1 Economic Activity and Firms

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1.1 Economic activity

1.1.1 Choices

Each of us continuously makes *choices* among multiple alternatives: in some cases, we are driven by altruism – when we decide to visit a sick friend, or to dedicate time to volunteer work – in other cases by opportunism – when we decide to attend an event because we hope to meet a person we know has been invited – and in others by speculation – when we decide to purchase shares during a downturn, because we hope their price will rise later – or simply to satisfy various types of needs.

Choices are often thought-out and rational (for example when we decide to buy a house) (Wallace, Wolf, 1999). In this case, each alternative is evaluated based on available information and the choice falls on the alternative considered the best overall, i.e. that which maximizes the benefit with respect to the resources used.

In other cases, the choice is driven by impulse (Piron, 1991), unplanned and in response to a stimulus.

Choices are often influenced by public opinion and by the desire to adapt one's behavior to that of the social group to which one belongs (Cialdini, Trost, 1998), or to the contrary, by the desire to stand out (Bourdieu, 1979). We purchase a jacket on impulse, or because the one we had before is worn out, or to be fashionable, or because we are jealous of a friend who is showing off her new jacket; we buy a work of contemporary art because we like the colors and think it will look good in our living room, because we have felt a poetic message that caught our attention, because we want to belong to a certain social class, or because we think that the artist's reputation will grow over time.

Choices are influenced by the *resources* available and imply the involvement of several people, the mobilization of energy and resources, and the exchange of *goods*. We define economic activity all *processes of production and consumption* of *goods and services* carried out to satisfy people's *needs* (Masini, 1979); economic activity is thus an activity aimed at a goal, and is carried out alongside other types of activities (religious, political…) to meet *needs* (Menger, 1871).

1.1.2 Needs

People's needs can be physiological or social. A need emerges when there is a sense of necessity, deprivation, dissatisfaction. Physiological needs (eating, drinking, sleeping) are the product of human biology and common to all people. Social needs, on the other hand, are more varied and complicated, and are strongly influenced by the context in which people live and operate; they derive not only from the individual desire for personal fulfillment, but as a consequence of the fact that human beings, as social animals, interact with a great variety of people and belong to different communities (a family, a class, a parish…); some social needs derive from universal rights (to information, education, justice, health). Not all needs are essential: non-essential needs are often generated by imitation processes, fads, by people's desire to be recognized and accepted by a collectivity (Veblen, 1899).

Needs can be satisfied in part by the provision of goods and services. For example, a desire for relaxation can be satisfied taking a walk, looking at a starry sky, or purchasing a service (a movie ticket or a cruise in the South Seas) or a product (a book, for example). In the last two cases, the need is satisfied through a process of *negotiation* and *exchange* of economic goods. In the first two cases, on the other hand, the satisfaction of the need is guaranteed by the existence of free (non-economic) goods, available in unlimited quantities and whose use by a person does not limit use by another. In **Chapter 4** we will analyze the different categories of needs and some relevant theories. Needs vary over time as a function of various factors, such as level of education, availability of free time, level of income and consumption; high income and the possibility to satisfy a wide range of needs are correlated with a subjective perception of wealth (Inglehart, Klingemann, 2000; Stevenson, Wolfers, 2013).

1.1.3 Goods

Economic goods are *useful* to satisfy a specific need and *scarce* with respect to their demand. Economic goods can be classified in different ways: the distinction between primary and non-essential needs correspond to the distinction between primary goods (bread, milk) and non-essential goods. When two goods are *complementary (*as it is the case of computers and printers, coffee machines and their pods, or automobiles and gasoline), the increase in demand for the first one determines an increase in demand for the second.

