



UNIVERSITA' DEGLI STUDI DI TRENTO - DIPARTIMENTO DI ECONOMIA

**FAMILY, PARTNERSHIPS, AND
NETWORK: REFLECTIONS ON THE
STRATEGIES OF THE SALVADORI
FIRM OF TRENTO (17TH – 18TH
CENTURIES)**

Cinzia Lorandini

Discussion Paper No. 7, 2007

The Discussion Paper series provides a means for circulating preliminary research results by staff of or visitors to the Department. Its purpose is to stimulate discussion prior to the publication of papers.

Requests for copies of Discussion Papers and address changes should be sent to:

Dott. Stefano Comino
Dipartimento di Economia
Università degli Studi
Via Inama 5
38100 TRENTO ITALIA

Family, Partnerships, and Network: Reflections on the Strategies of the Salvadori Firm of Trento (17th-18th Centuries)*

Cinzia Lorandini

Fondazione Bruno Kessler – Centro per gli studi storici italo-germanici

Abstract

This paper analyzes entrepreneurial behavior in the Ancient Regime and examines a particularly long-lived family business, the “Valentino e Isidoro Salvadori” firm, which operated in Trento for more than two centuries. The firm survived several generational transitions, it was engaged in many activities and partnerships, and it entered into an extensive network of Italian and Central-European operators. The Salvadori started as local shopkeepers and became merchant-entrepreneurs of international renown, involved at the same time in manufacturing, commercial, and financial activities, thus providing extensive material for a case study. The purpose of this paper is to investigate the strategies and the factors influencing the Salvadori’s entrepreneurial behavior in the seventeenth- and eighteenth centuries, taking into account the broader socio-economic, institutional, and cultural framework. After a long-period overview of the strategies adopted by the family, who started managing a diversified business and ended up specializing in the silk sector, a detailed analysis is devoted to the role of the family, the partnerships, and the network, paying particular attention to their impact on transaction costs, as well as on agency costs.

* This paper was given at a seminar held at the CIFREM – University of Trento (Trento, February 8, 2007), and at the “VII. Irseer Arbeitskreis für vorindustrielle Wirtschafts- und Sozialgeschichte. Forschungskonzepte in der Praxis” (Irsee, March 30 – April 1, 2007). I thank all the participants for their valuable comments.

1. A Long-Period Overview of the Firm's Strategies: from a Diversified Business to Specialization in the Silk Sector

In the last years there has been a renewed interest in the study of entrepreneurship, both theoretically and empirically¹. Entrepreneurial behavior has been identified, according to the circumstances, with various attitudes, such as “the willingness to bear risk, the ability to innovate, the want for profit, the alertness to potential sources of gain, the capacity of taking judgmental decisions, and so on”². Despite the numerous attempts to provide a definition of the term “entrepreneur”, the characteristics of such a subject remain quite elusive. Nevertheless, the fundamental contribution of entrepreneurship to economic growth makes it a necessary object of study in order to understand socio-economic dynamics.

This paper analyzes entrepreneurial behavior in the Ancient Regime and examines a particularly long-lived family business, the “Valentino e Isidoro Salvadori” firm, which operated in Trento for more than two centuries. It must be acknowledged that the firm was not entrepreneurial from a Schumpeterian point of view, since it was not innovative as far as products, technology, organization, supplying centers, and markets are concerned. However, it displayed a striking solidity, which can be taken, by and large, as a measure of entrepreneurial success. The firm survived several generational transitions, it was engaged in many activities and partnerships, and it entered into a large network of Italian and Central-European operators, thus providing extensive material for a case study. The purpose of this paper is to investigate the strategies and the factors influencing these entrepreneurs' behavior in the seventeenth- and eighteenth centuries, taking into account the broader socio-economic, institutional, and cultural framework³.

The origins of the firm go back to 1664, when the brothers Valentino and Isidoro Salvadori settled in Trento, the small capital of the homonymous episcopal principality, where they established a shop. They came from Mori, where they left two brothers, Angelo and Francesco, who remained in charge of the old family shop⁴. Trento was not a major commercial center, but it was logistically important for its location at the junction of two major trade routes. The position on the Adige river

¹ F. Amatori, A. Colli, P.A. Toninelli, *Entrepreneurs*, Paper presented for the International Colloquium on Comparative Perspectives in Business History “Entrepreneurs and Managers”, Bocconi University, Milan, 10-12 October 2002; G. Berta, *L'imprenditore. Un enigma tra economia e storia*, Venezia 2004; Y. Cassis, I. Pepelasis Minoglou (eds), *Entrepreneurship in Theory and History*, Basingstoke (UK) 2005.

² F. Amatori, A. Colli, P.A. Toninelli, *Entrepreneurs*, cit., p. 6.

³ For a general overview of the history of the Salvadori firm, see C. Lorandini, *Famiglia e impresa. I Salvadori di Trento nei secoli XVII e XVIII*, Bologna 2006.

⁴ Mori was located on the route from Rovereto (about 15 km south of Trento) to Lake Garda. The vicariate of Mori was a fief of the bishop of Trento under the jurisdiction of the counts of Castelbarco. For these and further details about the jurisdictional aspects of the territories corresponding to present-day Trentino, see H. von Voltolini, *Le circoscrizioni giudiziarie del Trentino fino al 1803*, edited by E. Curzel, Trento 1999.

favored the connections with Bolzano and Verona⁵, while the Sugana valley simplified overland transport of merchandise from Venice. In Pergine, about 10 km east of Trento, Valentino and Isidoro set up another shop, where they sold a wide range of goods, such as oil, salt, groceries, ironware, and so on; similar items to those marketed in Trento. The firm was particularly interested in oil, which was imported from Lake Garda or Venice and exported to the North, with substantial sales in Merano and Bolzano. Since the early 1680s, the Salvadori regularly attended the Bolzano fairs, where they engaged in trading and exchange activities.

The location near crucial trade routes also influenced subsequent strategic choices, such as the decision taken in 1693 to begin manufacturing and trading snuff, which soon became the firm's main activity. Although the increasing demand for snuff encouraged the local growing of tobacco, the Salvadori imported most of the leaves from Genoa, Venice, Ancona, and also from Vienna and Innsbruck. At the same time, despite the growing consumption of snuff by the citizens of Trento, the main markets were located north of the principality. Substantial amounts of snuff were destined to the Bolzano fairs and sold to Tyrolean operators, but even larger quantities were shipped beyond the Alps, to the area between Zurich, Frankfurt, Leipzig, and Prague. In this regard, we have to take account of the fact that the episcopal principality was by and large surrounded by the territories, and therefore by the customs, of the county of Tyrol. Thus, the snuff manufactured in Trento, was subject to the payment of customs duties in Lavis before taking the route north⁶. A new customs regulation introduced in 1780 by the Austrian government, caused a sharp increase in the tariff on snuff, and this, along with other factors⁷, probably influenced the retirement of the Salvadori from the business. In fact, in the following year they sold all snuff-related activities to other merchants of Trento.

