# 12. Less markets: a critical analysis of market existence and functioning

*Calixto Salomão Filho*

## 1 INTRODUCTION

No subject can be well structured and organized without a thorough critical study of its assumptions and limitations. It is exactly this critical study of assumptions and limitations that always seems to have been left out of the branches of law dealing with the organization and discipline of private economic activity. Any critical study of this topic must therefore come from an analysis of the assumptions that have been used as a fundamental basis of study in recent times: the existence of markets.

Since its modern origins, commercial law has been dedicated to the organization of markets. Leaving aside antiquity, there is no doubt that one of the most creative and structured periods in commercial law was the Middle Ages. It was precisely then when the issue of strengthening markets arose. As elaborated by commentators such as Bartolo and Baldo, negotiable instruments were fundamental to the surge in trade in the Middle Ages.[1] Basically a negotiable instrument is nothing more than a way to build trust and provide assurance for business transactions (ie, to allow the formation of an incipient market). And this is what was done very effectively in the Middle Ages through medieval fairs. The markets there were driven mainly by the trust created through negotiable instruments.

Since then, commercial law has been erecting increasingly complex and sophisticated instruments to provide support to the market, from direct protection of transactions through commercial agreements to more sophisticated forms of institutionalizing markets, such as the rules on capital markets and even competition law (as it is interpreted and applied by mainstream thinking). Likewise, the discipline of business organizations (corporate law) serves as the internal organization of business relations to ensure transparency and some kind of market control over organizations. Finally, those topics traditionally related to market failures, such as the discipline of regulation, are directed to improve the functioning of markets. Even the most progressive and critical views on regulation, aimed at operating inter-sector subsidies in the public interest, end up trying to harmonize market rules with other relevant social interests. The same can be said in economic law, even with regard to developmental visions that tend to view state collaboration with private companies or the direct participation of the state as the market engine for technological development. The state agent is then used as the propellant for enhanced market functioning coupled with an attempt to reconcile the operation of markets with the public interest.

[1] See Francesco Calasso, *Medioevo del diritto I* (Giuffrè 1954) 572 et seq. with regard to the school of Bartolo.

In none or almost none of these visions is the basis for the functioning of markets or even the possibility of the existence of markets discussed. Even when discussing its flaws, this is done only in order to fix it and bring it as close as possible to more liberal or more state-interventionist models for its operation, depending on the political ideological inclination of the interpreter. What is forgotten is that the market idea used originated with eighteenth-century classical liberals, and that after three centuries we must recognize that in many cases it cannot exist, and in others its goals should be profoundly different from that assumed as true.

It is easy to see that such an investigation can open numerous new lines of research in commercial law and even economic law. For now, it seems important, however, only to try to analyze and demonstrate two basic critical hypotheses, namely: that in which the market simply cannot function and that in which the objectives and purposes of the market must be radically transformed. This is what we will try to do next.

## II. THE PROHIBITIONS ON OPERATION

A first group of situations that are of interest to law and should be studied are the situations in which the existence of markets is not possible. Note, and this is an important point to stress, these are situations where it is impossible not because of political and ideological convictions but simply because there are no minimum requirements for its operation. It is then necessary to identify the logical and functional reasons impeding the functioning of markets. This observation will allow us to determine the legal consequences of this situation. Therefore, among the several possible, it seems reasonable to choose only those most enshrined in economic and social theory. As will be seen, although enshrined, they have not been generating consequences for the analysis of markets and the events of their dysfunction. These are the case of extreme information asymmetry, and the assumptions of the existence of common goods.

### a. Information Asymmetries

The first stems from so-called information asymmetry. Identified over 40 years ago in a now famous article of George Akerlof (which earned him decades later the Nobel Prize for Economics), they are far more common than is usually thought.[2] In reality they are present in all markets. At the extreme, however, they make impossible the existence or operation of markets.

At the time, he contended that the used car and health insurance markets tended either to disappear (used cars) or be state led (health insurance) due to lack of sufficient information in the market and to adverse selection. The reasoning given is simple but very innovative for his time. He imagined an elderly person holding health insurance. Regardless of how much information has been provided she will always have more information about her situation than the health insurance company. So the company

[2] George Akerlof, 'The Market for "Lemons": Quality Uncertainty and the Market Mechanism' (1970) 84 QJ Econ 488.

will be at a loss. In a second stage, the company raises prices to cover these losses. Then it starts to attract only elderly persons with more serious health conditions, who also have more information than the company about their health situation, thus repeating the cycle of losses. Taken to infinity, this situation of asymmetry will cause health insurance to either cease to be offered to elderly people or be offered at unreasonable prices, which precludes its acquisition. The result will be the complete disorganization or disappearance of the market, something that is fully supported by the current health insurance reality. The solution would therefore be to replace private insurance with a public health insurance system for elderly people, which was in fact done in the US through Medicare (which remains untouched and beyond ideological debate today).

