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The Rule of Law and the Emergence of Market Exchange: A New Institutional Economic Perspective

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Abstract

Markets, where buyers and sellers can exchange goods and services, are key to the division of labor, specialisation, the realisation of economies of scale and scope and, therefore, economic prosperity, growth and development. The better markets work the easier it is to reap the benefits of specialisation and the gains from trade and voluntary exchange. For the emergence of market exchange, in turn, stable and secure property rights are key. These rights should be defined as clearly as possible and be as stable and secure as possible, in order to foster investment and to incentivize the careful and diligent treatment of assets. Hence, the rule of law and secure property rights go hand in hand with the emergence of markets, gains from trade and economic growth and prosperity.

1. Introduction

The emergence of modern law has been a prerequisite for the development of modern markets, in which buyers and sellers can trade on a more or less anonymous basis, without taking undue advantage of one another. While historically trade has often been organized through non-market forms, as Karl Polanyi (1944) has famously pointed-out, we have seen a development from (1) ceremonial gift exchange over (2) simple barter trade to (3) personalized trading relationships and (4) anonymous markets (see Salisbury, 1968, p.122). This development has not only been facilitated by technological progress, but – to a large degree – by institutional change, i.e. the development of law and property rights. As Douglass North (1977, p. 710) has pointed out in his discussion of Karl Polanyi: "An essential pre-condition for price-making markets is the existence of well-defined and enforced property rights over the good or service to be exchanged (…) The costs of defining and enforcing property rights – transaction costs – lead to non-price allocation of many goods and services today."

In his theory of institutional change, North (1981) has analyzed how markets develop, depending on the size of societies and the costs of transport (which allows trade over long distances). More precisely, North (1981) has argued that exchange can take place without formal institutions such as property rights, as long as societies are of small size (families, tribes, villages,…). In these societies, trade is guided and structured by informal rules. If, however, trade occurs over longer distances, institutions must be found to protect against what economists call opportunism, i.e. fraud and deceit. Institutions such as norms, measures and weights as well as money as a medium of exchange have basically developed in order to lower the costs of market exchange. Finally, urbanization and globalization require further institutional developments to facilitate trade (protection of property rights, international arbitration, diverse screening and signaling mechanisms). Coase (1988a, p. 10) has argued in a similar fashion: "When the facilities are scattered and owned by a vast number of people with very different interests (...) the establishment of a private legal system would be very difficult. Those operating in these markets have to depend, therefore, on the legal system of the State."

In this paper, we elaborate on the interdependence between property rights, the rule of law and the development of market-based exchange that facilitates the division of labor and according productivity gains which, in turn, foster economic growth and

prosperity. For that purpose, we first elaborate on the role of markets in the economics literature in section 2. As we will see, economic theory has only perfunctorily dealt with the question of how markets emerge and how they are organised, even though markets play a major role in most economic systems. In section 3, the historical development how trade was organized over time is outlined in a very brief manner, before section 4 analyzes the institutional and informational requirements for modern markets to work. Section 5 then explains how the rule of law facilitates market exchange, before section 6 summarises and concludes.

2. Markets in the Economics Literature

In neoclassical economics exchange is simply assumed to take place if there are benefits from trade to be realised. The question of how markets are actually organised has usually been neglected. Instead, two fictions have, by and large, been used to model the exchange process in the simple world of zero transaction costs. Either a (costlessly working) Walrasian auctioneer is supposed to postulate prices until demand equals supply, or individuals bargain about how to split the gains from trade and exchange goods along a so-called contract curve in an Edgeworth box.

However, as Ronald Coase (1988a, p.8) has made clear, an “elaborate analysis of individuals exchanging nuts for apples on the edge of the forest” is inappropriate to approach real world markets, since it completely ignores the social institutions facilitating exchange. While traditional, neoclassical economics basically determines the gains from trade and their distribution, it fails to show how much trade there is of which goods. The preconditions that facilitate trade are completely neglected. Put differently, the market is just assumed to be “there”. In contrast to neoclassical economics, the New Institutional Economics (NIE) does not take an economy’s institutional structure for granted, but aims at explaining why certain institutions such as a particular market exist.

Drawing upon the analysis of Coase (1937), a major focus of the NIE has been placed on the so called theory of the firm which explains under which conditions transactions are organised within firms, or more generally, within hierarchies and not carried out as price intermediated market transactions. The primary focus of Transaction Cost Economics (TCE) as developed by Oliver Williamson (1975, 1985, 1996) has been on the explanation of hierarchies within markets in terms of relative efficiency. From a

transaction cost perspective markets and hierarchies can be simply viewed as alternative governance structures to organise economic transactions.

Markets and hierarchies are not only seen as alternative governance modes though, but markets are typically viewed as the "natural" form of economic organization. Only if the costs of using the price mechanism exceed the costs of internal organization, transactions are moved from the market to the firm. In these cases, "market failure" can be overcome by other explicit or implicit contractual arrangements. As Oliver Williamson (1985, p.87) has admitted, "only as market-mediated contracts break down are the transactions in question removed from markets and organized internally. The presumption that 'in the beginning there were markets' informs this perspective." Similarly, Coase (1988b, p. 34) found that in the absence of transaction costs "the firm has no purpose".

