JOHN LAW: A LIFETIME'S CONTRIBUTION TO MONETARY ECONOMICS

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The name of John Law is usually associated with the consequences of the failure of his Mississippi System. However, as Roisin Duff argues in this essay, his contribution to monetary thought is of great significance. The author reviews the life and analyses the work of John Law to conclude that his status as a monetary theorist is exceptional.

"He worked out the economics of his projects with a brilliance and, yes, profundity which places him in the front ranks of monetary theorists of all times"

(Schumpeter, 1954).

Introduction

A gambler, a womaniser and a fugitive from the law. This description is not exactly associated with an economist and yet this is a perfect illustration of John Law, particularly in the early years of his life. From this questionable background emerged a monetary theorist and policy maker who would create and subsequently destroy an economy. To some, he is regarded as a failure. His contributions to monetary thought are often overlooked. This is primarily on account of the devastating application of Law's theory to the French economy. In his principal works, *Essay on a Land Bank* (c. 1704) and *Money and Trade Considered with a Proposal for Supplying the Nation with Money* (1705), Law introduces many contemporary concepts. These alone should have guaranteed him a place in the front ranks of monetary theorists of all time. These concepts will be analysed accordingly. The Mississippi System will subsequently be analysed and the flaws identified. I aim to show that Law was in fact well advanced in his thoughts on monetary issues and that he has been misrepresented as a failure. His contributions to monetary theory alone have earned him an elevated status within the monetary realm.

Background to John Law

Law was born the son of a Scottish financier in Edinburgh in 1671. He was educated in political economy, commerce and economics in London. Much, of his younger years were occupied with gambling and women. 'Jessamy' and 'Beau Law' were some of the diminutives that he acquired due to his activities, which were not associated with banking at this time. In 1694, a duel took place in Bloomsbury Square, which resulted in the death of Edward Wilson, at the hand of Law. He was imprisoned for murder. It was at this time that Patterson established the Bank of England. This illustrates the advances that were being made in monetary issues at this time, to which Law was currently detached from. However, he subsequently escaped from prison, and fled to the continent and vanished. When he re-appeared he was a changed man. It was John Law the banker, but it was banking with a difference, involving as it did acting as the banker at the gaming table (Murphy, 1997).

Analysis of Law's work

Essay on a Land Bank is the first known work written by John Law on monetary economics. The Essay shows clarity of thought in monetary issues considerably superior to contemporary writings and clearly distinguishable from previous works on money (Murphy, 1994; 1997). In the context of his life, this was produced when Law had fled England. In 1704-1705, he resurfaced and took part in the land bank debate. Law was not the originator of this line of thought on land banks, Hugh Chamberlen being Law's chief rival in this area (Ibid, 1997). He presented many proposals between 1703-1707 for banks, which were subsequently rejected in Scotland, England and France (Ibid, 1994).

Essay on a Land Bank concentrates on defining and analysing the functions and qualities of money. In order for Law to unveil the merits of his bank, he firstly needed to discuss monetary issues. In doing this he produced an outstanding analysis of the functions, qualities and types of money (Ibid, 1994). Within the opening folio of the manuscript Law defines money: "Money is used as the measure by which goods are valued, as the value by which goods are exchanged, in which contracts are made payable and payments are made". This definition clearly outlines the three functions that Law deems necessary for money to possess. Money is firstly a measure of value, secondly it is a means of payment or medium of exchange and thirdly it is a standard of deferred payment. Still today these functions of money exist, which is a further justification for elevating Law's status within monetary economics.

Law proceeds to segregate money into categories. Category one includes money that fulfils the functions of money listed, while possessing six qualities – stability of value, homogeneity, durability, divisibility, transferability and a stamp that denotes its value. Category two includes money that fulfils only the payment and exchange functions of money and possesses all the qualities with the exception of a stable value. This would include Bank of England Shares. Law expresses his ideas with a profound understanding of monetary issues. It was the first comprehensive assessment of the functions of money.