Since the early 1740s, however, the snuff business had already lost its primacy among the firm's activities in favor of the manufacture and trade of silk (Figure 1. Sales value of silk and snuff, %). The Salvadori had already been involved in the silk sector; they ran a reeling-house in Pergine and dealt in raw silk. From 1739 on however, they began pursuing a clear strategy of vertical integration, by first purchasing a silk mill in Calliano⁸ and then acquiring another one in Trento a few years later⁹.

⁵ The Adige River was largely used for the transport of merchandise, both from North to South and in the opposite direction, in the latter case using boats pulled by horses or oxen. The Salvadori records confirm that water transport was much more convenient, since from Trento to Bolzano one could save about 23 % of the costs of transport by land.

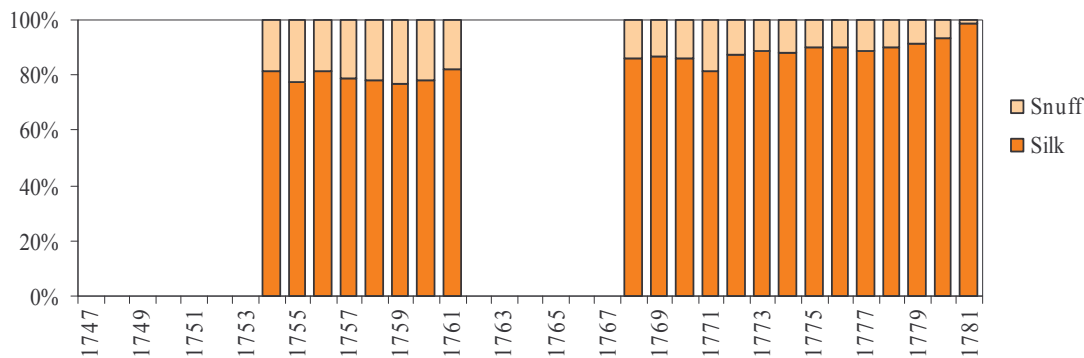
⁶ The customs office was transferred in 1770 to Bolzano and Innsbruck/Hall, according to whether snuff was to be sold inside or outside Tyrol.

⁷ Actually, in the late 1770s snuff shipments had already decreased by half since the middle of the century.

⁸ Calliano was a village of the episcopal principality of Trento, under the jurisdiction of the Trapp counts.

⁹ Raw silk was obtained by unwinding the thread from the cocoons through a reeling machine. Before being used in the loom, the thread had to be strengthened by throwing, i.e. spinning. For this purpose, the hanks of raw silk had to be rewound onto reels, so that they could be put onto the throwing machine: this operation was performed manually or by a

Figure 1. Sales value of silk and snuff, %



It must be noted that in the seventeenth- and eighteenth centuries the production of silk experienced considerable growth in Italian Tyrol. In particular, the district of Rovereto specialized in the manufacture of high-quality silk yarns, exported all over Europe¹⁰, whereas Ala owed its prestige to velvet manufacturing¹¹. The local development of sericulture and silk manufacture was favored by a series of factors: climate conditions favorable to the cultivation of mulberry trees, the leaves of which were used to feed the silkworms¹²; watercourses, which—through a system of artificial canals—allowed the functioning of water-powered winding and throwing machines; the strategic location on the trade route between northern Italy and Central-Europe; and last, but not least, certain fiscal privileges accorded to the territories of Rovereto and Ala¹³. In the principality of Trento there was a considerable development of sericulture as well, but silk was mostly exported in the raw, often to Rovereto, rather than being manufactured. In the mid-eighteenth century there were only two water-powered silk mills in Trento, and one of them was owned by the Salvadori.

The use of water-powered machines for winding and throwing operations imposed a certain degree of centralization, which also included the doubling of silk, even though it was performed

water-powered winding machine. The subsequent operations varied according to the type of thread, which was to be manufactured. In the case of *tram*, used for weft, two or more threads were brought together and then lightly twisted, while in the case of *organzine*, used for warp, the single threads were first twisted separately, then they were doubled two-, three- or fourfold and twisted together in the opposite direction. After being dyed and dressed, thrown silk was used for weaving. On the technical aspects of silk production, see R.L. Hills, *From Cocoon to Cloth. The Technology of Silk Production*, in S. Cavaciocchi (ed.), *La seta in Europa secc. XIII-XX*, Firenze 1993, pp. 59-90.

¹⁰ In 1766 the silk sector in Rovereto involved 23 merchants, 36 silk mills, and about 5.000 workers engaged in the various stages of production, from silkworm breeding to silk dyeing: N. Cristani de Rallo, *Breve descrizione della Pretura di Rovereto (1766)*, edited by A. Leonardi, Rovereto 1988, pp. 42-44.

¹¹ I. Pastori Bassetto, *Crescita e declino di un'area di frontiera. Sete e mercanti ad Ala nel XVII e XVIII secolo*, Milano 1986. Rovereto was the main center of the *Welsche Konfinen*, a complex of territories under the jurisdiction of the county of Tyrol, which were located on the border with the Republic of Venice. Ala, like Mori, was a fief of the episcopal principality of Trento, under the jurisdiction of the Castelbarco.

¹² This activity became an additional source of income for many small peasants engaged in subsistence agriculture.

manually¹⁴. At the same time, however, winding and doubling were partly committed to home producers. A higher level of centralization was achieved some years later, when the Salvadori established two reeling-houses in Trento and Calliano, which were added to that of Pergine. In the mid-eighteenth century, the Salvadori had 48 basins at their disposal, which in some years provided more than 70-80 % of the raw material for the silk mills of Trento and Calliano.

The decision to expand the production of raw silk was probably influenced by rising transaction costs, due to the increasing purchases necessary for the silk mills and to the problem of quality assessment. The high dispersion of the reeling of silk, which was carried out by several small producers, often scattered in the countryside, was an obstacle on the way to a homogeneous product. By partially centralizing the operations, the Salvadori managed to exercise stricter control over the workforce and to obtain higher quality raw silk. Nevertheless, the partial contracting-out of silk reeling and throwing enabled the Salvadori to cushion the shocks of market fluctuations. They therefore combined centralized production with the *Kaufsystem*, i.e. the interaction with producers through the market, as well as with the *Verlagssystem* or putting-out system, a form of coordination of various production units by the merchant-manufacturer, who advanced capital or raw materials and distributed the output on the market¹⁵.

Raw and thrown silk was partially sold by the Salvadori to operators from Trento, Rovereto, and Ala, but it was mainly shipped to the textile manufacturers north of the Alps. Vienna, Zurich, and Leipzig were some of the main markets, but Krefeld, in the Rhineland, was by far the most important (Figure 2. Marketplaces for raw and thrown silk). The Salvadori entered into relationship with Friedrich and Heinrich von der Leyen, the foremost firm of Krefeld, which in some years received 60 % of the silk exported by the Salvadori. The major shipments to the von der Leyen occurred exactly in the 1780s, when the Krefeld firm reached the peak of its success¹⁶. On the other hand, the close link with the von der Leyen caused some problems at the end of the century, when the territories on the left side of the Rhine, including Krefeld, were occupied by the French armies during the Napoleonic wars. This caused a sharp decline in the shipments of silk made by the

¹³ The privileges went back to the Venetian domination, to which these territories had been subject from the early fifteenth century until 1509. The same privileges were then confirmed by the emperor Maximilian I.

