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Financial Markets and the Production of Law

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Résumé : A la lumière des travaux de Bruno Leoni, l'on peut interpréter l'économie des marchés financiers comme une application particulière de l'économie du droit. L'interventionnisme monétaire et financier provoque les mêmes types de conséquences que le droit statuaire ou légiféré. Tout comme la législation tend à créer une plus grande certitude juridique à court terme, au prix d'une ultime destruction du droit, les marchés financiers sous un régime de monnaie fiduciaire tendent à renforcer les facilités de financement à court terme au prix d'une ultime destruction de l'épargne et des investissements productifs.

Abstract: Following the Italian jurist and legal philosopher Bruno Leoni, the economics of financial markets can be interpreted as a special case of the economics of law. Government interventions in money and finance tend to entail the same type of consequences as the production of statutory law. Just as statutory law tends to create short-term certainty at the expense of an ultimate destruction of the law, fiat-money-based finance tends to create short-term funding possibilities at the expense of an ultimate destruction of savings and productive investments.

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Financial Markets and the Production of Law

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Abstract :

Following the Italian jurist and legal philosopher Bruno Leoni, the economics of financial markets can be interpreted as a special case of the economics of law. Government interventions in money and finance tend to entail the same type of consequences as the production of statutory law. Just as statutory law tends to create short-term certainty at the expense of an ultimate destruction of the law, fiat-money-based finance tends to create short-term funding possibilities at the expense of an ultimate destruction of savings and productive investments.

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Financial Markets and the Production of Law*

J.G. Hülsmann

Bruno Leoni's work stands at the intersection of economics, law, and legal philosophy. In our present contribution we shall try to follow in his footsteps by analysing the impact of government interventions on the production of legal claims. We will focus on an area where economics and law most visibly overlap, namely, on financial markets. The latter can be defined as exchanges of legally-enforceable promises of future cash payments. The beneficiaries of such promises own legal claims on future payments of money. The different financial claims – also known as financial titles and financial products – are different specifications of the conditions under which the promised future payments can be obtained.

Financial markets are the birthplace of a great number of legal claims and corresponding obligations (and financial firms also employ a great number of lawyers.) Thus they are a promising though neglected field to study the economics of the production of “claims” in the sense of Bruno Leoni (1991, p. 192). We shall argue that the economics of financial markets is in several respects but a special case of the economics of law. The impact of government interventions in finance is a special case of the impact of government interventions in the “production of law” (Leoni 1991, p. 205).

Our paper is organised as follows. We will start off with some introductory reminders that Leoni has not only drawn some of his own inspiration from economics, but that he himself greatly influenced the development of economics in the past fifty years. Then we shall turn to financial markets, stressing that financial titles are a special subset of legal claims and analysing how government-imposed financial titles modify the scope and the workings of financial markets. Finally we will point out the analogies of these findings within the field of law making.

Felicitous Cross-Fertilisation

Bruno Leoni made a famous “economic” case for competitive law making and against legislation. For the assessment of conflicting legal claims it was not necessary to endow lawyers, judges, and other professionals in the field with any monopoly powers. And he went on to

* The present paper is based on a lecture delivered on October 31st, 2013 at the conference “Libertas, Libertates Bruno Leoni nel Centenario della nascita” held at the Università della Calabria in Arcavacata di Rende.

demonstrate that the monopolised legislative process was likely to produce results contrary to the very purpose of the law, especially in creating greater uncertainty about the future law than would prevail without legislation.

His argument was recognisably inspired by the writings of Ludwig von Mises (1981, 1998) and Friedrich August von Hayek (1935). Mises had stressed that all social phenomena ultimately result from individual human choices. Leoni (1991, p. 192) thought this held also true for the raw material of jurisprudence, namely, for legal claims. Mises had argued that government interventionism tended to be counter-productive. As we have stated above, Leoni held that the same thing was true in the field of law making. Mises had stressed that government-imposed, immaterial “fiat” money undermined the operation of the market economy and was a severe threat to political liberty. Similarly, Leoni (1991, p. 206) contrasted “two ways of ‘producing law,’” namely, the natural way and the way of government fiat, and he highlighted the adverse legal and political implications of the latter.

The upshot of this argument was to shed new light on the importance of the common law. Bruno Leoni gave a new theoretical legitimacy to the traditional law-making process, relying as it were on custom, contract, and jurisprudence, rather than on the power of the state.

