Economic Networks
by Christian Marx

This article discusses various network structures in which commercial transactions occurred and economic actors organized their activities. Simultaneous membership of multiple networks means that it is not possible to draw a sharp distinction between economic networks and political, cultural and religious relationship structures. This simultaneous membership also highlights the fact that cultural transfer and economic exchange were parallel processes. In order to maintain an overview of the rapidly increasing literature on networks, the article distinguishes between five thematic areas. In addition to classic trade and credit networks, which have organised the flow of goods and finance for centuries, these include business networks based on capital and personnel interlocking which were formed with the emergence of the modern company, as well as internal company networks and innovation networks.

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Introduction

In recent years, network approaches have been employed in economic and business history more than in all other fields of historical research. However, when it comes to the study of networks, the line between these and other fields of historical studies is anything but clear because economic activity is always embedded in the political and social context of the historical actor. Economic networks are always a component of social spaces which are structured by the simultaneous existence of different forms of relationships. In many social networks – as a broader category including political, economic and cultural networks – physical goods and information circulate parallel to one another. The exchange of goods and services is often accompanied by the transfer of cultural content and knowledge (Media Link #ad).

These overlaps between different networks which result from the multiplexity of relationship structures make it difficult to speak of purely economic connections. However, they also make it possible to connect economic history with other fields of historical research. The categorization of network structures in the following sections is based on the central questions and leitmotifs of the research in the respective areas. For example, networks of members of a particular religious community which aim to spread the religious beliefs and practices of that community could be investigated from the perspective of religious history. Equally, the same example could be used in an analysis of the economic success of individual social groups and of the specific logic upon which individual entrepreneurial networks were based. Only in the second case the research would be included in this article.

While it is often difficult to measure the transfer of ideas and knowledge via networks, it is frequently easier to quantify relationships of economic exchange, thereby facilitating operationalization in the context of social sciences network analysis. Consequently, the network approach has become increasingly popular in business and economic history and has resulted in numerous historical network studies. The central aim of historical network research is to discover hid-
den network structures which explain economic processes and historical change. Indeed, the greatest potential of the network approach lies in the discovery of such invisible structures and of connections between the levels of action and structure.

Although economic historians in their study of networks have often sought to produce practical knowledge which is relevant to the present, in contrast to many economists they did not depict networks as an unassailable secret of success in and of themselves; they also pointed out the dysfunctions of networks under the heading "network failure". Networks can indeed facilitate the mobilization of groups of people and the bundling of resources, thereby supporting disadvantaged groups in their efforts to improve their living circumstances. However, they can also help to stabilize existing power relationships and to maintain inefficient structures. For example, networks of the (economic) elite, which often meet in clubs and informal circles, exclude other social groups and are often the starting point for a selfish focus on narrow interests and for limiting access to the elite. However, many who analyse networks assert that the exclusion of actors from the network does not always result in the elite retaining its power because this exclusion also holds the danger of insularity and a barrier to innovation, thereby promoting a decline from within.

Various combinations of broad approaches and individual studies as well as of certain social sciences concepts have produced a broad range of tools which can be applied in an eclectic manner to the study of business and economic history as dictated by the individual case. Since the methods of network analysis are not exclusive to individual time periods or to particular relationships or nodes, this analytical instrument is applied in all historical periods with differing emphases. It is therefore possible to categorize this research according to methodological approach, by particular time periods, or by individual forms of relationships. For example, economic interconnections could be subdivided into social and physical networks, the latter being based on road maps, river systems and airline timetables. However, this categorization is only applicable to a section of historical network analyses. This article seeks to comply with the plurality of research interests and central questions by discussing five thematic areas which overlap each other to a degree.