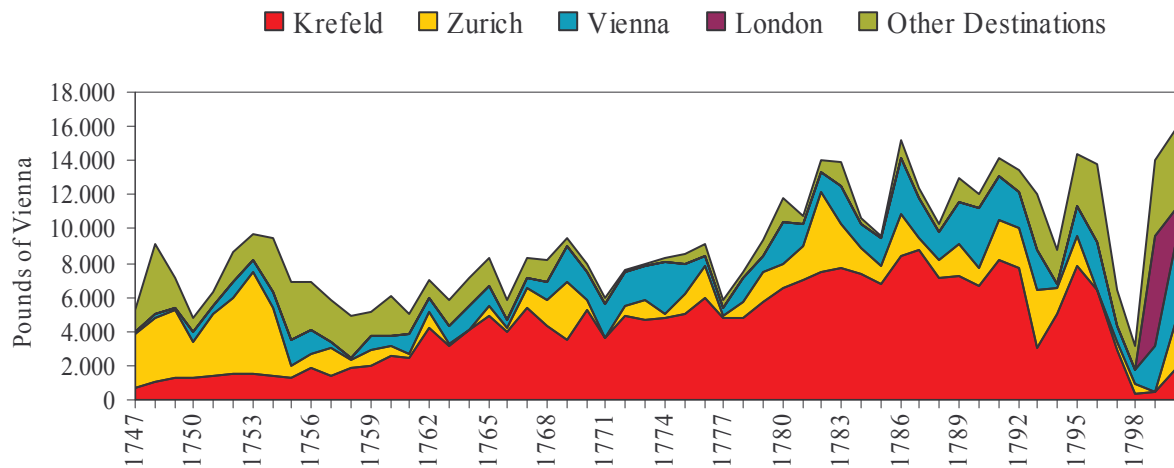
¹⁴ According to Carlo Poni, the water-powered silk mills, called “mulini alla bolognese”, are a first example of the factory system: C. Poni, *All'origine del sistema di fabbrica: tecnologia e organizzazione produttiva dei mulini da seta nell'Italia settentrionale (Sec. XVII-XVIII)*, in “Rivista storica italiana”, 88 (1976), 3, pp. 444-496.

¹⁵ About the various modes of production in early modern industries, see F.F. Mendels, *Proto-industrialization: The First Phase of the Industrialization Process*, in “The Journal of Economic History”, 32, 1972, pp. 241-261; P. Kriedte, H. Medick, J. Schlumbohm, *Industrialisierung vor der Industrialisierung*, Göttingen 1977; S.C. Ogilvie, M. Cerman (eds), *European proto-industrialization*, Cambridge 1996.

¹⁶ As for the total amount of silk sales, in 1756-60 they amounted to an annual average of more than 75.000 florins of Vienna, and nearly doubled in 1781-85. A performance, which can be correctly appreciated if we consider that an agent's basic wage was about 200 florins a year.

Salvadori in 1798, but they were nevertheless able to recover rapidly and turned to the London market.

Figure 2. Marketplaces for raw and thrown silk



Along with their involvement in the silk sector, for many years the Salvadori continued to exercise other activities. The limited size and the uncertainty of the markets, with the related need to spread risks, led the Salvadori to maintain a diversified business. Therefore, rather than specializing in a particular product or activity, the firm was active in the transit trade, exchanged a variety of goods, and was involved in manufacture and financial activities for many decades, as was typical for early modern firms engaged in long-distance trade¹⁷.

In particular, the Salvadori acted as intermediaries on behalf of a number of merchants in Verona, shipping oil, olives, salami, and other products to Bolzano and beyond the Alps. From Venice they received tobacco leaves, glasses, groceries, soap, fish, and so on, whereas salt, copper, leather, cloth, and many other goods came from North Tyrol, Salzburg, and Bavaria. For the most part, the Salvadori's products were destined to locations north of the Alps, which were the chief markets not only for snuff and silk, but also for other local produce, such as wine and chestnuts, which were shipped in autumn. Only in the early 1780s, after developing an extensive network of customers for raw and thrown silk, they took the decision to concentrate on the production and trade of silk, as well as the related exchange activities.

Whatever the activities, the Salvadori showed a strong propensity to catch market opportunities and the necessary willingness to run risks. The family played a central role in raising both the capital

¹⁷ B. Supple, *La natura dell'impresa*, in M.M. Postan, P. Mathias (eds), *Storia economica Cambridge, V: Economia e società in Europa nell'età moderna*, Torino 1978, p. 470; F. Braudel, *La dinamica del capitalismo*, Bologna 1981, pp. 71-72.

and the managerial resources for engaging in the various businesses. But to understand the articulation and evolution of the Salvadori firm, besides the family relationships, we must also consider the creation of a series of partnerships with non-family members and the development of an extensive business network, supported to some extent by the Bolzano fairs. The role of the family, the partnerships, and the network deserve detailed analysis, and we will pay particular attention to their impact on transaction costs¹⁸, i.e. the costs of information, negotiation, and contract enforcement, as well as on agency costs, which typically arise in a principal-agent relationship¹⁹.

2. The Family Firm Model: Strengths and Weaknesses

The long life of the Salvadori business was primarily due to the continuity of the family and to its high degree of cohesion. A strategic decision adopted by the brothers was that of continuing the community property, even after Valentino and Isidoro had moved to Trento. Since all four brothers were thus unlimitedly and jointly liable for the business obligations, the creditworthiness of the firm was reinforced and the raising of capital facilitated. After the death of Valentino and Isidoro in the late seventeenth and early eighteenth centuries, the activities were carried on by their sons, who decided in 1716 to separate from their Mori relatives. A second division occurred in 1747, when the line of Trento, descending from Isidoro, separated from that of Pergine, descending from Valentino²⁰. Since the latter line left only one very young descendant, all business was in the hands of the Salvadori of Trento. In the second half of the century the family assets were subject to further divisions, but the firm remained under community property, and the members of this “extended family” – including uncles and cousins – continued to participate in the business, which by the end of the century was in the hands of the fourth generation. The Salvadori, therefore, did not suffer

¹⁸ The costs of using the market mechanism were formally recognized in 1937 by Ronald Coase, who considered them responsible for the origin of the firm. Several decades later, Oliver E. Williamson explicitly introduced and further specified the concept of transaction costs: R.H. Coase, *The Nature of the Firm*, in “*Economica*”, 4 (1937), pp. 386-405; O.E. Williamson, *Markets and Hierarchies: Analysis and Anti-Trust Implications: A Study in the Economics of Internal Organization*, New York, 1975. As for the factors influencing transaction costs, see D.C. North, *Transaction Costs in History*, in “*The Journal of European Economic History*”, 14 (1985), 3, pp. 557-576.

