Institutional Theory: A Marginal Analysis of Institutions
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"The curious task of economics is to demonstrate to men how little they really know about what they imagine they can design" - F. A. Hayek

Introduction

When we talk about the evolution of markets, we generally tend to take the institutional environment for granted. However, institutions can not be taken for granted for the simple fact that they are made up of the very people who the markets are meant to serve; thus, the modest attempt of this paper will be to analyze the gap between institutions and markets. We will apply the critical insights of subjectivism and marginalism - used to analyze the market process - to develop an institutional theory. This is necessary because a lot of thinking on markets is still based upon an implicit acceptance of objectivism (in terms of institutions) and categorical statements, which, as shall be argued, is a mistake.

We start this paper by explaining why there is nothing evil about the market process, i.e. the process of exchange based on private property (in the means of production, as well as in the means of consumption). After this defense of the market, we’ll focus in part two on the problem of what can keep markets from evolving. In the third part we’ll try to formulate solutions to these conceptual problems. In the fourth part, we’ll be able to formulate a normative approach, based upon a better insight in to the actual workings of the process.

Part 1: The Market Process
We’ll divide this part in to two subdivisions. In the first we’ll talk about what constitutes a market, i.e. what are the necessary conditions in a society in order to be called a ‘market economy’. We do this to create an ideal benchmark by which we can compare the actual world. Obviously; no real world situation can ever be like an ideal type, but there are other ideal type institutions (like a planned economy) to which we can compare any existing situation in order to assess the extent to which they should be categorized as one of those.

Finally, we will assess the question of how the market process is a wealth creating procedure. Wealth will be defined as a subjective concept - a concept that can’t be assessed by any objective standard, but must be assigned by the people who are accruing it.

1. **What is the market process?**

A market needs certain institutions which allow people to interact with one another in order to produce and consume goods and services, i.e. in order for the market process to come into existence, we need certain institutions through which people can interact. This is not unique to the market: a planned economy is another set of institutions in which people interact with one another for the exact same goal. The institutions that can be a necessary and sufficient condition in order to be able to speak of a *market economy*, are private property, contractual freedom and rule of law.

1. The notion of private property means that an individual has the legal right to control certain legitimately-obtained means including his own body, certain physical objects, and land. By *control*, it is meant that an individual can choose the goals to which these means are allocated, independent of any external organization. It is, however, not enough that an individual control just *any* means - else the means could be allocated through, for example, a lottery - but means that he legitimately acquired. The legal right to own a certain mean in order to achieve a desired end - whether this end is consumption or production - is the quintessential feature that
distinguishes a market economy from a planned economy. If people are not allowed to have private property which they can allocate towards chosen means, this indicates that there is some other mechanism that decides how means are used. (For this analysis, it doesn’t matter whether we are talking about a democratic government or a dictatorship.)

1. Also relevant to this discussion is the way ownership is transmitted through society. It follows from the previous section that the change of ownership should be based upon the *choice* (and the resulting action) of the previous owner. In a market society, what is called *theft* is the transfer of ownership *without* the permission of the previous owner. Exchange (of property) is thus a concept that is based on choice, not on the objective movements of tangible objects. Rather, it is based on the relevant evaluations and interpretations of the actions of individuals within a given context.

1. The third related concept is the rule of law - denoting that the legal framework in which people operate is predictable. Predictable here requires *not* necessarily that the rules are written down, but that the legal framework actively engages in defending and assuring those laws which constitute the rules of the land. Admittedly, many different societies can and do have a rule of law without being a market societies. Thus, the rule of law is merely a necessary (but not sufficient) condition for a market economy unless it is supplemented by the two notions discussed above.

We note that there is a certain consistency in these 3 concepts. Insofar as the latter two concepts can be considered logical extensions of the first, the market process means that people have a reasonable certainty about their right to property, and a reasonable guarantee that they can use their property for the purpose they choose. The reasons why this is important will be discussed in the next section. The market is thus the collection
of all actions of individuals execute in this institutional framework.