Trade Networks

The study of (long-distance) trade relationships from the late-medieval period to the present is a traditional field in the study of historical economic networks. In this context, both the trading activities of Hanseatic merchants operating through an established network and the interconnections between the sites of fairs and centres of trade have been studied with regard to criteria of efficiency. While the Hanseatic League used to be described as lagging behind in terms of innovation due to its lack of a hierarchical structure, the network approach has revised this appraisal considerably. From this perspective, the enormous and enduring success of the network organisation of the Hanseatic League, which was based on trust, reputation, and reciprocity, was primarily due to a model of control which reduced transaction costs. The Hanseatic League was soon identified as a classic example of a successful network, within which it was possible to decisively reduce the search and measurement costs, as well as the bargaining and enforcement costs – even in the absence of a fixed hierarchical and bureaucratic organizational structure – by means of a Europe-wide system of goods inspection which gave the Hanseatic League an enormous advantage over other merchants. The network of relationships of the Hanseatic merchants was therefore more than coincidental social contacts since cooperation on multiple levels between economically independent companies and overlapping company and family networks were central to the organizational principle.

Research into trade networks has the advantage – particularly compared with macro-economic descriptions – that it allows us to view merchants as playing an active part in history without ignoring the insights gleaned from structural theoretical approaches. In this way, it enables us to link the structural level and the action level with one another, while also enabling us to focus on different geographical ranges. Traders and merchants were often not only integrated into regional structures. They often also functioned as mediators between local and global contexts. Historical network research has identified European and global trading connections which existed long before the first wave of globalization in the late 19th and early 20th centuries, and which were frequently accompanied by cultural transfer. Merchants engaged in long-distance trade, such as the Venetian Marco
Polo (1254–1324) (Media Link #ak), not only transported physical goods, they also transferred ideas and trading practices in both directions, and, as a result, they could be perceived as bringing about renewal and progressive ideas or as a threat to the existing order. In this context, cultural transfer was not limited to the dissemination of European thought, but also included the importation of ideas and practices from overseas into Europe.

In the pre-industrial period, there was scarcely an alternative to networks because the low frequency of exchange and factor specificity militated against internalization within a hierarchical organization, while high information, policing and enforcement costs made use of the market hardly attractive. With the exception of a small number of monopoly trading companies and a few large trading houses with a supra-regional company structure such as the Fuggers and the Welsers, the individual merchant was the typical actor in pre-modern trade. He was able to cope with the unpredictable risks and costs involved in communication and transportation over long distances by means of trust-based networks. However, these trade networks, which were able to react in a flexible manner to economic downturns and booms, experienced losses as well as success. Errors crept into the collective information which circulated within the network, and the absence of a strategic centre often made decisions regarding areas of future development and innovation more difficult. For example, divergent opinions regarding quality and price resulted in discord in the network which organized the trade in Madeira wines in Europe and North America between 1640 and 1815, which was based on non-formalized cooperation.14

From the late-medieval period, European merchants from diverse ethnic backgrounds were active in international trade and settled in the leading European port cities (Media Link #am) where they intermixed to a degree with the local elites. Geographically, their networks soon grew to global proportions.15 The British East India Company (Media Link #ao) and the United Dutch East India Company (Vereenigde Oostindische Compagnie (Media Link #ap)) provide examples of such globally active trade networks, though smaller groups of traders were also important in pre-modern trade.16 The commercial immigrant elites also made a substantial contribution to the economic development of their host countries. For example, numerous German merchants moved to London between 1660 and 1815, where they first conquered the lucrative colonial markets (Media Link #aq) in the textile trade and subsequently helped England to become the foremost commercial and industrial power (Media Link #ar) in the world. In the process, their commercial activities became embedded in the political, social, cultural and legal parameters of their host countries. At the same time, commercial transactions and the accompanying cultural transfer also had an effect on conditions in the merchants’ native countries.17

Trade relationships right up to recent past provide a classic field for historical network research. In addition to the exchange of goods in a network of goods flows, these usually also involved social networks, through which the human actors communicated with one another and contributed to the communication of cultural content and ideas.