The issue is that the problem of absolute asymmetry of information does not exist only in these markets. It has played out recently and dramatically in various other 'markets' of global significance. Accordingly, it is worth recalling what I wrote in a previous short notice on the topic, which I have included here at length to develop the pervasive character of this absolute asymmetry of information.[3] The argument was this:

> More than thirty years later, the prediction (of adverse selection and disorganization of markets) becomes true in infinitely more complex markets. U.S. mortgage derivatives were complex and 'well-structured' precisely because they are able to hide information about the actual risk incurred.
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> Contagion, a commonly used word at the time, if properly analyzed, is also a consequence of the same disparity or lack of information. The interconnection of economies via the 'market' is so great that it is impossible to predict or rely on effects that economic disasters in other countries may have on our economic relations. This explains much of the recent problems in Brazil with the futures markets (currency and others). The sudden oscillation was an unpredictable event, information not available at the time of entering into the agreement and whose effects could not be avoided or prevented. The fact that the law allows compensation or refusal to comply with certain agreements on the grounds of force majeure does not prevent or hinder market disruption and its economic and social negative effects. Compensatory solutions therefore do not prevent or solve the structural problem generated by the existence of these markets.
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> Indeed, the absence/disparity of information in markets reveals another more serious problem. There is a huge difference between the market as a clearing house for a small community or human group (this is the market in its original classical theory) and the market perceived as a global and virtual center for exchange and organization in the economic system. All presumptions (complete information, dilution of agents) that might be valid for the first are non-existent in the second. The market in this last sphere only serves as a substitute for the rhetorical organization of economic relations based on pure power relations and control of information.
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> Thus, regulating such 'markets' does not present many alternatives from a logical point of view. Regulating means simply prohibit the existence of certain 'markets'. This is the case of many derivatives and even many futures contracts. Economic theory – at least solid economic theory – says that lack from information tends to lead to the disappearance or to nationalization of the sector involved. Actually the crisis of 2008 has shown that in the 'globalized and interconnected market', the disappearance and complete market disruption, is not restricted to the problem's origin (the derivatives market), but tends to expand to much of

3 Calixto Salomão Filho, 'Menos Mercado' in *Folha de São Paulo* (São Paulo, 15 October 2008) 15.

the financial and productive systems, demanding nationalization or semi-nationalization on a planetary scale.

The solution seems, therefore, to be the existence of fewer markets. Discouraging the existence of trade in relation to certain goods or services is not something negative. Historically, periods of high trade flows, mainly of products of questionable utility, do not coincide with times of great inventions. Conversely, when this flow cools, the creation of wealth comes to depend on innovation, creation and invention. In economic history, the search for new markets and mercantilist reasoning has always been synonymous with domination, dependency and poverty. Underdeveloped and developing countries, of the colonial past, are the great witnesses and victims of this equation.

The disappearance of derivatives and delusional markets would therefore result in less risk of surprise and lasting misery. Rather, perhaps more incentives for new creations and inventions will arise – perhaps even in areas as lacking for human beings as human health and the environment. Less market then means fewer crises and more creation.

Therefore, the continuous legal and regulatory mismatch in regards to international financial speculation causes great astonishment. Nothing or almost nothing has been done in the field of international financial regulation. The idea of limiting speculative flows, a clear necessity since 2008, was dead on arrival with the capture of government leaders (particularly in North America and Europe, intensely affected by the crisis) with interests of the financial system.

Note, therefore, that no systemic effect in relation to the regulation of markets or more specifically prohibition of the existence of the markets has been carried out, despite known and pervasive information asymmetry.

## b. Common Goods

The second group of circumstances excluding the notion of market occurs when common goods are present. That is, it is not the structure of relations but the type of good (and, as will be seen, the type of interest related thereto), which implies the impossibility of market functioning. Once again, the assumption here is enshrined in the academic world (and its principal formulator was also awarded the Nobel Prize in Economics) but with little practical diffusion and little regulatory recognition.