But Leoni also provided an important illustration of the fertility of the economic or “praxeological” approach developed by Mises. Economic science, as the latter understood it, was not confined to the analysis of exchange, prices, and the production of economic goods. It was the science of human action. Law making too, was human action. The principles that determine the production of all other goods also determine the activities of those human beings who define the law and adjudicate legal claims. Mises had not seen this connection, but Leoni did. He radicalised the application of Mises’ ideas, and this radicalisation had great influence on the further development of economic science and of social philosophy. For example, it prompted F.A. Hayek to abandon his legislation-focused approach to the creation of a *Constitution of Liberty* (1960) and to explore the evolution of legal and political institutions through competitive processes, most notably in his *Law, Legislation and Liberty* (2012). Leoni had a similar impact on Murray Rothbard (1998; 1973) who set out to analyse the economic mechanisms of a competitive juridical order, thus laying the foundations for the contemporary scholarship on these questions (for example Benson 1990, Hoppe 2012, Lottieri 2002, Osterfeld 1989, Stringham 2011, Van Dun 2004, Van Dun 2009).

In what follows our purpose is to analyse the impact of government interventions on the production of financial claims and to argue that this analysis can be generalised along the lines that have been highlighted by Bruno Leoni more than fifty years ago.

The Production of Financial Claims

Financial titles are claims on future payments of money to be made by natural or juridical persons. The different financial claims or “products” are different contractual specifications of the conditions under which a promisee can obtain a future payment from a promisor. For example, by purchasing shares of a company on the stock market, one acquires a claim on receiving dividends, but only if the shareholder assembly decides to pay dividends out of the annual profit. By purchasing of a government bond one typically buys a claim on interest payments and the eventual restitution (at maturity) of the principal, both of which are specified in advance.

Now, financial claims and the corresponding obligations can be produced under the respect of private-property rights. In this case we shall speak of the *natural production of financial claims and obligations*, which are part and parcel of natural finance. However, financial claims can also be modified and created through the violation of private-property rights. In that case we shall speak of *fiat financial claims* (FFCs) and fiat financial obligations (FFOs), respectively of fiat finance.

To study of the impact of government intervention on financial markets, we shall therefore compare natural financial claims (NFCs) to FFCs. Due to space limitations our analysis does not purport to be systematic or exhaustive. Rather, we shall focus on five central questions and discuss them only as much as necessary in order to clarify the differences between natural and fiat production of financial claims. (1) origin, (2) conditions, (3) role within overall finance, (4) limitations, (5) how they harmonise with the general nature of markets and of financial markets in particular.

The Natural Production of Financial Claims

(1) *The origin of financial claims.* Natural financial claims are created under the consent of the liable party. Usually they have their origin in contracts. When Smith lends money to Brown, then Smith sells (a part of) his monetary savings to Brown, and he buys a financial claim on the latter. Brown buys Smith’s savings in exchange for his promise to make a future payment to the latter.

Not all financial claims are initially bought with money. Sometimes people exchange one promise of a future payment against another such promise, for example, in financial-derivative

contracts. Similarly, not all financial claims are written; not all are negotiable and thus can be exchanged on financial markets; not all are endowed with those additional guaranties that turn them into “securities” and qualify them for organised exchanges (Börse, borsa, bourse, bolsa).

Financial claims may also have other origins. They may be created one-sidedly. For example, a company selling a product of the type X may announce that it will pay its customers a certain amount of money if the latter find X at a lower price elsewhere. Some financial claims have their origin in customs, for example in religious customs (such as the tithe) and in the customs of extended families in sub-Saharan Africa and other places.

In what follows we shall focus on the contractual origin, which seems to be most important in practice. One crucial characteristic of this contractual origin is that it puts the citizens in charge. The citizens in their capacity as savers control the overall volume of financial markets. They also choose the immediate users of their savings, though not necessarily the final users. In short, natural finance works bottom-up.

(2) *Necessary conditions for financial exchanges to take place.* The creation of a financial claim is per se costless. Promises are cheap. Anybody may promise anything, the difficulty is to find people who believe promise and who buy it. In other words, the real question is when and why financial titles have any subjective value, and especially when and why they can command a monetary market price. We cannot answer these questions here in any detail, but the overriding answer is that a person X who wishes to buy and own the promise given by another person Y must *trust* that other person. While this fundamental role of trust in financial exchanges is well known, it is appropriate to add two further clarifications.