Accounting for the fact that carrying out and organising transactions is a costly activity in itself, neither the use of markets nor the organisation of firms is costless. In general, to facilitate transactions three kinds of transaction costs are involved (see Williamson, 1989):

- Information and search costs such as advertising costs or the cost of comparing prices;
- Bargaining and contract negotiation costs; and
- Monitoring and contract enforcement costs.

One of the main hypotheses of the NIE, and the TCE framework in particular, is that in competitive environments transactions are organised in the most efficient way that minimises the transaction costs for a given transaction. Put differently, competition will lead to the emergence of the most efficient mode of organisation for every transaction. From this perspective, the crucial difference between markets and hierarchies consists in the way transactions are governed: Within firms the residual decision rights have been transferred to the firm's owner or manager, so that transactions are based on authority and command, whereas on markets property rights are voluntarily transferred, and transactions are price intermediated.[1] Again, from a transaction cost

1. This perspective has been also put forward by Chandler (1977) who distinguishes more plastically between the "visible hand" of the firm and the "invisible hand" of the market. As Eggertsson (1990, p.159) summarises: "A firm involves a set of long-term contracts between input owners, and a firm replaces the product market with a factor market where price signals play a relatively small role (...) and, typically, hierarchical relationships are substituted for market exchange."

perspective markets and hierarchies are basically viewed as different governance structures to solve the same problem – how to organise exchange.

In addition to these two polar governance structures there exists a wide range of hybrid modes of organisations as, for example, franchise contracts (see Klein, 1980, Dnes, 1996; Menard, 1995). Moreover, reasonably complex forms of governance, such as networks of relational contracts, may evolve to overcome coordination and cooperation problems. Ostrom (2010) has spoken about "polycentric governance of complex economic systems".

In this context, a major hypothesis of institutional economic analysis is that because of "the filter of competition" only those contractual arrangements prevail that economise on transaction costs (see Alchian, 1950), or, as Oliver Williamson (1985, p.17) has put it, "the economic institutions of capitalism have the main purpose and effect of economising on transaction costs." In this sense Coase (1988a, p.7) has explained that "markets are institutions to facilitate exchange, that is, they exist in order to reduce the cost of carrying out exchange transactions."

From an anthropological or historical perspective, however, the view that markets are the "natural" mode of economic organization is rather flawed. In primitive societies exchange has been organized in network structures, if not hierarchies, and exchange relations have been highly personalized (see Landa, 1994). Impersonal spot markets, on the contrary, are a rather recent phenomenon (Salisbury, 1968). One of the few economists who acknowledges this fact is Douglass North (1981, p.41) who wrote: "All of the modern neoclassical literature discusses the firm as a substitute for the market. For the economic historian this perspective is useful; its usefulness is limited, however, because it ignores a crucial fact of history: Hierarchical organization forms and contractual arrangements in exchange predate the price-making market."

In contrast to Williamson one might therefore say that "in the beginning there were hierarchies" and, with respect to Coase, that in the absence of positive transaction costs the market has no purpose. Nevertheless, in economic theory the evolution of markets has not caught much attention: While the institutional economics literature claims to analyse the emergence of different institutions and their relative efficiency, surprisingly little attention has been paid to the development of markets and the conditions that enable markets to evolve (see North, 1994). After all, one can hardly

disagree with Coase (1988a, p.7) who notes that “in modern economic theory the market itself has an even more shadowy role than the firm” (also see North, 1977). Similarly, Spulber (1996, p.135/136) noted that “firms establish and operate most markets by setting prices, carrying out transactions, forming and monitoring contracts, and producing and distributing information. Firms create and manage markets by acting as intermediaries between buyers and sellers.” And furthermore, “just as producing and services consumes resources, so does the establishment and operation of markets to allocate those goods and services. (...) The market institutions that provide intermediation have not been given the attention they deserve.” In fact, the rise of many online platforms vividly demonstrates this fact: Firms organize and manage markets, markets are not simply “there”.

The tendency to neglect market emergence and development in economic theory might be partially due to the influential work of Hayek who used the market as the standard example for a spontaneously emerging order (Hayek, 1944, 1960). From an anthropological or historical point of view, however, this perspective is misleading, and quite the opposite seems to be true. Neither do markets arise spontaneously nor are they simply “there”. To explain their emergence is part of the challenge posed by Karl Polanyi (1944, 1957) as expressed by North (1977). How can the emergence of market-based exchange by explained and how can other forms of exchange such as reciprocity and distribution be explained by economic theory?

3. A Very, Very Brief History of Trade

In fact, price-making markets in which the identity of the trading partners is irrelevant are a rather modern phenomenon. In early human history as well as in primitive societies exchange usually first took the form of ceremonial gift giving. As Polanyi (1957, p. 262) noted, “over millennia trade between empires was carried out as gift trade.” Publicly presented gifts constituted trade in so far as the gifts were expected to be reciprocated. In his famous *Essai sur le don*, Marcel Mauss (1925/1967) has stressed the reciprocal nature of gifts. In primitive societies virtually every exchange and contract took the form of a gift, which is, according to Mauss (1925/1967, p.1), only voluntary in theory, but obligatory in practice. By the presentation of a gift an obligation to return a countergift was created. As Mauss (1925/1967, p.1) furthermore explained, although the presentations commonly take the form of generous gifts, the transactions

were “based on obligation and economic self-interest.” What is also quite interesting to notice, is that exchange in primitive societies hardly ever occurred on an individual basis, but almost always between collective groups such as tribes, clans or families.

