# THE EVOLUTION OF EFFICIENT MARKETS IN HISTORY

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I take my text from Max Hartwell: "...but no historian has detailed the steps by which for example, the market economy was achieved in terms of government action or changing law; no historian has linked mercantilist with laissez-faire law to trace the chronology of legal and economic change. In this neglect, surely a major element for understanding of the industrial revolution has been overlooked." And Max might have added that in consequence of our failure to analyze how a market economy was achieved in history we have not been able to provide guidance for policy makers in the present world who are attempting to restructure failed centrally planned economies.

A first step in meeting Max's challenge is to delineate the institutional characteristics of market economies in order that we may then explore their historical evolution. Since efficient markets are the key to successful economic performance they must surely be at the center of the economics paradigm. Not so; indeed the neo-classical paradigm is devoid of institutions and pareto efficiency is meaningless when it comes to exploring different institutional structures and their implications for economic performance through time. The currently fashionable growth models of economists do not confront the issue of the underlying incentive structure that is assumed by their models. These lacunae in our understanding have been forcefully brought to the attention of economists by the events in central and eastern Europe of the past few years where the challenge is to restructure the economies of that part of the world in order to create an hospitable environment for economic growth. Can that restructuring be done without deliberate attention to institutions? Delineating the institutional characteristics of such markets is a first step in answering these questions.

## I

Efficient markets entail an institutional framework in which the exchanging parties realize all the gains from trade of a zero transaction cost world. But since there are cost of transacting in all markets, efficient markets (implicitly assumed in neo-classical models) are not attainable. More realistic is that the institutional framework creates the competitive forces and arbitraging actors to approximate efficient markets. All markets have some degree of inefficiency; our analysis explores those institutional innovations that reduce the costs of transacting (and producing) as compared to alternative institutional frameworks. The historical study of economic growth is a study of institutional innovations that permit increasingly complex and productive exchanges to be realized by reducing the transaction (and production) costs of such exchanges.

The issue is credible commitment. Efficient markets (as defined above) entail impersonal exchange across time and space. But how does one make agreements between "anonymous" parties that are credible? In the modern western world we think of contracts being enforced by a coercive third party--the state. But how did impersonal exchange

occur before the state played a role? And how did the state come to assume a role in contract enforcement? The evolution of the state as a third party that enforced contracts is surely a part--a critical part of the story. But is the state a sufficient source of effective contract enforcement? Even in the modern western world the costs of contract enforcement in a world characterized by the assumptions of economic theory (where all the players maximized at every margin) would be prohibitive. The question for the economic historian--and for the modern economist concerned with putting the central European economies back together again--is how did the Western World achieve credible commitment that permitted the realization of most of the potential gains from trade and what lessons are there in that experience that can be helpful to the modern day policy maker? We are far from knowing all the answers to these questions but we can make a beginning. In the next two sections I very briefly summarize some of the immediate institutional innovations that lowered transaction (and production) costs and then discuss (equally briefly) improved enforceability of contracts in early modern Europe.[1] I can then return to the larger issues of how and why development came about in western Europe and not elsewhere and what are the implications for the modern problems of development.

In early modern Europe organizational innovations, instruments, and specific techniques and enforcement characteristics reduced the costs of engaging in exchange over long distances--that is lowered transaction costs. Let me begin with innovations that affected the mobility of capital. The first of these were the techniques and methods evolved to evade usury laws. The variety of ingenious ways by which interest was disguised in loan contracts ranged from "penalties for late payment" to exchange rate manipulation (Lopez and Raymond, 1955, p. 163) to the early mortgage, but while such devices did increase the mobility of capital they did increase the costs of contracting as compared to a world without usury laws. Usury laws not only made the writing of contracts to disguise interests complex and cumbersome but also made the enforceability of such contracts more problematic. As usury laws gradually broke down and rates of interest were permitted, the costs of writing contracts and the costs of enforcing them declined.

