A BRIEF OVERVIEW OF THOMAS TOOKE'S MONETARY THEORY

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Abstract

The arguments developed by The British scholar Thomas Tooke in the context of the Banking School-Currency School debates over the Bank Act of 1844 constitute the starting point for many important threads of discussion in contemporary monetary and macroeconomic theory. The ideas Tooke developed in his important pamphlet *An Inquiry into the Currency Principle* and his six volume *A History of Prices and the State of Circulation* have been quite influencial. In particular, his discussions on the nature of credit money, the endogeneity of money supply, the interest rate as a cost component, the monetray transmission mechanism, the speed of balance of payments adjustments and free banking have all been recurrent themes in the literature. In this context this paper aims to provide a brief overview of Tooke's original ideas, which have somewhat been underappreciated.

Keywords: Thomas Tooke, monetary theory, Banking School

JEL Codes: B1, E3, E4, E5

1. INTRODUCTION

Thomas Tooke (1774-1858) who is considered to be one of the prominent contributors to the monetary theory and policy discussions of the 19th century England, was a successful businessman and a respectable public figure as well as one of the founders of the Political Economy Club alongside Ricardo, Malthus and James Mill. In addition to writing many policy briefs, pamphlets, letters and books, he gave evidence before the parliement on several occasions regarding the gold standard, free trade, Corn Laws and the Bank Charter Act.

Scholars of Thomas Tooke divide his economic writings into two periods (Smith 2007). In the first period, during which his interest focuses on the movements of the price level in England from 1793 onward, he seems to be a classical political economists with only a few practical reservations on the quantity theory of money. In the second period, he formulates his own ideas on money and prices, which become the basis of the Banking School position.

Most of Thomas Tooke's monetary theory developed mainly in the context of the Currency School-Banking School controversy in 1840s in England. The controversy was stimulated by the post-Napoleonic stagnation in England and consequent instability in the economy. End of Napoleonic wars had two major consequences: reduction in public expenditures and the problematic return to the convertibility of pound sterling to gold. Return to convertibility had

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caused changes in the monetary policy as well as the policy environment. Initial problem was the contraction in money supply to sustain the gold parity, later came unpredicted credit cycles and crises. The correct course of action by the Bank of England was the prominent question discussed among the scholars of the time. Debate really heated up over the Bank Act of 1844.

One of the two camps was the currency school represented by T. Joplin, Lord Overstone and R. Torrens. They were followers of the bullionist tradition and relied on the quantity theory and the Humian price-specie-flow mechanism in their analysis. Their definition of money was limited to banknotes and coin issued by the Bank of England and by the country banks. Their position, in a nutshell, was that the Bank of England could autonomously control the amount of money in circulation and thus the price level. By controlling prices the Bank could also prevent the outflow of gold thru the price-specie-flow mechanism. Post-Napoleonic experience of England was due to improper management of the money supply. The correct course of action was following the "currency principle", that is, issuing notes only in exchange for gold, coin or bullion. The Bank Act, by dividing the original bank into Issue and Banking Departments would actualize this principle.

On the other side of the debate was the banking school, represented by Thomas Tooke, John Fullarton, James William Gilbart and James Wilson. Unlike the currency school, a unified banking school consolidated only in 1840s.

Before 1840s the differences between Tooke's monetary theory and the conventional theory based on the ideas of Ricardo were less pronounced. Tooke in his early writings defended convertibility accepted the price-specie-flow mechanism and the quantity theory of money. He is considered to be a modified Ricardian until 1840 and the supporter of the Banking school after 1840.

The basis of the Banking school view was anti-bullionism. Tooke's monetary theory of the post 1840 period, incorporating Fullarton's idea of reflux, is essentially the banking school framework. The next section presents Tooke's analytical framework while section 3 presents its relevance to the Currency-Banking policy controversy. Summary and conclusions follow.

2. TOOKE'S MONETARY THEORY

Some of the most critical themes in Tooke's work are explanation of price fluctuations, definition of money, endogeneity of money, the role of interest rate, balance of payments adjustments and free banking.

2.1 Causes of price fluctuations

Although Tooke accepted a monetary explanation of price changes prior to 1840, his ideas were substantially transformed by the time he was writing the third volume of his seminal work *A History of Prices and the state of circulation from 1793 to 1837.* In this volume he had an income theory of prices, where changes in prices were explained by changes in income, expenditure and distribution rather than the quantity of the medium in circulation. He wrote;

"It is the quantity of money constituting the revenues of the different orders of the state, under the head of rents, profits, salaries and wages, destined for current expenditure, according to the wants and habits of several classes, that alone forms the limiting principle of the aggregate of money prices,-the only prices that can properly come under the designation of general prices. As the cost of production is the limiting principle of supply so the aggregate money incomes devoted to expenditure for consumption is the limiting principle of demand for commodities."

