

## THE MUSEO DEL RISPARMIO (SAVINGS MUSEUM)

***The Museo del Risparmio is a place that celebrates saving not as an idea of the past, but rather as an opportunity to help people manage their financial resources more efficiently. A unique place that encourages the general public to approach a complex issue in an innovative, entertaining, interacting and sometimes spectacular manner.***

*Empirical evidence shows that the vast majority of people experience objective difficulties in managing their assets, not only, and not always because they lack the means, but more often because they are unaware of the basic concepts necessary to make rational and informed choices. Saving is a matter of balance between money coming in and money going out and consists of choosing what is necessary from what isn't so.*

*It is possible to make sound financial choices even without knowing how to use complex mathematical formulas, just as it is possible to be good drivers without knowing the details of how an engine works or proficient computer users without necessarily having to be programmers.*

*The museum is targeted at a wide range of users: from children to adolescents (students and otherwise) to adults (workers and pensioners). The audiovisual materials were designed and produced to satisfy the curiosity and desire for knowledge of the vast majority of visitors and are addressed to a non-specialist audience.*

*This place, which is surprising in many ways, is different from traditional museums. The use of RFID technology enables visitors to customise their visit and memorise the points scored by playing with the interactive applications, to climb a leaderboard of the top ten visitors. Upon entering, visitors will also have a chance to test their level of financial knowledge by answering the questions of an international survey, which will help assess the added value of the visit and adapt the contents accordingly over time and in the most appropriate manner.*

## THE EXHIBITION LAYOUT

The Savings Museum's rooms are laid out in such a way as to give visitors the opportunity to embark on an interesting and pleasant journey through concepts and audiovisual materials, thus engaging them in an experience aimed at making them reflect on the way they manage their finances.

The Museum's mascots, the ants For&Mika, will guide visitors through the museum tour with animated videos of authoritative yet amusing content in the way they are presented.

The visit starts with the history of currency, showing how this has made it easier for people to save and invest, giving mankind the opportunity to make consumption more evenly distributed throughout one's life span. The use of currency encourages the start of commercial trading, giving rise to the creation of fiduciary loans and hence the concept of interest rates and usury. Over time, currency gradually takes on the role of a store of value and the difference between intrinsic value and face value becomes evident.

The first fortunes are accumulated which, during the Renaissance period, will finance the development of arts and sciences, geographic explorations and new profit-making financial and commercial initiatives. The seventeenth century sees the rise and fall of the first speculative bubbles. In the following centuries, the instability of the financial system leads to the creation of the International Monetary System. The first international crises ensue, including the 1907 Bankers' Panic, followed by the creation of the Federal Reserve in the United States. After the period between the two World Wars and the 1929 crisis, we come to Bretton Woods – the period of free floatation of exchange rates, all the way to the present day.

After many historical trivia, the main section of the museum tour corresponds to the presentation, made by renowned experts alongside the museum's mascots, of the chief characteristics of the most popular financial instruments (shares, bonds, derivatives, insurance, common funds, pension funds) and the principles behind an informed financial choice (the difference between real rate of return and nominal yield, the ratio between risk and yield, the benefits arising from a diversified portfolio).

In addition, the Museum is enriched by inputs spanning from economics, literature to cinema.

Visitors are taken to another dimension to discover how famous literary authors and great directors dealt with the topic of money and everything that revolves around it. Dante, Molière, Shakespeare and Hemingway come to life to tell about the way they managed their assets and the stories they have written on the subject of debts, saving, greed, loans, usury and much more. The Cinema Room shows some snippets of famous films explaining concepts that are only seemingly complex, but that, in actual fact, are representative of everyday life decisions.

The museum's tour continues in the Interactive Room where it is possible to test one's finance management skills through interactive games designed for children, adolescents and adults.

The aim is to gain an understanding of the consequences of one's actions without being warned or punished, but assessing one's own money management skills with the use of a scoring system.