The first one is that trust depends in turn on a great number of causes, most notably on objective factors such as the track record of the promisor and his current ability to honour financial obligations. Subjective factors also come here into play, in particular, the *judgement* of the promisee about the character of the promisor and about the latter’s future ability to honour his financial obligations. However, in the last resort these subjective factors largely depend on the aforementioned objective factors.

The second point that needs some clarification is that, within the setting of a market economy, the word “trust” has a rather special meaning. Saying that A trusts B does not only imply that A believes the promises made by B, but that A also backs up this good faith with his own money. In the terminology proposed by Murray Rothbard (1956), we might say that natural trust is *demonstrated* through action, rather than merely declaratory. Person A might say that he has

profound trust in the word of person B, but unless A takes a stake we can never know whether this is true (rather than a lie) and we can never compare the extent of his trust.

In other words, the trust that we put into someone is not some sort declaration, certifying his or her trustworthiness. It is first of all a personal choice we make. We choose to trust someone, and we demonstrate our choice through the use of our property. In short, trust bears a subjective value component and all financial claims therefore have subjective value.

In the normal state of affairs there is no consensus on the trustworthiness of the different households and firms. Each saver-investor applies his own judgement and his own criteria. There are overlapping networks of judgements and of trust.

(3) *The structure of finance.* Financial exchanges – exchanges of promises of future payments – are neither the only nor the most important way to finance human activities. The most important source of finance for households, firms, and governments is past revenue. In advanced economies, the aggregate *gross* revenue of all sectors is typically twice as high as GDP. By contrast, financial exchanges in most cases only serve to refinance already existing credits. *Net* issues of financial through financial markets are very volatile, and quantitatively they are much less significant. In the US, before the current crisis (i.e. until 2007) net issues of securities represented about a third of GDP, thus six times less than aggregate gross revenue resulting from selling goods and services.

Financial exchanges are the most visible mechanism of interpersonal finance. They allow savings of one person to finance the activities of another person, and they facilitate the sharing of uncertainty. But they are not the only way to achieve this. The other main mechanism of interpersonal finance, surprisingly, is cash hoarding. An increased demand for cash balances on the side of one group of people brings about a tendency for the price level to drop. This means that the purchasing power of the money units that are not being hoarded, but continue to be exchanged, is increased. Hence, saving on the form of cash hoarding serves to finance the activities of other people. There are in this respect no differences between this form of saving and saving in the form of financial investments (see Hülsmann 2013, chap. 2).

To sum up, in a free-market economy, financial exchanges are just one way to finance human activities. They are a very important mechanism of interpersonal finance, but not the only one and not the most important one. They are part and parcel of a whole “structure of finance” and this structure is constantly being changed through the competitive market process. This brings us to the next point.

(4) *The limits of financial markets.* Financial exchanges are constrained by the same legal rules as all other exchanges. Nobody is obliged to buy and keep financial claims. There are always at least four basic alternatives. The money that could be spent on a financial claim can just as well be (1) spent on consumers' goods, (2) spent on real estate, (3) spent on factors of production, or (4) held in cash. Financial exchanges take place *if, and only if*, in the eyes of both partners they appear to be more useful than those four alternatives in the eyes of the persons involved.

This implies that both the aggregate volume of financial markets, as well as the volume of each type of financial exchange, is determined by a great number of causes, many of which lay outside of the financial markets. For example, if the quality of money improves, then saving in the form of cash hoarding will tend to increase, and this is likely to diminish the amount of savings exchanged against financial claims. Similarly, if business regulations increase and deter more and more people from creating and running a business, then the amount of savings spent on factors of production is likely to diminish, and this could very well go in hand with increased financial investments. The financial structure that results from the unhampered market process might be called a natural financial order.

To sum up, in a free-market economy, the boundaries of financial markets are established through the competitive market process. Financial claims then exist only to the extent that they provide greater services to savers, and to the users of savings, than all other forms of using one's income. Financial markets therefore tend to encourage additional savings and to improve the use of available savings. Thus they contribute to increasing aggregate production and economic growth.

Let us now see how these characteristics change under the impact of violations of private property rights.