In this context, the institution that has probably caught the most widespread attention among economic anthropologists is the Kula Ring of Papua New Guinea. Since its detailed description by Malinowski (1922/1953) the Kula Ring serves as the classical example of ceremonial gift exchange in the anthropological literature. The Kula Ring is a system of gift exchanges between several tribal societies that live on the different islands in the Western Pacific. Malinowski (1922/1953, p.103) describes the trading system between these “stateless” societies as follows: “The Kula trade consists in a series of ... periodic overseas expeditions which link together the various islands groups, and annually bring back big quantities of *vaygu’a* and of subsidiary trade from one district to another. The trade is used up, but the *vaygu’a* - the armshells and the necklaces - go round and round the ring.” The so-called *vaygu’a* are two different valuable goods, necklaces and armbands that permanently circulate in opposite directions. Their exchange is highly ceremonial and strictly regulated by a detailed set of rules.

The basic purpose of the Kula exchange is not the ceremonial gift giving per se, but rather to facilitate peaceful commercial trade of useful commodities. Aside from the ceremonial gift exchange commercial goods are exchanged by members of different tribes through a chain of intermediaries. Each Kula partner is not only involved in the ceremonial gift exchange, but also in commercial trade with local residents and even with strangers “with whom an indirect exchange is carried on through the intermediation of the local men” (Malinowski, 1922/1953, p.363).

The Kula trade does not take place in the form of spot transactions, but is based on the principle of delayed reciprocity. As Landa (1994, p.148) has explained: “No Kula valuables are carried on overseas Kula expeditions; the visiting Kula partner visits his host to *receive* gifts and not to give them.” Similarly, Mauss (1925/1967, p.20) argued: “The rule is to set out with nothing to exchange or even to give in return for food (...) On these visits one is recipient only, and it is when the visiting tribes the following year become the hosts that gifts are repaid with interest.” The fact that the gifts received are usually even returned with interest payments, lead Mauss (1954, p.35) to the conclusion that “economic evolution has not gone from barter to sale and from cash to

credit. Barter arose from the system of gifts given and received on credit (...) Likewise purchase and sale - both direct sale and credit sale - and the loan, derive from the same source.”

After all, the Kula exchange is not an anonymous exchange between atomized agents as it appears in neoclassical economics. Rather trading partners have to be member of the Kula ring, entry to which is strictly limited. As Belshaw (1965, p.12) explained “to enter the Kula ring a man must have the knowledge of the appropriate etiquette (...) Knowledge of the etiquette is attained through general socialization, but much of the magic is idiosyncratic and must be learned specifically (...) The exchanges are accompanied by forms of words and ceremonial acts all of which reinforce the notions of honorable gift-giving and mutual dependence between persons who, in most instances, would be strangers in other circumstances.”

The ritual aspects of the Kula exchange can be seen as “institutional ways of establishing individual and group identity in a world characterized by uncertainty and high information costs” (Landa, 1994, p.144). Moreover, the ring structure of the Kula system as well as the fact that two different ceremonial goods flow in different directions can also be explained by transaction cost considerations. As Landa (1994, p.143) argued, “the Kula Ring is an institutional arrangement that emerged primarily in order to economize on transaction costs of intertribal commercial exchange in stateless societies. (...) In a society that lacks that institutions for protecting life, property, and contracts, an institution like the Kula Ring may be interpreted as a club-like arrangement for economizing on costs of transacting across tribal boundaries.” In a similar way, Ziegler (1990) traced the structure of the Kula system back to advantages of peaceful commercial trade. According to his analysis, the ceremonial gift exchange acts as an efficient and reliable signalling mechanism to facilitate commercial trade and to maintain the social order (see also Posner, 1980).

One might think that the Kula Ring is a rather singular phenomenon. However, quite on the contrary trade via mutual gift exchange has been the rule rather than the exception in primitive societies. To give another example, let us follow Mauss (1925/1967, p.27): “A relationship analogous to the Kula is that of the Wasi. This sets up regular and obligatory exchanges between partners, between agricultural tribes on the one hand and maritime tribes on the other. The agricultural partner places produce in front of the house of his fisherman associate. The latter, after a great fishing

expedition, makes return with interest, giving his partner in the agricultural village the product of his catch."

It is quite obvious that these mutual gifts are based on gains from specialization and differences in availability. There exist a broad range of other exchange facilitating institutions such as the Kwakiutl Potlatch in the American Northwest, the Manus of the Great Admiralty Islands, the Tolowa-Tututni of California, or the Pokot of Kenya to name only a few. Descriptions and analyses of these exchange facilitating gift ceremonies can be found in Mauss (1925/1967), Polanyi, Arensberg & Pearson (1957), Belshaw (1965) or Sahlins (1965). All these institutions share some common features as Belshaw (1965, p.35) demonstrated: "Although the details vary considerably from culture to culture, the main variables are remarkably constant. These include emphasis on relationships between individuals which are also seen as relationships between groups. (...) A very high proportion of social contacts between adults is accompanied by gift-giving."