Credit Networks

While at first sight credit relationships imply economic relationships, it is also possible to explain changes in the social significance of credit by investigating personal network connections between creditors and debtors. Networks must be fundamentally understood as powerful structures which can decisively influence access to resources – particularly money and capital. Up to the establishment of well-functioning capital markets in the 19th century, the granting of personal loans was frequently based on personal relationships. This set clear limits to the freedom of action of the protagonists.19

With the instrument of the bill of exchange, which became the central medium in the non-cash system of payment after the Commercial Revolution in the 12th and 13th centuries, Italian merchants made liquidity available internationally. In contrast to fairs held at regular intervals, which had initially functioned as important money and credit markets, individual cities emerged as year-round markets which as centres of exchange and finance became crucially important in the supra-regional payment system. Starting in Italy, the system of non-cash payment (Media Link #as) spread in the
15th and 16th centuries through Southern France to the Iberian Peninsula, as well as to North-Western Europe and Southern Germany. By the first half of the 19th century, this system constituted a network covering large areas of Western and Central Europe. The intensification of this process in North-Western Europe, which was accompanied by the increasing transferability of promissory notes, occurred in tandem with the shift in the centre of economic activity to North-Western Europe due to the growing importance of the Atlantic world (Media Link #at). Though Italy lost its traditional leading role in the system of payment to the financial centres of North-Western Europe in the 18th and early 19th centuries, this did not change the fundamental interconnection between the financial centres of Western, Central and Southern Europe. In addition to these financial centres in the international system of payment and the connections between certain macro-regions, network structures can be identified at a regional level – for example in Lower Saxony and Electoral Bavaria in the 18th century – which demonstrate the integration of individual economic spaces.

Though diverse and, in some case, supra-regional credit and exchange relationships for the trade and exchange of goods already existed before the 19th century, these were not accessible to all sections of the population. In many cases, creditors restricted their lending to small regional circles, and family relationships often played a central role in the authorization of credit. The lack of access to supra-regional or even national capital and financial markets increased the dependence of debtors on closely interconnected regional credit markets, the structures of which were frequently replete with familial and emotional connections.

In this context, familial relationships were "strong ties" which considerably increased the chances of a credit application being authorized, as better knowledge of family and financial circumstances reduced the risk of losses to the creditors. In some cases, the familiar principle of mutual support within the extended family was the motivation for the granting of credit. The phenomenon of trust was a decisive criterion in this context, and it involved two temporal dimensions. On the one hand, favourable credit conditions were based on the creditor's positive experiences with the debtor in the past. On the other hand, the credit transaction required a leap of faith with regard to the debtor's capacity to repay his debts in the future. The greater the distance -- not just geographical, but also familial and social -- between the debtor and the creditor, and the smaller the accumulated trust, the greater the demands were regarding the sureties and formal controls on which the credit contract was based. Therefore, the structure of the credit network and the network position of the actors not only provide insights into the freedom of action and approval practices in the credit system, they also help to explain economic processes and dynamics by providing information regarding financing parameters, the direction of financing and the instruments of financing.

Corporate Networks

In contrast to the previous two sections, this section focuses on networks of (large) companies since the late 19th century, which were primarily based on the membership of supervisory boards and boards of management, as well as participation in share capital. It was the emergence of the modern company with its corresponding legal basis, such as the Aktienrechtsnovelle (amendment to the stock corporation law) in Prussia in 1870, which facilitated the emergence of this form of network, though pioneers of the German credit and insurance system in the preceding decades had already established some links between different banks and companies, which were sometimes based on family ties. In the last third of the 19th century, in addition to the informal (friendship) networks of the commercial elite in clubs and circles, a formal network based on capital and personnel interlocking emerged.