Fiat Finance

We can define fiat financial claims (FFC) as such claims on future payments that do not originate from consent of the liable party. The person liable to a fiat financial obligation (FFO) is therefore not strictly speaking a "promisor" because he or she never consented in the first place. But what does it mean for a person A to be liable without his or her consent? It means that some other person or group B decides that A shall make that payment *and* enforce this decision with violence or under the threat of violence.

FFCs and the corresponding FFOs cannot exist without some aggressor that forces the non-consenting party to make the payment. In practice, the aggressor must be a government or some

similar social authority (church, labour union, etc.). Today FFCs and FFOs are typically products of government intervention in the sense of Mises (1929; 1998).

Governments very often are the immediate beneficiaries of such interventions, most notably in the case of loans to the state. In this case we may speak of “binary” intervention in the sense of Rothbard (1970, chaps 4 and 5). But governments may also create FFCs and FFOs between third parties, for example, in the form of inheritance laws, divorce laws, and mandatory pension plans in firms. Then we may speak of “trilateral” intervention in the sense of Rothbard (1970, chap. 3). In finance, trilateral interventions usually involve financial intermediaries such as commercial banks and insurance companies. For example, in many countries, governments force households to buy health insurance policies or pension plans from insurance companies; and in most countries the citizens today are forced to have bank accounts if they wish to conduct certain types of transactions, for example, purchase real estate or vehicles.

Hence, the creation of FFCs and FFOs tends to inflate the scope of the activities of financial intermediaries. This in turn greatly facilitates subsequent binary interventions and fills the public purse without much political resistance. Rather than forcing millions of households to directly buy government bonds, antagonising the voting public in the process, the government has just to force the banks and insurance companies to do so. The latter usually have no self-interest in opposing such policies. After all, they are themselves the beneficiaries of various trilateral interventions that force the public into contracts with intermediaries.

How do such interventions modify the characteristics of financial markets?

(1) *The origin of financial claims.* First off, it is clear that we are here confronted with new and distinct origin of financial claims, namely, coercion. The implication is that the quantity of financial claims increases beyond the quantity that would be created in the unhampered market.

(2) *Necessary conditions for financial exchanges to take place.* A further implication is that the role of trust in finance is diminished and perverted. FFCs and the corresponding FFOs do not spring from an exchange between a saver and a user of those savings. They do not presuppose on the side of the victim a free choice to save and a free choice to exchange those savings against a financial claim. Those who buy and hold FFCs do not necessarily trust the obliged party. They may trust that the obliged party will pay under the threat of coercion. In other words, trust in the obliged party is replaced by trust in the government to honour its pledge of violence. Trust is centralised and homogenised.

It follows that the role of trust-building “objective” factors such as track records, revenues, and wealth is weakened. On a free market, such factors are paramount. In fiat finance, they become dispensable *for the creation* of FFCs, though not for the eventual payment of these FFCs. This implies that the overall risks involved in financial exchanges tend to increase and that more savings be wasted.

(3) *The structure of finance.* As we have stated, under the impact of fiat finance, the supply of financial claims is artificially increased. Financial exchanges increase relative to cash hoarding, and thus the autonomy of the savers is being eroded. More savings are being allocated to the state. Therefore, less savings are available to finance the activities of private households and firms.

We have pointed out already that the overall risks involved in financial exchanges tend to increase and that more savings be wasted because of the diminished role of objective factors in the creation of financial claims. There is a related reason why FFCs tend to be more risky than NFCs, namely, reduced liquidity. Government coercion may create FFCs of a certain nominal market price, but this does not imply in the least that these products be exchangeable at those nominal amounts on the market. Quite to the contrary, just as the initial “buyers” of the FFCs did not themselves value them at that amount, but had to be forced to buy them, subsequent buyers are also likely to refuse to buy them at that price. Secondary markets for FFCs therefore tend to be either inexistent or small. In other words, FFCs have very low market liquidity and are relatively risky to own on this account as well.