2. How do markets create wealth?

We should start with the caveat that markets as such don’t create wealth, but rather that wealth is created by the cooperation of people. The market process is the channel in the institutional setting discussed above that assures that people have both (1) an incentive to create wealth, (2) and the means to make this wealth-creation process as easy as possible. We’ll try to defend both claims and explain how this causal mechanism works.

People act (and interact) in such a way as to ensure they can get the most psychic profit out of their actions. They make decisions on the margin; i.e. they act based not on the whole of the realm of possibilities, but based on the relevant unit that is at stake in the action. These relevant units are subjective, meaning the value that people attach to them is based on the level of importance which the evaluating individual interprets the units as having, and not based on a certain ‘objective’ notion that can be reached by an outsiders view. Because the value of things is subjective, it follows that the value of certain items is derived from the consumer valuations of the final goods they produce. A car factory has no value qua car factory if no one values the cars that it makes. ¹ This is because the value of a capital good is imputed from the goods it can create. If the goods it creates have no value to the end consumer, the capital good qua capital good will have no value either.

A good economic institution allows for the creation of goods that people value relative to the costs; i.e. it allows workers to engage in activity that provides consumers with goods for which they are willing to pay the relevant price. Because of the fact that valuations are subjective, it follows that there is no way to obtain an ‘objective’ measure of wealth in society. Wealth is what people subjectively value as constituting their own wealth.

¹ Obviously, though, the car factory is made of material and can be broken down and the material sold.
In an institutional environment with a good economic incentive structure, individuals also bear the costs of their actions. The property principle allows for such an incentive structure; which is to say: certain actions are viewed to be positive for others and if the others can be (legitimately) excluded from the benefits of these actions - as judged by the actors themselves - they will voluntarily give up (‘pay’) means in order to have access to the benefits. The right to exclude people is therefore essential to a market economy. This doesn’t mean that you have the right to exclude people from any and all situations, but it does mean that you can, for example, keep people from walking into your shop and removing the products from your shelves without providing you with just compensation. The shop owner in this case gets rewarded for creating goods and/or services that consumers actually value. On the other hand: if he makes a mistake, he’ll also bear the negative consequences, for other people won’t give up sufficient means for the circumstances and/or product he has created, and the transaction will not take place.

In order for an entrepreneur to reap benefits for his actions, he’ll have to adjust his behavior and focus on producing circumstances and/or products that others will value enough to give up enough means that he himself values. In this way, prices act as an ex post controlling mechanism to check whether or not a particular venture was profitable, i.e. created wealth.

We can’t analyze the concept of money based on ‘objective’ characteristics. Money is money when it is interpreted by the people in a market society as the general medium of exchange. It’s important to note that money initially emerges from barter. People trade with one another; but because of the difficulty of achieving a double coincidence of wants, one good (or class of goods) emerges as a common medium of exchange. The

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2 It is true that a modern market economy still can’t yet fully incorporate the notion of negative externalities, but we can say that for the most part a person bears the costs of his actions in a market economy. An entrepreneur risks the money he invests, a laborer the opportunity cost of acquiring other skills, etc.

3 It goes without saying that a market economy doesn’t mean that people should only work for others. People are, of course, entitled to actions that ‘only’ benefit themselves. The relevant point, however, is that in market economy most production is aimed at producing goods and services for other people to consume and that most of what you yourself consume, is created by others. The division of labour, together with capital accumulation, allows for more production per labor hour than autarky.
way this good is selected is *not* by any intentional design, but gets selected by the repetitive actions of people. This process cannot be done by some central authority because it is impossible to decree that some good has one *price* in terms of everything else at a given point in time. Rather, in order to allow a successful monetary regime to evolve, the medium must necessarily be used in barter first, then used more and more as a medium of indirect exchange before it is finally accepted as the general medium of exchange.

