MONEY AND INTERNATIONAL TRADE: THE PERSPECTIVES OF JOHN LAW AND RICHARD CANTILLON

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Abstract

John Law and Richard Cantillon are two economists whose lives and works are intrinsically related. They were at one moment close collaborators and at a later moment bitter enemies. On the one hand, John Law significantly shaped the institutional and policy framework of the French financial system in the beginning of the eighteenth century after the theory he exposed in his „Money and Trade Considered, With a Proposal for Supplying the Nation with Money" (1705). The system he put in place led to one of the first financial crashes in the history of the West, the so-called Mississippi Bubble. On the other hand, Richard Cantillon was a successful banker and financial investor who reacted to these extraordinary events by building his own arguments that were later articulated in his „Essai sur La Nature de Commerce en General" (1734, translated into English as "An Essai on Economic Theory"). The legacy of the two economists is impressive in the development of economic thought. The fundamental ideas of their perspectives lie even today at the core of the contemporary debates surrounding monetary policies. But their contribution related to the relation between money and international trade has been largely marginalized because of the focus on their role and the relevance of their theories for the Mississippi Bubble. We attempt to address this situation by highlighting their valuable contribution in this respect.

Keywords: monetary theory, history of economic thought, financial bubbles, inflation, international trade

JEL codes: B12, B23, E51, G21

John Law was a controversial personality. Till the publication in 1705 of his most representative work („*Money and Trade Considered, With a Proposal for Supplying the Nation with Money*"), he had little interest in scientific inquiry. The main occupation of John Law till 1705 was gambling (an occupation he assumed with pride) and he was later acclaimed for his sharp mind and impressive arithmetical skills. But gambling usually does not need a coherent economic theory. At one moment, he had to mortgage his family estate in order to pay off his debts. Moreover, he even had to flee Scotland in 1695 after escaping from prison where he was on his way to execution [Murphy, 1997, page 35]. For ten years, he roamed casinos and gaming tables through different European countries. The affluence of Holland greatly

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impressed him. Such an experience apparently made him aware of the monetary issues of that age as he had contacts with the ongoing developments in the banking and financial industry taking place in Holland, England, Italy or France.

The huge public debt generated by war expenses led in a large number of the European countries to confiscatory taxation and huge losses in prosperity. Protectionism, domestic monopolies and arbitrary manipulation of the commodity money – what some economists define as „*mercantilism*" [Rothbard, 1995, page 213] – meant crippling conditions for society at large and business in particular. Several governments as well as scholars turned their attention to the monetary policy as the last hope for addressing such social conditions while largely maintaining the *status quo*. Obviously, their envisaged solution was nothing but an attempt to devise a mechanism for overcoming the natural scarcity of commodity money and capital while allowing a further redistribution of social wealth in favor of the state. That could also be called the central idea of „*Money and Trade Reconsidered*".

1. The monetary theory of John Law

John Law had a correct perspective on the process of the emergence of money. He correctly pointed to the function of money as a medium of exchange that facilitated trade and overcame the inner limits of the barter system. The Scottish economist even explained why silver – as well as other precious metals – played the role of medium of exchange, highlighting the core physical characteristics that qualify it for such a task:

„*1. It could be brought to a Standard in Fineness, so was certain as to its Quality.*

2. It was easie of Delivery.

3. It was of the same value in one Place that it was in another; or differed little, being easie of carriage.

4. It could be kept without Loss or Expense; taking up little Room, and being durable.

5. It could be divided without Loss, an Ounce in four Pieces, being equal in Value to an Ounce in one Piece" [Law, 1705].

This is a strong statement that money emerged as a market phenomenon. It is repeated in other forms: „*It is reasonable to think Silver was Bartered as it was valued for its Uses as a Metal, and was given as Money according to its Value in Barter*". This is, in fact, the spelling of what will be named, in the twentieth century, the regression theorem [Mises, 1949, page 409], namely that the purchasing power of money has its origin in the purchasing power of money as commodity, when it was bartered (as a simple commodity like any other).

According to John Law, all the above-mentioned problems came from the apparent fact that there was not enough money. Other causes were purely and simply ignored or downplayed. Law embraced the concept of "*money scarcity*" where "*scarcity*" was not understood as in the case of any other economic goods – by the way, all goods are perceived to be scarce by the population otherwise they could not be called "*goods*" [Mises, 1949, page 93] – but as "*shortage*". But when someone is talking about „*shortage*" he should make appeal to a normative standard of optimal supply. Without it, nobody can logically argue about shortage or oversupply. Law never advanced an answer to the question "*which should be the optimal supply of money in the society?*" or, when he did it, he was just making comparisons to other countries: „*So to be Powerful and Wealthy in proportion to other Nations, we should have Money in proportion with them*". Interestingly, that could be a correct statement if we assume that there is free trade between two countries. As there is a natural process of equalization of the price of goods between them, the same price for the money (the same purchasing power) on two markets would lead that there is a proportion between the quantity of money and the demand for money in each of the two countries. But imposing such a proportion before the natural working of the demand and supply mechanism is an erroneous policy. For John Law, the solution to such a prosperity gap is simple: more money would mean more economic development.