To summarize, in early human history and in archaic societies trade has usually taken the form of gift exchange and was based on the principle of delayed reciprocity. Exchange relations in these societies have been highly personalized and very stable. As Malinowski (1922/1953) reports, Kula relations were even passed on to heirs, so the reputation of a so called "Big Man" in the Kula Ring did not die with him. That way the last period problem of finite games is avoided, and the Kula gift exchange becomes an infinitely often repeated game. Furthermore, as Ziegler (1990) pointed out, trust played an essential role in Kula relations.

In a similar way, Geertz (1978, 1979) has analysed the institutional structure of the Moroccan bazaar economy. At a first glance, the bazaar might appear to come close to the classic spot transaction of the ideal market. However, as Geertz points out even on the bazaar continuing relations build the dominant pattern. Posner (1980), therefore, compared the bazaar economy directly to primitive societies as he argued: "In primitive societies if you trade repeatedly with the same man he becomes your blood brother and you owe him the same duty of generous and fair dealing that you would owe a kinsman. This 'barter friendship' resembles the pairing of buyers and sellers in bazaars that Geertz noted. It is a way of bringing reciprocity into the exchange process and thereby increasing the likelihood that promises will be honoured despite the absence of a public enforcement authority."

Fafchamps (2002) made a similar observation referring to empirical evidence of manufacturing and trading firms from Ghana, Kenya, and Zimbabwe. Personalized exchange is the rule in markets based on trust and reputation; commercial relationships between economic agents are long lasting. As Fafchamps (2002) has explained, trust and reputation basically replace court based enforcement mechanisms in these societies. Therefore, as in the case of the Kula Ring, trade cannot be anonymous, but is based on mutual trust and the sharing of information among traders. The identity of the trading partners is of major importance. However, if screening devices are costly, some agents are excluded from the market, and the "business then becomes monopolized by a social network, possibly sharing the same ethnic or religious affiliation" (Fafchamps, 2002, p.4).

Quite interestingly, the role of labels and identities for building trust has been also stressed by Landa (1994) to explain the dramatic success of ethnically homogeneous trading groups in many developing countries today, especially in South East Asia. She argued that ethnically homogeneous groups of middlemen are "a low cost clublike institutional arrangements, (...) which emerged to economize on contract enforcement and information costs in an environment where the legal infrastructure was not well developed." These networks serve as an alternative to contract law or hierarchical structures. In these societies, ethnicity serves as a labelling device to signal credibility and to shape one's expectations (Landa, 1994).

Furthermore, as Greif (1994) has shown, cultural beliefs may have a significant impact on the overall economic outcome. In his comparative study of the Maghribi traders of the eleventh century and the Genoese traders of the twelfth century, Greif argues that the "collectivistic culture" of the Maghribi traders is an impediment to economic development while the individualistic culture of the Genoese fosters the development of markets and thereby also economic development. In a similar way, economists as Kuran (1997) and anthropologists as Ensminger (1997) have pointed to the labelling value of Islam in Africa. Membership of a certain religion shapes trading partners' expectation about each other's behavior, or to put it differently, certain religious beliefs are connected with certain ethical codes of conduct, so traders know what to expect. As Kuran (1997) has argued, mutual trust between traders of the same religion is higher since they both have subscribed to the same religious beliefs. Hence, fewer safeguards are required and, accordingly, transaction costs are lower.

Viewed from this angle, it is not very surprising that in history trade has often been in the hands of specific ethnic groups or even families such as the Lombard and Genoese merchants in medieval Europe, Jews in the Mediterranean, Armenian in the Middle East, or Chinese in Singapore today, Asians in East Africa, Lebanese in West Africa (see Fafchamps, 2000). After all, ethnicity and religion might play a more important role for the emergence of markets and economic development than has been recognized so far.

However, market conditions have changed in the course of world history as the population has increased, products have become more complex and communication and transport easier. As Salisbury (1968, p.122) argued, in this course trade can be characterized by a "sequence of ceremonial gifts, intercommunity barter, trading partnerships, and market place trade." In a similar way, Belshaw (1965) distinguished between "traditional exchange" and "modern markets." While market exchange is rather connected with standardized spot transactions and legal enforcement mechanisms, traditional exchange is based on principle of reciprocity and mutual trust. This view is certainly influenced by Polanyi (1944), *The Great Transformation*, in which he understands economic and cultural development as a shift from an economy embedded in social relations to one of impersonal markets.