It was often only possible to meet the growing capital requirements of companies by involving parties outside the company. In cases where that capital came from other companies or banks, this resulted in the emergence of further organizational interconnections between companies, in addition to the classic supply relationships. Additionally, the transition from owner-run companies to companies run by professional directors and the resulting separation of ownership and control was accompanied in Germany by the establishment under law of the two-boards system, consisting of the board of management and the supervisory board. As individuals were commonly members of the boards of multiple companies simultaneously, this resulted in a corporate network which laid the foundations for the "Deutschland AG" (Germany Corporation) in the 20th century. In the other European countries and in the USA, similar networks devel-
Within this network of executive-level personnel, bank directors could serve as agents negotiating contracts and mergers between industrial companies. Businessmen now had an opportunity to glean information about the commercial prospects of other companies and to discuss general economic developments. Though this network had the capacity to affect the market by means of anti-competition practices, the network by no means replaced the market. Instead, it developed as a complementary economic institution alongside the market. Due to the establishment of legal provisions governing the relationship between the supervisory board and the board of management, this network was able to liberate itself from familial and property connections. This cross-company instrument of coordination consisted of a group of executives, who frequently appointed one another to the boards of other enterprises. At the same time, the controlling function was retained, because the reputations of the businessmen on the supervisory board stood as a guarantee that the legal requirements were being adhered to, and these businessmen faced the prospect of being excluded from the entire network in the event of a legal violation. Furthermore, the continuing existence of independent, family-run companies demonstrates that not all companies were integrated into this network in the same way and other strategies were also pursued.

There are two principal approaches explaining the emergence of corporate networks. The personnel perspective focuses on personal connections between the individuals concerned and includes the assumption of the rule of executives which asserts that executives who were in many cases personal friends (a so-called old boys network) sat on the boards of different companies and in some cases prevented effective control by, for example, restricting the ownership rights of the shareholders. Simultaneously, social cohesion among executives was strengthened – in addition to their meeting one another in clubs and associations – by regular contact on supervisory boards. From an institutional perspective, appointing people from outside the company to the company's board could be useful if it brought about horizontal connections with companies in the same sector (often giving rise to the suspicion of anti-competition practices) or if it reduced the resource dependence of the company by means of vertical connections.

Companies constantly had to develop strategies in order to keep the unavoidable dependence on others to a minimum. Thus they, for example, established links with organizations which could provide the goods and services required. This was particularly true with regard to the dependence on economic capital, meaning that bankers not only held numerous seats on the supervisory boards of industrial companies and therefore occupied a central position in the business network, they were also able to gain influence by buying shares of the company directly, by issuing shares and by using their proxy voting power. However, many businessmen capitalized on competition between the banks and the strength of their own company, and thus succeeded in limiting the power of the banks.

These corporate networks, which were based to a degree on capital involvement, were part of the social elite, whose homogeneity and exclusivity were primarily maintained by shared values and a specific lifestyle, but also by means of collective recruitment mechanisms. In the case of Germany, the question arises whether the economic crises and recurring political upheavals transformed the economic elite. As early as during the global economic crisis and banking crisis at the end of the Weimar Republic, the corporate network had to cope with limits being fixed concerning the size of supervisory boards and the number of boards an individual could belong to. Soon after the National Socialist seizure of power, the Jewish members of the German commercial elite were expelled from the business network, and the network experienced a partial change. However, Jewish businessmen and bankers were able to retain their influence for a time in some cases, particularly in cases where their knowledge and contacts remained valuable. Although the subsequent structural break of 1945 initially looked likely to result in the commercial elite being replaced, many businessmen in West German companies retained their positions.

Internal Company Network Structures

Internal company structures can be understood as a changing organizational form, which partially resembles a network...
or develops in that direction. It is therefore possible to connect the action level of the actors within the company with the integration of these actors into their social networks through the category of network activity. Action in social networks is therefore not only – as social action is described by Max Weber (1864–1920) – related to other actors, in fact the structural theory perspective of networks has been added to this older approach. Therefore, even actors within a company cannot simply be explained with reference to their fixed positions in a hierarchical company organigram.