In a monetary market economy the majority of all transactions are conducted with money as the medium. This phenomenon gives rise to the concept of economic calculation, which is an essential part of the creation of wealth beyond a primitive level. Without prices expressed in a common medium, it’s comparatively much more difficult to assess the relative values of objects. If something has a price in 3 fish and 2 chairs; it’s not that easy to make an assessment of the value of this item relative to others. It’s not not impossible, but certainly much more difficult. When you have prices in money, you can just compare ‘apples to apples’; for example, 10 dollars to 8 dollars is really easy to compare. Prices create the possibility of *cardinal* comparison, instead of an ordinal valuation of objects. Actors in a market can use the knowledge they have about certain ‘objective situations’ in the world (knowledge about a certain quantity of factors of production, for example) and the prices of these factors to try and assess the present, make an estimates of future situations, and to act based upon this judgement. As Steve Horwitz explains:

> “Market actors use their fragmentary and often inchoate knowledge to form their divergent expectations of the future and thereby appraise the value of existing goods of various orders in terms of their ability to produce goods that they perceive will be valuable in the future. Market prices are a key element of this process.”

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4 Horwitz [2000] pg. 20
In this way the process of the division of labour (along with specialization and the rise of productivity) and the lengthening of the structure of production can occur. Entrepreneurs can’t simply order laborers to create certain objects and expect consumers to pay the price. If the entrepreneur is aiming for a profit, he’ll have to arrange his business - his capital goods and other factors of production - in such a way that they create products for which consumers are willing to give up money. By the emergence of money prices (and thus a universal criterion to do economic calculation) this process can be made fully to run its course. The entrepreneur can do this by comparing prices at a given moment as the price that coordinates activity through time (the interest rate). The more this process allows coordination from the demonstrated preferences of market participants within an institutional framework, the more wealth can be generated.

Part 2: The Problem of the Solution

In this part of the paper we’ll try to explain why there is a gap between the theoretical defense of the market and the practical implementation of it. The first problem is that there are problems inherent in the market process, i.e. when there is a market, you will have these problems and there need to be some solutions to these problems. The second difficulty concerns the emergence of markets, making it necessary for us to explain why it is important to understand the evolutionary character of markets.

1. The problem of the market

We have seen in the first part what is generally understood as the metaphor of the invisible hand, i.e. the process in which people participate, driven by their self interest, situated within an institutional framework of property and voluntary interaction, and utilizing their own knowledge and the prices which emerge from the process in an ever-growing order of interactions. These interactions are coordinated by the prices which emerge and the reactions from market actors to these prices. That this coordination of interactions causes a growing division of labour (which serves the preferences of the
participants) is what proves that the market process is a wealth creating process. The problem, however, is that there is a gap between the theoretical advantages of the market process and the practical ‘implementation’ of the market in a society in which the market isn’t yet fully developed. The reason is that just because the market process is a good process for creating wealth, it doesn’t necessarily follow that universal cooperation will occur instantaneously. There are certain lags in which it can serve people (especially people in these less-developed nations) to take advantages in the short term that lead to bad results in the long run.

We assumed in the first section that there was universal cooperation in the market process; but in reality there is a major problem which every market economy - especially those market economies which are in the early stages of development - will have to deal with: the problem of deviant behavior. Allow me to clarify what I mean with two relevant points.

The first one is that the market uses contracts (or contract-like environments), which should be enforceable. Transactions in a department store, for example, are relatively easy to protect against deviant behavior: it’s not that hard to post a security guard near the door to make sure that no one leaves the store without paying for their merchandise. Wage contracts, by extension, are a bit harder: workers often will work for a month without getting paid. Other forms of breaches of contracts are likewise imaginable. The point is that you need some sort of external force, to make sure the contract gets respected. This doesn’t need to be ‘force’ per se; informal mechanisms like trust or reputation can serve just as well (or even better). But if there is no incentive whatsoever to abide by the rules of the contract, it will likely not be an effective contract.

When push comes to shove, you need a solid institutional environment to take care of this enforcement; yet the relationship between the individual and the institutions depend on these certain kinds of enforcement mechanisms themselves! This is because these institutions are embodied by people who face certain incentives, trust and
knowledge problems of their own.\textsuperscript{5} If you can’t keep the members of these institutions from responding to perverse incentives created by the institutional environment; how can you trust it yourself? If there is no organization or judicial agency present that has the trust of the people who are supposed to abide by it, there is no easy way to escape this circle. \textsuperscript{6}

A second kind of possible deviant behavior is even more dangerous for the market process. It is the simple insight that wherever there is wealth being created, there is the incentive to steal this wealth. The bigger the group that depends on this essentially parasitic behavior to support itself - and doesn’t contribute much to the productive sector of society - the less the wealth the society as a whole shall have. It’s not easy to motivate everyone in this environment to join the cooperative process: the more people join the cooperative process, the bigger the incentive might become to stay a free rider (because it gets easier). This can be considered a prisoners dilemma at the level of society at large.