Some goods are defined as *substitutes*, to highlight the fact that they can satisfy the same need and are thus fungible in certain circumstances in the eyes of the consumer (butter and margarine, a clock and a smartphone, a series of CDs and a subscription to a streaming service). As we will see in **Chapter 5**, this feature affects the characteristics of the competitive environment in which firms operate. Some goods – such as fashion products, for example – are heavily differentiated and thus allow for a clear segmentation of the needs satisfied; others, such as cement, copper

or sugar, are undifferentiated and therefore companies that produce and market them have few opportunities in the configuration of the offer. Broadly undifferentiated goods are defined as *commodities*. Some goods are targeted to end users, and others to enterprises that use them as a part of their offering to end users; in this case they are defined as *intermediate* (or *capital*) goods. Brembo's brake systems are intermediate goods intended for producers of motorcycles throughout the world. Some goods (such as paper plates, detergents, packaged food) are *single use*, while others are characterized by repeated uses also for long periods of time and are defined as *durable* (automobiles, appliances, real estate). One of the effects of the introduction of *fast fashion* products onto the market has been a significant reduction in the amount of time that clothes remain in clients' wardrobes: the continuous reassortment of chain stores with low price fashion products stimulates clients to continuously purchase new products and renew their wardrobe, making clothing products increasingly less durable. *Luxury* goods on the other hand, are "timeless" products with a highly symbolic value, targeted to small and loyal market segments, with very high attention to quality and details. Some goods are for *individual* consumption, and others for *collective* consumption (for example rock concerts or parking lots). A distinction that lends itself to some ambiguity is between *private* and *public* goods: these two adjectives are used both to define the legal status of the organization that produces them (a non-profit firm or an enterprise versus the Public Administration), and to characterize methods of consumption (exclusive or non-exclusive). For example, the national defense is a public service provided by a public entity; education is a public

Box 1.1 Is the Internet a public good?

The internet does not have all of the characteristics of a pure public good. Access to the internet often requires a fee, so individuals can be effectively excluded from its use. But once on the internet, the consumption of information by one user does not reduce its availability to others, so in that sense it is nonrivalrous (although capacity constraints can slow down access). One way to describe the internet is as a club good that is excludable but nonrivalrous, similar to cable television; or, if bandwidth is scarce, as a private good with strong positive externalities, as more people come online. Given that more essential services and information migrate to the web, anyone without access almost becomes a second-class citizen. And all citizens benefit when everyone else is better informed and when public services are provided electronically at lower cost.

The private sector is encouraged to take the lead in providing internet infrastructure and services by the conomic returns they offer. However, public investment is sometimes justified when the private sector is unable to provide affordable access. Historical precedents include the United States Communications Act of 1934, which called for universal "wire and radio communication service," even in remote rural areas. Some countries have gone further. Finland, for example, has defined access to the internet at broadband speeds as a legal right and pursues a universal access policy. A recent global survey found that 83% of users believe that access to internet at reasonable prices should be considered a universal right (Center for International Governance, 2014; UN Broadband Commission, 2014). Despite this, more than 5/6 of the world's population does not have broadband access (ITU, 2014).

Source: World Bank (2016), pp. 27, 204

service (in the sense that it is in the interest of the community and satisfies a universal need) that can be provided by private companies (such as religious or international language schools) or by public entities (generally Municipalities); foundations are non-profit organizations performing a public service (for example by maintaining a library that can be used freely in certain hours). Non-exclusion of consumption is a characteristic of public goods: enjoying the view of a monument will not prevent another person from enjoying the same experience; on the other hand, a ticket to fly on a certain day on a certain flight can only be used by the person who bought it. Some public goods are free, in the sense that they can be used by whomever. Others (public education, for example) are free of charge, but each citizen contributes to their sustainability through taxes.

The difference between public and private goods is often defined by law: in some countries, air transportation or mail delivery are economic activities that can be performed only by a public operator, as they are considered of strategic importance; in other countries, these activities have been privatized.

1.1.4 Exchange

Economic goods can be donated, shared or exchanged. In the first case, the return is indirect or of a non-financial nature: one gives something in order to acquire a credit to be leveraged in another situation (as it happens in cases of corruption) (Schultze, Frank, 2003), or to express affection and gratitude, for a sense of responsibility towards a community, social pressure, or to give back to others the benefits received (as in the case of alumni who support their school or university (Leclair, Gordon, 2000; Johnson Grimm 2010; Hyde, Knowles, White, 2013)). Gifts imply gratuity, sharing and participation.