The modern company of the 19th and 20th centuries constituted a social field of activity in which people with conflicting interests competed with each other for influence and were at the same time integrated into networks which did not necessarily correspond to the formal company hierarchy. For example, in the first half of the 20th century Paul Reusch (1868–1956) controlled the company Gutehoffnungshütte through a comprehensive reporting system which gave him a monopoly on information and which did not at all correspond to the official executive structures. In this way, he managed to control the individual parts of the company, which were geographically far removed from each other and legally independent of one another, and to prevent the family who owned the company from undermining his power within the company.

Innovation Networks and Regional Clusters

Fundamental to this topic is the idea – borrowed from economics – that cooperating organizations which are located in the same particular region will benefit from their close proximity to one another. Along with close collaboration with other institutions, this facilitates an easy transfer of knowledge and technology related to innovations in the areas of development, processes, production and organization, thereby generating a competitive advantage over other companies. The economic advantage of such clusters therefore lies in specialization in one sector respectively closely related industries, in the availability of qualified workers and in the easy local transfer of knowledge through formal and informal contact between the companies. Although competition is viewed as the most potent instrument for the acquisition of information and the selection of knowledge, innovative clusters demonstrate the limitations of the market as an allocation mechanism and the importance of cooperation in the production of goods. The unpredictability of results as a basic principle of the discovery of new knowledge is therefore not specific to competitive structures, but also applies to relationships of cooperation.

A highly complex network of this kind can be observed in the industrial development of Great Britain from 1750 and, in particular, in the Manchester region. Around a pre-industrial hub of textile production and metalworking with a financial and trade centre, a large number of specialized workshops sprang up, resulting in a further development of the tool-making and mechanical engineering industry, in an increasing division of labour, and consequently in a growing competitive advantage over companies operating alone in other parts of the country. The commercial advantage and increased innovative capacity of such clusters have not only been analysed for the 18th and 19th centuries. In fact, this process of constantly improving competitiveness and continuing innovation has also been identified for numerous other sectors and regions, such as machine tool engineering in Chemnitz and Cincinnati and the optical industry in the Berlin-Brandenburg region.

This increased competitiveness and capacity for innovation did not exist solely in companies and sectors in capitalist economies. The success of the entire printing machine manufacturing sector in East Germany has been attributed to the planned-economy network structures of non-commercial institutions and research facilities. Regional clusters clearly generated a strong innovative power, though networks which are isolated from the outside world can also lose dynamism due to their insularity. It was therefore only possible to avoid or delay falling behind companies in other regions and missing the boat on new economic processes by means of supra-regional competition. In this context, some economists assert that only competition in a market free from intervention can produce multiple and dispersed sources of knowledge. Supra-regional competition does not guarantee the continuing success of a particular region because new competitors and changing conditions of production and trade threaten the superiority of the cluster.
The term "economic networks" covers a broad spectrum of research into networks. These include exchange relationships of a material kind, such as trade and credit networks or connections based on capital, as well as the transfer of knowledge between members of the commercial elite and the transfer of knowledge about technological innovations in regional clusters. The topic of labour migration, which has also been studied from a historical network perspective, has not been dealt with in this article, though migration flows were of enormous economic significance, changing the labour market in both the countries of origin and the receiving countries. However, research in this area to date has focused on phases and forms of migration as well as on familial relationship structures and is therefore more closely related to social history and migration sociology.

The diversity of the network concept and its possible applications – from network as a metaphor to the strict methodology of social sciences network analysis – has resulted in a flood of historical network research in the areas of economic and business history. Since none of the approaches can be rejected a priori, the approach being taken and the related premises must be clearly identified so that the concept of "network" does not lose its analytical quality. Regardless of this broad methodological spectrum, economic networks are – according to the logic of the network concept – fundamentally directed at the avoidance of commercial risks, at improving organizational efficiency, and at the attainment of an improved competitive position.