The historical sequence from ceremonial gift exchange over simple barter trade to personalized trading relationships to anonymous markets, as characterized by Salisbury (1968), has partly been explained by Coase (1988a, p. 10) as follows: "When the facilities are scattered and owned by a vast number of people with very different interests (...) the establishment of a private legal system would be very difficult. Those operating in these markets have to depend, therefore, on the legal system of the State." Moreover, North (1981) in his theory of institutional change outlined the following sequence:

1. As long as societies are of small size (families, tribes, villages,…) exchange can take place without formal institutions such as property rights, trade is guided and structured by informal rules,
2. If trade occurs over longer distances, institutions must be found to protect against opportunism (such as norms, measures and weights as well as money as a medium of exchange),

3. Urbanization and globalization require further institutional developments to facilitate trade (protection of property rights, international arbitration, diverse screening and signaling mechanisms).

The underlying principle behind this mechanism might be explained as follows: As the population size increases and transportation becomes easier, it becomes more difficult to keep track of every member of a society. The probability to meet the same trader again decreases, so that incentives for opportunistic behavior increase. Therefore, over the course of history different enforcement mechanisms and exchange facilitating institutions arose. As Coase (1988a, p.8) noted, in the medieval ages the provision of markets became an entrepreneurial activity: "In the medieval period in England, fairs and markets were organized by individuals under a franchise from the King. They not only provided the physical facilities for the fair or market but were also responsible for security (important in such unsettled times with a relatively weak government) and administered a court for settling disputes (the court of piepowder)." These market institutions, which usually consist of physical facilities such as the market place and an enforcement mechanism that might be called the market order, have to be built and maintained.

Exactly in this sense, Milgrom, North & Weingast (1990) have discussed the institution of the medieval law merchant the role of whom was to provide information to make self-enforcing agreements feasible. Similarly, Greif, Milgrom & Weingast (1994) have analyzed medieval merchant guilds as exchange facilitating institutions that economize on transaction costs under conditions of legal uncertainty. As Gambetta (1993) has argued, from a historical point of view even the rise of the Sicilian Mafia can be explained on transaction cost grounds. According to Gambetta (1993), the Mafia historically basically provided an enforcement mechanism to facilitate trade.

Fafchamps (2002, p. 1) in his paper on "spontaneous" market emergence has summarized all this nicely as follows: "To simplify a bit, early markets can be described as a two-tier system, with a core of sophisticated firms and traders and a fringe of small enterprises. Fringe agents operate on a purely cash-and-carry basis, largely in an anonymous fashion, and leave no room to breach of contract (e.g. Fafchamps & Minten 2001, for Vietnam in particular: McMillan & Woodruff 1999a, 1999b). Core agents are in long-term relationships with each other. They offer supplier credit and warranty and place orders (e.g., Fafchamps, 1997). The widespread existence of long term

relationships between manufacturers and their suppliers and clients has, for instance, been noted in developed and developing economies alike (e.g., Lorenz 1988, Aoki 1988, Dore 1987, Fukuyama 1995, Stone, Levy & Paredes 1992). Research by anthropologists, sociologists, historians, political scientists, and economists has shown that reliance on interpersonal relations at early stages of market development is nearly universal (e.g., Hopkins 1973, Greif 1993, North 1990, Meillassoux 1971, Amselle 1977, Jones 1959, Bauer 1954, Sahlins 1972)."

Hence, the emergence of markets and market economies does not necessarily require efficient and costlessly working court based enforcement mechanisms as is often suggested or assumed in economic theory. In the absence of a state that enforces property rights with coercive power other institutions might arise to facilitate exchange. It is important to notice, however, that in the absence of court based enforcement systems, markets cannot function as anonymous gatherings, but identity of the trading partners becomes highly relevant. As Coleman (1991) explained, social mechanisms such as gossip might serve a valuable function in these markets.

Having now documented that markets can even work in the absence of well-defined property rights and the rule of law (as also black markets vividly demonstrate), it is also clear that well-defined property rights and the rule of law greatly simplify trade and market exchange, thereby simplifying both further specialization and credit-based relationships. In fact, the emergence of many platform markets in the digital economy is rather similar to the organization of historical markets in the medieval age. The provision of standard laws and enforcement mechanisms has greatly simplified exchange so that more transactions can actually take place and resources that were used to safeguard transactions can be saved

4. Modern Markets and their Institutional and Informational Requirements

In modern societies, business relations are usually based on explicit contracts which can be enforced by the state. With the development of the legal system and court based enforcement mechanisms trade in large, anonymous markets has become possible in principle.[2] Indeed, standard economic theory normally assumes that in

2. One may therefore argue that traditional (private) enforcement mechanisms, trust and reciprocity have become less important in modern markets when compared to traditional forms of exchange (see Belshaw, 1965). This is quite different in less developed peasant societies though (see Ensminger, 1992, and Fafchamps, 2000, 2001, for further description and analysis).

modern societies all trade takes the form of spot transactions and impersonal exchange. An example often used to illustrate the point are commodity and stock exchanges. It is important to notice, however, that anonymous price-making markets demand strong institutional and informational requirements.

4.1 The Role of the Institutional Environment

Regarding institutional requirements, only the development of the modern legal system has made possible the wide-spread emergence of price-making markets. Key to the emergence of modern markets are well-defined, stable and secure property rights, which are protected either by private order or by the Government or the state. According to the economic property rights theory (see Furubotn & Pejovich, 1972), a property right in an asset consists of:

- the right to use the asset,
- the right to change its form and substance,
- the right to appropriate the returns from the asset; and
- the right to transfer (sell) all rights in the asset.