To fully understand the meaning of 'common goods' one must return to the definition of goods, especially in a critical return to the distinction between public goods and private goods. This classification, adopted by law, found support in classical and neoclassical economic theory, which sought to justify its existence based on certain specifics.

Thus, in classical economic theory, private goods have two basic characteristics: they are both exclusionary (that is, individual A can exclude individual B from use) and rivalrous (that is, consumption by individual A excludes consumption by another person).[4] Public goods have the exact opposite characteristics. They are *non-rivalrous and non-exclusionary*. This classification, prima facie, has two serious problems. Firstly, it demonstrates an obvious mixture between characteristics of goods and legal discipline. While rivalry is a characteristic of a good, exclusivity is a feature of legal

[4] Paul Samuelson, 'The Pure Theory of Public Expenditure' (1954) 36 Rev of Econ and Stats 387.

discipline. This is, by the way, a feature that is justified only in a reality of abundance of goods. The possibility of exclusion of use of the good as a characteristic of the good has, as a direct consequence, the lack of concern with the concentration of said property in private hands (economic power). Indeed if the exclusion is permitted, power must also be.

But that is not all. The classification also reveals a good degree of internal inconsistency. To understand why, it is enough to note the very enumeration of the characteristics of those goods. While the exclusion of use seems to refer to a non-consumable good, rivalry seems to refer to a consumable good.

Actually this difficulty reveals another, more profound difficulty. This classification does not exhaust the possible differences between goods in regard to their characteristics and therefore it is not a good parameter for legal discipline. This difficulty was revealed long ago by the importance acquired by the work of a well-meaning environmentalist, which was based on the distinction between public and private goods. It is the work of Garrett Hardin, who in 1968 identified the existence of a 'tragedy of the commons', exactly in the use of goods that did not exactly fit within the definition of private or public (and therefore could not be conveniently regulated in any of the disciplines). The classic tragedy is the use by private users of a common good (pasture). Guided by self-interest, private interests would always be placed above group interests, which would result in destruction of the pasture.[5] The absence of reflection on the possibility of a specific regulation for the sake of the common good is probably due to the difficulty at the time of admitting anything other than public or private regulation.

Thus consensus was formed on several bases. On one hand, traditional legal theory sustains the difference between public and private law and the resulting unitary distinction between private and public goods. On the other hand, traditional economic theory gives or seeks to give support to these convictions.

Hence the belief arises in the impossibility of regulation, with such goods and such situations relegated to the static discipline of private and public property. No wonder the growing concentration of economic power over common goods is nothing more than the result of a purely static discipline of private property. Left to their own accord, such goods end up doomed to concentration and scarcity. At the same time, public ownership, also static and often unable to take into account the needs of each locality and specific good, lacks special regulation.

There is, however, an alternative, a fundamental structuralist view of how economic power reveals itself in regard to these goods and how they can be regulated in order to mitigate the effects. But first we must clarify the idea of common goods. In highly recognized studies today, renowned social scientists carried out a major critical review of the types of goods.[6] First, they would replace the categories of rivalry for consumption with something that has the potential for subtractability of use. And

5 Garrett Hardin, 'The Tragedy of the Commons' (1968) 162 Science 1243.

6 See Vincent Ostrom and Elinor Ostrom, 'Public Goods and Public Choices' in Emanuel S. Savas (ed), *Alternatives for Delivering Public Services: Towards Improved Performance* (Westview Press 1977); Elinor Ostrom, *Understanding Institutional Diversity* (Princeton UP 2005) 24.

second, they would replace the answers 'yes' and 'no' to these categories by 'high' or 'low' gradations.

Finally they recognized a new type of good, called the Common Pool Resource (CPR) or in a shorter version, Common Good. The category of common good resolves the paradox created by the characteristics of public and private property. Common goods are characterized by high subtraction of use and also high difficulty of exclusion – for instance, the use by one individual or group decreases the possibility of use by another individual or group (imagine forests, grasslands, rivers) and also it is not possible, given the common need involved, to exclude persons involved with the good (participants from the community) used. This is not the case of private goods (food, consumer goods, etc.) where there is low difficulty of exclusion but high subtraction of use. The use by one can cause shortage to another (imagine food) as a consequence of the nature of the good (individual and belonging to only one person), excluding its use by another.

On the other hand, typically public goods, such as education and health, are characterized by low subtraction of use and high difficulty of exclusion. Such goods cannot and should not be subject to market rules precisely because they can and must be offered to all (exactly because of their low subtractibility of use and high difficulty of exclusion), both those that have and those that are unable to bear their costs.