He links the important relationship between the demand for goods and the quantity available of them. This was not an original concept. As far back as Plato the paradox of value was dwelled upon "Only what is rare is valuable, and water which is the best of all things…is also the cheapest". Davanzati, Pindar and Locke have used the paradox previously in their work also. However, Law approached this analysis from an alternative viewpoint in that he used supply and demand analysis while explaining the paradox. Diamonds and water are the goods he used. He proceeded to explain that water is a necessity of life and the quantity available of it is in abundance. However, diamonds have limited use and yet because the quantity available of them is limited, the demand for them is great. Therefore: "the value of goods is rated not as the uses they are applied to are more or less necessary but as they are in quantity in proportion to the demand for them." (Law, 1704). Law's contribution to monetary thought in this respect was overlooked because this analysis was borrowed by Adam Smith and due credit was not given to Law.

Law's essay proceeds, when he has clarified the monetary issues necessary, to focus on the replacement of specie money with money based on land, his proposal for a land bank. Having previously analysed money in detail, he argues that a money based on land can fulfil those functions and qualities of money better than silver: "Land is a commodity and may be made money but, it serves the uses of money and produces at the same time" (Ibid). The analysis is based on money demand and money supply, which was a revolutionary concept at the time. Silver is liable to changes in its value. This he explains by illustrating that although the quantity, quality and demand for silver is the same in two consecutive years, if the good – barley in his illustration, is better quality, in less quantity or if demand is greater this will result in a greater price of silver than the previous year (Ibid). This is one such argument that Law makes. The analysis is extended to each of the functions and in each case, by the use of supply and demand analysis; Law substantiates his argument in a clear and concise fashion.

Previous to the application of his ideas to a system, Law, in 1705 published *Money and Trade Considered with a Proposal for Supplying the Nation with Money*. In this he amalgamated money and trade and assessed how far money affects trade. If Law had to end his monetary career at this stage in his life, at 34 years of age, he would no doubt have been listed with the great monetary theorists of all time. *Money and Trade* clearly outlines the issues to be discussed – three in total. Firstly, the nature of money, this is mostly a reiteration of many of the issues in *Essay on a*

Land Bank and as will be seen the parallels between them are unquestionable. Secondly, the relationship between money and trade is examined, which in Law's work was a new concept. Thirdly, a policy issue of how to produce a new monetary structure capable of expanding the money supply is introduced. Law wishes to expand the money supply, but is aware of the need for a new monetary structure to be put in place in order to achieve this. He examines how to go about this task.

Nature of money

Law reiterates that goods have a value derived from the uses they are applied to. Their value depends on the quantity supplied in relation to the quantity demanded of them. Excessive supply could make a highly useful product valueless. The definition of money is restated with a slight alteration: "Money is the measure by which goods are valued, the value by which goods are exchanged and in which contracts are made payable". In this definition, payment and exchange are treated as synonyms, while the functions remain the same (Murphy, 1997). Law reiterates the flaws that silver, as a form of money possesses within chapter 1. By the concluding paragraph in chapter 1 trade is introduced for the first time:

> "As money encreas'd, the Disadvantages and Inconvencies of Barter were remov'd; the Poor and Idle were employ'd, more of the Land was Labour'd, the Product encreas'd, Manufactures and Trade improv'd, the Landed-men Lived better, and the People with less Dependence on them" (Ibid).

This illustrates the symbiotic relationship between money and trade. His train of thought had developed to include the exchange of goods with other countries. Essentially, he introduces four further concepts – the circular flow of income, the money in advance requirement, further analysis of international inflation in a money supply/money demand framework and finally the formulation of the law of one price for a small open economy (Ibid).