Through *exchange*, goods are transferred at a price on in exchange for other goods or credit; exchange is a characteristic of market economies based on economic specialization and on public and private property. Goods and services are exchanged for other goods or money; the first case is defined barter, the latter sale. In a process of monetary exchange, the seller transfers goods, services, monetary assets (such as in the case of a bank granting a loan), or a risk (in the case of insurance companies), while the buyer provides *money* (if the exchange is settled in cash) or *credit* (if settlement is deferred). The quantity of money or credit provided by the buying company is defined by the *price*, i.e. by the monetary value attributed to the goods and services acquired. The *unit price is only one of the terms of exchange*; each exchange is qualified by different conditions such as: the quantities of goods exchanged, their quality, time and place of delivery, the means of transport, pre- and post-sales services, and the method of payment (purchase in cash generally allows for a lower price compared to purchase on installment, because in the latter case the seller must finance the lack of availability of money at the time of the exchange). *Credit* occurs when the services of the buyer and those of the seller are not provided simultaneously; conversely, a *loan credit* takes place when what is exchanged is the availability of

money. Credit (debt for the company that acquires its availability) is transformed into cash inflows (outflows for the debtor) when the debt is extinct. In this case, the price for having money available is represented by the *interest rate*. *Sharing* is related to the possibility to use a good by virtue of a specific status (belonging to a family, an association or a community) or is a one way exchange (such as in the case of open source software). In the case of sharing, no transfer of ownership of a good occurs, but only the right to use it. Gifts, sharing and exchange are analyzed further in **Paragraph 4.2**.

At the basis of gifts and exchanges are implicit or explicit processes of *negotiation* of the different conditions. Negotiations involve private goods (raw materials, machines, tools, motor vehicles, residential, industrial or commercial properties, etc.) or public goods (the rental of public space by cafes, or during concerts or for the installation of scaffolding when buildings are renovated), the availability of financial resources (loans, equity provided by shareholders), the coverage of risks (as in the case of insurance policies) and lastly, work. Negotiations never take place in conditions of complete transparency, knowledge, fairness and balance of power between the parties. In other words, they never take place in absolute rationality. The outcome of negotiations is in fact influenced by the presence of *information asymmeties* (one party can be aware of information that the other does not have, and use that information to its own advantage) (Arrow, 1985), *bergaining power* of one of the parties (linked to its relative size, sphere of influence, the unique nature of its offer…), the presence of *switching costs* for both parties and the need to build trusting relationships with new customers and suppliers (transaction costs).

1.1.5 The market

The *market* is defined by a set of negotiations; the more numerous the negotiations and the more codified the conditions of exchange, the more markets are defined as *perfect*. In transparent markets, the interplay of supply and demand reflects the importance that each agent attributes to the benefit obtainable from a given good. The price agreed upon as a result of the negotiation reflects the quantification of the benefit the buyer expects to obtain from the good, given the available resources. For this reason, the price is often labelled as the "market value", alluding to the fact that price is a good approximation of the importance that is attributed to the product by the potential buyers in that market. In a perfect market, seller and buyer have no need for long negotiations to define the terms of the exchange, and the information on the characteristics of the exchanged goods and their economic value is known and easily obtainable. For some goods, on the other hand, markets are *imperfect* (Stiglitz, 1989). Negotiations for a given good often take place so seldom, or the information on the exchanged good is so complex or difficult to obtain, that it is not possible to know in advance the price at which the exchange will take place. In the case of the sale of an apartment, for example, the price per square foot in the area is purely indicative. The characteristics of the building, the floor, the exposure, the availability

of a balcony or a room with a view can considerably affect the selling price, and the elements of negotiation taken into consideration will be discussed extensively. Likewise, the price of a work of art is very difficult to determine (Velthius, 2003); despite reference to other works by the same artists, of comparable size or created with similar techniques in the same period, the price could vary considerably as a function of how many times the work has been exhibited and where, how it has been reviewed, how many times it has been exhibited or sold at auctions.