Common goods by nature generate a greater problem of scarcity than public goods precisely because they have a high rate of subtractibility. While education (public good) for one does not prevent (in principle) the education of others, the subtraction of trees from a forest or animals from a reserve will prevent the economic and social use of the forest or reserve by another. Thus, the problem of scarcity is more severe for the common good than for the public good.

The same can be said in relation to the private good. Both have a high subtraction of use, with the common good having a lower degree of rivalry (it is possible to permit use by many, provided that it is non-predatory). Even more than that, only the common good presents difficulties of appropriation (or exclusivity) – that is, the common good by nature has more people that depend and should have access to it (a pen cannot be used by many but a source of drinking water can and should be used by many). Such a characteristic makes it difficult for pure and simple submission of the common good to the market, where direct appropriation is the rule.

But it is not only the difficulty of appropriation that makes discussion of the common good rather specific. The fact is that the difficulty of appropriation creates a further problem for the common good, which is the greater possibility of shortages. Note that in a reality such as this, any such private ownership generates a monopoly on the use of a good disputed by many. The power here comes from the possibility of appropriation of the necessary goods for many, not the primacy of production. For a given community, access to a forest can be critical to its existence even if in that same country there are huge amounts of forest. Its livelihood and customs are connected to it and cannot be dissociated from it.

Thus, the acquisition, via the market, by a private individual of property and the right to limit or prevent access to this community generates enormous power over it. It generates, in fact, a triple drain similar to traditional monopolies.[7] The community will be deprived of subsistence goods, depending on a single owner to obtain them. It will also depend for its work on the sole owner of the scarce natural resource. And finally, accustomed to the use of the forest for numerous activities, it will have few economic alternatives for survival.

Note that this description is valid for a range of goods connected to nature such as forests, seas and rivers and even properties with water sources. Its relationship with the protection of the environment is therefore direct and immediate. Economic power or monopoly on such activities generates very serious consequences. Its power to generate scarcity and social hardship is huge. Regulation must take into account these issues.

But it must take into account not only these issues. As the production of most consumer goods depends on the availability of natural resources (ie, water, energy), a potential problem of scarcity in relation to these goods can be reflected – and seriously – in consumer goods.

The final finding is that as the issue of market appropriation and scarcity is serious and delicate, it is a very poor tool to organize exchanges of common goods. And this is for a simple reason. As the good is essential, price is a poor regulator of scarcity. It will only be able to regulate the mode of appropriation – concentrated in a few agents with power or dilute – but never reducing the scarcity as an essential characteristic of the good. The result will be the concentration of natural goods in the hands of individuals and dominant firms, without changing consumption patterns.

It is necessary, therefore, to understand that it is not enough to structure a market to regulate such goods. Perhaps some of the bundles of rights that make up the discipline of common goods may be subject to market rules. But others and perhaps most of them shall be subject to associative rules of distribution and use. But this is a topic for further discussion on the subject of common goods that does not fit within this context.[8] For now the possibility of conveying the belief that a traditional discipline of the market is untenable is sufficient.

## SUBSTANTIVE TRANSFORMATIONS

But criticism of the market should not only be negative. In other words, a critical legal vision should not only identify sectors and situations in which the market simply does not work, and therefore the response of the law should be an outright ban on its existence in certain circumstances (where information is asymmetric in essence) or as regards some types of property (common goods).

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7 See Calixto Salomão Filho, *Histoire critique dês monopoles: une perpective juridique et economique* (French edn, LGDJ 2010) in respect of triple drainage.

8 See Calixto Salomão Filho, 'Regulação, desenvolvimento e meio ambiente' in Calixto Salomão Filho *Regulação e desenvolvimento* (Portuguese edn, Malheiros 2002) for some very early reflections on a possible discipline.

### a. The One-dimensional Market: Limitations of Price as the Main Market Index

There are other cases in which the motives and objectives of market functioning are fundamentally changed or are unsuited to their time. Here too there are several hypotheses that could be investigated. But it seems more interesting to focus attention on a specific hypothesis, namely the non-adaptability of price as the main criterion for targeting choices in the market.