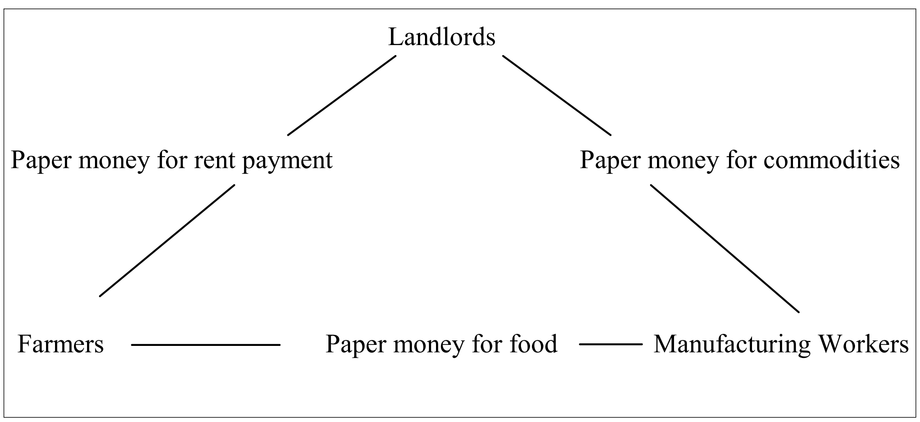
Law begins to consider money in a wider macro-economic context. Law believed that 'trade depends on money'. If money is relatively plentiful, more labour can be employed. Since production should increase with the addition to labour, this will increase the potential for trade. Employment and output are included in the discourse. The interrelationship between these issues is clear to Law: "More money, by employing more people, will make an overplus to export". An inadequate money supply is then seen as the cause of the low level of trade, which in turn suggested unemployment and under utilisation of resources. "As trade depends on money, so the increase or decrease of the people depends on Trade" (Law, 1705). Next Law introduces exports and imports and identifies trade surpluses, when exports are larger than imports. Divergences between the domestic and foreign prices of goods can occur and when this does it can cause discrepancies in the cost of these goods.

There is a danger if the price is lower in other countries of it being imported at a lower cost and so undercutting domestic production. The Law of One Price is introduced. Irrespective of the money in circulation in a country, the price of traded goods must be equal to those in the world market (Murphy, 2003).

The availability of money is a key ingredient in the analysis with the use of Banks being "the best method yet practis'd for the increase of money" (Law, 1705). Law attributed unemployment to a shortage of money, but not to laziness. "A part of the people then employed being now idle, not for want of inclination to work, or for want of employers, but for want of money to pay them with". The lack of money creates unemployed resources, which will hinder trade and production, as they are not realising their full potential.

Chapter 7 is occupied with a formal presentation of the circular flow of income model. The essence of this is that money flows between three groups – the landlords, farmers and manufacturing workers. The landlord or proprietor initiates the circular flow. They pay the labourers in the newly created manufacturing sector with paper money for their goods and services. The labourers use the money to purchase corn and other agricultural goods from the tenant farmers. The tenant farmers use the money to pay the landlord his rent. Therefore, money flows between the three groups, financing the payment of goods and services as well as the payment of the rent. The money returns to the landlord at the end of the process enabling him to start a further round of economic activity (Murphy, 1997). The expansion of this model will need an injection of cash. Law is suggesting that money is needed in advance to create a stimulus to the trading process. Robert Clower develops this to a greater extent. Law's additional monetary contributions in Money and Trade reinforce his capabilities as a monetary economist.

Figure 1: The circular flow of income as suggested by Law



The Mississippi System created by Law

Law's proposals were rejected on numerous occasions, although he persisted. He wanted a further ambition to be realised, that of John Law the policy maker. Law's success in this area was ultimately the cause of his downfall. In the early 18th century the economy of France was heavily burdened with debt and intolerably high taxes, internal commerce was virtually at a standstill, exports almost reduced to vanishing point and the treasury was depleted, so much so that the armies had neither regular pay, food nor clothing (Hyde, 1969). The country was in utter devastation after the War of the Spanish Succession, which broke out in 1701. This depressed French economic environment was fertile ground for Law to experiment with his monetary and economic ideas. When Louis XIV died in 1715, Phillipe Duke of Orleans served as ruler until the 5-year-old Louis XV became of age. This was to be of considerable advantage to Law, as they were acquaintances. This association with the Duke of Orleans would ensure Law's place in history (Moen, 2003). He convinced the Duke to allow him to open a conventional, note-issuing bank in June 1716, the *Banque Generale* (Garber, 2000). This was the beginning of Law's system, a system, which was the genuine ancestor of the idea of managed currency (Schumpeter, 1954). The bank was the first milestone on the road towards the goal he had set himself, the financial and commercial rehabilitation of his adopted country (Hyde, 1969).