(4) *The limits of financial markets.* Above we have stressed that NFCs tend to encourage additional savings. By contrast, FFCs at best have no impact on the overall volume of savings and as a rule they tend to discourage savings and the investment of savings. The foremost reason is that people will try to evade being subject to FFCs, for example, through emigration. But even without emigration, FFCs tend to reduce the overall volume of savings. As long as the FFCs are credible – that is, as long as their beneficiaries expect them to be paid in the future – these beneficiaries are likely to reduce their present savings. They will tend to consider the FFCs as a part of their overall portfolio of invested savings, and thus are likely to reduce the other elements of that portfolio in order to spend more money now on consumers’ goods (this is particularly pernicious when the FFCs are being issued by a pay-as-you-go public pension system, see Garello 2014). By contrast, if the FFCs are *not* credible, their beneficiaries will probably not take account of them in choosing their level of present spending and in composing their portfolio.

The foregoing investigation can be summed up in three points.

One, fiat finance without the backing from fiat money is severely constrained by the objective ability of the liable parties to make the mandatory payments. Creating more fiat obligations without any improvement of the ability to pay ends up in not financing anything; but merely in increasing the likelihood of default (increased counterparty risk). Other limitations results from the fact that the market prices for FFCs are inflated, which prevents the development of secondary markets, and from evasions of the fiat obligations.

Two, fiat finance absorbs a part of the overall savings and (fully or partially) wastes those savings. To waste savings means to use them in projects that the savers consider to be less important than personally known or imagined alternatives. In the case of fiat finance there are always more important alternatives, otherwise it would not be necessary to resort to coercion in the first place.

Three, credible FFCs tend to provoke a reduction of the overall volume of savings, while non-credible FFCs may lead to increased saving in alternative forms such as cash hoards.

Let us now see how these results are modified under the impact of fiat money.

Fiat Finance within a Fiat-Money System

Fiat money is a generally used medium of exchange (money) the use of which is being imposed on the citizens, typically through monopoly privilege or through legal-tender laws. While governments have imposed many different types of money, the most important cases are the ones of irredeemable paper notes and of irredeemable accounting money. Today next to all countries of the world have fiat monies that are produced by central banks in the form of banknotes and accounts. This state of affairs is no historical accident (see Hoppe 1994). Government have imposed banknotes and accounting money because these types of money can be produced *ad libitum* to the benefit of the treasury.

The production of additional money units brings about a tendency for all money prices to rise, respectively a reduction of the purchasing power of all (old and new) money units. But this price-inflation does not happen in the way of a single and simultaneous change of all prices. It occurs through a great number of subsequent exchanges (Cantillon effects). It follows that the first users of the new money units – those who can exchange them first – stand to benefit from the fact that their purchasing power is still relatively high. This goes in hand with corresponding losses for other money users, and especially for the last users of the new money units. The latter have to wait until their monetary revenue increases when they receive some of these new units, but until this happens they already have to pay higher money prices out of their old revenue.

In short, the production of money creates winners and losers. Fiat money can be produced *ad libitum* and therefore offers the possibility to extend this redistribution virtually without limits. Furthermore, central banks – the appointed producers of fiat money – have the power to pick the first users of new money. Thus they can make sure that the government is always in a pole position among the winners. The general economic, political, and moral dimensions of these facts have been analysed in some detail (see for example Rothbard 2008; Hoppe 1990; Hülsmann 2008). In what follows we shall highlight their impact on finance and financial markets.

The starting point for our analysis is the fact that fiat money greatly boosts the development of financial markets, through at least four distinct channels (detailed exposition in Hülsmann 2013, chap. 8). Central banks may create fiat money to purchase financial claims, thus increasing both the demand for those claims and their prices (monetisation channel). Central banks may create fiat money in order to lend it to other market participants. Such lending is usually “collateralised” or secured by the temporary transfer of already-existing financial claims to the central banks. Thus the demand for such claims increases because they may serve as collateral in central bank lending operations (collateral channel). The permanent increase of the fiat money supply typically creates a positive price-inflation rate. In this case, savings in the form of cash hoarding are no longer a suitable way to preserve wealth, and thus savers and investors increasingly turn to financial markets (price-inflation channel). Finally, central banks usually try to stabilise the purchasing power of money, which involves a stabilisation of the commercial-banking system. Because the commercial banks know that they can count on support from the central bank, they have an incentive to increase their financial exchanges beyond what would otherwise be their precautionary limits (moral-hazard channel).

Let us stress again that central banks may create fiat money without any technical or commercial limitation. Apart from political resistance, the only long-run limit of fiat-money creation is a runaway or hyperinflation (historical overview in Bernholz 2003). When money prices rise fast and high, the market participants have very strong incentives to reject their money and turn to using other media of exchange. But in the short run, central banks are virtually always able to create more money as they see fit without losing too many customers. This has four major implications for financial markets and the production of financial claims.

