

INTRODUCTION

Good Morning. My name is Vasco, I am the Head of Investor Assistance and Education Department at the SEC of Brazil (the CVM). I would like to thank the organizers for inviting us to be here today to share our experience on the coordination of the Brazilian program of financial education in schools.

Before I start I would like to let you know that I am not a specialist on impact evaluation and I will share my experience here as a policy-maker. So most of the information that I going to give to you today is based on what we have learned with the World Bank team, supported by the Russian Trust Fund, that worked together with the CVM, the Central Bank, the other Brazilian financial regulators and private sector organizations to measure the impact of the pilot program. So I would like to thank them for the collaboration and also let you know in advance that any mistake on the technical aspects of the subject is totally mine (and I probably will ask their help to respond to the issues that might arise).

This program was launched as a pilot project in the beginning of 2010, after two years of work to develop guidelines, the first materials and the implementation plan, and is part of the National Strategy of Financial Education, a national policy established by a Presidential Decree by the end of 2010. The goals of the strategy are to develop personal finance skills, to help citizens to make well-informed choices and improve their financial wellbeing. The schools program integrates financial education with the school curricula and incorporates many case studies on financial literacy into Mathematics, Portuguese, Science, Sociology and other disciplines. In the State of São Paulo, for example, there are schools that choose to include the financial content into 5 different disciplines at the same time.

It should be underlined that the pilot program focus on High-School students, but we are currently developing materials to primary and secondary education schools.

During the planning of the implementation of the program, we realized that we should embrace the challenge of measuring the impact of the program before scaling it up in other parts of the country.

With the technical advice and financial support from World Bank, as well as other local private-sector partners, Brazil has chosen to apply economic research methods in order to identify the direct causal impact of financial education on student and household financial knowledge and attitudes.

And how that worked? The pilot study design was based on random assignment. Schools that were voluntary to be part of the program were randomly selected, through a process similar to a lottery, to be either in the “treatment group” or the “control group.” High school students in “treatment” group schools received the financial education program, while those in the “control group” schools did not receive financial education during the pilot phase. By comparing treatment schools to the control group schools, the random assignment method will help determine whether the school-based financial education program led to changes in financial knowledge, attitudes, and decision-making.

In early August 2010 and before the program was rolled out, a baseline survey was conducted among students and parents in both treatment and control schools. The program will continue until November 2011. We are conducting two rounds of follow up surveys to measure the effect of the program. The

first one was implemented in early December 2010. A second round of follow up surveys will be implemented in November 2011.

But that decision to evaluate the impact of the program entailed considerable challenges.

One challenge was obviously logistical: the number of schools that should be enrolled for the experiment: 800 schools. We have initially thought of around 100 schools to be part of the pilot, but Brazil has 195 thousand schools, from primary education to high school (26,5 thousand High School), and 39 million students. Printing and distributing tests and questionnaires to schools in different States clearly played a role on increasing costs, but they skyrocketed due to the requirement of having one examiner per class, for at least three days, to apply the students test and questionnaires, and to distribute and collect the parents' questionnaire.

What helped us to deal with that issue was the fact that we have worked in partnership with Ministry of Education; with the school departments of local and state governments and also private-sector partners. The high level degree of cooperation among the organizations that were members of the educational support group created to develop the guidelines for financial education in schools in Brazil and review the materials, allowed us to find, in 4 months, 900 schools that volunteered to participate, with 26 thousand students, in 6 States. With regard to funding, our local private-sector partners were not only committed to achieve the goal we set together, but new partners, and I mentioned specifically the World Bank and its Russian Fund, helped us to deal with the material needs.

The second factor that it seemed to me to be a challenging one, in my opinion and at the very start of the program, was related to measuring change in financial attitudes and decision-making without measuring access to financial products. Firstly, in Brazil, the goal of the national strategy on financial education is to help citizens to make well-informed financial decisions. Secondly, many high-school students do not have access to financial products, so it would also be difficult to measure impact on behavior, for example, based on the number of savings accounts opened up after the pilot program.

That leads me to explore with more detail how we decide to measure improvement in financial literacy and financial attitudes of the students. In order to do that, I will briefly describe three instruments developed for application in the baseline survey of August 2010. I should add that the World Bank and the Brazilian government will make more information available in the first semester of 2012, when the final report will be released.

One instrument was the Financial literacy test. The second one was the student's questionnaire, and the third one was the Parents' Questionnaire, which was distributed to students on the first day of application of the instruments with instructions to return it completed to school to be collected on the following days.

The instruments were designed for the production of various measures. I will mention three: (i) the measure of financial literacy; (ii) the extent of autonomy of the youngster on financial matters, and (iii) the level of intention to save, a rate produced from the items built to appreciate beliefs and attitudes, social standards and perception of control associated to the act of regularly saving some money.

Financial Literacy and the Matrix of Reference for the Elaboration of the Test

To evaluate the cognitive development associated with financial education we developed a tool based on the understanding of economic activity as social activity and historically situated, which requires knowledge of the mother tongue and logical-mathematical knowledge, but that cannot be understood exclusively as a juxtaposition of cognitive abilities specific to the disciplinary fields of the Portuguese Language and of Mathematics.

Involvement with the principles of operation of the economy in a given society represents the inclusion of the individual in a specific sphere of social life - the economic sphere – which requires, beyond the knowledge of disciplinary fields, the ability to mobilize this knowledge in social situations where they are required.