Note that the price criterion was erected as a key element for transmitting information and guiding choices on the market in a very specific historical moment (ie, the time when stimulus was needed to boost exchanges and expand trade). Nothing was more natural, therefore, than to choose an element that was capable of directly relating individual utility to individual wealth – that is, price. This is because (the classical) market is only an instrument for transmission of information (with all known imperfections) so long as it simplifies absolutely the needs and objectives of individuals upon participating in the market, reducing them to personal utility. And that is perhaps the most unexplored failure of all economic constructions (classical and neoclassical) on the theory of markets: the absence of critical reflection on the price as a factor for economic intermediation.

As an information intermediary, price is a rather poor element. It allows for a hyper-simplification of information, basically restricting the information that is exchanged in the market to availability of the transaction by the selling agent and the need of the buyer agent. The reference to 'transaction availability' by the seller's agent is intentional. Indeed, it is not correct to believe that price is a good transmitter of information about relative scarcity. On one hand, this information is often concentrated in one or a few economic agents. Indeed, monopolization or oligopolization of markets has long since ceased to be a failure or systemic exception, becoming its rule of operation.[9] Antitrust and regulatory systems have shown themselves completely insufficient to contain this capitalistic march towards monopoly and oligopoly. Thus, the price reflects much more the willingness to sell by the producer/sellers than a reliable criterion for relative scarcity. Consequently, it allows manipulations and abuses as almost a rule of conduct derived from the free will of agents with dominant power.

Firstly, as seen above (Section II.b), many goods, due to their characteristics, do not lend themselves to an assessment of relative scarcity. Relative scarcity is not data that can be taken into account, given the essentiality of the good in question and its need/possibility of sharing. Therefore, it is necessary to imagine another element for transmitting information that enables the buyer's choice to become more informed and at the same time avoid use/manipulation of information by the seller.

This indicates the need for creating and nurturing a new different kind of market, a market that would allow evaluation of elements other than merely price and relative utility of products. The same way that price was instrumental to trade, the most significant socio-economic objective since the end of the Middle Ages, it is necessary to determine what other dominant social and economic objectives the modern world imposes. Or rather, to discover them, as they will not be pursued or produced naturally.

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[9] See Filho (n 7).

Just as it was necessary to introduce negotiable instruments in the Middle Ages to give impetus to trade, restrained and limited by medieval/geographical political restrictions, an institutional impulse is necessary to overcome the current fetish existing in the market (in liberal terms). To redo it, what is necessary is not economic creativity but legal institutions to structure exchanges and economic transactions based on a basket of economic goals and not only the binomial utility/price. Without this institutional momentum, there is not and will never be stand-alone stimulus for change coming from economic forces (where interests and power structures work together to maintain the market as it is).

Here, my aim is not to draft or suggest complex instruments for the restructuring of markets, but instead just to make some general observations that may perhaps stimulate further reflection on the subject. In the first place, it is necessary to distinguish two types of situations: those in which it is possible to admit the coexistence of different indices to intermediate economic relations and those where this is not possible. In other words, situations where a user is given the choice of the index that will base its choice and situations where this is not possible.

Among the latter are those in which the choice and presence of price indices generate distortions that affect relevant objectives of social interest. Suppose, for example, the choice of education or health care institutions based only on price indices. Obviously, the essentiality of the good involved prevents this type of restriction. Simply eliminating the price criteria and basing the choice on the quality criteria is, not surprisingly, often the most successful solution in these areas. That is why countries that boast the best rates in the two areas base the provision of these services on public or non-profit institutions that do not charge for the service. The 'market' continues to exist. What happens is that it is no longer based on price but on quality indices. Note, choice and alternatives continue to exist. What disappears is the price/utility index, being replaced by a quality index.

The first situation is more delicate. The coexistence of various chosen indices is often difficult given the enormous power of attraction of the price criteria. The price criterion is not relevant only, nor principally, because it represents a utility index for a product. Its greatest importance is to represent, rather, an index of economic availability to the individual. That is, the choice of price criteria is natural, not so much because it represents a real utility index for the consumer, but rather because not spending too much (ie, choosing the product with better price) represents greater residual availability of resources (and, therefore of economic well-being) to the consumer.

Thus, the use of the price criteria is natural (even if as a rule in the current economic system, manipulated and dominated by a few sellers) just because of its importance as a 'residual welfare index'. The central problem is, precisely because of its reduced utility as a criterion for verification of scarcity, that the price criteria already is and will increasingly be of little use as an element capable of ensuring long-term economic flows.