He frequently restated this idea in his pamphlet: „*Domestic Trade depends on the Money. A greater Quantity employs more People than a lesser Quantity*" or „*An addition to the Money adds to the Value of the Country*". As a true forerunner of John Maynard Keynes, he argued that „*But no Laws can make it go further, nor can more People be set to Work, without more Money to circulate so, as to pay the Wages of a greater number*". In consequence, in the vision of John Law, unemployment had nothing to do with war, taxation, state licensed monopolies or tariff barriers. It had to do only with money so a proper monetary policy would solve everything: „*So an Addition to the Money, whether the Employer gains or not, adds to the National Wealth, eases the Country of a number of Poor or idle, proportioned to the Money added, enables them to live better, and to bear a share in the Public with the other People*" or „*As Money increased, the Disadvantages and Inconveniences of Barter were removed; the Poor and Idle were employed, more of the Land was Laboured, the Product increased, Manufactures and Trade improved, the Landed-men Lived better, and the People with less Dependence on them*". The same argument is frequently restated: „*for the best Laws without Money cannot employ the People, Improve the Product, or advance Manufacture and Trade*". Even the size of the population, ultimately, is a result of the money supply in society: „*National Power and Wealth consists in numbers of People, and Magazines of Home and Foreign Goods. These depend on Trade, and Trade depends on Money*".

Tracing the cause of all evils – and also of all goods – only or mainly to money is obviously a gross oversimplification of reality. It ignores other factors which, it could be argued, are more relevant, such as public policies and their relation to property rights (taxation, public debt) and freedom of exchange. But such terrible simplifications are in general very attractive due to the simplicity of the alleged solutions (in the case of John Law, all it is needed is „*just*" an increase in the money supply) as well as the moral exoneration of those responsible for the real causes. They were, obviously, the sovereigns.

Modern economists have argued that there is no such thing as an „optimal" money supply in a society: „*there is no such thing as "too little" or "too much" money ... whatever the social money stock, the benefits of money are always utilized to the maximum extent*" [Rothbard, 2004, page 766]. Any quantity of precious metal would allow it to successfully play the function of a medium of exchange. Of course, it is very improbable that a commodity will be chosen as a medium of exchange by market participants in a definite historical context unless there is a perceived wide availability of such a good in that particular society. But besides such a condition, the quest for an optimal money supply is useless. In fact, there is no such thing as an optimal supply of any good except from a personal opinion and a purely subjective perspective. But simply stating that more is better is not a normative position. It is just a denial of scarcity. Taken to its ultimate logical implication, it is an argument for an infinite money supply.

Such conclusions advanced by John Law seem to be the result of a failure to grasp the concept of purchasing power of a monetary unit and its difference from the nominal value of it. Paradoxically, the Scottish economist anticipated the counterargument and explicitly rejected it: „*When I use the Words, Raising the Money, I desire to be understood raising it in the Denomination; For I do not suppose it adds to the Value. There is no way Silver can be made more valuable, but by lessening the Quantity, or increasing the Demand for it. If the Export and Consumption of Silver be greater than the Import, or the Demand be encreas'd; Silver will be of more Value. If the Quantity Imported be greater than the Quantity Exported or Consumed, or the Demand lessen'd; Silver will be of less Value*". Interestingly, this could be called among the best expositions of the "*quantity theory of money*". But, fundamentally, Law believed that someone can have the cake and eat it too: the money supply can be increase while maintaining its purchasing power ("*the value*") of the monetary unit. This is an error that is at the center of his monetary theory. It will later emerge during his public tenure.

2. Two countries and the same medium of exchange

A very challenging argument that John Law advanced against silver was that this metal was "*too scarce*" in Scotland as compared to other countries such as, for example, Spain. Let's assume that in Scotland there is only a small physical quantity of silver as compared to Spain where silver is so abundant that it is almost a general condition of the environment. But, in the same time, this good serves as a medium of exchange in both countries. Can Scotland be bought out by Spain due to the latter's huge resources of silver? Law alertly anticipated such a potential scenario: „*but, if a Stranger were suffer'd to come to Scotland, he might purchase a great part of the Land or Goods with a small Sum. And a rich Man here would make a very small Figure Abroad*".

This may be one of the erroneous prejudices that countries with poor natural resources (especially in precious metals) would experience when discovering that other countries with the same medium of exchange enjoy in fact a huge natural resources in this metal. First of all, the core issue resides in the purchasing power of the monetary unit which is given by the price of silver denominated in all other goods in each of these two countries. Under normal condition, the purchasing power of silver will be higher in Scotland than in Spain due to the differences in relative scarcity of the silver on the two markets. The existence of a significant difference between the relative prices of the same good on two different markets reveals however the powerful barriers in the path of free trade between the two countries. This is the case of not only silver but of any other good. Ricardo argued that what it is important for the emergence of international trade are not absolute prices but relative prices [Ricardo, 2005, pages 110 - 122], which are determined by relative local scarcity. That could be, in the end, the embodiment of the comparative advantage. Entrepreneurs do not judge this comparative advantage in abstract terms but in money terms.

