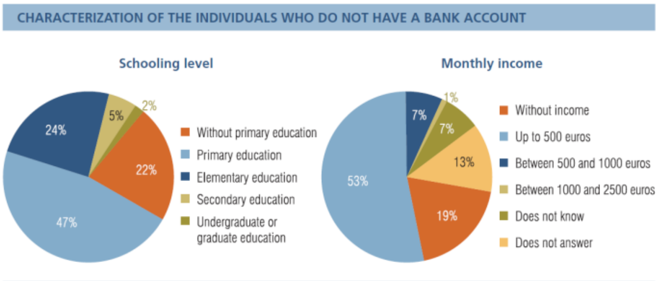
Outcome of the Survey

The results shown by the Survey are positive with respect to financial inclusion, where the degree of use of the banking system by the population is particularly high. This is also an important indicator of social integration, which compares very favourably in international terms.

The degree of financial inclusion, ascertained namely through the percentage of citizens with access to a bank account, is in line with that of other developed countries. Likewise, the data on the use of electronic means of payment confirms the importance that bank customers in Portugal attribute to electronic currency.

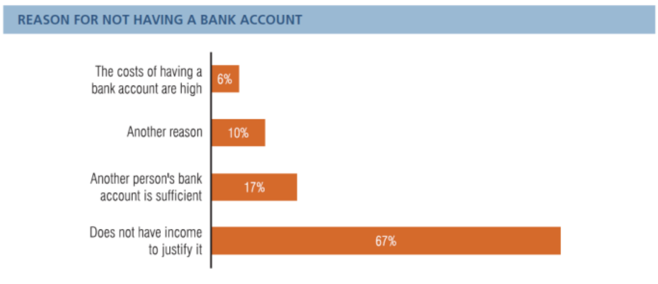
Inclusion in the banking system. Approximately 11 per cent of the respondents do not hold a bank account. However, considering only interviewees above the age of 18, the percentage of those without a bank account falls to 9 per cent. Of the total of respondents who do not have a bank account, 50 per cent are aged 16 and 17 or over 70. On the other hand, approximately 74 per cent are individuals belonging to the non-active population, of which 37 per cent are retired and 10 per cent are wage earners; 53 per cent have a net monthly income up to 500 euros and 69 per cent are individuals without education or with primary education only.





Question: B1; Basis: 221 interviewees

As the reason for not having a bank account, 67 per cent indicate that their income is insufficient to justify it and 17 per cent refer that another person's account is sufficient. On the other hand, 40 per cent noted that they had held a bank account in the past.



Questions: B5 and B6; Basis: 221 interviewees

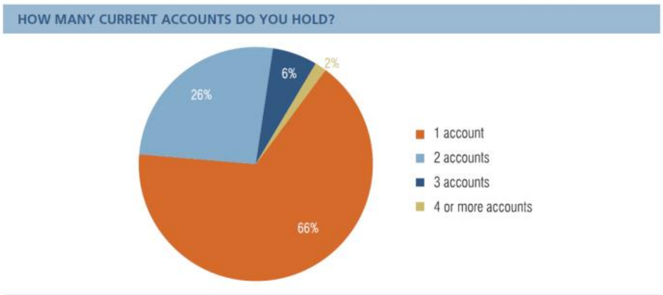
Financial inclusion levels. Apart from accessing the financial system, for which holding a current account is essential, a wider concept of financial inclusion can be analysed, considering also the frequency of the use of the bank account and the holding of other financial products. According to these indicators, it was possible to distinguish different levels of financial inclusion:

- Level 1: individuals who do not have a bank account
- Level 2: individuals who have a bank account, but do not use it regularly
- Level 3: individuals who have a bank account and use it, but do not hold any other financial product
- Level 4: individuals who have other financial products beyond the bank account.

Questions: B1, B3 and E1; Basis: 2,000 interviewees

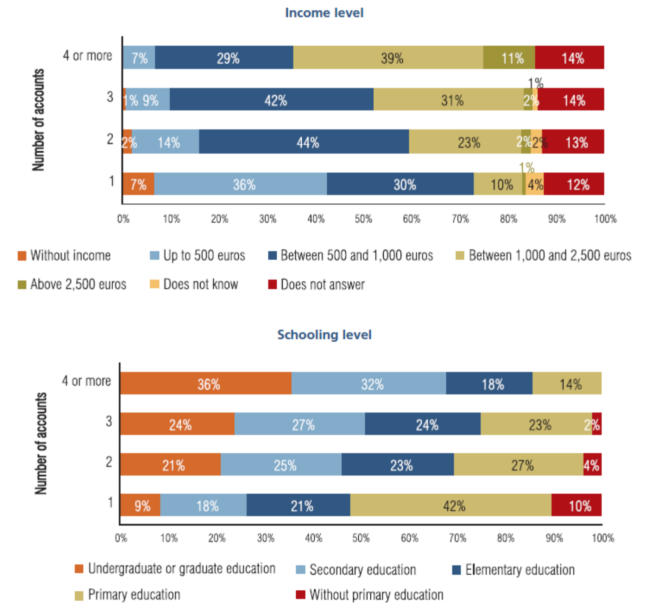
Apart from the individuals without bank account (11 per cent), there are 2 per cent of interviewees who, in spite of having an account, do not use it regularly, which means that 13 per cent of the respondents do not use the banking system on an everyday basis. Furthermore, 25 per cent have a bank account and use it, but do not hold other financial products. Therefore, these interviewees are included in the financial system and use it, but do not draw on it, for example, to invest savings or to resort to credit. On the other hand, 62 per cent have other banking products in addition to a bank account, using the banking system more actively.