Let me explain. Classical economics and its faith in the price as an intermediary is the product of an economy of abundance. The price is only a regulator of supply and demand if these can vary over time. A persistent upward movement of the prices to limit demand is of no use if the good is of high importance to the consumer (highly essential), nor can it influence the supply if the sources of raw materials for their production are scarce. On the other hand, moves to lower the price are of no use. They cannot reduce supply or expand consumption if already at the maximum possible level, given the scarcity of the raw material. In this framework, price movements become increasingly the product of pure market domination or speculation (phenomena frequently linked) and not a rebalancing of supply and demand.

Two movements are then needed. Firstly, you need to ensure that the actual price, which will always continue to be an important benchmark for the consumer in 'market relations' (given its importance as an index of residual well-being), is more representative of supply and demand and less determined by speculative movements or by exercise of power from those who hold a higher level of information than others. We need to imagine, therefore, creative institutional instruments, which eliminate price dispersion resulting from concentration of information in the economy. This can be done by, as discussed below, eliminating price dispersion of exchanges and institutionalization of markets that concentrate the most possible transactions.

But that is not all. It is also imperative to create and foster new comparative indicators for products capable of dealing with the issue of scarcity. This type of indicator must address two basic problems. First, an indicator must be able to bring data on the consumer's residual welfare, which as seen above, is one of the main factors leading to the predominance of today's price criteria. That is, the consumer must understand what welfare results from consumption of this product. Second, the indicator must be able to convey clear and simplified information to the consumer about the scarcity of the product and the natural resources necessary for its production. Only this way can it be a useful element for stimulating economic flows in the medium and long term. Such long-term economic flows will never be sustainable if not coupled with other 'interests of the consumers' that must find expression in the regulation of market flows, as environmental protection and wealth distribution.

### b. Instruments: Institutionalization and New Indicators

If it is true that price dispersion is a much more common phenomenon than one might imagine, and if it is produced in all or practically all markets, then the 'free' operation and non-institutionalization of the majority of the markets can generate great dispersions. Indeed, the phenomenon of price dispersion means that formation of prices is not a product of the interaction between supply and demand, but rather the absence, asymmetry or concentration of information that makes it so that in practice, different economic agents or merchants can sell their products in different regions or at different times for different prices. This pattern of price determination in practice only reflects misinformation of the consumer and not the conditions of scarcity and abundance for these products (with all the caveats outlined above for determination of scarcity through 'marketplace' mechanisms).

In this case, the operation of a 'free and non-institutionalized' market only generates more concentration of power and uncertainty. If this is true, then most of the markets that exist today need to be somehow regulated or institutionalized. And this is perhaps the first important postulate of this important topic on transformation of markets. It is necessary that the law enters the majority of markets, because without it, its operation generates increasing economic distortions.

The first form for law to 'enter' these markets is through its institutionalization – for instance, through the (legal) construction of markets that concentrate the largest possible number of transactions. The classic example for this is the stock and commodities exchanges. With respect to commodities, the current functioning of exchanges is only a parallel, normally future market, capable of allowing the presence of big players from one side or other parties interested in making a 'financial hedge' of their positions.

This is not the type of institutionalization required. Markets in which there is dispersion of prices should, generally speaking (and as noted above this case is perhaps the most common), necessarily have the most significant part of their transactions carried out through a special commodities exchange created for this purpose and which concentrates most of the transactions. The presence of all sellers and buyers in the same regulated and institutionalized environment can help reduce the problem of dispersion and reduce the effects of the exercise of economic power in the markets.[10] Obviously, for this to occur, it is necessary that speculators are excluded in favour of only those agents that effectively participate in the real (physical) market.

It is a fact that, due to the complexity of their creation and operation, such institutionalized markets could not be introduced in all sectors. It is also a fact that even though this alternative is not always a practical possibility in direct sales to the consumer, in many markets it is quite feasible in relations between producers and intermediaries (wholesalers and retailers). This introduction made through the law, and provided it is mandatory (ie, creating a stock exchange and having the legal obligation imposed on the largest sellers and buyers to execute a significant portion of their transactions on these markets), with its operation recognized and regulated under the law, would already be transformative in terms of its operation. This would mean at its core simply an introduction of the law in the operation of markets, which today operate primarily on the basis of power relations.

But the introduction of the law should not only be to institutionalize its operation, but also to transform it. Markets need more than mere institutionalization; they need transformation of their parameters and functioning.