Exchange can most easily occur if it is clearly defined who holds the property right in an asset in the above sense (see Coase, 1960). If there are no clearly defined property rights (including the right to use and to transfer an asset), markets are not likely to come into existence. Lack of clearly defined property rights does not necessarily mean that markets will not emerge at all (see black markets), but it is much more difficult to create them and to ensure they work properly.

Since it is costly to invest into the creation of a market, understood as the market facilities plus a market order and its enforcement, it is important that property rights are stable and secure and can be enforced through the courts or some other institution. If property rights are not stable and can be redefined relatively easily through other means (from theft or outright expropriation to Government regulation, which usually limits the right to use and/or change an asset), people will be less interested in trading these assets under uncertain conditions. Put differently, if people do not know what exactly it is they buy they will be less inclined to buy that particular asset. Also, it may

be easier for them to lobby the Government to redefine property rights rather than buying the asset themselves and then change its use or form. If it is less costly for individuals to get the Government to redefine property rights rather than buying the asset themselves, it is risky to invest into the creation of a market.

Hence, for markets to work best, property rights should (a) be defined as clearly as possible and (b) be as stable and secure as possible. For the latter point, a judgement has to be made about how likely it is that the Government will intervene and redefine property rights. This in turn is dependent on a number of factors. First of all, one can ask whether private property rights are protected through a jurisdiction's constitution as it is the case in the US or Germany or through other *legal means* or not at all. The question is: How easy is it for the Government or other parties to limit or restrict private property rights?

Secondly, property rights are less likely to be guaranteed and stable if a given property rights allocation is not socially sustainable and acceptable for a majority of society. In this case, if a property rights allocation is not socially acceptable for a majority of voters, it is unlikely that this particular property rights allocation is politically sustainable either. Instead, the Government will have every incentive to redefine property rights through political/legal means. For example, the extent and type of taxation will typically also depend on demographic features of the electorate (see, e.g., Scheuer & Wolitzky, 2016).

Similar problems often occur with environmental issues when property rights in nature/natural resources are involved. While for example a market for water abstraction rights cannot exist without well-defined property rights in the respective water resource, a market for water rights may not be acceptable for a majority of voters and therefore not politically viable even though economic theory would predict a market for water rights to be an efficient mode of organisation. Another case are school vouchers where a market solution is predicted to be efficient from an economic perspective, but does not appear to be politically acceptable in many parts of the world. Hence, part from economic efficiency the political sustainability of any allocation of property rights needs to be considered (see, e.g., Dixit, 1996; Williamson, 1996; Acemoglu & Robinson, 2013).

4.2 Information and Transaction Costs

While stable and well defined property rights are key to the creation and smooth working of markets, they alone do not suffice to make markets work best (as opposed to other mechanisms of exchange such as social networks or hierarchies). Put differently, the existence of secure property rights is only a necessary, but not a sufficient condition for markets to come into existence. In fact, price-making markets not only require well-defined and enforceable property rights, but in addition “it must be possible to measure the dimensions of a good or service” (North, 1981, p.42).

4.2.1 Information Issues

For purely price intermediated trade to take place it is not sufficient that property rights are well defined, but there are also strong informational requirements for the functioning of the price mechanism. Already Stigler (1961) in his seminal article on the economics of information has pointed out that information is not for free and that potential buyers have to invest in gathering information to find out where they can buy what at which price. Similarly, sellers have to find out what it is that buyers actually demand. This information gathering and processing takes up time and other resources. Price-making markets can only work smoothly if this information is easily and widely accessible for both potential buyers and potential sellers.[3]

4.2.2 Quality Uncertainty

What is as crucial for the working of a market as information about a product’s price and place etc. is, in many cases, information about product quality, which can be much more difficult to convey. George Akerlof has demonstrated this quite plastically in his seminal paper on the “Market for Lemons” (Akerlof, 1970), where he shows that trading on the market for used cars may break down because buyers have inferior information about the quality of a used car than sellers. If buyers lack trust in sellers’ promises, markets are very difficult to establish. This is because with lack of trust buyers will “deduct” a risk premium from the price they are willing to pay. Knowing this, owners of used cars will be less inclined to put a “good” used car on the market, which again

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3. A more formal model which looks at buyers’ and sellers’ incentives to invest into information gathering has been provided by Gould (1980).

leads to a deterioration of the average quality of used cars traded on the market which again confirms' buyers' suspicions that only "lemons" are offered.

For many products price is only one among many factors that buyers consider before making their purchase decision. Apart from the price, a product's quality (in the broadest sense of the word) and associated services are often as important as the product's price. However, for many goods and services buyers cannot evaluate the product's true quality ex ante, or it is rather costly for them to do so. Here the economics literature distinguishes between search qualities, experience qualities and credence qualities.[4]

Search qualities are those characteristics of a good that buyers can easily determine before purchase such as colour or size. In contrast, experience qualities are characteristics that buyers only learn after purchase, e.g. a good's durability or actual taste. That is, these qualities can only be determined though experience, but not through simple inspection. Credence qualities are finally those qualities which are even costly to determine after purchase. Examples are the quality of a car repair or medical services where most buyers do not know even after purchase whether they received the quality and extent of treatment that was best for them. Hence, information problems are severest for goods where credence qualities are important while informational aspects are the least important for search goods where most information can be gained through simple inspection.