Neither of these prove that escaping this vicious cycle is impossible, but they do help to explain why the mentality of: ‘oh, why don’t they just get along and allow markets’ doesn’t quite capture the whole picture. In order for a market economy to grow, we need ways to cope with these kinds of deviant behaviors.

To conclude: where there are no extensive market mechanisms, it’s next to impossible to create them ex nihilo. We see, however, that markets have arisen out of these kind of ‘state of nature’ situations. How can we reconcile these two points? The key is in comprehending the evolutionary process, which we’ll explain in the next section.

**Part 3: The emergence of markets**

We assumed in the first part that markets depend on specific institutions. In the

\textsuperscript{5} If, for example, the local government is the relevant institution that takes care of trade issues, you need mechanisms to ensure the government does what it is supposed to do, instead of using it’s comparative advantage in the use of force for other purposes.

\textsuperscript{6} Obviously: this is not impossible. Market economies have grown over the years. I’m just saying that the market as such doesn’t create universal cooperation per se out of thin air. There is a certain difficulty that has to be overcome; but it’s far from impossible.
second part I argued that the existence of this institutional framework is by no means a given - we are not naturally endowed with a full-grown institutional framework to facilitate trade. In this section we’ll try to do two things: try and explain the evolutionary process behind markets, and explain why it’s so important to understand this evolutionary process. We will divide this part into two sections, which both convey a different, but related point.

1. The logical order of mechanisms

It is commonplace to say that the prisoner’s dilemma has a high probability to induce non-cooperation; but it has also been both empirically and theoretically suggested that the repetition of the prisoners dilemma leads to cooperation. 7 If people know that they are in a repeat prisoners dilemma game, they have an incentive to cooperate more often because they know they can be punished in the next ‘play’ and vice versa: if the other player doesn’t cooperate, it’s possible to punish him as well. If people are thus confronted with multiple sequential cooperative options, they will tend towards cooperation. This is just on example of ‘self-enforcing mechanisms’ to induce trade, i.e. some transactions can be enforced just by the mere fact that if one of the parties defaults, they will have hurt themselves in the process. It is my contention that because of the fact self-enforcing mechanisms exist, we can have a extended order, even with trade possibilities that lack the ability to have a self-enforcing character. 8 Other examples of trades with a self enforcing character are, for example, an interaction with heavily relies on reputational effects, one where there is a bilateral monopoly or where there are high exit costs for both parties in the interaction.

Take, for example, local trade within a certain village. Because these kind of interactions tend to parallel the theoretical concept of repeated prisoners dilemmas (combined with reputational effects), we can conclude that the extended market process,

7 Axelrod [1984] has some strong examples. The ‘tit for tat’ rule emerges as the dominant strategy for repeated prisoners dilemmas

8 ‘Self enforcing’ and ‘non self enforcing’ are categories with a different degree between them. There is no clear way of knowing a priori whether or not a certain mechanism is self enforcing or not
with exogenous mechanisms, in order to overcome the difficulties mentioned above, evolves out of interactions with self enforcing mechanisms (and thus do not need an exogenous mechanism!). These exogenous (to the specific trade) institutions who will bear the burden of dealing with people who have low exit costs, low probability for repeating prisoners dilemmas and little to no possibility for reputational effects have to evolve out of these local interactions; so there is a tendency for them to be logically prior to these kinds of interactions.

These exogenous mechanisms themselves will be, to a greater or lesser extend, be based on self-enforcing mechanisms, because else there would be no way of controlling the people who participate in these exogenous mechanism. An example of such an exogenous institution could be firm that offers to negotiate and enforce contracts between two parties, where both parties itself have a high incentive, absent this enforcement, to breach it. That firm has a relationship to the two clients based on a bigger self enforcing mechanism, because they operate in a market where reputational effects matter and if they would default, they would probably loose business.