Visitors will have the opportunity to "earn their pocket money" by doing odd jobs and earning points that can either be spent or deposited in an interest-bearing book; put themselves in the shoes of a trader by delving into the history of stock and bond markets over the last 20 years; help a young business woman make the right investment choices; take part in the financial management of the assets and evaluating the profit margins deriving from their financial requirements being met by friends and relatives; be transported to the future to make real estate investments taking into account aspects such as risk, yield and diversification; or put their financial planning skills to the test by stating their long-term goal and managing income and expenditure to achieve that goal over one's life span.

Finally, a tool capable of simulating the financial asset performance until the visitor's ninetieth birthday will make it possible to evaluate the impact of the degree of risk aversion, the anticipated changes in income and expenditure and social security choices on the final wealth stock.

**THE CREATION OF THIS SPECIAL PLACE HAS BENEFITED FROM THE  
GENEROUS WORK OF NUMEROUS STRUCTURES INSIDE AND OUTSIDE OF  
THE BANK.**

The Museum's contents have been curated by: Andrea Beltratti and Giovanna Paladino.

The Scientific Committee is composed of Andrea Beltratti, Professor of Political Economics at Bocconi University, Anna Maria Lusardi, Professor of Economics at George Washington University and Paolo Sodini, Professor of Finance at the University of Stockholm.

The architectural planning, outfitting and implementation have been taken care of by studio Migliore + Servetto Architetti Associati, in collaboration with the Real Estate and Procurement Department – Technical Service of Intesa Sanpaolo.

The production of the 3D animations and documentaries is the result of the collaboration with Little Bull - Armando Testa Group.

The making of the “possible” and “impossible” interviews is the result of the collaboration with Zeranta Edutainment.

The making of the videos of the literature room is the result of the collaboration with Zeranta Edutainment.

The design and implementation of the technology infrastructure has been taken care of by the ICT Systems Department of Intesa Sanpaolo Group Services in collaboration with BDF, Reply and Little Bull.

The development of the videogames and applications is the result of the collaboration of numerous internal structures with Reply, Elfi Systems and NTTdata.

## THE SIX ROOMS

- 1 **Know:** History
- 2 **Learn:** The tools and principles
- 3 **Tell:** Literature
- 4 **Dream:** Cinema
- 5 **Experiment:** The games and applications
- 6 **Score**

### ROOM 1: Know

*Stop to watch and listen to stories on currency, its origin and its role in the history of civilisation. People learn to appreciate the advantage of not consuming all that they produce and putting something aside to consume tomorrow. With the use of currency, saving and investing becomes easier, however it is necessary to take some risks in order to get a return on one's investments.*

The first room is divided into two sections.

In the first section, For&Mika are the stars of four 3D animated videos. An ancient Roman banker, Cicero, the King of France Philip the Fair, the Florentine merchant Francesco di Marco Datini and Lorenzo de' Medici play the leading roles in the "impossible" interviews. Professor Gianni Toniolo is the protagonist of a "possible" interview on the role of currency.

The visit starts from ancient Egypt and barter until the appearance of the currency, which, according to the tradition, was coined for the first time by Croesus, King of Lydia, in the 7th century BC



In a second animated video we follow, through an ancient geographical map, the circulation of currency from the Babylonians to the Greeks (3D video 'The use of currency from the Babylonians to the Greeks')

The story of Juno, the Gauls and the Capitoline geese is told in the video on the origin of the word for money (3D video *'The etymology for the word money'*).

We are then transported to ancient Rome by the Roman silversmith who owns a shop in the Forum and who, aside from conducting a currency exchange trading business, also offers deposits and payments, grants loans to private individuals, finances wars and advances finances for the construction of public works. We then meet Cicero who tells us how, during the period of the Roman Republic, legislators start applying interest rates and practising usury (*"impossible" interview 'The credit granting system and usury in ancient Rome'*).