First off, as we have already stated, under a fiat money system, there is a very strong tendency for cash hoarding to diminish because the permanent increases of the price level (the aforementioned price-inflation channel). Rather than hoard their savings in cash, the citizens start to buy financial claims, in the hope that the associated dividends and interest payments

compensate for the shrinking purchasing power of money. Yet this implies that the direct personal control over the final use of one's savings diminishes. In practice, this control is usually being turned over to government-licensed intermediaries such as banks and insurance companies.

Second, fiat money completely erodes the role of trust on financial markets. As we have seen, in a fiat-finance system *without* fiat money, overlapping networks of individual trust relations are being partially replaced by trust in a single agent's (the government's) ability to honour its promise of coercing payments from other market participants. But coercion all by itself does not create any goods, and the victims' objective ability to pay is therefore still a severe limitation of any fiat finance system. This limitation evaporates once fiat money comes into play. Then *even if* the citizens are unable to meet their fiat financial obligations, and *even if* the government is unable to do anything about this by wielding sheer force, the central bank still has the technical possibility to simply create the money necessary to buy and hold indefinitely all FFCs, respectively to redeem all financial obligations. The central bank itself does not need to trust whomsoever. It does not need to believe that the obliged parties are objectively able and willing to make the future payment. It can provide them with any amount of fresh credits out of the printing press, at zero or negative interest rates, and for unlimited time. In short, under a fiat money system "trust" tends to be severed from the objective ability to make payments. *In extremis*, trust under a fiat system means trust in the central bank's willingness to buy this or that financial claim, respectively to bail out the counterparties of these claims.

Third, the foregoing analysis does not imply that the objective abilities of the counterparties to financial claims are no longer relevant. They certainly are relevant from the point of view of the economy as a whole. Rather, the point is that they are comparatively less important *in the judgement of the individual market participants*. The latter are more likely to engage in particularly risky financial exchanges if they have reasons to believe that they might get away with it thanks to help from the central banks. In short, resources tend to be wasted, while each individual saver-investor behaves perfectly rational under the given circumstances (rationality trap).

Fourth, this tendency is reinforced by the fact that central banks can buy – and do buy – FFCs at nominal prices, thus creating veritable secondary markets for those FFCs. This implies a stronger demand for FFCs, along with higher prices and correspondingly lower interest rates. This may come at the expense of other types of investment, but it is also likely to reduce the overall savings volume. The beneficiaries of a fiat public pension plan might have doubts that the payments will ever come forth, and thus they are likely to build up savings outside of the pension

system. But under a fiat money system it is virtually certain that the payments will be made, and thus the incentives to save outside of the system diminish.

To sum up, a fiat-money system destroys the two major limitations of fiat finance that we had highlighted in the preceding section. Most importantly, it undermines the role that objective factors play in the individual decision-making process. It thereby destroys the reality check of success and failure, while the economic system as a whole is still subject to objective limitations. Furthermore, the permanent price-inflation that typically results from fiat-money production destroys one major alternative to financial investments, namely, cash hoarding and thus discourages savings.

In short, savings diminish below the level they would otherwise have reached, and the savings that remain tend to be wasted to a greater extent. How long can this go on? We have already stated that one remaining limitation is hyperinflation. Another limitation is the complete destruction of savings. But these limitations play out in the very long run and only if there are no countervailing tendencies such as technology-driven growth or a strong savings culture as in Japan or Italy. Hence, although a fiat-money-backed fiat-finance system is very destructive, it can potentially last a long time, especially if it can parasitically live on the economic and financial virtues of the citizens.

Financial Markets and Statutory Law Making

The foregoing analysis can be generalised along the lines suggested by Bruno Leoni more than fifty years ago. Leoni (1991, pp. 205f) distinguished between a natural law-making process and a fiat law-making process. The natural law-making process is based on individual claims that usually emerge out of contracts. The adjudication of conflicting claims works bottom-up and is driven in the first place by the concerned citizens themselves and only secondarily by professional specialists (lawyers, judges) who assist the citizens. By contrast, the fiat law-making process works top-down and involves the imposition of claims without the consent and against the will of the liable citizens. Its tool is statutory law, that is, legislation. In Leoni's (1991, p. 206) words:

Lawyers and judges produce law by working on some materials that are considered to be given to them in order to condition their own production. To adopt a happy metaphor of a great contemporary scholar, Sir Carleton Kemp Allen, they 'make' law in the same sense that a man who chops a tree into logs has 'made' the logs. On the contrary, the ambition of the legislators is to make the law without being conditioned that way. They not only 'produce' law, but they also want to produce it by a kind of fiat, regardless of materials and

even of contrary wills and opinions of other people. What they mean is not sheer production, but [...] *creation* of the law.