As was already said above, a parameter that undoubtedly lacks transformation is the price parameter as the main element of information transmission. There is a pressing need to find other indicators able to convey more useful information to the consumer than simply measuring the marginal utility. This one-dimensional perspective must be,

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10 It is important to note that the Brazilian experience with the electricity sector in the 1990s demonstrates exactly the problems that may arise in a market that does not take into account the limitations of this instrument to discipline economic flows. It is possible to see there many of the problems mentioned in this work in respect to markets. Firstly, because an artificial market was created there, in a sector of essential commodities in which market operation would not be possible, precisely because the good has many of the characteristics of the common good, and cannot be disciplined by market criteria. But that is not all. The model adopted, imported from another reality of power generation was not adaptable to the Brazilian system, specifically because it is incapable of dealing with the problem of scarcity. See Calixto Salomão Filho, *Regulação da atividade econômica: princípios e fundamentos jurídicos* (Portuguese 2nd edn, Malheiros 2008) 30.

as seen, surpassed in a world of absolute scarcity of resources. The futility of price as a measure of scarcity is clear (see Section III.a).

There are, on the other hand, various possible measures that may be useful to the consumer. One measure is something we can call social efficiency of the product which shall reflect its form of production (with respect to labour rules), compliance with environmental standards, etc. Transformed into one or more indices prepared and disseminated by qualified institutions they would help consumer choice immensely.

This is not the place to discuss the form and content of these indices, but only to suggest general terms. What can be said, however, is that they would be able to provide a positive screening of product qualities, highlighting greater 'social efficiency'. This screening or valuation of qualities has proven extremely useful when used in markets.[11] In the case of goods, it would allow one to begin to create a culture in the consumer arena of respect for social and environmental values. It is clear that this is something that takes time, and it would not be possible to simply replace the price standard for a new criterion (precisely because of the importance of price as a measure of residual welfare – see Section III.a above). But experience in other markets shows, I repeat, that such kinds of instrument are quite effective to expand information and eliminate distortions, especially economic power and its exercise in the market. The index of social effectiveness undoubtedly helps to minimize these effects.

Allowing selection of social efficacy makes it possible to restrict the effect of economies of scale, which are reflected in price and always benefit large producers, increasing their market power. But that is not all. It also allows tailoring market operation to the needs of current times. Better allocation of resources and respect for the environment directly affects the primary issue to be resolved by operation of the economic system: scarcity. As seen above (Section III.a), the criterion of price is practically useless for its treatment. The measure of social efficacy, precisely because it allows one to include the natural resource utilization rate in the production of goods, allows one to create a movement towards relevant awareness. An index could even be included for relative scarcity of products used as inputs in the production of goods and to serve as a guide to restrict their consumption.

Obviously, for all this to be possible, it is necessary to face two major problems. In the first place, there is the question of how to provide sufficient clarity and transparency to this index or indices so that they can be understood by the consumer and

[11] The basic idea of 'Novo Mercado' (New Market) introduced in the Brazilian Stock Exchange (Bovespa) in the 2000s was precisely to create differentiated standards for legal requirements and 'corporate governance' practices, which would allow investors to choose the most interesting combinations of financial soundness and legal guarantees, ie, another 'market' was created or 'another possible choice' consisting precisely in the choice of companies with good 'corporate governance' (ethical) practices. The effect of creating this new market represented huge differentiation and valuing of component companies showing the potential and need for creating and institutionalizing other types of choices. See Calixto Salomão Filho, 'Análise estruturalista do direito societário' in *Novo direito societário* (Portuguese 4th edn, Malheiros 2001) 68 et seq. Although created in a specific environment such as capital markets, the central idea of creating a market based on a choice other than merely price is very important and allows us to believe that this alternative choice can be offered in other markets and other products in connection with socially more significant choices.

used as selection criteria. The good news is that there are highly successful screening precedents, or valuing of qualities, which suggests that the problem of clarity and access to information can be overcome with institutional creativity and that it is possible to create or modify markets based on valuing of positive qualities and not solely on price (see note 11).

In the case of goods of mass consumption, such indices should be developed and disseminated by a dedicated and recognized entity, regulated by the state, which would certify various indicators, developing an integrated index and the product value expressed in terms of each of the objectives pursued. It would be interesting to develop a social and an environmental index, which would express the value of the product and would compare the various products respectively for the social index in terms of respect for labour and social values in production and marketing, and for the environmental index in terms of respect for environmental values.