The fourth animated video is set in the Middle Ages, when bimetallism became a common practice in western Europe and in the Islamic world. In this system, gold coins are preserved in gold reserves. Silver coins are used for major commercial transactions and copper coins are used for the retail trade. The value of the coin is linked to the value of the precious metal that comprises it. The said value is certified by a "punch mark" (stamp) of the State, however when "clipping" becomes relevant, the merchants this and prices go up (3D video "The intrinsic value of money")



The manorial economy of the Middle Ages and the Crusades are the backdrop for the involvement of the Knights Templar in banking activities. The enormous wealth gathered by the Templars stirs up feelings of envy and anger amongst the emerging European monarchies. The King of France, Philip the Fair, tells us how he confiscated all the Templar goods in the French kingdom in 1307, resulting in the disappearance of the Order (*"impossible" interview on 'The birth of banknotes and the role of the Templars'*).

Over time, money, as well as being used as a form of payment, takes on the role of a store of value. The bill of exchange becomes the main instrument for loans and financing in international commerce. Francesco di Marco Datini introduces us to the Florentine Renaissance world, where between the fourteenth and fifteenth centuries the great banking families – Bardi, Peruzzi, Frescobaldi and later the Medici – had branches all over Europe as well as in Africa and Asia Minor. In an interview, Lorenzo de' Medici tells us how the Florentine banks financed political and entrepreneurial activities, wars and commercial operations with the most remote Asian countries while still sponsoring art and science (*"impossible" interview 'The banks in Italy. Origins and protagonists'*).

Finally, Professor Gianni Toniolo, in a "possible" interview, talks about money and its role in the development of society (*"possible" interview 'The role of currency in the development of civilisation'*).





In the second section, visitors are provided with: six documentaries, an interactive map which represents the chronology of the creation of Stock Exchanges in Europe, an "impossible" interview with J.P.Morgan and three "possible" interviews with Governor Mario Draghi and economists Pier Carlo Padoan and Luigi Zingales.

In the "impossible" interview, J.P. Morgan talks about its role in solving the 1907 crisis, known as the Bankers' Crisis, the first global crisis in the twentieth century. In the month of October alone, the Wall Street index lost 37% of its value and all over America crowds of savers laid siege to the banks. J.P. Morgan injected enough liquidity to resolve the situation through personal cheques and was able to organise a credit network comprising the most important American economic players, including the magnate John Rockefeller. The solution identified by the Congress and by President Roosevelt was clear: it was necessary to clean up an opaque financial system that had no rules; for this reason, in December 1913, the Congress established the Federal Reserve, the United States central bank ("impossible" interview "History of the 1907 financial crisis and the creation of the Federal Reserve")

A short documentary describes the period between the two World Wars. A floating exchange rate regime prevailed on the foreign exchange markets, after the suspension of convertibility into gold following the outbreak of World War I. In Europe and in Great Britain in particular, people wanted to return to the stability of the gold standard and convertibility into gold was reinstated first for the pound sterling and then for other major currencies. However, following the 1929 crisis and under great financial pressure, the United Kingdom was the first to abandon the gold standard in 1931 (documentary 'The period between the two World Wars 1919-1939').



The 1929 crisis is told in a documentary with the same name. The causes and effects are briefly analysed: Among the former, we find euphoria, uncontrolled consumption, the opportunism of a large number of speculators who took advantage of the increase in stock prices on the New York Stock Exchange; among the latter, we find the economic depression, the dramatic fall in demand and prices, the rise in unemployment. The 1929 crisis was the most dramatic of all times and had great repercussions on the international banking system for many years (*documentary 'The 1929 crisis'*).

The Bretton Woods agreements are the main focus of the video-story dedicated to the period after the Second World War. In those years, the United States and the United Kingdom start working on building a more stable International Monetary System. The new agreement, reached in 1944 and called the Bretton Woods Agreement, revolves around the dollar, guaranteeing its convertibility into gold. The International Monetary Fund (IMF) and the World Bank are founded. The convertibility of the dollar is suspended on 15 August 1971 and the Bretton Woods system comes to an end. (*documentary 'The Bretton Woods Agreement'*).