¹⁹ In the economic literature, an agency relationship occurs when certain tasks and decisions are delegated by a subject, called “principal”, to another subject, called “agent”, who must act in the interest of the former. The “agency costs” arise because the principal can neither know the real competencies of the agent in advance, nor assess the exact relationship between the agent’s behavior and performance *ex post*. Since the agent has an incentive to behave opportunistically, the temptation to shirk must be deterred by some monitoring and enforcement procedure. Following the work of Alchian and Demsetz, neoclassical economists have argued that the “agency costs” problem can be overcome by means of a suitable incentive structure, for example by making the agents’ compensation dependent on his performance. See A. Alchian, H. Demsetz, *Production, information costs and economic organization*, in “*American Economic Review*”, 62 (1972), 5, pp. 777-795, and M. Jensen, W. Meckling, *Theory of the firm: Managerial behaviour, agency costs and ownership structure*, in “*Journal of Financial Economics*”, 3 (1976), 4, pp. 305-360.

from the so-called “Buddenbrook syndrome”, according to which family firms tend not to survive the third generation.

The family business model has received growing attention in the last decades²¹. The strong persistence of family-owned businesses has led scholars to study both the strengths and the weaknesses of this model, and to attempt constructing a theoretical and methodological framework for the analysis of family firms²². Although many studies concentrate on modern family businesses, the same assessments may in many cases be held valid for the early modern period as well²³.

It has been argued that family firms have a series of potential advantages. For instance, they are more likely to take a long-term perspective, and would-be merchants can acquire tacit knowledge and learn on the job from early on. On the other side, problems arise when heirs lack the necessary skills to lead the firm, or when family conflicts extend into the business. Family firms are considered particularly vulnerable to succession crises and subject to financial constraints when they grow. Moreover, non-economically motivated preferences can discourage or prevent owners from engaging in activities that would be economically advantageous. In some cases, decisions may be based primarily on what is best for the family, as opposed to what is best for the firm. This can lead, for example, to the extraction of excessive resources to support the family lifestyles, even though we must take account of the fact that—regardless of participation in the business—family members had to be paid for the collateral assets they provided too.

As far as agency costs are concerned, the family is often considered a source of trust, which provides incentive and monitoring advantages. According to this view, opportunistic behavior is discouraged, because family bonds foster loyalty and a commitment to the firm’s long-run prosperity, and family members have their personal wealth tied to the value of the firm. Many scholars stress the importance of the implicit, informal and personal relationships typical of the family, as opposed to explicit, formal and impersonal contractual relationships. But others disagree and argue that family relations tend to make agency problems more difficult to resolve, because of

²⁰ The distinction between the lines of Trento and Pergine was probably linked to the main residence. It must be noted, however, that both lines acquired the citizenship of Trento and were admitted in the community of Pergine.

²¹ See, for instance, the articles in the “Family Business Review” since 1988, the special issues devoted to the family business in other journals, and the recent work by Andrea Colli: “Business History”, 35 (1993), 4, Special Issue on Family Capitalism, edited by Geoffrey Jones and Mary B. Rose; “Entrepreneurship. Theory and Practice”, 30 (2006), 6, Special Issue on Theory of the Family Enterprise; A. Colli, *The History of Family Business, 1850-2000*, Cambridge, 2003.

²² On the pros and cons of family businesses, see R.G. Donnelley, *The family business*, “Harvard Business Review”, 42 (1964), 4, pp. 93-105; G. Jones, M.B. Rose, *Family Capitalism*, in “Business History”, 35 (1993), 4, pp. 1-16; H.S. James, *What Can the Family Contribute to Business? Examining Contractual Relationships*, in “Family Business Review”, 12 (1999), 1, pp. 61-71.

²³ For research on family firms in the Ancient Regime, see R. Sabbatini, *I Guinigi tra '500 e '600. Il fallimento mercantile e il rifugio nei campi*, Lucca 1979; F. Giusberti, *Impresa e avventura. L'industria del velo di seta a Bologna nel XVIII secolo*, Milano 1989; M. Fornasari, *Famiglia e affari in età moderna. I Ghelli di Bologna*, Bologna 2002; G.J.

the problems engendered by altruism²⁴. In fact, owners may be unusually generous to children and relatives, and they may be unwilling to either monitor family members or discipline those who shirk their duties. At the same time, since relatives are provided with secure employment, they might be tempted to “free ride”.

The Salvadori case brings evidence to the positive role of the family in the transfer of capabilities and values, professional knowledge and entrepreneurial characteristics to the following generations. As was typical in the Ancient Regime, the family had to provide the future merchant with the basic arithmetic and humanistic competencies, as well as the learning-by-doing, which was a fundamental part of the training process²⁵. But before entering the family business, the young merchant usually had to spend time abroad in order to learn a foreign language and accounting techniques. From the mid-eighteenth century onward, the Salvadori received an institutional education as well. Some members of the third generation were sent to Verona, probably to the seminary, for a period of study, while the fourth generation attended the *ginnasio liceo* in Trento; both schools provided a classical humanistic education. In any case, professional experience in Germany was essential for those destined to lead the firm. Kinship links were also exploited, such as in the case of Valentino (1752-1833, fourth generation), who was sent to the Biolley of Augsburg, a commercial house related to the Salvadori.

The breakdown of the community property in 1716, and then in 1747, did not cause any restriction or change in the commercial activities. At the same time, the family real estate was enhanced through marriage contracts. The wedding of Valentino Salvadori (1694-1768, second generation) and Maria Elena Mozer is particularly noteworthy, since the bride was the only daughter of a wealthy merchant, Francesco Mozer, who gave her a house and a silk mill in Trento, some landholdings in the countryside, and the participation in a commercial business, for a total value of about 50.000 florins. The marriage was extremely prolific. In fact, Maria Elena had no less than fourteen children, and five males survived their parents, marking the difference from the line of Pergine. One of the sons of Valentino and Maria Elena, Isidoro (1721-1787, third generation), married the daughter of a prominent Bolzano merchant, Afra Menz, whose dowry included a large vineyard²⁶.

Pizzorni, *La “Marcantonio Bonduri” di Gandino. Un’impresa laniera in controtendenza tra Sei e Settecento*, Milano 2005.

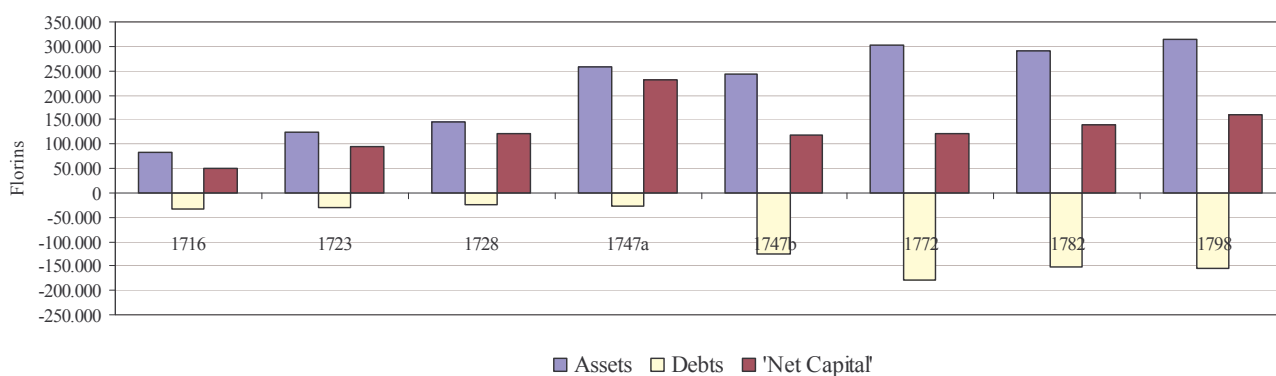
²⁴ W.S. Schulze, M.H. Lubatkin, R.N. Dino, A.K. Buchholtz, *Agency relationships in family firms: Theory and evidence*, in “Organization Science”, 12 (2002), 1, pp. 99-116.