A second innovation that affected the mobility of capital was the evolution of the bill of exchange and particularly the development of techniques and instruments that allowed for the negotiability of the bill of exchange and the development of discounting methods. Negotiability and discounting in turn depended on the creation of institutions that would permit their use and the development of centers where negotiating and discounting could occur: first fairs, such as the Champagne fairs, then banks, and finally through financial houses that could specialize in discounting. Increasing volume obviously made such institutional developments possible. In addition to the economies of scale necessary for the development of the bills of exchange, improved enforceability of contracts was critical, and the interrelationship between the development of accounting and auditing methods and their use as evidence in the collection of debts and in the

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[1]. These two section are drawn from and briefly summarize a much more detailed description contained in my essay "Institutions, Transaction Costs and the Rise of Merchant Empires" in James Tracy, editor, The Political Economy of Merchant Empires (Cambridge University Press, 1991).

enforcement of contracts was an important part of this process (Yamey, 1949 and Watts and Zimmerman, 1983).

Still a third innovation affecting the mobility of capital arose from the problems associated with maintaining control of agents involved in long distance trade. The traditional resolution of this problem in medieval and early modern times was the use of kinship and family ties to bind agents to principals in ways that provided some assurance to the principal that the orders and directions of the principal were safely carried out (the church`s greater success with agents probably reflected ideological commitment). However, as the size and scope of merchant trading empires grew, the extension of discretionary behavior to others than kin of the principal required the development of sophisticated accounting and auditing methods and more elaborate procedures for monitoring the behavior of agents.

A second general source of improving productivity that lowered transaction costs was developments that lowered information costs, including the printing of prices of various commodities; the printing of manuals that provided information on weights, measures, customs, brokerage fees, postal systems, and, particularly, on the complex exchange rates between monies in Europe and the trading world. Obviously these developments were primarily a function of the economies of scale resulting from the volume of international trade.

Then there were the institutional innovations that transformed uncertainty into risk. We think of insurance and portfolio diversification in the modern world as methods for converting uncertainty into risks and thereby reducing, through the provision of a hedge against variability, the costs of transacting. When we look at the medieval and early modern world, we find the same innovations. That is, marine insurance evolved from sporadic individual contracts covering partial payments for losses to contracts issued by specialized firms.

Marine insurance was one example of the development of actuarial, ascertainable risk; another was business organization that spread risk through either portfolio diversification or institutions that permitted a large number of investors to engage in risky activities. The commenda itself, from its Jewish, Byzantine, and Muslim origins (Udovitch, 1970) through its evolution at the hands of Italians to the English Regulated Company and finally the Joint Stock Company, provides an evolutionary story of the institutionalization of risk (although as discussed below, the developments created new problems of agency for the principals involved).

III.

When we look at the development of enforcement mechanisms, we see that the process was a long one. Greif(1989) describes the development of a reputation mechanism among Jewish traders that permitted long distance trade in the Medditeranean as early as the tenth century. Commercial law appears to have had its beginnings in the internal codes of conduct in fraternal orders of guild merchants; those who did not live up to them were threatened with ostracism. More specialized the law merchant (mercantile law) evolved and came to govern most commercial transactions throughout large areas of Europe (Milgrom, North, and Weigast,1990). A uniform set of standards was conveyed through long distance trade codes of conduct, so that Pisan laws passed into the sea codes

of Marseilles. Oleron and Lubeck gave laws to the north of Europe, Barcelona to the south of Europe, while from Italy came the legal principle of insurance and bills of exchange. (Mitchell, 1969, p. 156)

The development of more sophisticated accounting methods and the use of such methods and of notarial records for evidence in disputes permitted evidence to become the basis for ascertaining facts in disputes. The gradual blending of the voluntaristic structure of enforcement of contracts via internal merchant organizations with coercive enforcement by the state is an important part of the story of increasing the enforceability of contracts. The long evolution of merchant law from its voluntary beginnings and the differences in resolutions that it had with both the Common and Roman law are a part of the story. The three types of law did not accommodate each other very well to begin with. This was particulary true in cases of moral hazard and assymetric information in insurance contracts as well as those associated with fraud in exchange. The law merchant was assumed by the court of common law but continued to be administered in the original spirit of the law merchant, that is as a law based on custom. At first it still applied only to proven merchants, whether they were the plaintiff or defendant. Cases seldom laid down a particular rule because it was virtually impossible to separate custom from the facts. The habit was to leave the jury with the custom and the facts and the judge would charge the jury to determine and apply the custom when supported by the facts.