The Smithsonian Agreement is the subject of the documentary covering the period from 1971 to the current day. In those years, the major industrial nations – members of the G10 – negotiate a multilateral system for the realignment of exchange rates designed to avoid the overvaluation of the dollar. In 1979, the member countries of the EEC, with the exception of Great Britain (which joins in 1990) give rise to the European Monetary System and the ECU. The 1992 Treaty of Maastricht creates the Economic and Monetary Union which provides for the adoption of a single European currency, the Euro (*documentary 'The transition to the floating exchange rate regime, from 1971 to the present day'*).

Speculative bubbles are the topics for the last two documentaries. The first one describes the 1600 bubble, known as Tulip mania. This speculative phenomenon is linked to the price of black tulip bulbs in Amsterdam, which, within a few years, reached prices comparable to a rich merchant's annual income or the price of a whole building (*documentary 'The Tulip mania'*). The second one looks at the phenomenon linked to the value of Internet - based companies, the so - called dot - com bubble. In that case, the stocks of companies operating on the Internet and in IT sectors reached values that were incompatible with any extrapolation dynamics of fundamentals, based on the idea that the new economy would not be affected by crises and cyclical phases. The bubble burst in March 2000 (*documentary 'The dot-com bubble'*).

Three "possible" interviews close the Historical Room. The Governor of the European Central Bank, Mario Draghi, talks about the ECB and its role in stabilising the financial markets, 10 years after the introduction of the Euro. How the supranational institutions intervene when there is an international crisis and their role in supporting development and economic growth is the subject of the interview to Pier Carlo Padoan, the Deputy Secretary - General and Chief Economist of the OECD. The third interview, to Professor Luigi Zingales, analyses the recent sub - prime and sovereign debt crises, identifying the causes and outlining the medium - term consequences (*"possible" interviews 'The role of the ECB', 'The role of multilateral institutions' and 'The sub - prime and sovereign debt financial crises'*).

In the second section there is also an area dedicated to children under 5, who will be able to play two simple interactive games (*Raccogli e Colora (Collect and colour)*) and an illuminated map that can be queried by the user to see where and when the first European stock exchanges were created.

## ROOM 2: Learn





*Sit down and take the time needed to understand the purpose of stocks, bonds, derivatives, pension funds, insurance and much more. Learn how to recognise them, to identify their advantages and disadvantages and to evaluate their use compared to your needs. You'll hear comments from experts, as well as have some private lessons with For&Mika.*

The second room has nine totems, three for each area. Visitors can sit down and can ask questions about the main financial assets (stocks, bonds, derivatives), forms of protection (insurance, pension funds) and many other topics.

### Content of the "Investment" totem





The totem contains fifteen 3D animated videos and two "possible" interviews.

In relation to stocks, For, playing the role of Chairman of Cereali&Co. talks about:

-  *what stocks are*, what rights can be acquired by buying a stock, what the difference between savings and ordinary shares are;
-  *how shares originate* in Ancient Rome and their spreading associated with the need to share the risks implicit in the financial enterprises connected with the major 17th-century trade traffic;
-  *what the price of a stock depends on*, what the drivers underlying demand and supply are, what volatility is;
-  *the impact of stock investments on the economy*, that is how companies can accomplish otherwise impossible projects by sharing the risk.



In relation to bonds, Mika explains:

-  *what bonds are*, the reason why the issuer issues a debt security that normally pays less than the value that will be reimbursed at maturity and that can yield regular interest;
-  *what the price of a bond depends on*, the relationship between the interest rate and the price;
-  *what the main types of bonds are*, the difference between bonds with and without a coupon and structured bonds;
-  *the impact of bonds on the overall economy*, how the State raises financial resources by issuing bonds to meet part of the public expenditure not covered by tax receipts or to finance special long-term investments.