²⁵ A. Leonardi, *Corporation et expérience « sur le tas »: la formation d’un marchand-entrepreneur dans l’Autriche de Marie-Thérèse*, in F. Angiolini, D. Roche (eds), *Cultures et formations négociantes dans l’Europe moderne*, Paris 1995, pp. 279-300.

²⁶ Afra gave birth to fifteen children, but no more than five of them survived their parents, and only two were males. According to historical demographers, such a fertility rate was not typical, since in pre-industrial Europe women had an

The breaking up of family estates was limited by dispositions in the will, which assigned to female descendants a dowry only, to be paid at marriage or when they took the veil. Furthermore, starting with the will of Francesco Mozer, regular clerics were excluded from the inheritance, while secular clerics could only have the usufruct of their share. However, if the partible inheritance system had extremely limited consequences, it was also because no more than one or two males married in every generation²⁷.

Figure 3. Assets, debts and net capital of the Salvadori firm



Data drawn from the balance sheets of the Salvadori firm give us an over-all (although often incomplete) view of the family fortunes²⁸. In particular, we can see that the net capital, i.e. the assets value minus the obligations of the firm, experienced substantial growth in the first half of the eighteenth century, which slowed down afterwards (Figure 3. Assets, debts and net capital of the Salvadori firm)²⁹. If we consider that the net capital includes the profits reinvested in the business, we can interpret this trend as the consequence of a lower profitability. However, it more probably suggests a greater extraction of resources, used for consumption or real estate investments.

This draws our attention to the problem of social approval, and the relationship between social objectives and merchant activities. In this regard, strategic choices seemed to be influenced not only by economic, but also by social considerations. So, just before obtaining the baronial title in 1766, the Salvadori abandoned a minor business, such as the trade of chestnuts. And in 1780/81, just before becoming related to several patrician families, they sold both the snuff business and the shop

average of five or six children: P.P. Viazzo, *Mortality, Fertility, and Family*, in D.I. Kertzer, M. Barbagli (eds), *Family Life in Early Modern Times 1500-1789*, Suffolk 2001, pp. 169-170.

²⁷ High rates of celibacy were common in early modern Western Europe: A. Fauve-Chamoux, *Marriage, Widowhood, and Divorce*, in D.I. Kertzer, M. Barbagli (eds), *Family Life in Early Modern Times 1500-1789*, Suffolk 2001, pp. 221-227.

²⁸ The incompleteness is due to the fact that personal assets, which grew particularly in the last decades of the eighteenth century, were excluded from the balance sheets.

²⁹ For 1747 the graph shows the situation before and after the asset division.

of Pergine, in order to concentrate on the more prestigious silk sector. Ten years later, for the first time a member of the Salvadori family was elected into the *Magistrato consolare* of Trento (the organ of urban government), which had a decisively aristocratic character in the eighteenth century. Only those merchants who achieved great commercial success and accumulated huge fortunes succeeded—usually after a long wait—in entering the patriciate³⁰. The Salvadori, who were accepted in the citizenry in 1729, had to wait for more than sixty years, but in the end, drawing on their economic prestige and on kinship relationships with certain influential families, they managed to enter into the restricted oligarchy that held the urban government. Nevertheless, the family continued to give remarkable importance to merchant values, and business activities were not substituted by rent-seeking behavior. At the end of the century, the Salvadori were still considered the most prominent commercial house of Trento.

3. The Partnerships

The family firm was not the only kind of business organization used by the Salvadori. They also set up various partnerships with non-family members, which were based on explicit, formalized contractual relations, according to the *compagnia* formula. As it is commonly known, this form of business association, which developed in late medieval Italy, included non-family members in the business in order to overcome financial constraints and to spread risks³¹. The Salvadori, however, created a series of partnerships in order to seize new investment opportunities, by relying almost entirely on their own capital. In fact, they usually provided all or part of the capital, while the partners provided skills and management activities. Moreover, the capital provision coexisted with a supplier-client relationship, in which the Salvadori firm could exercise relatively strong contractual power, by influencing the price of the goods sold to the partner or purchased from him.

In the late seventeenth century, several partnerships involved outsiders with capabilities in specific sectors, such as the manufacture of snuff (1693-1696), leather (1685-1698) and soap, the trade of spirits (1699), or mining activities (1687-1690). The entrance of the Salvadori in the snuff business is the most emblematic case. In fact, the manufacturing of snuff involved special knowledge, since the tobacco leaves, after being ground, had to be flavored by adding particular essences, the “recipe” varying from one manufacturer to another. In order to discover the secret of snuff manufacturing, in 1693 the Salvadori set up a partnership with a merchant from Verona, Andrea Pace, who had moved to Trento and had particular expertise in the field. Two years later, the

³⁰ M. Nequirito, *Il tramonto del Principato vescovile di Trento. Vicende politiche e conflitti istituzionali*, Trento 1996, pp. 168-171.

³¹ J. Barron Baskin, P.J. Miranti jr., *Storia della finanza d'impresa*, Bari 2000, pp. 40-49.

partnership came to an end, and the Salvadori became the sole owners of the shop, by granting a life annuity of 500 florins to their former partner. The snuff business, which evidently proved to be quite profitable, was then continued until 1781.

In some circumstances, the Salvadori found it necessary or acceptable to establish partnerships with former agents or employees, who received a share of the profits (and were held liable for their part of the losses) of the branch they managed³². The ex-agent was thus paid according to the partnership's outcome, and assumed unlimited and joint liability for the obligations, sharing the risk of the business. This way, the partnership provided what agency theory calls an "incentives scheme", which aligned the interests of the agent with those of the principal. This occurred, for example, in the case of the shop of Pergine. After considerable expansion of the business³³, in 1731 the Salvadori decided to establish a nine-year partnership with a merchant, Antonio Grandi, and a former agent, Antonio Gasperini. The Salvadori provided the initial capital and retained nearly 60 % of the profits, which were to be distributed upon expiration of the contract. Periodic balance sheets and specific account books were requested in order to control the business operations. The partnership was renewed ten years later with Antonio Gasperini, who was entitled to a quarter of the profits, and later to a third. In 1780, after a period of decreasing returns, the Salvadori decided to leave the business and sold their share to the partner.

In the first half of the eighteenth century, two more partnerships were established with former employees, who wanted to set up self-directed firms. One of them started a textile shop in Pergine (1707-1731), while the other one opened a snuff shop in Trento (1732-1739), but these were only minor businesses, which were much smaller than the Salvadori firm was. The Salvadori provided all or a major part of the capital, while retaining half of the profits in both cases. As often happened, they were not only partners in the company, but also suppliers of many types of merchandise.