As soon as the trade between the two countries will start in two goods, the relative prices of the goods will start to converge. In the case of money, while the first individuals who export silver on the Scottish market will gain for a period of time some entrepreneurial profits (as they discover the difference in the price of silver between the two markets), as soon as silver will enter the Scottish market its price will decline. In the end, all the prices of the goods traded on both markets (including silver) will be one. The alleged possibility of buying out Scotland ignores the dynamic of the supply and demand on the money market.

In consequence, a community could adopt as money an economic good such as silver even if it is not physically available for mining in that community. The only condition is that there is a free trade between that country and a country where silver is physically available for export. Fundamentally, while not so many individuals do own silver mines, this is not a barrier for them in choosing silver as a medium of exchange with the rest of society. On the other hand, the same type of argumentation is in the case of a single individual who has an infinite quantity of a metal. While he could be able to buy at least for some time resources from other members of the community, in the end, its infinite supply would be spread to the rest of that community. And that would happen long before he has succeeded to buy all the goods in that society. Needless to add that even if we could take into consideration unlimited physical resources of silver in one country, except the case that this good is floating in the air and could be costless to mine, all the costs implied by its production would naturally limit its supply. The fact that ocean water is almost unlimited in supply does not prevent some individuals from this Planet from suffering of thirst. The costs of transforming ocean water into edible water prevent countries with access to ocean from eliminating the problem of lack of water even within their own boundaries. The silver on the market is another good than the silver in the mountain exactly as the water in the ocean is another good than the edible water.

3. Money and international trade

When discussing the alleged competitive advantages of the Scottish economy as opposed to the Dutch counterpart – such as lower costs for factors of production – Law considered that the lack of money is the main impediment that prevents the Scottish entrepreneurs from successfully exporting to Holland: „*unless Money be in* *greater Quantity in Scotland, or Expense retrench'd, we cannot trade so cheap as the Dutch; Tho' we have Advantages for Trade that they have not, and tho' they be under Disadvantages we are not lyable to. By a greater quantity of Money and Oeconomy, the Dutch monopolize the Trades of Carriage even from the English*".

This is a statement that confirms the failure to apprehend the concept of capital and its difference from that of money. Holland enjoyed not simply more money but a larger stock of capital than Scotland and this is the fundamental factor that makes the difference in international competitiveness between the two countries. Interestingly, this is also a qualification made by several later commentators like Thiers: „*Law attributed the languishing condition of Scotland to the defficiency of capital. He was undoubtedly right; but confounding capital with currency, which is simply a means of exchange, he imagined that an abundance of money was the cause of the riches of states whose prosperity money had only developed*" [Thiers, 1859, page 19]. His conclusion is unopposable: "*Cover a desert isle with all the gold of the Americas, or with all the notes of the Bank of England, and we should not at once find roads, canals, husbandry, and manufactures – in a word, business. If by any means the amount of money in a country could be increased without a proportionate increase in the amount of everything else, the prices would only be raised without increasing actual wealth, because a greater quantity of cash would be put in the balance with the same quantity of merchantable articles*".

John Law even concluded that the competitive advantage of nations in international trade consists in size of the money supply they enjoy. He argued, in the same logic, that „*Scotland has a very inconsiderable Trade, because she has but a very small part of the Money*". Such a conclusion also defaults on logic and is, in fact, in contradiction with the previous argumentation of the author. If we assume that two countries (Scotland and Holland) have the same metal standard – be it silver – the fact that there is a smaller supply of silver in Scotland should not only impede the ability of this country to trade but, on the contrary, should encourage the international trade of such a country.

If we assume further that there is the possibility of free trade between the two economies, a smaller supply of silver in Scotland should lead to smaller prices on the average in this economy (as a result of a larger purchasing power of silver unit). In consequence, entrepreneurs should have the incentive to buy in Scotland and sell in Holland where, because of a larger supply of silver, the metal has a smaller purchasing power. Till the moment that the prices in the two economies are uniform (less the costs of trade), Scotland will be better positioned to export due to its overall smaller prices denominated in silver. Such a favorable balance of trade for the country with a smaller supply of silver will last till the quantity of silver imported back (as a payment for the export) would make the prices uniform by increasing the level of prices on the Scottish market and lowering the level of prices on the Dutch market. In the end, silver should have approximately the same price in the two economies.