In relation to derivatives, the mascot For reveals: 🗣️ *what derivatives are*, how they can be used to reduce risk and the relationship existing between derivatives and main underlying activities; 🗣️ *the main types of derivatives*, how they are used to protect from known risks, forward contracts, futures, swaps and options; 🗣️ *who the leading operators are*, what drives the choices of hedgers, speculators and arbitrageurs. In the last animated video of the totem, the ants/mascots explain:



- 🗣️ *how the yield of a financial activity is measured*, the importance of considering the difference between purchase price and sale price;
- 🗣️ *the ratio between risk, yield and diversification*, the risks (to be undertaken) must be compensated by a sufficiently attractive yield. In any case, it is possible to try and counterbalance the risks by increasing the type of activities that comprise our portfolio;
- 🗣️ *the difference between real rate of return and nominal yield*, inflation can indeed reduce the yield of a financial activity, hence it is advisable to perform calculations net of any price variations before making a choice.

Two "possible" interviews close the "Investment" section. The first one is with Professor Paolo Sodini, on the relationship between return and risk, and the second one with Professor Andrea Beltratti, on the stock markets and the mechanisms for overvaluation of stocks.

**Content of the "Protection" totems** The totem contains three 3D animated videos and a "possible" interview.



In the first video, For plays the role of a London insurance broker and takes visitors on a tour of the insurance world, illustrating:

👉 *what the purpose of insurance is*, how, by sharing risks, people can be protected against the negative consequences of unforeseen events;

👉 *what the events covered by insurance are*, generally many more than what we would normally think but obviously not all events causing damage.

In the second video, For, still in his role of a London insurance broker, explains:

👉 *how insurance works*, the mechanism of the law of large numbers that allows people to be part of a large group of insured people paying a premium as compensation in the event of any one of them suffering losses or damages.

In the last video, Mika, who is now getting on in years and is on holiday in Hawaii, explains:

👉 *how pension funds and life insurance policies work*, what the points of contact are and what the differences are

This section closes with an interview to Elsa Fornero, Professor of Economics at Turin University, who talks about how planned saving for retirement purposes works in Italy.

### **Content of the "savings" totem**

The totem contains two 3D animated videos and two "possible" interviews.

#### **Video-interview 'Assets under management'**

For and Piero Chiambretti talk about asset management, playing with the meaning of words that are often not clear.

#### **Video-interview 'Bank account statement'**

For and Piero Chiambretti read a bank statement together, trying to understand the jargon used. The section is closed with the "possible" interviews.

The first interview is with Bruno Cucinelli, a successful Umbrian businessman, who talks about how he realised his project and what his relationship with money is. This is followed by an interview with the Governor of the Bank of Italy, Ignazio Visco, on the relationship between the Central Bank and the protection of savings and savers.

Guido Tabellini, Professor of Economics at Bocconi University, speaks about the links between saving and economic growth. The final interview is with Anna Maria Lusardi, world *financial literacy* expert, who explains the impact of financial education on our everyday life.

### ROOM 3: Tell

*Let yourself be seduced by great story tellers, who will take you far back in time and to remote places. They will tell you their story and other adventures and talk about how they were put to the test because of money.*

As you approach the third room, you will be enveloped by a theatrical atmosphere created by the appearances of Dante, Shakespeare, Molière and Hemingway.

Dante: his personal story is a sad one, as is that of Florence in his lifetime and the one that we find in his "Divina Commedia" where misers and extravagant were not able to find the right equilibrium between giving and keeping.

Shakespeare: not everything is clear about his life. What is known for certain is that he wrote a lot and earned a lot, supporting his wife and three children albeit from afar. His rise as a playwright brought him success and his works achieved widespread notoriety. According to some, he wrote for money.