Holding of a bank account. For the interviewees with a bank account, the average number of accounts is 1.4. Approximately 66 per cent have one bank account and 26 per cent hold two accounts. It was found that 61 per cent state using the account more than once a week.
The number of bank accounts and the frequency of their use are positively correlated with the schooling level and income level. This result derives from the positive relationship between these two last indicators.



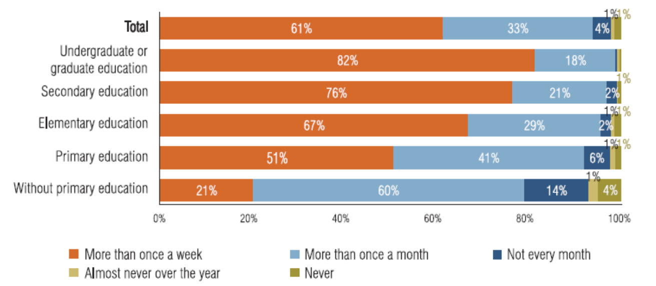
Questions: B1 and B2; Basis: 1,769 interviewees

DISTRIBUTION OF THE NUMBER OF ACCOUNTS BY INCOME LEVEL AND SCHOOLING



Question: B2; Basis: 1,769 interviewees

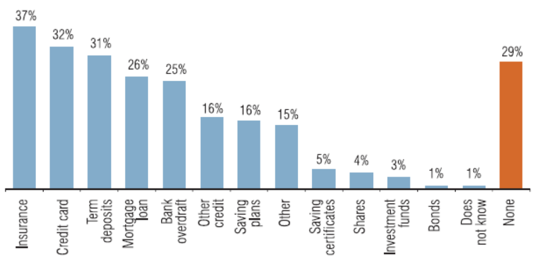
FREQUENCY OF USE OF THE BANK ACCOUNT



Question: B3; Basis: 1,769 interviewees

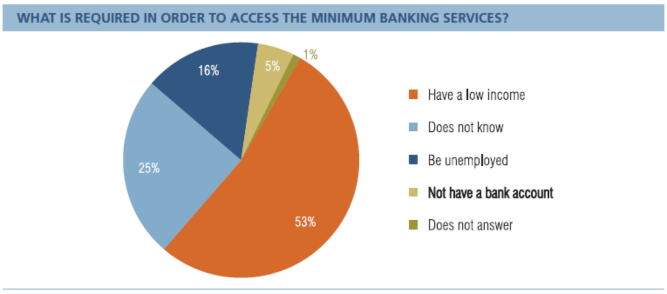
Holding of other financial products. Of the individuals who have a bank account and use it with some regularity, 29 per cent do not have any other financial product. The most common products are insurance (37 per cent), credit cards (32 per cent), term deposits (31 per cent), mortgage loans (26 per cent) and bank overdrafts (25 per cent). It was also found that there is a positive correlation between the holding of practically all the financial products and schooling level. This relationship is clearly not unrelated to the high correlation between schooling and income levels.

WHAT FINANCIAL PRODUCTS DO YOU HOLD?



Question: E1; Basis: 1,742 interviewees

Access to minimum banking services. The minimum banking services system promotes financial inclusion, by enabling access to a current account and respective debit card, with annual costs not above 1 per cent of the guaranteed minimum monthly remuneration.
In order to have an account under this system, customers are merely required not to have another bank account.



Question: B8; Basis: 574 interviewees

The degree of information on this right proved to be very low, since 71 per cent of the respondents stated not knowing of its existence. Of the respondents who stated knowing the minimum banking services (mainly individuals with primary or elementary education), only 5 per cent gave the correct answer "not having a bank account" when questioned on the conditions of access to this system. This leads to the conclusion that only 1.4 per cent of the total respondents actually revealed knowing what are the minimum banking services. Among the 11 per cent of individuals who do not have a bank account, none gave the correct answer on the conditions of access to this system.

References and sources

Access through Innovation Sub-Group (ATISB) of the G-20 Financial Inclusion Experts Group (2010), "Innovative financial inclusion"

Banco de Portugal (2007), "Retail payment instruments in Portugal: costs and benefits"

Banco de Portugal (2010), "Survey on the financial literacy of the Portuguese population"

Banco de Portugal (2015), "Central Credit Register", Booklet Series No. 5 (in Portuguese only)

ECB, "Payments and settlement systems statistics dataset", ECB Statistical Data Warehouse

Eurobarometer 2003.5

Eurobarometer 60.2

European Commission (2008a), "Financial services provision and prevention of financial exclusion"

European Commission (2008b) "14th Report on the implementation of the telecommunications regulatory package – 2008"

Cadete de Matos, J. & D'Aguiar, L., "Measuring the evolution of monetary and financial services in Portugal", ISI 2009, Durban, South Africa

Statista – The Statistics Portal (https://www.statista.com/statistics/380873/online-banking-penetration-in-portugal/)

The G-20 Seoul Summit Leaders' Declaration (2010)

The World Bank (2008), "Finance for all? – Policies and pitfalls in expanding access"

The World Bank, "World Development Indicators"

Beck, T., Demirgüç-Kunt, A. & Martinez Peria, M. S. (2005), "Reaching out: access to and use of banking services across countries"

Beck, T., Demirgüç-Kunt, A. & Honohan, P. (2009), "Access to financial services: Measurement, impact, and policies". The World Bank Research Observer Advance Access