Another argument revealing this error in the theory of John Law consists in his considerations related to the formation of the interest rate in the economy. He pointed that a reduction in the level of the interest rate by itself, without any other measure to increase the money supply, would not have the positive effects envisaged. He supports such a reduction "*by law*" only on the condition of pairing it with an increase in the money supply: „*Some think if Interest were lower'd by Law, Trade would increase, Merchants being able to Employ more Money and Trade Cheaper. Such a Law would have many Inconveniencies, and it is much to be doubted, whether it would have any good Effect; Indeed, if lowness of Interest were the Consequence of a greater Quantity of Money, the Stock applyed to Trade would be greater, and Merchants would Trade Cheaper, from the easiness of borrowing and the lower Interest of Money, without any Inconveniencies attending it*". One cannot but wonder whether Law should have been a supporter of a fiat money policy coupled with usury regulation (when the rate of interest is compulsory „*lowered*" to its logical end, the total abolition). There can be no surprise that such kind of monetary policy – increased money supply coupled with the lowering of the interest rate – lies even today at the core of monetary policies.

But the Scottish economist pointed also to another interesting aspect for international trade. Law argued that smaller the rate of interest in an economy, smaller the costs of financing for the entrepreneurs in that particular economy so smaller the overall prices and greater the competitiveness in international trade. In general, investment projects which could be attractive for the entrepreneurs in the economy with a lower interest rate may be unattractive for the entrepreneurs in the economy with a bigger interest rate. Such a conclusion can be correctly interpreted only on the condition of having a correct theory on the formation of interest rate and assuming that goods are homogenous on different markets. As modern monetary theorists will argue, the level of natural interest rate in the economy (absent the monetary manipulation) will be the result of a social (or natural) rate of time preference [Mises, 1980, page 394]. A lower rate of interest in an economy is the result of a lower social time preference which is the result of an increased overall level of development. Such a lower time preference leads to more lengthy cycles of production and the exploration of new lines of production, farer from the immediate needs of the population. In such an economy, we witness a larger stock of capital goods and a more pregnant perception of prosperity.

Failing to apprehend the concept of the purchasing power, John Law couldn't obviously grasp the phenomenon of inflation. He ignored such an impact or he minimized it. When he discussed the import of silver by Spain from its colonies, he admitted that the increase in the silver supply will lower the value of money. But the Scottish economist did not see any problem: „*If the Money of an particular Country should encrease beyond the proportion that Country bears to Europe; it would undervalue Money there, or, according to the way of speaking, it would raise Goods: But as Money would be undervalued everywhere the same, or near to what it were there; it would be of great Advantage to that country, tho thereby Money were less valuable: For that Country would have the whole Benefit of the greater Quantity, and only bear a share of the lesser value, according to the proportion its Money had to the Money of Europe. When the Spaniards bring Money or Bullion into Europe, they lessen its value, but gain by bringing it; because they have the whole benefit of the greater Quantity, and only bear a* *share of the lesser value*". John Law seemed to argue that the aggregate quantity of silver "in Europe" and the proportion that the silver supply in a particular country has in this aggregate quantity is the most important factor in the "value" of money in that country. He assumed that the purchasing power of silver was constant all over Europe, a perspective that ignores its relative scarcity on different local markets. Further, it implicitly assumes a zero-cost of production of money for the Spaniards and ignores the necessary condition of free trade in silver between the countries of Europe.

Such errors lead to a truly mercantilist understanding as it does not matter that the supply of money increases in a country (with the inflationary consequence) as long as its proportion to the aggregate country at European level increases. As a logical consequence, the most important thing is for a country to increase this proportion, irrespective of the impact of the purchasing power, both locally and internationally. In conclusion, the only path for Spaniards, the owners of an "infinite" and "costless" money stock, for maintaining or increasing their affluence would be to adhere to free trade (both in silver and other goods) and abandon trade barriers. Such a perspective is ignored by John Law.

In presence of trade barriers, such a free receipt of silver by a country (such Spain) does not have any positive welfare impact and normally will put this economy in difficulty. Because of the general – and sudden – increase in the level of prices, the Spanish producers will become uncompetitive as compared with the other European producers in the case that other goods can find a way inwards Spain. As silver will have a different purchasing power on local markets in Europe, Spanish traders will import goods from other countries and such a trade will bankrupt, in the end, the Spanish production of non-monetary goods. The only „*production activity*" that Spain can still maintain as competitive is that of money itself, as a colonial enterprise or a mining activity.

4. Supplying a country with money

The position of John Law became markedly self-contradictory when, on the one hand, he criticized the argument of several previous writers that the adoption of a particular commodity as money was a political act and, on the hand, his own proposal for a political adoption of a medium of exchange (based on land titles). Law criticized John Locke for his statement that the choice of silver as money has been, in the European countries, a political act (in the sense of political design). He argued that „*I cannot conceive how different Nations could agree to put an Imaginary Value upon anything, expecially upon Silver, by which all other Goods are valued; Or that any one Country would receive that as a Value, which was not valuable equal to what it was given for; Or how that Imaginary Value could have been kept up*".