Molière: He dared to talk openly about hypocrisy in a period when the ostentatious lifestyles of a few nobles and the clergy were in stark contrast to the struggles and hardships of the peasants. He did the same with regards to the emerging bourgeoisie ready to compromise or cheat to gain power and wealth.

Hemingway: his see - saw relationship with money that comes across in his works was a depiction of his real life. For him money was a means that allowed him to live more or less comfortably, depending on the period, however for much of his time, the lack of money was a cause of real worry and anxiety.



#### ROOM 4: Dream

*Reflect on arts and learn from films. Get into the characters and admire how great directors have talked about money and all that goes with it.*

In the fourth room, it is possible to view snippets from famous films that deal with topics seen in the other rooms.

At the moment, four films are being broadcast at the same time, but more will be added in the future.

In 'Io Chiara e Io Scuro' (The Pool Hustlers) (1982), the topic of covering risks is dealt with. In 'The Band of Honest Men' (1956), the legal value of money and its use are the springboard for some very amusing dialogues between Totò and the rest of the band. In 'Il gioiellino' (The Jewel) (2011), the world of finance and derivatives takes on a tragic tone, while in 'If I had a million' (1932) we can see how objectives can be reached by managing one's wealth in an informed manner.

#### ROOM 5: Experiment

*Throw yourself into the mix, put yourself to the test, choose your favourite game and win points for the final leaderboard. It is not difficult to learn how to manage your own money; it is only a matter of balance. Use what you have seen and heard in the other rooms.*

In the fifth room, visitors of all ages can enjoy five interactive games of varying difficulty and two applications. The Financial Planner will enable adult visitors to reflect on saving for retirement purposes.

##### Games

**Job search:** a game for children aged 5 and above, in which they are asked to do some odd jobs to earn pocket money, i.e. to obtain a score corresponding to "money", which is the Museum's unit of currency. At the end of the game each child has to decide whether to spend the money or put it in a savings book which guarantees a 2% interest. The aim is to make children think about how they manage their pocket money and to teach them the concept of interest-bearing savings.

**Family Manager:** A game for teenagers and adults alike, where you are asked to play



Mr or Mrs Rich who have to go away and are looking for someone to manage their finances. Players can use different payment methods (cash and credit cards, with the associated benefits and negative events) to satisfy the demands of family and friends. Like in real life, positive and negative events can change the stock of financial resources available. Visitors earn points, based on how well they manage Mr and Mrs Rich's money, taking into consideration how long family and friends are satisfied with their work. The idea is to highlight the pros and cons of the different payment methods and the concept of profit margins as a result of satisfying requests. Unnecessary goods are associated with a lower satisfaction level and duration compared to that associated with necessary goods





**Smart trader:** a game for teenagers and adults who would like to try to make financial choices drawing on the history of the stock and bond markets of the last 20 years. Once they have chosen the assets for their portfolio, users can try to win points by changing their choices to account for economic, financial and political news that they think could affect the prices of the stocks and bonds held by them. At the end of the game, the user's performance is compared with the return of a buy and hold portfolio and that of the benchmark. The score received is proportional to the user's performance. The aim is to get users to think about topics such as risk aversion, diversification and rate of return. Users can gain an understanding of how the news affects prices and expectations about the future and consequently have an impact on their earnings.