So we adopted the concept of literacy (According to Scribner and Cole - 1981, cited in Kleiman 2006, p. 19) as a set of social practices that use writing, while a symbolic system and while technology, in specific contexts for specific purposes. Several authors (Soares - 1999) postulate that it is not possible to speak of literacy in the singular, but rather to refer to literacies in the plural. In this sense, considering the financial education as intentional practice, whose aim is to offer subsidies for individuals to take ownership of the skills required to work effectively in a sphere of economic life, and understanding that kind of effectiveness as the ability to act in an informed and conscious way in light of society's demands, the notion of financial literacy was adopted in the analyses of the research such as the process by which individuals take ownership of the texts circulating in the financial sphere of life and organize the information they bring in order to adopt financial behaviors compatible with their purposes.

We can mention as example of such texts: records of financial transactions and budgets, advertising texts, contracts and legal standards, news and articles on topics of economic nature. The reading and the production of these texts requires the knowledge relative to the Portuguese language and mathematics, among other fields of disciplinary knowledge, but is not limited to such knowledge, since it requires skills that allow the individual to make sense of these texts, by using them with specific purposes.

The other dimension measured was Autonomy

In this regard, it should be stated that autonomy occupies a prominent place among the objectives of financial education.

On my personal view, autonomy is key to combat intergenerational fatalism, a condition that certainly restricts the possibilities of an individual to change its socioeconomic condition.

The research on the subject has emphasized the importance of self-esteem and self-control as dimensions relevant to the study of financial behavior. It seems to exist a relationship between confidence in our own choices, guided by a reflexive attitude, and a prudent and rational financial behavior.

On the other hand, the ability to make our own choices must be accompanied by the perception that the conditions for achieving the chosen goals are under the control of the individual, because he/she has the competence necessary and controls his/her behavior so as to make it feasible. This set of attitudes leads to the autonomy concept.

We do not need to explain that the development of an autonomous attitude among the students in the face of financial markets, institutions and products is extremely important. Moreover, the development of an autonomous individual, capable of a reflective and responsible behavior in the different spheres of social life, is a general goal of educational practices, especially between 12 and 18 years of age (in the formation processes that occur in the course of adolescence). To achieve adulthood and healthy psychosocial functioning adolescents must pass several developmental tasks. One element that is key of the transition from adolescence to adulthood is the development of autonomy.

So for the construction of an autonomy scale, three dimensions were chosen based on studies of adolescent autonomy (for more information I recommend paper of Marc Noom, Maja Dekovic, and Wim Meeus (Conceptual Analysis and Measurement of Adolescent Autonomy). That theoretical model defines adolescent autonomy as consisting of 3 sets of abilities: attitudinal, emotional, and functional autonomy.

- **Attitudinal Autonomy** - The individual chooses his goals, based on the knowledge that he has on the situation, and takes responsibility for the consequences of his actions. This dimension of autonomy can be characterized by a willingness to "think before acting". It refers to the cognitive process of choosing and defining a goal.

- **Autonomy in the Face of the Others (or emotional autonomy)** - The autonomous individual makes his choices independently of any preferences in the face of parents, relatives and friends. It is associated with the perception of emotional self-awareness, which translates into a "feeling of confidence in his own choice." We know that both parents and peers exert pressure on the adolescent to comply with their wishes and adolescents need to maintain a feeling of confidence in their own goals, while showing consideration for the goals of others. Emotional autonomy is achieved when adolescents feel the confidence to define their goals independent of the wishes of parents and peers.

- **Functional Autonomy** - The autonomous individual associates the choice of goals to his ability to perform them. Therefore, it is a dimension of autonomy that arises from the perception that a individual can achieve his objectives. So, functional autonomy refers to process of developing a strategy to achieve one's aims and is achieved when adolescents are able to pave the way toward their goals, taking control over their actions.

I should also mention why it was decided to measure the intention of saving money.

The research on the attitudes of young people towards the saving behavior, characterized by the monthly savings of a part of the income was carried out based on the model proposed by the Theory of Planned Behavior. This model suggests that the probability of a certain behavior to effectively occur can be estimated as a function of the (i) beliefs in the consequences of the action and the assessment of said

consequences by the person, (ii) beliefs in the expectations of other persons with regard to their behavior and motivation to meet such expectations, and (iii) beliefs in the circumstances that may favor or not the action and perception of the subject concerning his/her ability to deal with such circumstances.

Therefore, there are three components that may be characterized, in short, as (i) attitudes due to the behavior, (ii) perception of expectations and subjective standards, (iii) perception of the behavioral control. Together, the three factors estimate the intention of the subject to behave in the expected manner.

Considering the financial education of high school students, many of the behaviors of interest are far away from their immediate horizon of action. But the investigation of the intention to save money was carried out due to two main reasons: (i) actually, the youngster may save part of his money and many effectively declare to have saved it, even in the current conditions; (ii) the research on the intention to save, with a three-dimensional approach of the theoretical model adopted, highlights important aspects of beliefs and attitudes of youngsters with regard to financial behavior, in a probable and fruitful association with the autonomy issue, which is also the object of the research.

So that is how we dealt with the challenge of measuring financial proficiency, financial autonomy and behavior (we are also measuring actual saving and spending behavior, and participation in household finance, but I do not have room to discuss this today) in Brazilian schools.

I think the final report, that will be independently provided by the World Bank, probably in the first semester of 2012, will show whether we have chosen the appropriate measures of financial knowledge, attitude and behavior. But these scales were already able to provide us with preliminary results, that I will briefly share with you.

PRELIMINARY RESULTS

The first follow up survey was conducted only four months after the financial education program began.

Despite the extremely short period since implementation began, the World Bank found that the financial education program led to improvements in students' financial knowledge, attitudes and behavior. A second round of follow up surveys, in November 2011, will allow us to examine medium-term effects.

We hope that these results will provide policy advice on whether and how to scale up financial literacy programs for students, not only in Brazil but also in other countries.

Thank you.