We cannot but wonder why this correct argument related to the inability of nations to politically agree on a common medium of exchange and its value is not also applied in the domestic realm. His proposal for a paper money based on land titles was not only „*political*" (he petitioned the governments to adopt it, not banks or citizens) but also utopian. The proposal did not really describe the workings of such a monetary system. It breaks exactly the characteristics that Law himself recognized in silver as critical for his acceptance as a common medium of exchange: not only that it is almost impossible to divide in smaller units but the core characteristic of a medium of exchange, that is, being generic, is not satisfied by land.

The idea of Law that value, in an abstract sense, comes from land is not enough for land be at the base of a common medium of exchange. One cannot wonder whether a medium of exchange based on titles on labor hours has not the same merit. Adam Smith and David Ricardo didn't make such a proposal even if they considered labor as the source of value. The proposal of Law can be qualified as a proposal for fiat money as the connection of the medium of exchange with land titles is too far and unrealistic. This is the conclusion of several monetary theorists: "*Law never intended that paper money would be redeemable in land. He was only attempting to build a case for paper money that would eventually have little or no backing*" [French, 1992, page 44].

John Law consistently heralded Keynesianism by the faith that the level of economic output is a result of the money supply, providing an interesting link with this school of thought and mercantilism whose ideas he fundamentally shared. As Salerno pointed, "*in addition to his assumption that the prices of most goods are „sticky downward", Law further anticipates Keynes and modern macroeconomists by positing a causal chain that runs from the supply of and demand for money through the interest rate to the volume of business investment and employment*" [Salerno, 2010, page 6]. From a public policy perspective, the core challenge to the internal consistency of his theory is the apparent contradiction between his desires to increase the money supply and reduce the interest rate as a way to foster economic activity and the maintenance of the purchasing power of the monetary unit both on the domestic and on the international market. His proposal for a paper money based on land titles is so unrealistic that we can qualify it, in fact, as a proposal for a fiat money. Such inconsistencies will be exposed during the Mississippi Bubble.

5. John Law and banking

While several contemporary or later analysts have criticized the perspective of John Law on monetary theory, a large majority of them praised him for his perspective on banking. John Law lived in a period when there was no central banking in the modern acceptance and no monetary policy in the sense of the manipulation of the macroeconomic aggregates. However, contemporary experiments in Europe such as the Bank of England witnessed the monetization of public debt as well as debasement of currency associated with paper money. Moreover, the introduction of the fractional reserve banking was another ingredient that fueled financial bubbles in the economies of the Western Europe. The adhesion of John Law to fractional reserve banking is consistent with his ultimate desire to increase the money supply in the economy.

The fractional reserve banking system emerged in opposition with the free banking system. Without initiating a complex discussion on the differences between the two banking systems (which is developed in the economic literature starting with the beginning of the twentieth century) [Mises, 1980, de Soto, 2009], we should mention that the critical difference lies in the nature of the on-demand deposit contract. In the case of the free banking, the deposit has a 100% reserve in the sense that the banking institution operates like a depository warehouse [Rothbard, 1983, page 87]. Banknotes are depository receipts for the metal stored in the bank. The holder of the deposit can withdraw money at any time. The use of the metal by the banker is qualified as a fraud. On the other hand, in the fractional reserve banking system, the banks use the money from demand deposit in the credit activity. The core issue of disagreement between different theoreticians in the monetary field comes from the lack of clarity of the demand deposit. The fact that banks assures the depositors in the fractional reserve system that they can withdraw their money at any time (even if the metal is used in crediting) leads in fact to the creation of an additional money supply which is breaking the contractual clauses of the demand deposits. In fact, depositors in a fractional reserve banking system have the right to use the money from their on-demand deposits as if they are 100% available (draw checks and so on) while the bank awards a part of this money to credit other individuals.

Obviously, such a system with an apparent double availability of the same sum of money is problematic from a property rights perspective. The depositor cannot in fact enjoy immediately the entire sum of money even if the banker claims so. The system operates only as long as the depositors do not withdraw immediately and in the same time all their money from the bank or the banker has the ability to convert its assets (the loans awarded to its debtors) into cash (or take at its turn debt).

John Law argued that „*Banks where the Money is pledg'd equal to the Credit given, are sure; For, those Demands are made of the whole, the Bank does not fail in payment*". These are the 100% reserve banks. But he criticized those who opposed in principle the fractional reserve banking with apparently technical, but poor, arguments: "*Some are against all Banks where the Money does not lie pledg'd equal to the Credit. 1. They say the Demand may be greater than the Money in Bank. Secondly, If we are declining in our Trade, or Money, we are not at all, or are less-sensible of it: And if the Bank fail, we are in a worse condition than before. To the first it's Answered, tho the Nation had no Benefit by the addition the Bank makes to the Money; Nor the People by being supply'd with Money when otherwise they could not, and at less Interest; And tho the Proprietors had no gain by it: the other Conveniencies, as quicker and easier Payments, etc. are more than equal to that hazard; Or Bank Notes, Goldsmiths and Bankers Notes, would not be prefer'd to Money, every Body knowing such a stop may happen to the Bank, and that Gold-smiths and Bankers may fail. The other Objection is the same as to say, a Merchant who had a small Stock, ans was capable of imploying a greater; If a Sum were offer'd him without Interest, equal to what he had, and more as his own encreas'd, should refuse it, because he might fancy himself Richer than he was, and if his own Stock decreas'd, that Sum lent would be taken from him*". In fact, he ultimately reiterated that an artificial increase in the money supply is desirable because a larger money supply is better than a smaller money supply.

