

**Harnessing financial education to spur entrepreneurship and innovation**

**3<sup>rd</sup> OECD/GFLEC Global Policy Research Symposium  
to Advance Financial Literacy**

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**Special Governors' session on advancing financial literacy through policy and  
research – Remarks by Ignazio Visco, Governor of the Bank of Italy**

**1. Introduction**

Investing in education and knowledge is increasingly recognized as a key factor in ensuring sustainable and inclusive growth. In this process, the role of financial education is both important and wide-ranging.

Indeed, with specific reference to the subject of today's Symposium, the objective of advancing financial literacy should be set in the context of the fundamental goal of improving an economy's growth potential by encouraging investment, increasing employment, enhancing trade and promoting competition. Improving the investment environment for small- and medium-sized enterprises (SMEs) and their financing conditions is part of this strategy, given the fundamental role that they play in all economies as key generators of employment, income and, ultimately, growth.

Hence, it is essential to understand whether and how financial education might be a component in this strategy and what our role, as regulators, should be.

**2. Channels through which financial education is important for the innovation and growth of SMEs.**

Innovation is central to economic growth. The role of the State in promoting this is essential, but in the end innovation must be realised by companies themselves. There are at least two areas where financial education, in a broad sense, may have an impact on SMEs' innovation and growth: their financial structure, on one side, and their managerial skills and corporate governance, on the other.

## 2.1 *The financial structure*

Financial literacy may help to improve the financial structures of SMEs through a better understanding of the great importance of the communication of information to financial intermediaries and markets.

SMEs are characterised by obvious problems of asymmetric information. This creates the conditions for the primary role of banks in their financial structure, since banks are especially experienced in screening and monitoring borrowers' creditworthiness in order to address these information problems. The incidence of bank debt on financial debt is a bit more than 40 per cent in the euro area and one third in the US. In Italy, where SMEs are more widespread, over 65 per cent of financial debt comes from banks. That this essentially reflects the conditions of our SMEs is easily concluded once we observe that for large firms (those with more than 250 employees), the ratio of bank debt to total financial debt falls below 40 per cent.

However, bank debt is not the optimal source for financing innovation; equity is better suited to this end. This is well known and supported by extensive research (see, inter alia, Brown Fazzari and Petersen, 2009, Rajan, 2012, and Magri, 2014). Equity does not require the collateral needed for debt financing, which innovative firms may lack due to the larger incidence of intangible assets. Moreover, it does not increase the probability of bankruptcy, which is usually already high among innovative firms. A greater reliance on equity would also shield firms from the negative spillovers that may arise from the conditions of banks. The last financial crisis has clearly illustrated that firms which depend extensively or exclusively on bank loans may face sudden financial constraints when banks experience difficult times and become more selective in granting loans. This evidence calls for a strong need to increase the role of capital markets – both corporate bond and equity markets – in supporting firms' innovation and growth.

In accessing capital markets, the way firms communicate information to external financiers is crucial. SMEs' opaqueness and the insufficient transparency of their balance sheets are not exogenous features: they can be reduced. Whether and how an increase in SMEs' financial education can help firms to understand the importance of financial statements and of sharing information with external financiers is a topic that is currently receiving increasing attention. In fact, there is evidence that after having completed financial education programmes, SMEs subsequently produce more frequent and more transparent financial statements, with a positive

impact on some firms' performance indicators (see Wise, 2013, for a recent analysis on Canadian firms).

Within the Capital Markets Union project, aimed at creating a more developed financial market in Europe, the European Commission is now sponsoring initiatives to improve the standards of information transparency and increase their diffusion, specifically for SMEs. Micro-firms and small firms, which, given their size, find it very difficult to access capital markets, will also benefit from a greater transparency of their balance sheets as banks, in granting loans, can use credit scoring models that facilitate the selection of the borrowers.

## 2.2 *Managerial practices and corporate governance*

Business and financial literacy may also improve managerial practices that are correlated not only with the firms' size but also with their corporate governance.

SMEs are typically family-owned, both in developing and advanced countries. It is less frequent to find that the CEO and other managerial roles are also covered by family members. This situation, however, is very common in Italy: among (manufacturing) family-owned firms, two thirds have a management team comprised exclusively of family members, compared with one third in Spain, one fourth in France and Germany and one tenth in the UK. Recent research shows that managerial practices, more specifically the definition of targets, incentives and supervision, tend to be worse in family-owned firms that are also run by family members (see, inter alia, Bloom and Van Reenen, 2010, and Caselli and Gennaioli, 2013). This is also associated with worse performance. In Italy there is evidence that family-owned firms with only family-member managers are less likely to invest in R&D, a key driver of innovation. Practices such as centralised management or managers' compensation not linked to performance, also have a distinct and important negative effect on innovation (Bugamelli, Cannari, Lotti and Magri, 2012).