Negotiations and exchanges in a market affect the functioning of other markets. As we will see below in **Paragraph 1.7**, different economic actors are in constant relation and mutually influence each other. Some of them owe their possibility of survival and growth to the ability to operate simultaneously on multiple markets and to satisfy the needs of a category of clients through the simultaneous satisfaction of the needs of other categories (Rochet Tirole, 2003; Eisenmann, Parker, Van Alstyne, 2006). These ways of operating are typical of digital platforms: for these actors, the exchanges taking place on one market are the basis for negotiations in another market, and economic activity is aimed at ensuring that operators in each of the markets use the platform for their exchanges.

Box 1.2 YouTube markets

YouTube is an Internet platform hosting videos by amateurs and professional video makers. Videos are freely available to anyone with an Internet connection. Each minute hundreds of hours of videos are uploaded to YouTube, and the numbers continue to grow, as the number of users increases. The company operates simultaneously on at least three markets: user generated content, the distribution of branded contents, and advertising.

To the producers of amateur content, YouTube offers the possibility to upload videos free of charge and make them easily accessible to view and share; it also provides indications and suggestions on how to increase the number of views, an indicator that leads to the possibility to be compensated with a percentage of advertising income. Amateur producers thus have a strong incentive to promote their videos, which in turn increases the number of people who visit the platform.

The presence of many people interested in watching videos and the platform's ease of use stimulate producers of professional content (video production companies, television broadcasters, independent producers) to negotiate with YouTube to open their own dedicated channels on the platform, to expand the number and variety of audiences reached. This increases the wealth, variety and quality of the content available on the platform and encourages more people to use it, in the interest of amateur and professional producers. The wealth of content and users is the bargaining chip between YouTube and advertisers, that associate an advertising message with the videos viewed the most, and contribute significantly to financing the offer on the platform for producers of content. This virtuous circle is very profitable for YouTube, but began to be questioned when some important advertisers realized that their advertising messages were associated with inappropriate content.

Scarcity of goods and their utility affect their perceived *value* and consequently the price at the which the product will be exchanged; the greater the utility and also the scarcity, the higher the price the buyer will be willing to pay to obtain the good. If the terms of exchange tend to be constant, as it happens in perfect markets, the price

of the good tends to be a good indicator of the intrinsic quality of the material and immaterial aspects attributed to the exchanged product, and has a function of recommendation (Zeithaml, 1988). The price paid for a designer bag bought in a boutique includes the recognition of the quality of materials used, but also the image of prestige and exclusivity linked to the brand.

The more information the seller has on the consumer, the more it will be possible to segment the market to maximize the company's overall sales. For example, hotels and airlines apply very different rates as a function of who the client is, what the level of the overall offer is, and the price of various competitors. In other cases, such as companies operating in the energy sector, the rates applied vary as a function of the time of day, in order to minimize peak use during the day and the week. The system – known as dynamic pricing – allows for varying the price of sale as a function of various factors, such as the client's willingness to pay, the supply available depending on different times of the year and day, and the level of coverage of costs – has been applied in a growing number of sectors following the spread of e-commerce sites (Kannan, Kopalle, 2001).

In other cases, despite the market being efficient, no correlation exists between price and intrinsic quality of the good: a good novel or a poorly-written short story may have the same cover price, if the number of pages is more or less the same; the quality of the content is mostly responsible for the value of a book, but its price is strictly linked to the cost of production.