And the last argument with which he opposed the critics of the fractional reserve banking was very poor. To the critic that the increase in the money supply leaded to an exportation of specie to foreign countries (because of increased incentive to import which is the result of higher prices on the domestic market) he argued that the importer "*sends out Money of different Species. This does not hinder the Money to go out, but makes the Exchange dearer by 2 or 3 per cent, then it would have been if 40 Pence Pieces could have been got. And tho no other Money were left, but old Marks, if a Ballance is due these will go out, tho not worth 10 Pence: The Exchange will be so much higher, the profit of Exporting is the same; And so far from doing hurt to the Country, the Bank by furnishing such pieces as could be Exported to least loss, kept the Exchange 2 or 3 per cent lower than otherwise it would have been, and saved yearly the sending out a considerable Sum to pay a greater Ballance, the higher Exchange would have occasioned*".

John Law admitted that fractional reserve banking expands by its nature the money supply: „*The use of Banks has been the best Method yet practis'd for the increase of Money*". Obviously, for him this was not a problem as he failed to apprehend the impact of inflation on economic activity. The problem of fractional reserve banking is that it is intrinsically unstable. Any bank in such a system, because of competition, will explore the limits of its crediting capacity and, in consequence, it assumes an increased risk of failing to meet the payments for its on-demand deposits.

More challenging is the fact that although he realized the powerful redistribution of welfare associated with fractional reserve banking he did not make any ethical qualification of it [French, 1992, page 42]: "*Raising [debasing] the Money in France is laying a Tax on the People, which is sooner pay'd, and thought to be less felt than a Tax laid on any other way ... this Tax falls heavy on the poorer sort of the People*". His stance suggests that he always endorsed the public policy perspective.

Moreover, John Law does not realize that all his conclusions related to the relation between money and international trade was contingent on the use of the medium of exchange based on the same commodity, like silver. It is against logic the compare the money quantities of two mediums of exchange which are in fact two different commodities, like land and precious metal. You cannot speak anymore of an aggregate stock of money in Europe as you cannot compare apples and oranges.

International trade will still emerge in a monetary system with different fiat media of exchange as all is needed is different relative prices of two economic goods on two different markets. But, in that case, the manipulation of monetary policy in one (or both) country cannot but indirectly change the relative scarcity of economic (non-monetary) goods. It depends on how the two sectors of production receive the expansion of the money supply. Such a point reveals that monetary policy can alter the comparative advantage of nations through its impact on relative prices between non-monetary goods.

6. Richard Cantillon: the first of the moderns

Richard Cantillon has been considered as one of the first economists to advance a coherent system of economic theory. Several historians of economic thought have awarded him the quality of the "*father of political economy*", a quality usually associated with the Scottish economist Adam Smith [Rothbard, 1995, page 345]. Cantillon had numerous merits in the development of the economic science, like the opening of an epistemological debate, the advancement of a coherent – although debatable – theory of value, the exploration of the impact of the economic activity on the spatial organization of human communities. Among these contributions, the Irish economist advanced a coherent theory of money.

Cantillon underlined that the general level of prices in an economy is dependent on the money supply: „*Everybody agrees that the abundance of money, or an increase in its use in exchange, raises the price of everything*" or „*All this money, whether lent or spent, will enter into circulation and will not fail to raise the price of commodities and goods in all the channels of circulation it enters. Increased money will bring about increased expenditure, and this will cause an increase of market prices in the good years and to a lesser degree in bad years*". He restated this truth in different other forms: „*Whether money is scarce or plentiful in a state, this proportion will not change much, because where money is abundant, land is leased at higher rates and at lower rates where money is scarce. This rule will always be true, at all times*".

The Irish economist, as opposed to other contemporaries (John Law among them), perceived the economic impact of inflation on economic activity: „*In general, an increase of hard money in a state will cause a corresponding increase in consumption and this will gradually produce increased prices*". Moreover, he was aware that an increase in the money supply would not be equally reflected in the prices of all goods. He concluded that „ *by doubling the quantity of money in a state, the prices of products and merchandise are not always doubled ... The change in relative prices, introduced by the increased quantity of money in the state, will depend on how this money is directed at consumption and circulation. No matter who obtains the new money, it will naturally increase consumption. However, this consumption will be greater or less, according to circumstances*". This could be qualified as an early and original contribution to the body of economic thought.