However, education programmes may have important effects on managerial ability. Some studies, concerning developing countries, where managerial capital is lower, show that managerial skills can be taught and learnt, although results depend crucially on the approach to training. Other recent surveys also suggest that vocational and general business training appears to be a relatively cost-effective way of promoting business performance and growth (see Bruhn, Karlan and Schoar, 2010, Cho and Honorati, 2013, and Fernandes, Lynch and Notemayer, 2014). In Italy, the ELITE

project, run by the Italian Stock Exchange, is an example of a platform offering services to unlisted firms aimed at expanding their size: in addition to financial advice and network connections, firms are provided with effective suggestions for the cultural, organisational and managerial changes required to realise their medium-term projects of growth.

### **3. Evidence of the level of financial literacy for SMEs**

As has already been discussed in the morning session of this Symposium, there is evidence that the level of financial literacy of SMEs in emerging countries is very low. But there is growing evidence that the situation in advanced countries is also far from satisfactory. In the case of Italy, weakness in financial literacy in a broad sense seems to affect all the areas previously discussed and might be a factor – together with much-discussed negative institutional aspects, high levels of taxation and insufficient human capital formation – in accounting for the very low average size of firms, and especially their very modest ability to grow.

#### *3.1 Direct evidence of financial literacy and adult skills*

On average, entrepreneurs and managers of Italian SMEs have a relatively low level of financial literacy. In the 2008 wave of the Bank of Italy's Survey on Household Income and Wealth (SHIW), heads of households were asked questions aimed at measuring their competencies and financial knowledge. The answers to questions on (i) changes in purchasing power, (ii) differences in the levels of risk of investing in shares and bonds, and (iii) portfolio diversification (questions chosen with the aim of following the lead by Lusardi and Mitchell in their comparisons of financial literacy among individuals and across countries; see Lusardi and Mitchell, 2008 and 2011) show that only 47 per cent of entrepreneurs and managers of firms with less than 100 employees were able to respond correctly to all three (relatively simple) questions. Hence more than half of these entrepreneurs and managers were not able to answer at least one of the relevant questions. This compares to 43 per cent among managers in the public sector or larger (with more than 100 employees) enterprises (the difference between the two groups is only partly explained by their educational qualifications). Less than one quarter of all respondents were able to provide a correct answer to all three questions. These findings clearly suggest that there is significant room for improvement.

Perhaps even more worrying is the result from the 2013 OECD Survey of Adult Skills that shows that a significant proportion of Italian adults (higher than in the other surveyed countries) score the lowest levels of proficiency on the literacy and numeracy scales. Less than 30 per cent of adults score level 3 or above (on a 1-5 scale) in both literacy and numeracy skills, compared to more than 50 per cent in the OECD average.

Italian workers also display lower skills in literacy and numeracy in the work place (possibly also due to the average size of small companies), even if they seem to score better in their ability to use ICT. An insufficient level of literacy and numeracy skills might impact productivity and innovation even more than financial literacy.

### *3.2 Indirect evidence of the lack of financial literacy*

Indirect evidence of the lack of financial literacy can be obtained by looking at the possible inefficient uses of financial instruments by smaller companies. One example is the potential misuse of derivatives by non-financial corporations. Our research shows that in Italy the use of derivatives has been large also among SMEs. Indeed, these instruments have mainly been used to cover interest rate risks by firms that have less balanced financial structures (higher leverage and less liquidity) and are less profitable; the analysis also highlights the relationship between high derivative exposure and financial distress, measured by the firm's rating (Graziano, 2012).

There are claims that those involved in such contracts may lack a thorough understanding of the risks involved. Recent judiciary investigations even go as far as to suggesting, in some instances, that they were purposely inadequately informed. Furthermore, among firms using derivatives, less than half acknowledge this in a recent Bank of Italy survey (Survey of Industrial and Service Firms, 2010), a possible indicator of lack of awareness. Although the number of firms using derivatives has been decreasing in recent years, the average amount per contract has risen, most likely due to an increasing use among large firms as of late.

A lack of financial education may also reduce the capacity of firms to reap the benefits from positive changes in the external environment. In Italy, the tax advantage for debt has been widely reduced since 2011 (by the introduction of the so called "Allowance for corporate equity", ACE), and almost eliminated with subsequent interventions. Unfortunately, a recent survey shows that, even among the largest non-financial corporations, the changes in the equity tax regulation are not

sufficiently known (Ambrosetti, 2015). In this context, SMEs are even more likely to be unaware of the new advantageous equity tax treatment.