The second problem, as serious as the first, is the willingness to use the indicators. As seen above, the price criterion is natural and has an attractive historical viewpoint influenced by its importance as a measure of residual utility. But that is not all. As recent experiments help demonstrate, market participation encourages greed, decreasing moral attachment of individuals.[12] Thus, for instance, individual declarations of attachment to the environment or revulsion at slave work are often overlooked in the market when it comes to paying a lower price. This means that an alternative index or indices, which intend to introduce moral elements other than merely effective and residual utility (price), run the risk of having limited use. In fact, interaction itself caused by the market helps disseminate information about behaviour patterns (individualistic and profit-oriented) prevalent in society. This is why in the mentioned experiment, the most restricted moral standards can be found in the comparison between individual behaviour seeking profit in the market, which leads one to believe that when there is a comparison with non-individualistic patterns, the results will be even more impressive. That is, market interaction itself produces less moral attachment. But that is not all. This effect of diffusion also leads to the empirical finding that the greater the number of interactions, the lower the moral standards.[13] Therefore, the probability that social economic indices will simply not be considered in the functioning of markets is very high.

There are two tools that can minimize this risk. First, it is necessary that the indices and their fluctuations are published and widely disseminated. It is also necessary that the result of economic flows (market) after the introduction of the indices be known. The first effect of this publication is awareness – that is, understanding by users of the effective trade-off existing (or not) between the economic element (price) and the social element (index or alternative indices). The fact that there are alternative products with better environmental and social standards that are not consumed can be, if well publicized, an effective tool for awareness and moral pressure on people and users for the use of such indices as an instrument of choice. That is, if it is true that the market creates incentives for individualistic and economic patterns of behaviour, it is necessary to create equally widespread institutional elements to counteract this trend. An expected

12 Armin Falk and Nora Szech, 'Morals and Markets' (2013) 30 Sciences 707.
13 ibid. 709.

result is that in the medium term all, or at least many, of those able to replace a price for an index or relevant social index do so, with the criterion of low price being restricted to that type of consumer or user who simply is not in an economic situation to trade off price for social improvements (assuming of course that the indicators point in opposite directions, which is not necessarily true).

On the other hand, the comparison between price indices and social indicators can also have an effect on the supply side. If it is observed that a particular company or product line has a consistently inverse relationship between price and social indicators, it is possible to imagine compensatory measures, such as a fiscal surcharge where the amount of the tax is calculated to create and allocate funds specifically for improvement of social and environmental indicators that have been targeted through the social indices. That is, knowledge of the discrepancy between indices can serve to stimulate measures for the decrease of that discrepancy.[14] This effect on supply side can be particularly important in basic staple products where the effects on the demand side are smaller since a considerable part of the population, particularly in countries with high inequality, will not be able to pay a potentially higher price for products with high social or environmental value, no matter how great the moral concern with such issues.

## IV. CONCLUSION

The conclusions reached by a chapter on the market in regard to the past are not very encouraging. They are, however, potentially promising for the future.

The reality is that the market and its assumptions are not and never were the subject of critical legal scrutiny. Although many of their assumptions are now known to be unreal and recognized as such, even in the most refined economic theory,[15] no significant institutional modifications have been introduced in its operation.

It is the role of the law and economic theory to do it. The law, whether prohibiting the operation of certain markets or transforming their operation, must intervene in order to guarantee that new realities, such as scarcity, environmental concerns or redistributive needs of society, are reflected at the time of realizing economic flows.

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[14] The comparison with what occurred with Novo Mercado is useful. The creation of Corporate Governance Indexes and its growing detachment from IBOVESPA (standard price index of shares) increases stimulus for companies to migrate to the new segment. Here, there was a demand that led to changes in supply. In the case of markets for products of mass consumption contemplated here, this demand pressure may be slower due to the need for products and the absence of consumers ready or able to substitute traditional price indices (pressured to the price side by the need to preserve residual utility), requiring a more intense intervention, even of a tax nature, by the state.

[15] The most critical conclusions centre on the so-called economy of information whose main exponents are acclaimed economists and Nobel Prize winners. The most influential starting point of this economic line of thought is in Akerlof (n 2) 448. Also relevant are the latter, such as Stiglitz and Spence, all converging towards demonstrating the unrealism of the assumptions of full and complete information and/or transmission of information made by neoclassical economics on the functioning of markets.

This, in my opinion, is one of the major tasks to which the law must be directed in the organization of markets. Just as in the Middle Ages economic flows required major legal innovations, today human progress, both socially and economically, seems to depend on market deconstruction and reconstruction by law, which can often mean transformations, restrictions or even prohibitions on the functioning of markets.