For credence and experience goods trust between buyers and sellers is decisive for a successful trading relationship. Hence, it is much more difficult to establish anonymous markets for experience or credence goods where sellers and buyers remain anonymous. In fact, most organised markets concentrate in the trade of highly standardised search goods where buyers and sellers have high degrees of certainty about the goods' quality.

Information and measurement costs can be reduced, however, through standardisation and classification procedures (see Barzel, 1982, 1985). Through means of standardisation and classification experience qualities can be transformed into search qualities, at least to some degree. Reference standards make it easier to "measure" product quality, thereby reducing information costs. Also, if the number of

4. The distinction between search and experience qualities has been introduced by Nelson (1970). Darby & Karni (1973) later added the credence good category.

traders is relatively small, training buyers and sellers may help overcoming the informational problems associated with quality uncertainty if training enables market participants to judge quality more accurately before purchase.

In general, however, it is least complicated to establish markets for search goods where quality is easy to determine and to describe. For experience goods, other trust building mechanisms have to be used such as guarantees, investment in branding (see Klein & Leffler, 1981), or external reference systems (such as the reputation and information exchange systems on most online platforms where buyers and sellers can exchange information about their experience with other buyers and sellers).

4.3 When do Markets Work Best?

According to economic theory transactions are, all other things equal, organised in a way to minimise the sum of transaction and production costs. Hence, anonymous markets are usually replaced by other contractual arrangements as the contractual hazards that arise from asset specificity, uncertainty and low frequency of transaction increase. This is reflected in the work of North (1981, p.42) who writes: “Small numbers involved in exchange, the possibility of opportunism, and uncertainty as a result of a lack of well-defined property rights or an inability to forecast changes in conditions over the life of an exchange agreement all result in alternative contractual arrangements designed to reduce the attendant transaction or production costs.” However, given that it is costly to organise markets, the perspective can also be turned around: Price-making markets (using standardised contracts) do not evolve as long as the strong institutional and informational requirements are not met. Highly personalised exchange relations will prevail instead.

Not surprisingly, the strong informational and institutional conditions necessary for impersonal exchange are almost only met in highly organised markets such as stock or commodity exchanges or some auctions. As Telser & Higinbotham (1977, p.997) explain, “in an organised market the participants trade a standardised contract such that each unit of the contract is a perfect substitute for any other unit. The identities of the parties in any mutually agreeable transaction do not affect the terms of exchange. The organised market itself or some other institution deliberately creates a homogeneous good that can be traded anonymously by the participants or their agents.”

Stock or commodity exchanges as well as auctions are usually explicitly organised by a club of traders or a firm which usually owns the physical facilities within which trade takes place. Moreover, the dimensions of the transactions such as the trading place and time are usually regulated by an underlying market constitution. Goods as well as traders have to be admitted to the exchange, and entry to the market is limited. Through these measures measurement costs and credibility problems can be reduced. A high degree of product standardisation and classification allows traders to use standardised contracts and procedures and reduces measurement and bargaining costs. Hence, key for anonymous, impersonal exchange is a high degree of product standardisation or classification which allows the use of highly standardised contracts.

In organised markets, traders usually also have to pay a fee to use the market facilities. Since entry is limited and traders pay for the use of the market, organised markets can also be regarded as clubs. The exclusion of traders from the stock market serves to prevent free riding on the information costly generated in the market.[5]

As long as there are relatively few traders the market can still be explicitly and centrally organised as, for example, the *New York Diamond Dealers' Club* the organisation of which has been analysed by Bernstein (1992, 1996). According to her analysis the sophisticated rules and codes of conduct of the diamond industry guarantee that trade is organised in a transaction cost efficient manner. Disputes are hardly ever settled by courts, but rather by market arbitration. Furthermore, reputation plays an enormous role in the diamond industry and serves as a bond to guarantee contractual performance. However, as Coase (1988a, p.10) explains, "when the facilities are scattered and owned by a vast number of people with very different interests (...) the establishment of a private legal system would be very difficult. Those operating in these markets have to depend, therefore, on the legal system of the State."[6]

Unfortunately, there is no clear indicator or rule of thumb what constitutes large numbers and small numbers or high and low transaction costs. One of the few academic economists who have specialised in the analysis of organised markets, Dennis Carlton (1981, 244), points out in his analysis of organised futures markets, that

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5. For a further analysis see Telser & Higinbotham (1977) and Telser (1981).

6. Nevertheless, court enforcement of contracts is rather an exception than the rule as Macaulay (1963) has observed. In a similar way, Bernstein (1996) argues that explicit contracts rather serve as a benchmark for the case that a relationship breaks down than as an agreement of how to proceed while the contractual relationship is still continuing.

while it is possible "to identify some important characteristics that make a commodity suitable for a futures market, it is extremely difficult to predict which futures markets will succeed."