#### **4. Policy implications**

More research is obviously needed in this area. Firstly, the economic relevance of (the various components of) financial literacy for SMEs should be better assessed. There are numerous analyses of the impact of financial education and financial literacy on adults' choices and welfare (see in the case of Italy, Guiso and Viviano, 2015), but almost nothing has been undertaken on firms.

Secondly, the impact of different types of financial programmes (characterized, for example, by different durations, channels used and specific content covered) should be thoroughly examined in order to evaluate the relevance of each different instrument. Some (limited) evidence seems to suggest that relatively "simple" programmes are the most effective since they address cognitive biases and difficulties. The same seems to hold for visual programmes or entertainment media-based programmes (see Drexler, Fischer and Schoar, 2014; Lusardi et al, 2014, Berg and Zia, 2013). The evidence seems to point increasingly towards the effectiveness of "just in time" interventions, aimed at specific needs, relevant for individual businesses.

A further issue concerns who is best equipped to provide financial education relevant for SMEs' managers and entrepreneurs. Ideally education should start in schools (mainly at secondary and university levels) but industry associations could play an active role. Banks too may have a special role to play in providing adequate and practical information to their clients. Evidence from Italy suggests that specific information policies implemented by banks have been able to raise the financial literacy of their customers (mainly individuals) and improve their financial asset allocation (Fort, Manaresi and Trucchi, 2014).

Finally, a few words on our role as regulators and central banks. Financial education programmes are now offered by a number of regulators, available to both students and adults. At the Bank of Italy we have been developing a programme of financial education for school teachers (coordinated with the Ministry of Education) since 2008. During the academic year 2014-15 it involved approximately 2.800 classes and 63.000 students. They seem to be effective in improving students' familiarity with money and alternative payment systems (Romagnoli and Trifilidis, 2013).

The methodologies used are now being adapted to help the transition from the acquisition of knowledge to the development of skills, and new tools (including visual ones) are being introduced. Other sources of financial education, in the form of simple explanations on the nature and possible uses of various financial instruments, are also available on our website ([www.bancaditalia.it/pubblicazioni/guide-bi/](http://www.bancaditalia.it/pubblicazioni/guide-bi/)).

These programmes should not be limited to young students. We are now working with other Italian financial regulators to develop a National strategy for financial education, the first step being the mapping of the existing initiatives available both to schools and other stakeholders.

But as regulators we are obviously aware that financial education is complementary to and not a substitute for strong and effective consumer protection and should not therefore be regarded as a silver bullet by any of the interested parties (customers, industry, regulators). Indeed, even financially-literate consumers make mistakes. The financial sophistication, and the number across different countries, of the people fooled by fraudulent investment operations are a sober reminder that financial education does not provide foolproof protection against fraud.

Consumer protection must be pursued through regulations on transparency and the conduct of business, which are essential to the relationship between customers and intermediaries where unavoidable information asymmetries make it impossible for the investor to independently monitor the intermediary. Moreover, given the pace at which financial innovation develops, investors are often faced with products with too short a history for the reliable prediction of returns. Customer protection promotes confidence in the enforceability of contracts, an essential ingredient for financial intermediation (see also Visco, 2010).

Last year, an ad-hoc directorate was created within the Banking and financial supervision department of the Bank of Italy, with the objective of dealing specifically with consumer protection and anti-money laundering. The Italian model is based on both collective ex-post protection and individual ex-ante and ex-post protection.

Individual (ex-post) protection is ensured through both the management and processing of customer complaints and the recourse to the Banking and Financial Ombudsman (Arbitro Bancario Finanziario), which resolves individual disputes between clients and intermediaries. Disputes are submitted to a decision-making body composed of three territorial panels. The Bank of Italy is

responsible for auxiliary activities, for which it makes available means and resources, including via technical secretariats established at the branches of the Bank where the Ombudsman's panels operate. In 2014 approximately 14.000 individual complaints were received and managed; approximately 11.200 claims were submitted to the ABF (10 per cent by corporate clients, 90 per cent by individuals); 65 per cent of the claims were ruled in favour of customers.

The information provided both through complaints and claims to the Ombudsman contributes to the off-site supervision of banks and financial intermediaries, a form of collective (ex-post) customer protection. Together with on-site inspections, it represents the basis for specific enforcement measures, which include sanctions, prohibitions and reimbursement orders. These instruments complement (and might also inform) the individual (ex-ante) protection, which is enhanced by financial education both in schools and for adults.

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To conclude, in recent years, following the financial crisis, trust in finance has been severely damaged. As a whole, it may only be restored through the implementation of a combination of instruments, developed within a coherent framework. This is a fundamental pre-condition for the efficient operation of the financial system. The latter, in turn, is an essential requisite for more financially-literate firms to exploit its full potential.



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