Though much of the research to date has focused on particular companies and sectors in an individual country, networks generally do not end at national borders. European and global trade networks, such as the transnational trade networks of German merchants in the British Empire during the 18th century, are an impressive example of this. In these networks, the exchange of commercial commodities, both in the form of goods and in the form of knowledge, is usually accompanied by the transfer of cultural content. European economic networks are therefore closely connected with cultural transfer between the European states. This transnational perspective contains enormous scope for the further theoretical and methodological development of historical network research. By overcoming national borders, hidden economic relationship structures at the European level and in the global context can be identified, and existing analytical instruments can be optimized.

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Appendix

Literature


Berghoff, Hartmut / Sydow, Jörg: Unternehmerische Netzwerke: Theoretische Konzepte und historische Erfahrungen, in:


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North, Michael (ed.): Kredit im spätmittelalterlichen und frühneuzeitlichen Europa, Cologne et al. 1993 (Quellen und Darstellungen zur hansischen Geschichte: Neue Folge, 37).


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Historischen Kommission für Niedersachsen und Bremen).


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Notes


2. On religious networks, see the EGO articles “Christian Networks”, “Islamic Networks” and “Jewish Networks”. Of fundamental significance for the linking of religious and economic history was: Weber, Die protestantische Ethik 1996. The pioneering study by Padgett and Ansell already pointed to the overlaps and complementarity between familial, political and economic networks: Padgett / Ansell, Robust Action 1993.

3. On this topic, see, for example: Fiedler, Die “Arisierung” 2000; Münzel, Die jüdischen Mitglieder 2006.

4. Historians who focus on economics also face the problem of sources and their survival. In particular, research into the late-medieval period and the Early Modern period must contend with the problem of gaps in the surviving sources, while those researching contemporary history are often confronted with sealed archive collections due to confidentiality periods. In this context – but also partly as a conscious decision in spite of available source material and with regard to specific research questions – economic networks are not only evaluated in quantitative form but also from a qualitative perspective, thereby remaining partially inaccessible to the quantifying paradigm of social science network analysis. Qualitative network research is now also being conducted in the social sciences: Hollstein, Qualitative Netzwerkanalyse 2006.

5. The following research from the field of economics is of considerable relevance to historical network research: Sydow, Strategische Netzwerke 1992; idem, Management 2010; idem, Management internationaler Netzwerke 1994; Windeler, Unternehmensnetzwerke 2001.


7. On the methodological level within historical network research, a mixing with other sociological and economics concepts and ideas occurred which stress the connection between confidence, falling transaction costs and the functionality of networks in economic relationships (see: Berghoff, Transaktionskosten 1999; idem, Vertrauen 2004; Fiedler, Vertrauen ist gut 2001). In some cases, these approaches were closely connected with the social sciences network concept. For example, there is the classic economics paradigm of the homo oeconomicus, which initially amounted to an under-socialized striving for maximum personal advantage before relational aspects were added and it was used to describe the determined acquisition of resources in networks. There is also the sociological concept of social capital, which in various interpretations and variations has been combined with network approaches (see: Bourdieu, Ökonomisches Kapital 1983; Burt, Structural Holes 2001; Coleman, Social Capital 1988; Granovetter, The Strength 1973; idem, Economic Action 1985). In this context, confidence creates a space for cooperation, reduces losses resulting from lack of cooperation between actors and makes joint action and the establishment of functional forms of control easier. From the perspective of New Institutional Economics, relationships of trust can therefore reduce the level of transaction costs. (See: Giddens, The Consequences 1990, pp. 79–124; Luhmann, Vertrauen 2000, pp. 47–79. On the concept of confidence in the historical perspective, see: Frevert, Vertrauen 2003.) Research into networks in business history and economic history often seeks to identify the strategic use of connections. There is an assumption that, under certain circumstances, networks can prove to be an equally effective or even superior means of control compared with other organizational forms – such as the market or hierarchies. At the same time, relationships in companies or markets can themselves be interpreted as networks, and networks need not necessarily be understood as an alternative organizational form. According to this interpretation, business networks are a hybrid organizational form which combines market and hierarchical aspects and is aimed at achieving competitive advantages. The relatively stable relationships between the members of the network are characterized by reciprocity and a tendency to be cooperative, even though asymmetrical power relations may simultaneously exist. (See: Berghoff / Sydow, Unternehmerische Netzwerke 2007, here pp. 16–18. According to Casson, companies can be viewed as rather hierarchical networks, and markets as networks which tend to be flexible. Thus, in his view, both are just special types of networks. See: Casson, Networks 2011, pp. 18f.)