Some goods – such as information – are not scarce. For all cultural products, supply greatly exceeds demand and demand is concentrated on a small number of titles. What is scarce is not the offer of titles, but the attention of the users (Davenport, Beck, 2001). In order to benefit from the economic wealth deriving from the exchange of this type of goods, content producers create conditions of artificial scarcity (Hesmondalgh, 2013). New films are not shown in theaters, on television and other channels throughout the world simultaneously; rather, the release of a new film traditionally follows this procedure: presentation at a festival, release in theaters in a certain number of countries, release in theaters in other countries, sale of DVDs in the home video channel, broadcasting on television and other broadcasts in various time segments and conditions. This takes place because film producers and distributors sell broadcasting rights to different operators in successive time windows, so as to allow different segments of the public to see (or see again) a film at different financial conditions, maximizing the financial benefit for the producer and the distributor. Digitalization has disrupted this business model, making it more difficult to create artificial scarcity and to compensate the actors involved in the production processes.

1.1.6 Economic processes

Economic activity takes place in organized processes, consisting of various interconnected operations.

Institutional processes define the legal and formal characteristics of the organization in which the processes take place, the perimeter of its responsibilities, refer to the setup of the organization and how it is transformed and dies.

Production processes group together operations similar in nature, or linked to a same output. The formers have a common function (research and development, purchases, physical-technical transformation, marketing and promotion, logistics) and require specialised skills in order to be carried out. Production processes regard *core operations* (i.e. the sum of typical activities that need to be carried on for the organization to fulfill its mission), *financial operations* (linked to the choice of the most suitable methods to cover financial needs and the negotiation of loans) and *asset management* (linked to the use of monetary surplus deriving from core operations). Production processes can be organized by "destination", i.e. specialized by type or output or by market. **Chapter 7** examines the advantages and disadvantages associated with these two configurations. *Tax management* (relating) and *insurance management* refer to operations related to the configuration and payment of taxes and to the negotiation of risks and aimed at limiting general business risk respectively.

Organizational processes are linked to production processes and define duties, responsibilities and hierarchical relationships between roles managing specific activities inside the production processes. Roles attribution may vary among organizations in the same industry. For example, in a publishing house, the legal office is always responsible for the stipulation of contracts with foreign publishers, authors and agents, while the press office has the task to identify the most suitable way to promote each book and author. The decision on the cover price of a book, on the other hand, may be the responsibility of various roles (the editor or the marketing managr, for example) depending on the organizational structure of each company.

Administrative processes group key operations concerning the collection, processing and distribution of information necessary to make economic choices. **Chapter 6** shows how different process configurations impact the cost structure of the organization, and **Chapter 8** analyzes how information are collected and interpreted to generate annual financial statements.

Production and consumption processes take on different configurations and may be broken down into various sub-processes and operations. Consider the production of cookies: the raw materials are prepared, weighed in proper quantities, and mixed; the dough is shaped into the chosen form (by molding or extrusion), and any filling is added. Next comes the phases of cooking, cooling, and decoration of the products, that are subsequently packaged and boxed, ready for distribution. The physical transformation processes are accompanied by collateral activities, such as the maintenance of the plants, quality checks of incoming raw materials and outgoing finished products… In a service company, such as a commercial business, the technical transformation operations include the shipping of the goods, the warehousing and packaging of the product and entry of the bar codes, the management and maintenance of the warehouse, points of sale and means of transport. In a museum, the transformation activities include cataloguing of artifacts, their restoration, set-up, management

of the ticket office and services for the public (coatroom, audio guides…) the provision of educational services and so on.

The way the processes are carried out affects the volumes, times, quality and cost of the products and services. Compare, for example, Amazon and a traditional bookstore. On Amazon, the client chooses the book, buys it, and then the book is handled and shipped. The publisher receives its payment only after the book has been sold; it may also be the case that the book is not physically available in the warehouse and is printed on demand. In a physical bookstore, on the other hand, the book has already been purchased by the bookseller and is physically available in the bookstore before the reader buys it. Thus, the physical bookstore first buys, and then (maybe) sells, while Amazon first sells, and subsequently buys.