Finally, even in markets for highly standardised and measurable goods relationships between traders seem to play an important role. As Baker (1984) reports in his empirical study of floor trading of stock options, price volatility strongly increased with the number of trading groups. Granovetter (1992) explains these findings on grounds of the number of relations the average trader can sustain, relatively to the total number of traders. With a growing number of traders the market becomes more fragmented, the information flow becomes slower, and convergence to a single equilibrium more problematic.[7]

5. The Rule of Law Facilitates Market Exchange

As mentioned above, when property rights are well-defined, safe and secure, modern markets can most easily emerge. The extent of a given property right depends on (a) the contracts that have been concluded, and (b) the institutional environment that is in place. The institutional environment encompasses the definition and enforcement of property rights, which determine the transactions costs of and the gains from doing business.

A fundamental problem with the definition and enforcement of property rights is what has been called the "paradox of the strong state" by Barry Weingast (1995): "The fundamental political dilemma of an economic system is this: A government strong enough to protect property rights and enforce contracts is also strong enough to confiscate the wealth of its citizens." The problem, then, is how to empower government to subdue predators without letting it become an instrument of predation itself. How can one design an institutional environment that gives government the power to protect property rights while at the same time prevents government from using

7. Moreover, Haugland & Grønhaug (1996) provide empirical evidence that relationships between buyers and sellers in the Norwegian fish industry are also very stable although the dimensions of the fish traded are almost perfectly measurable, and of course, property right are well defined. However, even in these markets there may be possibilities for opportunistic behaviour such as delayed delivery or payment so that the maintenance of a stable buyer-seller relationship can be seen as a mechanism to overcome problems of opportunistic behaviour.

this power to curb property rights? How is it possible to simultaneously empower and constrain government? How can this paradox be solved?

Given that government has the ability to do good (enforce property rights) and bad (destroy property rights), how do we give government agents the incentive to do good and avoid bad? One solution proposed by constitutional political economists are constitutional constraints. Federalism, separation of powers, and the rule of law can structure government power in such a way as to limit how that power can be used. Another option can lie in the signature of international treaties and entry into international organizations such as the World Trade Organization (WTO), which implies a commitment to free trade.

More generally speaking, the law and regulations surrounding business activities should pursue, broad speaking, two objectives. On the one hand, consumers need protection against any producers' market power, but on the other hand investors also need to be protected against expropriation (hold-up) through the Government. Accordingly, regulation may be interpreted as an implicit contract between producers and consumers, which is administered by an (impartial) regulatory authority (see Goldberg, 1976). Every regulatory system is – necessarily – compromised with two types or errors, though. Firstly, regulation or government intervention can occur even though it is not necessary or beneficial (type-I- error), while, secondly, regulation or government intervention may not be in place even though it would have been beneficial (type-II-error). To find the optimal balance between these two errors is the difficult task of designing good regulatory systems to govern market exchange.

An optimal regulatory system should aim at achieving a balance between the following five objectives: (1) preventing the abuse of market power (allocative efficiency), (2) ensuring cost minimising production (productive efficiency), (3) facilitating optimal investment over time (dynamic efficiency), (4) inducing minimal transactions costs (transactions costs efficiency), and (5) providing minimal incentives for lobbying and unproductive rent-seeking (political efficiency). Of course, trade-offs are unavoidable, and in addition there are different political objectives for different industries.

In order to facilitate investment, however, investor protection is necessary. The problem is especially difficult to solve if (i) investments are highly location specific, and (ii) investors are foreigners (who do not vote) and are easier to expropriate from a political-economy perspective.

Potential solutions include the international rule of law, the signature of international investment protection treaties and accepting “global governance” mechanisms. After all, the division of labor (which is responsible for our economic well-being) is limited by the extent of the market, as Adam Smith has said long ago, but the extent of the market is also limited by the extent of the law, as George Stigler has added. Hence, the extent of the law also affects economic growth and prosperity.

6. Summary and Conclusion

Summarising the analysis above, whether markets work better than other forms of exchange depends on the institutional environment, informational aspects and the dimensions of the transaction. In general, an organised market can only flourish if the transaction costs of exchange are lower on the market than they would be under any other mode of organisation. If transactions costs are lower within a different mode of organisation, e.g. within long-term bilateral contracts, the market is unlikely to survive.

First of all, for markets to emerge property rights in the asset to be traded have to be well defined and should be as stable and secure as possible. How stable property rights are is not only a strictly legal question (whether property rights are legally protected and enforceable), but usually also a political question. If a property rights allocation is not acceptable to larger parts of society for whatever reason, the Government faces incentives to restrict or redefine property rights. The risk of (creeping) expropriation makes it more difficult to set up and operate organised markets. For example, before investing into the establishment of a market for tradable water rights, there needs to be some degree of certainty that these property rights will not be redefined and the market shut. Whether the creation of a market for some good or service is socially acceptable and therefore politically viable obviously depends on the particular circumstances. The key questions are whether property rights are well defined and expected to remain stable and whether the establishment of a market for the good or service is likely to be politically viable.

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