7. Money and international trade

In manifest opposition to mercantilists, Cantillon considered that an economy which has a positive commercial balance (which normally leads to an influx of specie) could witness an increase in the stock of money which, in consequence, may lead to inflation. Such a "natural" inflation raises the prospects of an overall increase in the level of prices which, in a metal standard, will render the economy on the medium term uncompetitive. The Irish economist even proposed that „*the prince or the legislator ought to withdraw money from circulation, keep it for emergencies, and try to slow down its circulation by every means, except compulsion and bad faith, to prevent its goods from becoming too expensive and avoid the drawbacks of luxury*".

Such a perspective on the desirable role of "monetary policy" lacks, even from the part of Cantillon, a minimum confidence in the workings of the market economy. Cantillon shares with mercantilists the idea that the imports and exports should be equal. However, as opposed to them, he was fully aware of the impact of a long term positive balance of trade which consisted in the potential decrease in the purchasing power of money.

Obviously, it makes a lot of difference how the prince or the legislator „withdraws" money from circulation. It can do it by legitimate hoarding or aggressively enforced deflation. Cantillon seems to opt for the first and this could be, very interestingly, the only type of monetary policy that is compatible with a free market.

In a certain sense, Cantillon still included some widespread economic prejudices in his work. He also kept the error of considering that a larger supply of money in an economy is desirable as compared to neighboring economies. This conclusion seems to be counterintuitive to the vast majority of statements of the same author: „*It is clear that a state with more money in circulation than its neighbors has an advantage over them, so long as it maintains this abundance of money*". Why is an "*abundance*" of money desirable, even if he previously claimed that luxury can have drawbacks, is not so clear in his work. In this sense, a favourable interpretation can be advanced: if between Holland and Scotland there is a free circulation of goods and specie (that is, the same purchasing power of the monetary units between the two countries) and in Holland there is still a larger money supply, that could be interpreted as an advantage in development in the sense that Holland enjoys a larger internal market. The supply of money, in an economy, is the same as the domestic demand for goods. But there are other factors that still at work even in such a case.

8. Cantillon and interest

On the same position as John Law, Richard Cantillon did not advance a correct theory of the formation of the interest rate in an economy. He simply took over the idea that the interest rate is a monetary phenomenon: „*It is a common idea, accepted by all those who have written on commerce, that an increased quantity of money in a state decreases the rate of interest, because when money is abundant it is easier to find some to borrow*". He did not correlate the interest rate with the stock of capital goods and the social time preference, keeping it as a purely monetary dimension.

Despite such natural shortcomings for a pioneer, the work of the Irish economist contains valuable contributions to economics. Chiefly among them, his *Essai* contains one of the first spellings of a business cycle theory, deeply correlated with the explanation of the financial bubbles. The Mississippi Bubble offered to Cantillon the opportunity to reflect on this issue. He engaged at length in explaining how a sovereign could manipulate the money in order to appropriate wealth from society. He described how a reduction in the metal content of the monetary unit would lead, a la Gresham, to a shortage of "*good money*" (high metal content) in the society. All debtors will rush to pay their debts with the new legal tender and the widespread availability of the "*new money*" (low metal content) will lead to an inflationary economic expansion: „*Entrepreneurs and merchants find it easy to borrow money so that even the least able and the least creditworthy will expand their business. They borrow money with what they believe is no interest and load themselves with merchandise at current prices. The strength of their demand even causes prices to rise*". At that moment, imports will start to flow into the country (and the metal to leave out of it) and as the sovereign may initiate a deliberate policy of money shortage (hoarding it in the public coffers, delaying the payments to public servants and so on) will trigger the recession: „*Many entrepreneurs and merchants go bankrupt and their merchandise is sold at bargain prices*".

Such statements may confirm that the immediate expansion of money supply should lead to a deficit in the balance of trade.

This was practically the first time in the literature of political economy when someone traced a connection between the monetary policy and recession, what would later be called a "*cluster of entrepreneurial errors*" [Hulsmann, 1998, page 1]. For the first time, such recessions are taken out of the market phenomenon and described as results of public intervention. Representatives of the Austrian School of Economics have awarded to Cantillon the title of proto-Austrian due to its methodological approach as well as the content of the majority of his statements.

In actual terms, Cantillon explained how the costs associated with the profit of the sovereign (generated in the period of artificially induced shortage in the money supply) are socialized: „*The king makes a considerable profit by the mint tax, but it costs France three times as much to enable him to make this profit*". This is also one of the first statements in the history of social sciences regarding the redistributionist effect of inflation in society. It argued that monetary policy is not "neutral" and there is an ethics behind such public intervention. It is manifestly opposite to the perspective of John Law. It also suggested that this public policy tool may have more dramatic consequences that taxation.