The law merchant, besides providing a much needed court of law especially suited to the unique needs of the merchant, also fostered some significant developments which aided in decreasing transactions costs of exchange. Among such developments can be included the recognition of the responsibility of the principal for his agent. This spawned both a benefit and a cost. It allowed the merchant to expand his scope of operation via a series of agents. At the same time it created a principal-agent problem. Initially this legal recognition was in effect only for well known agents of the principal. The fact that credit was generally given to the agent because it was generally believed he was acting for his master provided an obvious opportunity for the agent to benefit himself. At the same time, however, the privilege was also used to control the principal-agent problem. By extending to his agent the privilege of using the merchant`s credit for his own personal trading, the merchant was able to increase the opportunity cost to the agent of losing his position. If the agent abused his position, he would lose not only his job, but a valuable line of credit as well.

The effect of the merchant law on contracts and sales was especially encouraging to the expansion of trade. The existing Roman and Germanic laws did not give the security and certainty of bargains to merchants that was needed. Neither body of law protected them against the claims of the original owner of stolen or lost goods that the merchant had innocently purchased. The feudal lord recognized the value of fairs and markets as a revenue source and therefore the importance of protecting the honest purchaser. Under merchant law, the honest purchaser was allowed either to keep the goods or return them if the original owner refunded the purchase price.

Protection of the bona fide purchaser was not a part of the common law. However in commercial disputes the "good faith" principle was used earlier and on a much wider scope--indeed the basis of Roman contract law by 200 A.D. It evolved first out of the Fair Bonds, which validated sales at fairs by affixing a seal to the bond. Originally this

was a voluntary measure--the custom of fairs allowed debts to be contracted by witness. Eventually though, the desire to avoid fraud and at the same time increase revenue led to a law requiring that all sales be recognized by a sealed bond. Once sealed, the bond could be invalidated only by proving that the seal had been forged.

The good faith principle was extended to the area of insurance. Extreme good faith was required when writing out a marine insurance contract. Because the person wishing insurance had more knowledge he must tell the underwriter the "whole truth and nothing but the truth". The law required this extreme good faith or the contract would be invalidated. Misrepresentation was a sufficient reason, even when not intended, to invalidate the contract, as opposed to ordinary contracts where intent to defraud was necessary in order to invalidate a contract.

A major player in this evolution of markets was the state, and there was continuous interplay between the fiscal needs of the state and its credibility in its relationships with merchants and the citizenry in general. In particular, the evolution of capital markets was critically influenced by the policies of the state, since, to the extent that the state was bound by commitments that it would not confiscate assets or in any way use its coercive power to increase uncertainty in exchange, it made possible the evolution of financial institutions and the creation of more efficient capital markets. The shackling of arbitrary behavior of rulers and the development of impersonal rules that successfully bound both the state and voluntary organizations were a key part of this whole process (North and Weingast, 1989). The development of an institutional process by which government debt could be circulated, become a part of a regular capital market, and be funded by regular sources of taxation was another. (Tracy, 1986).

It was in the Netherlands, and Amsterdam specifically, that these diverse innovations and institutions were put together to create the predecessor of the efficient modern set of markets that make possible the growth of exchange and commerce. An open immigration policy attracted businessmen; and efficient methods of financing long distance trade were developed, as were capital markets and discounting methods in financial houses that lowered the costs of underwriting this trade. The development of techniques for spreading risk and transforming uncertainty into actuarial, ascertainable risks as well as the creation of large scale markets that allowed for lowering the costs of information, and the development of negotiable government indebtedness all were a part of this story (Barbour, 1949).

It was in the Netherlands that efficient markets were first realized, but it was England that had the industrial revolution that Max seeks to account for. Steps along the way were: the political conflict of the 17th Century that culminated in the triumph of Parliament in 1689 and the subsequent flowering of the capital market in the next twenty-five years in England (Dickson, 1967); the expansion of long-distance trade; the improved enforcement of contracting, and the reductions of uncertainty that came with the development of commerce and the joint stock company.

## IV

What distinguished Western Europe from places in the world where persistent economic growth failed to occur was the gradual evolution of a set of adaptively efficient institutions that persistently tended to lower the costs of transacting, producing, and transporting in a way that produced a continuous evolution of productivity increases. We

know all too little about this process, but clearly the institutional innovations and improved contract enforcement described in the preceding sections were steps along the way. They were steps from autarky and localized trade, to larger trade and specialization, which at least for some economies, notably the Netherlands and England, were steps along the route to more efficient forms of economic organization.