Various agreements were also made with local producers for the reeling of silk in joint account, i.e. sharing all profits and losses. In these cases the Salvadori usually provided credit to the partner and sold the raw silk, thus taking advantage of their own financial strength and market knowledge. In the second half of the eighteenth century, the partnerships reflected the increasing specialization of the Salvadori firm in the silk sector. In 1745 the Salvadori joined a partnership promoted by the town government, which was interested in developing the manufacture of silk yarns and entrusted the management of a water-powered silk mill to an expert from Rovereto. Various merchants and

³² The agents acted on behalf of the firm and took care of the family interests, being rewarded by a yearly salary. In some cases, the life-long employment of an agent gave rise to a quasi-familial relationship. For instance, Vincenzo Gabrielli, after managing the Salvadori shop of Pergine in the late seventeenth century, left his house to the heirs of Valentino and Isidoro, feeling morally bound to them. Another case was that of Giuseppe Tolt, who was hired by the Salvadori in the 1730s. His sons followed their father's footsteps and worked for the Salvadori family, and in the mid-nineteenth century some descendants of Giuseppe Tolt were still engaged in the firm.

patricians of Trento took part in this public-private partnership, to which the Salvadori probably sold large amounts of silk before their retirement in 1760. In fact, in 1747 25 % of the commercial credits of the Salvadori business were due to the credits granted to the partnership with the *Magistrato consolare*.

From 1789 to 1793 the Salvadori established a partnership with Antonio Schweizer, who was given the task of managing the Salvadori reeling-house in Trento, with its 43 reeling machines. As we can see, all partnerships were somehow linked to the commercial activities managed by the family firm. But it was not until the early nineteenth century that an outsider was directly involved in the main business, i.e. the manufacture and commerce of silk.

4. The Network

For a firm operating on an international scale, the development of an extensive network of correspondents was of fundamental importance. The business network was built through a cumulative process, which was stimulated by various activities, such as the participation in the transit trade, the attendance of the Bolzano fairs, and the manufacture of snuff and silk. Because of the engagement in long-distance commerce, the Salvadori entered into relationships with the foremost commercial and shipping houses of Bolzano and Verona. In this respect, the Bolzano fairs played a crucial role in the development of a series of contacts with Italian, German, Swiss, and Austrian merchants, who attended the four yearly appointments³⁴. The fair attendants could meet, collect information, make commercial agreements and exchange transactions, lend and borrow money through fair deposits, make and receive payments. But one of the major advantages of the Bolzano fairs was probably that of providing merchants with a special jurisdictional authority, the *Magistrato mercantile*, which was elected by the so-called *contrattanti*, i.e. the most prominent merchants³⁵. The *Magistrato mercantile* consisted of a court of first instance and a court of appeals, with three members each, who had to supervise the fairs, take care of the merchants' interests, and judge the controversies arising among them. It was therefore a formal enforcement organization, which settled commercial disputes providing swift solutions.

In 1685 the Salvadori appeared in the list of *contrattanti* at the Bolzano fairs for the first time, and they were still registered at the beginning of the nineteenth century, representing by far the eldest

³³ The value of the assets, i.e. credits and merchandise, increased from 3.257 florins in 1680 to 21.615 florins in 1728.

³⁴ On the Bolzano fairs, see A. Bonoldi, *La fiera e il dazio. Economia e politica commerciale nel Tirolo del secondo Settecento*, Trento 1999; M. Denzel, *Die Bozner Messen und ihr Zahlungsverkehr (1633-1850)*, Bolzano 2005.

³⁵ The *contrattanti* were the most prestigious and rich merchants attending the fairs, who were enrolled in a particular list. They had consultant and decisional power in the principal matters and were provided with particular advantages: G. Canali, *Il Magistrato mercantile di Bolzano e gli statuti delle fiere*, in "Archivio per l'Alto Adige", 37, 1942, parte I.

firm. The fairs were the ideal training ground for the Salvadori, who sold oil and snuff, purchased a variety of products, and were always looking for new commercial contacts. By attending the fairs, they could initially satisfy their capital needs, while in the second half of the eighteenth century, after the consolidation of their financial position, they invested substantial amounts of capital in fair deposits. In 1769 the exchange contracts stipulated by the Salvadori at the Bolzano fairs reached a peak of nearly 316.000 florins, 40 % of which were represented by fair deposits.

From the mid-eighteenth century the Salvadori were repeatedly elected into the *Magistrato mercantile*, which was a clear signal of their economic and social prestige. At the Bolzano fairs we can also find some hints of the pervasiveness of kinship relations, which is documented by an emblematic episode. In 1763, Isidoro Salvadori was elected to the court of first instance, while Giovanni Giacomo Graff from Bolzano and Giovanni Pietro Bioley from Augsburg were elected to the court of appeals. However, since the three councilors were brothers-in-law, only the first remained in charge, while the others were substituted³⁶.

Obviously, the business relationships of the Salvadori were not limited to the merchants attending the Bolzano fairs. The correspondence network was much more extended, serving not only for commercial purposes but also for information transmission. The strategic role of information is proved by the hundreds of letters written every year to customers, suppliers, and various other correspondents. Some information was collected by family members or agents on the occasional journey abroad, but epistolary contacts were far less expensive and risky. Business letters therefore provided many of the elements necessary for the decision-making process. Besides a lot of details concerning ordinary commercial operations, such as offers, orders, shipments, and payments, communications also included military and political aspects. The Salvadori inquired about the Italian fairs of Brescia, Bergamo, and Senigallia, and about the fairs of Beaucaire, Leipzig, and Frankfurt, which were important intermediary centers in the silk sector. Moreover, the Italian operators informed the Salvadori about the advancement of silkworm rearing, the price and quality of raw silk, as well as the arrival of ship cargoes of tobacco leaves. Information on the solvency of potential customers had a strong relevance, especially in the silk sector, where the goods' value was high, and payments were subject to long delays. Only after a careful evaluation of a customer's trustworthiness, would the supplier fix a limit to the credit allowable to the client.

These business connections often resulted in long-term relationships, which were typically characterized by a higher level of trust. From this point of view, the continuity of the Salvadori firm represented a competitive advantage, since the owners could appeal to tradition to reinforce the firm's outstanding reputation in the eyes of the public. As is known from game theory, cooperative

³⁶ *Ibidem*, p. 160.

behavior is more likely to develop in a repeated game, while a one-shot game typically produces non-cooperative decisions. In a single game, parties may fail to achieve a mutually beneficial solution because each party finds it more convenient to cheat or to reap a short-term advantage. Infinite repetition of a transaction, by contrast, can induce the parties to give up short-term benefits in order to realize future gains³⁷. Similarly, the transmission of the Salvadori business to the following generations strengthened the reputation mechanism, making the commitment not to cheat more convincing.

The expectation of continued contact is particularly relevant when identity matters, e.g. when there is uncertainty about the quality of the object of exchange, or when a producer's identity stands for the quality of what is produced. Identity is also important in transactions involving obligations that extend over time, and when the quality of promises to pay depends on the promise giver³⁸. This occurred in the snuff business, and above all in the silk sector, where quality was crucial, production was far from standardized, and payments were subject to long delays. In this case, transaction costs were substantially reduced by the creation of a long-term relationship and the relative building of trust³⁹, which is a major component of the so-called "social capital", that is the "features of social organization, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions"⁴⁰.