9. Cantillon on banking

While Cantillon did not openly criticize the nature of the fractional reserve system, he highlighted the undesirable impact of the monetary expansion generated by this type of banking system. The Irish economist described how this banking system is dependent on the trust awarded by the clients to their bankers: „*If he has a great flow of deposits and great credit, it increases confidence in his notes, and makes people less eager to cash them. However, it only delays his payments a few days or weeks or until the notes fall into the hands of persons who are not accustomed to dealing with him. He ought to always manage his business according to the practices of those who are accustomed to entrust their money to him. If his notes fall into the hands of those in his own business [i.e., banking], they will immediately want to withdraw the money from him*".

He argued that bankers should understand the behavior of their clients, how they use the money deposited in the bank accounts in order to avoid a liquidity crisis. But Cantillon failed to openly qualify the system as bankrupt. As a banker, it is very possible that he applied such practices in relation to its clients as several clients sued him after the crisis.

One of its significant insights into the monetary field was the lack of trust in the national banks with a paper issuing monopoly: „*In the regular course of the circulation, the help of banks and credit of this kind is much smaller and less solid than is generally assumed. Silver alone is the true lifeblood of circulation*". He stressed that artificial increase in the money supply would eventually lead to inflation: „*An abundance of fictitious and imaginary money causes the same disadvantages as an increase of real money in circulation, by raising the price of land and labor, or by changing the value of money and goods only to cause subsequent losses. This furtive or unnatural abundance vanishes at the first gust of scandal and precipitates economic chaos*". Cantillon, as other contemporaries, had no idea of the limits of monetary expansion as they have never known the phenomenon of hyperinflation.

10. Conclusions

The legacy of the two economists is impressive. On the one hand, some commentators have qualified John Law, "*one of the most brilliant of the early eighteenth century*" [Wilson, 1948, page 383]. He is considered a forerunner of John Maynard Keynes or, as Murphy put it, "*Keynes can be termed post-Lawian*". His contribution to economics was considered to be underestimated till recently. These economists are perfectly right when they point that the core ideas of the theory of John Law lie at the foundation of contemporary economic and monetary policies. The wisdom that the money supply and the interest rate could be manipulated in order to increase economic output and reduce unemployment and that such mechanism could be accomplished only with fiat money lies at the core of policies of central banks today. America Great Depression is a good example in this context. Moreover, the reaction towards the 2008 financial crisis was of the same nature. Moreover, the manipulation of monetary policy has a deep impact on the international trade of a country.

On the other hand, the contribution of Richard Cantillon was rediscovered by Stanley Jevons (who considered his work as one of the most important contribution in political economy) and praised by later economists both from the mainstream as well as other schools of thought like the Austrian economics. Thornton [Thornton, 2011] summarized the tribute that Austrian School of economics has to pay to the Irish economist, concluding that "*the origins of economic theory itself can be traced to Cantillon*". For Friederich Hayek, Joseph Schumpeter or Murray Rothbard, he could be called the "*father of modern political economy*". The core ideas they exposed lies at the core of even today's debate on public policies.

Acknowledgement

This work was co-financed from the European Social Fund through Sectoral Operational Program Human Resources Development 2007 – 2013, project number POSDRU / 1,5 / S / 59184 "*Performance and Excellence in postdoctoral research in Romanian economics science domain*".

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Richard Cantillon's exact date of birth is not known, but it was probably between 1680 and 1690, in County Kerry, Ireland. He was the son of an Irish nobleman. He may have been a descendant of the Stuarts, and his family was quite involved with the Jacobite movement that sought to restore the Stuarts to the British throne.Â Cantillon developed a theory of commodity money that was correct in nearly all respects. Central to his Austrian-style analysis was his rejection of the aggregate approach of the quantity theory of money in favor of a microeconomic-process approach.Â He closed his Essai with an indictment of John Law and his system, which serves as a warning that continues to be important (and unheeded) to this day Abstract: John Law and Richard Cantillon are two economists whose lives and works are intrinsically related. They were at one moment close collaborators and at a later moment bitter enemies. On the one hand, John Law significantly shaped the institutional and policy framework of the French financial system in the beginning of the eighteenth century after the theory he exposed in his â€žMoney and Trade Considered, With a Proposal for Supplying the Nation with Moneyâ€ (1705).Â But their contribution related to the relation between money and international trade has been largely marginalized because of the focus on their role and the relevance of their theories for the Mississippi Bubble. We attempt to address this situation by highlighting their valuable contribution in this respect. Richard Cantillon was an economist in the 18th century who mainly wrote about money and how it circles around the economy. The so-called Cantillon effect describes the uneven expansion of the amount of money. If a central bank pumps more money into the economy, the resulting increase in prices does not happen evenly. The Austrian economist Friedrich August von Hayek compared this monetary expansion with honey. If you pour honey into a cup, it wonâ€™t spread out evenly. It will clump in the middle of the cup first before spreading out. Same with money: in case of a monetary expansion, the ones wh