Once produced, goods and services enter additional production cycles. Labels on garments not only tell us their composition and provenance, but provide also care instructions. For some durable products, the producer has an obligation to manage their disposal at the end of the product's life cycle, so as to reduce the environmental impact that improper disposal could cause, and to allow for recovery of materials that are useful and costly to produce.

1.1.7 Factors of production

Processes and sub-processes are implemented with the contribution of various physical and immaterial *production factors (or resources)*: raw materials, equipment and tools, financial resources, labor, know how…. At times, end products signal the resources or the components used to produce them and their provenance. High end menswear often use Loro Piana woolen material; some garments are 100% pure new wool, or 50% cotton 50% polyester. Apple products are designed in California, while PCs have Intel microchips inside. For some food products, provenance reflects not only the specificity of raw materials, but also of production techniques, as it is the case of champagne, Barbaresco, Brunello di Montalcino or Parmigiano Reggiano.

The use of some resources might be constrained by law. Toys are subjects to rigid controls and certifications for the use of dyes and of small parts; a specific land may be used to build residential buildings but not commercial or industrial ones. Transport and disposal of chemical products or medicines are subject to particular restrictions. In other cases, the consumption of certain products (think of motorcycle helmets) is mandatory by law.

Among production factors, *primary factors* are particularly important, as they are common to all types of economic activity and only partially fungible: work and capital.

Production factors are in part *fungible*: some production processes can be carried out using labor, or by automating production. The way production processes are carried out is influenced by time and space: in countries where labor costs are very low, a production process may be carried out using mostly labor, while the same activity in high-labor cost countries will be automated; the growing automation of processes makes high volumes production economically convenient. The decisions regarding

the combination of resources influence the organization's cost structure – as will be described in **Chapter 6** – how proceses are organized – as will be shown in **Chapter 7** and how results are generated (**Chapter 8**) .

Economic activity translates into a continuous *dynamic of exchanges and relationships* (of economic and non-economic nature). Economic exchanges continuously generate revenues, costs, utilization of goods and services, savings, and investments. As will be described in **Chapter 8**, the dynamics of non-monetary flows on the one hand, and monetary and financial flows on the other, generate changes in cash flows/current accounts, the emergence of payables and receivables, and the greater or lesser availability of goods with multi-year use (machines, equipment, etc.) The need to carry out economic activity with continuity and so as to produce adequate remuneration in a turbulent environment leads to continuously pursuing an increase in *efficiency*: since the resources available are useful and scarce, economic activity should be oriented to continuously obtaining the maximum output given the resources invested. This continuous search for efficiency takes place working on the configuration of processes, the use of innovative technologies, the use of mixes of different raw materials, knowledge and new skills, and using different methods of funding investments: economic activity is characterized by the *constant search for technological, economic and organizational innovation.*

Performing economic activity over time in an effective and efficient way, is not an easy task, since internal and external changes make it necessary to constantly revise the processes and the relationships with different stakeholders. Businesses and organizations are born and die continuously, and there are very few companies with a long history; the life of companies is subject to *uncertainty and risk.*

1.2 Individuals and decision-making processes

Economic activity translates into a continuous series of decisions among alternatives. People act to maximize their own individual well-being (not only in material terms). For over two centuries, economic sciences have portrayed the decision maker as "homo oeconomicus", a person who allocates resources to obtain the highest possible level of personal satisfaction, makes choices based on constant preferences, on the basis of complete information, allowing for rational decisions (Alter, 1982). In reality, people's actions are subject to restrictions (in terms of income, time, memory and perception) and also determined by the presence and actions of other persons and organizations (Becker, 1996); in addition to the maximization of well-being and personal interest, individual actions are dictated by the desire to involve other actors to maximize a result that is at the same time individual and collective.

Choices are subject to risk and uncertainty, since they are made in conditions of *limited rationality* (Simon, 1972). The cause and definition of the problem and the goals to be reached are not always clearly evident; collection, selection, validation and evaluation of information are costly activities subject to errors; the evaluation of alternatives is not always easy, because the elements of comparison are not clear; and