Leoni's analysis of the consequences of statutory law can be summarised by saying that statutory law tends to destroy the law. Under the impact of legislation, the law tends to become disconnected from the opinions and the will of the citizens, thus undermining their autonomy. The organic and "grown" structure of the law – involving contracts, customs, expert opinion, and previous judgements – gives way to one unique and homogenous source of claims, namely, legislation. Most importantly, legislated law undermines the certainty of the law, and thus one of its basic functions. Leoni highlighted the fact that *in the short run*, legislation might very well clarify the law and thus increase its certainty. However, precisely because legislation allows to create laws *ad libitum* it entails greater uncertainty *in the long run*. States Leoni (1991, p. 80):

The more intense and accelerated is the process of law-making, the more uncertain will it be that present legislation will last for any length of time. Moreover, there is nothing to prevent a law, certain in the above-mentioned sense, from being unpredictably changed by another law no less 'certain' than the previous one.

The parallels to our foregoing analysis of fiat-money-based financial systems are striking. In fact, we found exactly the same tendencies that Leoni highlighted in the more general case of legislation. Fiat money increases the financial capacity of the system in the short run, yet destroys the financial autonomy of the citizens and the organic bottom-up structure of financial exchanges; and it facilitates the waste of savings, thus undermining the financial capacity of the system in the long run.

Let us conclude with three additional remarks on the interrelations between the production of law and the production of financial claims.

One, statutory law (respectively legislation) is fundamental. Without statutory law there can be no fiat financial claims and corresponding obligations. Without statutory law there can be no such thing as immaterial money that can be produced *ad libitum*. Historically, all paper monies and all accounting monies have been introduced by legislative fiat. There is some current debate about the theoretical *possibility* of a purely voluntary emergence of immaterial money, spurred by the success of bitcoins (see Murphy 2013). But the plain fact is that bitcoins own their success to the fact that they cannot be produced at will, because the production function contains an in-built ceiling. Thus our above statement remains valid: Without statutory law there can be no such thing as immaterial money that can be produced *ad libitum*.

Two, as statutory law diminishes the certainty of the law, it also undermines the certainty of financial claims. Legislators may decide to unilaterally revoke or redefine the financial obligations of banks, insurance companies, nonfinancial firms, and of the state. Historical examples are legion.

Three, fiat money systems greatly boost the capacity of the legislative process. Without fiat money, the legislator is strongly limited in his capacity to create rights and obligations out of nothing, because the objective ability of the state and of the citizens to honour financial and other obligations is limited. But as we have seen, fiat money allows to redeem all financial obligations, though at the cost of a shrinking purchasing power per unit of money. Legislators, especially legislators caught up in the political process and the election cycle, have a strong incentive to create all sorts of rights (public welfare services) for their constituencies and to make the corresponding payments through credits financed directly or indirectly out of the printing press. In the United States, periods of high rates of money creation (1970s, late 1990s, 2000s) have gone in hand with a particularly strong legislative activity, while periods of moderate monetary expansion (1980s, early 1990s) featured a lower production of statutory law (see govtrack.us/congress/bills/statistics).

Conclusion

In our present contribution we have argued that the economics of financial markets is in several respects a special case of the economics of law. In particular, we have shown that government interventions in money and finance, creating fiat claims and obligations, entail the same characteristics consequences as the production of statutory law and which were highlighted by Bruno Leoni more than fifty years ago. Just as statutory law tends to create short-term certainty at the expense of an ultimate destruction of the law, fiat-money-based finance tends to create short-term funding possibilities at the expense of an ultimate destruction of savings and productive investments. We have also briefly discussed the mutual interdependence of financial markets and statutory law making, underlining the fact that legislation benefits from the short-run lending facilities of a fiat money system.

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