The foundation of this bank was built on Law's knowledge of economic and monetary theory to date. It was authorised to take part in banking functions exclusively, to issue notes, to carry and transfer demand deposits and to discount promissory notes and bills of exchange (Hamilton, 1936). Law was the appointed managing director. Individuals would deposit their specie money with the bank and in return they were issued notes to that value. They could reclaim the specie on demand, but the bank notes would circulate as a medium of exchange in the meantime. The idea seemed somewhat simplistic because where something so important is involved; a deeper mystery seems only decent (Galbraith, 1975). Initially the public was inclined to be sceptical of such a novel institution as a bank of issue, and it regarded the bank notes with suspicion (Hyde, 1969). However the responsibilities of the bank were increased after a year in existence. In April 1717, the notes were to be accepted in payment of taxes. Obviously this widened the banks sphere of activity and with it gave the bank a greater credibility. However, sceptics still existed. Law was determined to prove them wrong. His ambitious nature thrived for success: "My bank is not the only one of my ideas not the greatest. I will create something which will surprise Europe by the changes it will bring about in favour of France – changes more profound than have resulted from the discovery of the Indies or the introduction of credit" (Hyde, 1969).

Law's grand scheme was not nearly established it seemed. Antoine Crozat, a wealthy financier, had obtained from the King in 1712 an exclusive monopoly trade for fifteen years in the present day states of Louisiana, Mississippi, Arkansas, Missouri, Illinois, Iowa, Wisconsin and Minnesota. It also extended to the French establishments in Canada (Hyde, 1969). This monopoly was conditional on the payment of taxes to the royal treasury and that the new colony was peopled with French emigrants (Ibid). Disputes with the French governor concerning taxes resulted in Crozat surrendering control of the region. Law was not to miss this opportunity. He created the Company of the West to which the French government gave the control of trade between France and its Louisiana and Canadian colonies, as had been given to Crozat (Moen, 2003). This was only another addition to Law's final objective. In May of 1718, gold and silver coinage was debased by 40% (Hamilton, 1936). Law's scheme was to profit from this event. By December, the Duke of Orleans converted the General Bank to the Royal Bank, with Law as the director once more. The difference this made was that note issues were sanctioned by the Council of the State and specifically guaranteed by the crown (Hamilton, 1936). From this Law's empire thrived. There were two remaining French trading corporations of substance, the East India Company and the China Company. He succeeded in acquiring these in May 1719. The conglomerate was renamed the *Compagnie des Indes*, but it was still commonly known as the Mississippi Company (Moen, 2003). It monopolised all French trade outside Europe (Garber, 2000). Law's achievements were mounting and the more he achieved, the more ambitious he became. In September 1719, the *Compagnie* bought the right to collect all French indirect taxes and subsequently direct taxes also, for a payment to the Government of 52 million livres per year (Garber, 2000). Also they purchased the right to mint new coins for France. By 1720, he had assembled and fused together all of the French trading companies, the tax firms, the tobacco farm, the mint, the French national debt and a quasi-Central Bank under a giant holding conglomerate popularly known as the Mississippi Company (Murphy, 1997). To finance the company shares were issued and paid for in government debt (Smant, 2003). Shares of 500 livres each, to be subscribed in state bonds-billets etat (Hyde, 1969). Law's proposal to exploit the apparently limitless resources of the region caused a tremendous wave of interest, not just in France, but also throughout Europe.

Credibility in the system had been firmly established as in January 1720 Law was announced as the Controller General of Finance with the responsibility of controlling all of France's financial and monetary affairs. However, Law had made the mistake that was to lead him to the nadir of his career. Law's fatal mistake was undertaking to refund the huge national debt. To finance this debt acquisition Law sold stocks in the company. Initially the shares (meres) were priced at 500 livres. The shares were sold at a premium of 10% and were made payable in twenty monthly instalments of 5% each. Basically, the price was 550 livres per share and by paying 75 livres in cash the investor was allotted a single share (Ibid). The price of the shares rose continuously. A second issuing of shares (*filles*) were issued at a price of 550 livres. Preceding this a third issuing of shares (*les petites filles*) were issued at 1,000 livres. In order to obtain shares in the Company of the Indies it was necessary to possess original shares in the Company of the West. This resulted in a run on the old shares, which sent up their market value (Ibid). Finally, the soumissions were issued for 5,000. The drastic increase in the price encouraged huge speculation and at the zenith of the company's success the shares reached an amazing 10,000 livres. It must be noted that it was not only the wealthy that speculated in Law's system. As the price of shares rose, individuals from all walks of life invested what they had in the hope of benefiting from such an extraordinary event. The word millionaire can be attributed to Law as he created them in this period in history. The rich and poor alike were converted to millionaires within weeks. Fortunes were made overnight; coachmen, cooks and lackeys became millionaires (Hamilton, 1936). Unfortunately this newfound fortune was not to last for very long. Money circulation of specie and notes had increased by 186% with the issuing of all the shares and the resulting monetary expansion (Smant, 2003). However, because Law did not view shares as having the ability to increase the money supply, he neglected the inflationary effects it was to have on prices. Cantillon identified the flaws in the system as the permanent excessive increases in the money supply. He was aware of the unsustainable character of such increases. The printing presses were also under severe pressure to print out notes. The inflation added to the prevalent rage for speculation in the Mississippi stock, which had seized the whole country, unless checked, was bound, sooner or later to lead to disaster (Hyde, 1969).