Based on our knowledge from our own past, we can also draw other conclusions regarding the emergence of market orders. Hayek suggests that the process of markets didn’t begin with the Industrial Revolution, but much earlier, starting with the savage for whom 'the notion of individual property must have appeared very early, and the first hand-crafted tools are perhaps an appropriate example'.\(^9\) From this first apprehension of the notion of private property, a process of interaction developed which at the same time constituted an extended market process and the institutions to bear the burden of preventing and settling conflicts. It’s fundamentally an evolutionary process that allows both mechanisms to evolve and they feed one another in their evolution.\(^{10}\)

### 2. Mechanisms as a capital good

Marginalism, subjectivism and value imputation are essential in order to

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\(^9\) Hayek [1991], pg. 30

\(^{10}\) Ibid. pg. 29-47 for an extensive argumentation of this point.
understand the market process. These insights can be as easily applied to a theory about institutions as they can to the common application of consumer and producer goods.

First of all: one way to interpret mechanisms to facilitate trade is by considering capital goods. The value of a capital good is imputed from the value that a person attaches to the final good it contributes to producing. In the case of a mechanism to ensure trade, we can reasonably presume that the level of certainty an individual gets from the knowledge that the other party won’t defect and the quantity of wealth that can be created are the issues at stake. The value the person thus attaches to the level of certainty he gets is what creates the value of the mechanism. As in all capital goods: if the good (mechanism) can’t create a good (security) for which an individual is willing to pay the competitive price, it will tend to go away in a competitive market.\footnote{Competitive’ is used here in the sense that people have alternatives (amongst which the alternative ‘not to engage in this specific trade’).}

We can conclude that that institutions are products of human action, but not of human design. Human action isn’t randomized human behavior, but rather the conscious application of means towards ends in a certain context. Human action has a \textit{design} part to it! The reliance on certain methods to enforce (or to try and avoid defection of) contracts is also a human action, based upon an assessment in a certain situation. Money is a textbook example of an institution resulting from a process of human action, but not human design, as it originated from incremental steps in an evolutionary process. By analogy we need to look at mechanisms that facilitate trade at the exact same way. The \textit{whole} of mechanisms - formal and informal - that facilitate trade were not constructed at one point in time by some wise character; but rather evolved (and are still evolving) together with the kinds of trade they help to facilitate.

Furthermore, the mechanisms that facilitate trade, as everything, have a marginal value - and this value can be negative. In all situations both parties involved in a transaction must assess the level of protection from defection they want; and it is possible to have ‘too much protection’, i.e. to pay to much, both in terms of the profit that the trade can possibly accrue or in terms of the risk taken on. (When you make a 100 dollar agreement with your best friend, I doubt you write down a whole formal contract.) So it’s
important to understand that the value of these institutions is also a marginal value and must be supported by market transactions whether or not a certain institutions - formal or informal - are kept alive in the market process.

We’ll give an example to illustrate this concept. Peter Leeson writes about Angola in the 19th century, where the people found ways to facilitate trade with the people who robbed them. The key idea was to tell the robbers that if they wanted to be able to rob them again next time, they had better pay up front, otherwise the aggrieved parties just wouldn’t be willing to exchange the same goods in the future. Facing this changing set of options, the robbers had every incentive to act as creditors. Furthermore, the people being robbed had every incentive to produce the goods the robbers wanted - both because the robbers were physically far stronger and they had an incentive to respect the contract. If they came back the next time and robbed more than the original bargain, they would have lost all credibility and they there wouldn’t be anything to rob the next time they came by. Given the situation, this was the mechanism they conceived as the most efficient one to facilitate their wealth creating activities. There existed, of course, other theoretical options - like trying to overpower the robbers - but these individuals chose a different route, indicating that this is what they considered to have the highest subjective and marginal value.

To conclude this section: I’ve argued that the emergence of widespread markets and institutions to support these markets should be understood in the light of an evolutionary process, based on the assessment of acting individuals who use means, assess costs and try to achieve goals in a certain context. The context itself is not ‘given’, but is also constructed and maintained by the same individuals.