5. The Need for a Comparative Study

The Salvadori case highlights the multiple variables influencing production and transaction costs. It is clear that the efficiency of the firm did not depend only on material factors such as resource endowments or technology, but also on non-physical elements, which are capable of influencing economic performance. Scholars have recently been placing increasing emphasis on the role of culture and institutions in economic growth⁴¹. Institutions such as the family and the Bolzano fairs undoubtedly contributed to the elaboration of the Salvadori family's business strategies, and influenced the firm's performance, but we could also ask ourselves what impact they had on other

³⁷ Y. Ben-Porath, *The F-Connection: Families, Friends, and Firms and the Organization of Exchange*, in "Population and Development Review", 6 (1980), 1, pp. 1-30. About the use of game theory for comparative studies of institutions, see A. Greif, *Institutions and the Path to the Modern Economy. Lessons from Medieval Trade*, New York 2006.

³⁸ Y. Ben-Porath, *The F-Connection*.

³⁹ There is still no agreement among scholars on the definition of trust: "Entrepreneurship. Theory and Practice", 30 (2006), 4, Special Issue on Entrepreneurship and Trust.

⁴⁰ R.D. Putnam, *Making Democracy Work. Civic traditions in modern Italy*, Princeton (NJ) 1993.

⁴¹ As for the importance of culture, see D.S. Landes, *The Wealth and Poverty of Nations. Why Some Are So Rich and Some So Poor*, London 1998. About the role of institutions, D.C. North, *Institutions, Institutional Change, and Economic Performance*, New York 1990.

businesses. In particular, a comparison of the Salvadori experience with that of many other commercial houses operating in the silk sector could produce interesting results.

Regarding its longevity, the Salvadori case seems to be a quite peculiar one. The strengths of the family-firm model outweighed the potential weaknesses, resulting in the creation of a long-lived family dynasty, with the ongoing accumulation of knowledge and skills. The family provided capital and reliable labor, as well as the continuity, which fostered the consolidation of an extensive business network. The commercial houses of Rovereto, on the other hand, did not have such longevity. In fact, the silk district of Rovereto was marked by frequent entrepreneurial changeovers. After the first or second generation, the merchants usually decided to limit themselves to financing other businesses, or chose landownership. The aim was not only to escape the risks of commerce, but also to achieve the higher status, that was associated with the possession rather than the production of wealth. In the eighteenth century new businesses developed, which were frequently founded by former entrepreneurial agents, whereas the numerous changeovers became a problem in the following century, when the ceased firms were not substituted by new ones. According to the available literature, the problem was mainly due to cultural elements⁴², that is to ideas, beliefs, attitudes, values, and knowledge, which partially mold individual ambitions and behaviors, and which can be transferred through experience and education. The lack of entrepreneurial dynasties in Rovereto is considered the price for the pursuit of non-economic goals such as social status, as well as for risk aversion and a low investment propensity. If the Salvadori escaped this fate for roughly two centuries, it was partly due to the effective transmission of merchant values to the following generations. But further research must still be devoted to dozens of similar businesses, before more definite conclusions can be reached⁴³.

⁴² A. Leonardi, *Un'occasione perduta: la mancata industrializzazione del Trentino nel secolo XIX*, in M. Allegri (ed.), *Rovereto, il Tirolo, l'Italia: dall'invasione napoleonica alla belle époque*, t.I, Rovereto 2001.

⁴³ For some preliminary outcomes, see C. Lorandini, *Die Nord-Süd-Beziehungen der Trentiner Seidenverleger: ein prosopographischer Zugang*, in "Scripta Mercaturae" (forthcoming).

Elenco dei papers del Dipartimento di Economia

- 2000.1 *A two-sector model of the effects of wage compression on unemployment and industry distribution of employment*, by Luigi Bonatti
- 2000.2 *From Kuwait to Kosovo: What have we learned? Reflections on globalization and peace*, by Roberto Tamborini
- 2000.3 *Metodo e valutazione in economia. Dall'apriorismo a Friedman*, by Matteo Motterlini
- 2000.4 *Under tertiarisation and unemployment*. by Maurizio Pugno
- 2001.1 *Growth and Monetary Rules in a Model with Competitive Labor Markets*, by Luigi Bonatti.
- 2001.2 *Profit Versus Non-Profit Firms in the Service Sector: an Analysis of the Employment and Welfare Implications*, by Luigi Bonatti, Carlo Borzaga and Luigi Mittone.
- 2001.3 *Statistical Economic Approach to Mixed Stock-Flows Dynamic Models in Macroeconomics*, by Bernardo Maggi and Giuseppe Espa.
- 2001.4 *The monetary transmission mechanism in Italy: The credit channel and a missing ring*, by Riccardo Fiorentini and Roberto Tamborini.
- 2001.5 *Vat evasion: an experimental approach*, by Luigi Mittone
- 2001.6 *Decomposability and Modularity of Economic Interactions*, by Luigi Marengo, Corrado Pasquali and Marco Valente.
- 2001.7 *Unbalanced Growth and Women's Homework*, by Maurizio Pugno
- 2002.1 *The Underground Economy and the Underdevelopment Trap*, by Maria Rosaria Carillo and Maurizio Pugno.
- 2002.2 *Interregional Income Redistribution and Convergence in a Model with Perfect Capital Mobility and Unionized Labor Markets*, by Luigi Bonatti.
- 2002.3 *Firms' bankruptcy and turnover in a macroeconomy*, by Marco Bee, Giuseppe Espa and Roberto Tamborini.
- 2002.4 *One "monetary giant" with many "fiscal dwarfs": the efficiency of macroeconomic stabilization policies in the European Monetary Union*, by Roberto Tamborini.
- 2002.5 *The Boom that never was? Latin American Loans in London 1822-1825*, by Giorgio Fodor.

2002.6 *L'economia senza banditore di Axel Leijonhufvud: le 'forze oscure del tempo e dell'ignoranza' e la complessità del coordinamento*, by Elisabetta De Antoni.

2002.7 *Why is Trade between the European Union and the Transition Economies Vertical?*, by Hubert Gabrisch and Maria Luigia Segnana.

2003.1 *The service paradox and endogenous economic growth*, by Maurizio Pugno.

2003.2 *Mappe di probabilità di sito archeologico: un passo avanti*, di Giuseppe Espa, Roberto Benedetti, Anna De Meo e Salvatore Espa.
(*Probability maps of archaeological site location: one step beyond*, by Giuseppe Espa, Roberto Benedetti, Anna De Meo and Salvatore Espa).

2003.3 *The Long Swings in Economic Understanding*, by Axel Leijonhufvud.

2003.4 *Dinamica strutturale e occupazione nei servizi*, di Giulia Felice.

2003.5 *The Desirable Organizational Structure for Evolutionary Firms in Static Landscapes*, by Nicolás Garrido.

2003.6 *The Financial Markets and Wealth Effects on Consumption An Experimental Analysis*, by Matteo Ploner.

2003.7 *Essays on Computable Economics, Methodology and the Philosophy of Science*, by Kumaraswamy Velupillai.

2003.8 *Economics and the Complexity Vision: Chimerical Partners or Elysian Adventurers?*, by Kumaraswamy Velupillai.