10. On the state of German historical network research generally, see: Boyer, Netzwerke und Geschichte 2008; Derix, Vom Leben 2011; Düring / Keyserlingk, Netzwerkanalyse 2012 [to be published]; Düring / Stark, Histori-


18. Network approaches have also been used to explain the international goods trade in the 20th century. For example, Volkswagen sales in South Africa after 1945 were primarily based on a network, at the centre of which the Volkswagen export manager performed a bridging function, thereby overcoming a structural hole between the German car manufacturer and the South African market. This resulted among other things in the board of management of the company gaining access to valuable information about the South African market and establishing direct relationships with the government (see: Nieke, Volkswagen 2010).


20. To gain an overview of the levels of credit and the importance of personal relationships in credit networks, personal data can be collated with credit and land transactions in land registry files, in documentation relating to credit and deposit accounts and in notary files.

39. Chandler’s rigid teleological view of the development from owner-run companies to large divisionalized conglomerates has been replaced by a new company model with network structures. See: Chandler, Strategy 1962; Scherm, Kleine und mittelständische Betriebe 2009.


41. See: Kerkhof, Netzwerk 2008; Saldern, Netzwerke und Unternehmensentwicklung 2008; Saldern, Netzwerkökonomie 2009; Marx, Die Mischung macht’s 2010; Marx, Netzwerkhandeln 2011. Granovetter highlighted the importance of these internal company networks more than two decades ago: Granovetter, Economic Action 1985. Additionally, business history and economic history have identified a marketization of internal company coordination, particularly in the period since the 1970s. (See: Boltanski / Chiapello, Kapitalismus 2003; Reitmayer / Rosenberger, Unternehmen 2008). The growing risk of unemployment after the end of the boom and the accompanying risk of exclusion made it possible for top management to transfer responsibilities back to individuals without losing control. Marketization extended so considerably that whole sections of the company were legally separated and made into independent entities. Two different interpretations of the network concept were highlighted. On the one hand internal networks of company actors were used as analytical components representing social relationships and the organizational structure. On the other hand the network was understood as the organizational logic of a particular form of company management (see: Wilson / Popp, Districts, Networks and Clusters 2003, here pp. 8–9; Goshal / Bartlett, Multinational Corporation 2005). The loosening of hierarchical organizational models in favour of network formations became a general global trend due to increasing economic interconnections, though country-specific variations emerged due to the different institutional landscapes in the various countries (see: Dyas / Thanheiser, Emerging European Enterprise 1976).


46. On the network-like external relationships between businessmen and intellectuals and foundations, see: Gemelli, Man with a Vision 2000.


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Indices

DDC: 330, 337, 338, 380, 382

Locations
Hanseatic Cities in 1554

Link #ah

Link #ai

Link #aj

Link #ak
- Marco Polo (1254–1324) VIAF (http://viaf.org/viaf/22147202) DNB (http://d-nb.info/gnd/118595563)


Marco Polo (1254–1324)

Link #am

Link #ao
- The East Indian House in London, 1843


Link #ap
- United East India Company


Link #aq

Link #ar

Link #as
Biglietto da tre mille lire, 1746


Promissory note issued by the Second Bank of the United States in the amount of $1,000, 1840


Bundesgesetzblatt des Norddeutschen Bundes, No. 21, 1870


Depositors Attempting to Enter the City Credit Union in Berlin in 1931


Max Weber (1864–1920)


Paul Reusch (1868–1956)

Paul Reusch (1868–1956)

A Plan of Manchester and Salford in 1794