The reason why modern economic growth had its origins in Europe rather than elsewhere has been associated in the minds of economic historians with the fragmented political structure of Europe that led to the intense competition amongst nations for hegemony. That is surely part of the answer. Not only did the rivalry lead to improvements in military technology (which ultimately led to world hegemony) but also the need for additional revenue forced states into making bargains with merchants that made property rights more secure and provided for third party enforcement.

But while rivalry may have been a necessary condition for the innovations that occurred it was not a sufficient condition as witness the constrasting patterns of development (or lack of it) that occurred. Indeed, the divergent paths of the Netherlands and England on the one hand and Spain and Portugal on the other provide us with an important clue to understanding the process of economic growth. Clearly, the incremental change of institutions and the consequent path dependent evolution, which take us down one road or another, were a major part of this process. Path dependency suggests that we can learn as much from the deadend path pursued by Spain and Portugal, with respect to institutional evolution, as we can from the successful paths to evolving more efficient institutions pursued by the Netherlands and England. The seeds of growth or decay were already built into the seventeenth century structure of the contrasting economies. Spain and Portugal had already created a centralized bureaucratic structure that imposed controls over every dimension of the economy (and polity). In contrast the Netherlands first and then England gradually evolved institutions that fostered decentralized decision making in the polity and the evolution of efficient economic markets. Once on these contrasting paths, subsequent incremental institutional innovations tended to reinforce the direction of the economies.

What are the implications for modern day policy makers? Institutions matter. But how? The neo-classical economic policy maker would certainly concede that institutions exist but would implicitly or explicity argue that they are a dependent variable in policy making. In effect all one need do is create the conditions of competitive markets by freeing up prices and exchange rates and competition will do the rest; ie create the necessary institutional framework of rules, laws, norms of behavior and enforcement. But fundamental doubts about such a policy prescription are raised by the foregoing analysis. For one thing the institutional evolution of efficient markets was a long evolutionary process in Western Europe. Can it be done overnight? In particular can it replace overnight an institutional matrix with radically contrasting incentives and norms of behavior? Will the new property rights that undergird competitive markets appear automatically? How long does it take to create an enforcement system of courts, judges, and a legal framework that will impartially enforce contracts? Will the appropriate norms that complement contract enforcement appear?

The issue is credible commitment. Can it be create overnight? We are a long way from completely understanding the interplay between formal rules and informal norms of

behavior and the consequences for economic growth; but we can make a beginning by taking up Max's challenge and exploring changing transactions costs and institutions in history.

# Bibliography

Barbour, Violet. 1949. Capitalism in Amsterdam in the Seventeenth Century, in The Johns Hopkins University Studies in Historical and Political Science, Volume LXVII, (Baltimore: The Johns Hopkins Press).

Dickson, Peter. 1967. The Financial Revolution in England (New York: St. Martin's Press).

De Roover, Florence. 1977. "Early Examples of Marine Insurance," Journal of Economic History.

Lopez, Robert S. and Irving W. Raymond. 1955. Medieval Trade in the Mediterranean World (New York: Columbia University Press).

Mitchell, William, 1969. An Essay on the Early History of the Law Merchant (New York: Burt Franklin Press) reprint.

Nider, Johannes. 1966. On the Contracts of Merchants, tr. by Ronald Shuman (Norman: University of Oklahoma Press).

Milgrom, Paul, Douglass North, and Barry Weingast, 1990, "The Role of Institutions in the Revival of Trade: The Law Merchant, Private Judges, and The Champagne Fairs", Economics and Politics 2 (1): 1-23.

North, Douglass and Barry Weingast, 1989 "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in 17th Century England," Journal of Economic History.

Scrutton, Thomas E. 1891. The Elements of Mercantile Law. (Wm. Clowes & Sons, Ltd.)

Tracy, James, 1985. A Financial Revolution in the Habsburg Netherlands Berkeley, Univ. of Cafifornia Press.

Udovitch, Abraham. 1962. "At the Origins of the Western Commenda, Islam, Israel, Byzanteum?" Speculum, Vol. 37, pp. 198-207.

Watt, R. and J. Zimmerman. 1983. "Agency Problems, Auditing, and the Theory of the Firm: Some Evidence," The Journal of Law and Economics.