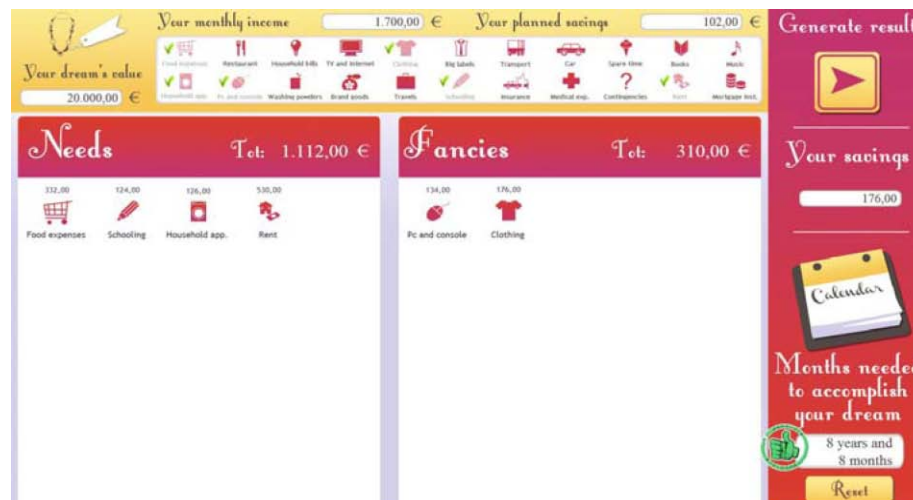
**Risky City:** it is a game for teenagers and adults. Visitors can join the game at any time and play against three other players or against three computer-generated avatars. Players are given an initial amount of 'money' and then roll the dice and move to a space where they are asked if they want to buy or sell different kinds of property (cinema, supermarket, hospital, library, etc) or pay for staying there. Various characteristics are linked



to the properties, such as risk, return, well-being. The game is characterised by random events that can lead to unforeseen increases or decreases in the player's property. At the end of game, players are given points based on their economic results, taking into consideration how well they were able to diversify the kinds of property they own. The aims of the game are manifold: on one hand, to understand the effects of supply and demand on price determination and, on the other hand, to reflect on the importance of diversification as a way of mitigating risk against unforeseen circumstances that introduce an element of uncertainty and mainly hit the riskiest properties.



e. *It's my life*: a game for teenagers and adults, with fascinating graphics, where players can test their management skills. The game starts when players choose their own dream – which is represented by an object – from the boxes and place it on a specific reader. The long term value of the dream is declared and by taking into account monthly income and necessary and non-necessary expenditures, players will be able to calculate how long it will take to reach their objective. The idea is to make people think about what is necessary and what is not, as well as helping them to evaluate their ability to manage resources by allowing them to change their flow of outgoings to understand the impact on the realisation of their objective.



## Applications

**Debbi & friends:** it is an application for teenagers and adults in trivia format. By answering questions, players can help Debbi take important decisions. In the first part, Debbi has to decide how to buy a computer: whether she should ask for a loan, use her savings or ask her parents for the money she needs. In the second part, the choices are more complicated and deal with the possibility of setting up a business. It's not easy, courage is not enough as you need to be able to evaluate future cash flows and create a business plan. The aim of this is to make people think about how they can use their savings as the main source of finance when setting up their own business.

**Financial Timeline:** it is an application for teenagers and adults who want to see what happened on the stock and bond markets in the last twenty years and how these events affected both political and economic news. By touching the screen at a point of the line that represents market performance, users will receive the most important news of that day. This will make it easier to understand the link between news and the market index.

**Financial Planner:** it is an application for teenagers and adults who want to see how their financial assets will perform over time. It is a simulation created by using demographics and information about assets, income, risk aversion and pension savings. It simulates the evolution of your wealth starting from your current age until you are ninety, taking expected increases in expenditure and future income into consideration. As well as giving you an average scenario, it also defines and gives a graphical representation of the consequences of positive and negative trends of your assets, which are in turn also affected by random events inserted in the simulation model. The aim is to give users an idea of the future consequences of their savings decisions and financial choices.



**ROOM 6: Score**

*You have finished your tour and now you can see how many points you've earned. How will you rank in the leaderboard? If you want, you can modify the answers you gave to the questionnaire that you completed at the entrance.*

In this room you will be able to see your final score and your rank in the leaderboard. You can leave your e-mail address if you want to receive more information and, if you wish, revise the answers to the questionnaire you completed at the entrance.