The Collapse of the System

> *My shares which on Monday I bought*
> *Were worth millions on Tuesday, I thought.*
> *So on Wednesday I chose my abode;*
> *In my carriage on Thursday I rode;*
> *To the ball-room on Friday I went;*
> *To the workhouse next day I was sent.*
> (Hyde, 1969)

This passage from Hyde shows that the era of unbridled speculation and millionaires was to come to an abrupt end. Law needed to devaluate the shares to rectify the inflation problem, which had reached a monthly rate of 23% in January 1720 (Moen, 2003). The shares were to be reduced in price. After pegging shares at

9,000 on the 5th of March, Law proposed to deflate the shares further to 5,000 within a specified period. At the height of the system the shares were valued at 10,000, this policy was to have the effect of reducing their value by 50%. Shareholders were furious. This decree by Law in March was the last nail in his coffin and sealed the fate of the System. It led to a run on the banks and not surprisingly the specie was not available to support the notes issued. Law was dismissed and subsequently reinstated following the disorder it caused (Hamilton, 1936). The euphoric state turned to pure panic as the people rushed to the banks for the return of their coins. The intensification of his efforts to force the circulation of bank notes, the incessant changes in the tariffs of gold and silver coins, and other drastic measures adopted to draw gold and silver into the Bank further discredited the system (Ibid). Paper money became inconsequential and so coins were gradually reintroduced. Law fled France to Venice and died there nine years later in 1729. It was to take France more than one generation to recover fully from the effect of Law's system (Hyde, 1969).

Speculative Bubbles

Law's theory was highly advanced for his time. His application of it was flawed to say the least. The major problem with his monetary expansion was the over-issuing of shares and the fixing of their prices. This generated a period of unsustainable hyperinflation (Smant, 2003). Law's theory backdated to *Money and Trade*, which was that an expansion of the money supply could stimulate the economy, but his continuous expansion ultimately caused the demise of the system. This financial bubble as it is referred to in the world of finance refers to an unusually rapid increase in stock prices followed by an equally rapid collapse in prices (Moen, 2003). The driving force behind which is speculation. If the reason that the price is high today is only because investors believe that the selling price will be high tomorrow, when fundamental factors do not seem to justify such a price, then a bubble exists (Stiglitz, 1990). Inevitably, it will burst. In Law's system, individuals were not aware of the financial bubble that they were a part of and so they did not expect its sudden collapse.

Many economists are highly critical of Law and disregard his contributions to economics. His incompetence as an economic policy-maker is what tarnished his reputation. The system did not last it is true, but the theoretical frameworks in his writings provided the foundations for economics to come. Schumpeter is one of the few that appreciated the advanced thought, which Law possessed and placed him in the 'front ranks of monetary theorists of all times' (Emmett, 2000). Keynes' conversely makes no mention of him in the *General Theory*. While other economists remained critical of him, such as, Paris-Duverney, Turgot and Smith and Marshall, to name but a few.

Conclusion

Law possessed vision on economic matters comparable to no others. His ambition and motivation for success were the elements, which eventually led to his demise. However, awry his system went, Law cannot be held fully accountable. Yes, he did destroy millionaires, but he also created them in the first instance. This did not give him the right to subsequently destroy them of course, but it was not his intention to do this. His clarity of thought only extended so far. Ultimately flaws in his theory produced its collapse, which others were to learn from. If Law had not applied his theory to a working model, he would today have an elevated status as an economist. His previous works: *Essay on a Land Bank,* and *Money and Trade,* should have earned him this status regardless.

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