2003.9 *Contratto d'area cooperativo contro il rischio sistemico di produzione in agricoltura*, di Luciano Pilati e Vasco Boatto.

2003.10 *Il contratto della docenza universitaria. Un problema multi-tasking*, di Roberto Tamborini.

2004.1 *Razionalità e motivazioni affettive: nuove idee dalla neurobiologia e psichiatria per la teoria economica?* di Maurizio Pugno.
(*Rationality and affective motivations: new ideas from neurobiology and psychiatry for economic theory?* by Maurizio Pugno.

2004.2 *The economic consequences of Mr. G. W. Bush's foreign policy. Can th US afford it?* by Roberto Tamborini

2004.3 *Fighting Poverty as a Worldwide Goal* by Rubens Ricupero

2004.4 *Commodity Prices and Debt Sustainability* by Christopher L. Gilbert and Alexandra Tabova

2004.5 *A Primer on the Tools and Concepts of Computable Economics* by K. Vela Velupillai

2004.6 *The Unreasonable Ineffectiveness of Mathematics in Economics* by Vela K. Velupillai

2004.7 *Hicksian Visions and Vignettes on (Non-Linear) Trade Cycle Theories* by Vela K. Velupillai

2004.8 *Trade, inequality and pro-poor growth: Two perspectives, one message?* By Gabriella Berloff and Maria Luigia Segnana

2004.9 *Worker involvement in entrepreneurial nonprofit organizations. Toward a new assessment of workers? Perceived satisfaction and fairness* by Carlo Borzaga and Ermanno Tortia.

2004.10 *A Social Contract Account for CSR as Extended Model of Corporate Governance (Part I): Rational Bargaining and Justification* by Lorenzo Sacconi

2004.11 *A Social Contract Account for CSR as Extended Model of Corporate Governance (Part II): Compliance, Reputation and Reciprocity* by Lorenzo Sacconi

2004.12 *A Fuzzy Logic and Default Reasoning Model of Social Norm and Equilibrium Selection in Games under Unforeseen Contingencies* by Lorenzo Sacconi and Stefano Moretti

2004.13 *The Constitution of the Not-For-Profit Organisation: Reciprocal Conformity to Morality* by Gianluca Grimalda and Lorenzo Sacconi

2005.1 *The happiness paradox: a formal explanation from psycho-economics* by Maurizio Pugno

2005.2 *Euro Bonds: in Search of Financial Spillovers* by Stefano Schiavo

2005.3 *On Maximum Likelihood Estimation of Operational Loss Distributions* by Marco Bee

2005.4 *An enclave-led model growth: the structural problem of informality persistence in Latin America* by Mario Cimoli, Annalisa Primi and Maurizio Pugno

2005.5 *A tree-based approach to forming strata in multipurpose business surveys*, Roberto Benedetti, Giuseppe Espa and Giovanni Lafratta.

2005.6 *Price Discovery in the Aluminium Market* by Isabel Figuerola-Ferretti and Christopher L. Gilbert.

2005.7 *How is Futures Trading Affected by the Move to a Computerized Trading System? Lessons from the LIFFE FTSE 100 Contract* by Christopher L. Gilbert and Herbert A. Rijken.

2005.8 *Can We Link Concessional Debt Service to Commodity Prices?* By Christopher L. Gilbert and Alexandra Tabova

2005.9 *On the feasibility and desirability of GDP-indexed concessional lending* by Alexandra Tabova.

2005.10 *Un modello finanziario di breve periodo per il settore statale italiano: l'analisi relativa al contesto pre-unione monetaria* by Bernardo Maggi e Giuseppe Espa.

2005.11 *Why does money matter? A structural analysis of monetary policy, credit and aggregate supply effects in Italy*, Giuliana Passamani and Roberto Tamborini.

2005.12 *Conformity and Reciprocity in the "Exclusion Game": an Experimental Investigation* by Lorenzo Sacconi and Marco Faillo.

2005.13 *The Foundations of Computable General Equilibrium Theory*, by K. Vela Velupillai.

2005.14 *The Impossibility of an Effective Theory of Policy in a Complex Economy*, by K. Vela Velupillai.

2005.15 *Morishima's Nonlinear Model of the Cycle: Simplifications and Generalizations*, by K. Vela Velupillai.

2005.16 *Using and Producing Ideas in Computable Endogenous Growth*, by K. Vela Velupillai.

2005.17 *From Planning to Mature: on the Determinants of Open Source Take Off* by Stefano Comino, Fabio M. Manenti and Maria Laura Parisi.

2005.18 *Capabilities, the self, and well-being: a research in psycho-economics*, by Maurizio Pugno.

2005.19 *Fiscal and monetary policy, unfortunate events, and the SGP arithmetics. Evidence from a growth-gap model*, by Edoardo Gaffeo, Giuliana Passamani and Roberto Tamborini

2005.20 *Semiparametric Evidence on the Long-Run Effects of Inflation on Growth*, by Andrea Vaona and Stefano Schiavo.

2006.1 *On the role of public policies supporting Free/Open Source Software. An European perspective*, by Stefano Comino, Fabio M. Manenti and Alessandro Rossi.

2006.2 *Back to Wicksell? In search of the foundations of practical monetary policy*, by Roberto Tamborini

2006.3 *The uses of the past*, by Axel Leijonhufvud

2006.4 *Worker Satisfaction and Perceived Fairness: Result of a Survey in Public, and Non-profit Organizations*, by Ermanno Tortia

2006.5 *Value Chain Analysis and Market Power in Commodity Processing with Application to the Cocoa and Coffee Sectors*, by Christopher L. Gilbert

2006.6 *Macroeconomic Fluctuations and the Firms' Rate of Growth Distribution: Evidence from UK and US Quoted Companies*, by Emiliano Santoro

2006.7 *Heterogeneity and Learning in Inflation Expectation Formation: An Empirical Assessment*, by Damjan Pfajfar and Emiliano Santoro

2006.8 *Good Law & Economics* needs suitable microeconomic models: the case against the application of standard agency models: the case against the application of standard agency models to the professions, by Lorenzo Sacconi

2006.9 *Monetary policy through the "credit-cost channel". Italy and Germany*, by Giuliana Passamani and Roberto Tamborini

2007.1 *The Asymptotic Loss Distribution in a Fat-Tailed Factor Model of Portfolio Credit Risk*, by Marco Bee

2007.2 *Sraffa's Mathematical Economics - A Constructive Interpretation*, by Kumaraswamy Velupillai

2007.3 *Variations on the Theme of Conning in Mathematical Economics*, by Kumaraswamy Velupillai

2007.4 *Norm Compliance: the Contribution of Behavioral Economics Models*, by Marco Faillo and Lorenzo Sacconi

2007.5 *A class of spatial econometric methods in the empirical analysis of clusters of firms in the space*, by Giuseppe Arbia, Giuseppe Espa e Danny Quah.

2007.6 *Rescuing the LM (and the money market) in a modern Macro course*, by Roberto Tamborini.

2007.7 *Family, Partnerships, and Network: Reflections on the Strategies of the Salvadori Firm of Trento*, by Cinzia Lorandini.

PUBBLICAZIONE REGISTRATA PRESSO IL TRIBUNALE DI TRENTO