**Part 4: The Application of the Theory**

I’ve so far constructed that (1) markets are beneficial ways of cooperating in a society, (2) that the institutions which maintain markets are not given, but rather (3) they

12 Leeson [2008] It should also be noted that on top of this bargain, the robbers had every incentive to protect the people with whom they had an agreement from other predators.
have to evolve from a bottom up approach based on the actions of the participants themselves. In this section I’ll use this framework to criticize the view that we have to impose the right institutions in certain countries. The emergence of markets isn’t an easy process - it can easily be disrupted by massive (centralized or decentralized) violence. Markets have big advantages, but the institutional environment which allows for the flourishing of markets is not a given and cannot be treated as such. The fatal conceit in this line of thinking is that people deduce from the (theoretical and empirically proven) advantages of markets that there is only one kind of market and that this should be instituted as quickly as possible all across the globe.

This reasoning ignores the fact that the interconnected notions of property, institutions, voluntary transactions are, to a certain extent, abstract notions and the concrete manifestations of these can differ widely. To provide an example: when we talk about capital goods in terms of contributing to the production of consumption goods, we can mean either a car factory that produces cars or a piano that produces music. Similarly, in certain situations some things can be subject to private property, but are not subject in other situations; some mechanisms can be conceived as the voluntary transaction of property, but not in all situations, etc. Imagine a certain pond is a commons and there are informal rules that guide local peasants in their dealings with it. Suppose an outsider doesn’t know about these informal rules and tries to homestead the pond and raises barriers to entry in order to create a ‘economically viable’ enterprise. This will actually hurt the local peasants and, in an important way, can be called theft. The notion of the gap between the abstract concept and the circumstances of time and place is caused, as this example shows, by a lack of knowledge of the informal rules and the way people interpret and value certain relations - between owner and property and between different property owners.

Furthermore the idea that we can introduce institutions to facilitate markets in a top-down manner ignores the fact that institutions and mechanisms evolve based on the marginal benefit people get from them. In theory, certain mechanisms can actually constitute a cost to society. If the USA would allocate half of its GDP towards crime
prevention, this would probably lower the amount of petty theft by a wide margin, but the high cost is likely not worth the comparatively trivial benefit. Similarly, the benefit people get from increasing rules concerning certain transactions could be negative, especially if those rules are created by an external agency and aren’t supported by the people involved in the transaction. Recapitulate the Angola example from earlier. These people probably had other alternatives, but given their options, they chose to make a deal with there aggressors and effectively turned a coercive way of acting into a profitable cooperating system. The value of institutions can’t be known outside the people who are interacting with those institutions. The necessary discovery procedure involves the people voluntarily using those mechanisms.

It follows from this that any outside imposition of institutions by any central planner is hard, if not impossible, because of the same institutional difficulties. As we have explained, the institutions created to sustain rules are also assessed on their marginal contribution and the subjective evaluation thereof. With an institution created by an exogenous source (money and/or force), it is hard to gain the trust of individuals and therefore to foster other relevant (informal) rules to make it work.

**Conclusion**

I’ve tried to extend the standard tools of economics towards an analysis of the institutional framework itself, arguing that because of their origin in human action, they should be studied as such. The dynamic concept of a society doesn’t allow for the creation or enforcement of a ‘total’ vision of how the institutions should function; even if a planner aims at implementing a theoretical good concept, we lack the crucial knowledge of how to transform the abstract notions (and marginal trade offs people make) into concrete rules and laws that the people themselves would consider to be just. It follows that in order for markets to develop, they must be left to develop their own institutions as they see fit. This doesn’t mean that outsiders can’t be involved at all, i.e. that we have to build a metaphorical wall around developing markets. It does mean that
we shouldn’t try and plan their institutions, rules, or laws. We can, however, help them to
develop their institutions by trading with them, and thus helping them to learn how to
deal with trade. I’ve limited myself to giving a perspective on the institutional
environments most conducive to the development of markets, and tried to develop a
theory that can explain the emergence of them that can help us develop ideas in specific
development issues.

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