This theory of prices brought about an interest in how different mediums of exchange, that is money versus credit relate to changes in prices. He rejected the conventional view that the quantity of banknotes determines prices because other forms of money had effects on prices too. Prices were determined primarily by income and expenditure. Moreover there were circumstances in which prices determined the quantity of money in circulation.

2.2 Money

Tooke held that money consisted of all mediums of exchange used to settle transactions. Money consisted of not only coins and banknotes but also cheques, bank deposit transfers, bills of exchange, exchequer bills and all forms of credit used to make payments. Monetary instruments could be divided into three categories depending on their degrees of convenience:

1. *currency* which referred to coins, banknotes and transferable cheques held by the public.
2. *circulation* which referred to bank notes issued by the Bank of England and the country banks that are payable on demand.
3. *circulating medium*, which referred to all instruments of interchange, by which the productions and revenues of the country are distributed. This included currency as well as bills of exchange, trade credit, and all *active* forms of money.

Money held "inside the walls of banks" was *inactive* in the sense that it was "unemployed and inert" so it was not currency. He recognized that clear-cut distinctions were not always possible; the important thing was the different functions money had in his framework of *dual circulation*.

Tooke believed every economy could be divided into two spheres of circulation:

1. the circulation between the *dealers and the consumers*, which facilitated the distribution and expenditure of incomes. These transactions were settled by banknotes and coins, i.e. currency, without much recourse to bank intermediation.
2. the circulation of the *dealers with one another*, which facilitated the distribution and employment of capital. These transactions were mainly settled by bank loans or other forms of credit or in the case of international transactions by bullion transfers between national banks. The circulating medium employed in this sphere included a very small amount of bank notes and coin.

The functions of the banking system, accordingly were twofold: administering the circulation of currency and managing the concentration and distribution of capital. The crucial function was the latter.

2.3 Endogeneity of Money

Tooke's central point was that the amount of money in circulation was endogenously determined by the demand for money. Unlike the quantity theory suggests, the causality ran from prices, which create higher demand for money to the quantity of money. Thus the Bank of England could not alter the amount of money in circulation autonomously. Issuing the notes did not mean they would automatically join the circulation. The *reflux mechanism*, initially due to Fullarton, was central to this argument. Endogeneity was relevant for a system of gold convertibility as well as a fiat money system with certain restrictions.

In a convertible system, like in England, borrowers are usually free to receive the fund in any way they please and most choose "book credit" meaning funds never leave the bank and join circulation. Only a small part of loans are received in the form of coins or banknotes and are used on transactions between consumers and dealers. Thus the amount of loans and discounts is not a measure of the amount of money in circulation. It is not possible for banks to impose money on people, unwanted notes will return back to the issuing bank thru the reflux mechanism. The *principle of limitation* prevalent in a convertible system makes sure reflux works immediately without effect on prices. *Principle of limitation* states that *effectual demand*, which corresponds to transactions between dealers and consumers in the *dual circulation* framework, is ultimately limited by the gold value of social income. Social income remains relatively stable over time and so do consumption expenditures, i.e. *effectual demand*. Accordingly the demand for banknotes and coins is stable and any excess issue of banknotes is quickly returned to the banking system in exchange for deposits or coin or in debt repayments. Demand for credit for transactions among dealers and producers, however is not that stable in the short run, it fluctuates with the level of economic activity and prices, causing fluctuations in the circulating medium. In Tooke's conception, price fluctuations come from supply side factors. The principle of limitation makes sure that these fluctuations are bounded from above by the purchasing power of the consumers, while costs of production provide the lower limit for them.

In a fiat system, without convertibility, the principle of limitation does not work, since there is no a priori anchor for the value of notes issued. In this case the ability of the monetary authority to control the amount of money in circulation and consequently the prices depends on its *mode of issue*. If the mode is direct, as in increasing government expenditures and creating demand in the economy, prices will be affected. The reflux mechanism will not work since there is no a priori limit to effectual demand. If it is indirect, as in buying back government debt, prices will not be affected since no new demand is created. This mode will increase the price of public securities and reduce interest rates causing an outflow of capital. If depreciation occurs prices of imports may rise. The basic implication of the absence of the principle of limitation in a fiat system is the possibility of speculative price increases depending on the responsiveness of spending to changes in the interest rate.

2.4 The Interest Rate

Since the amount of money in circulation is determined by the demand for money, which in turn is determined by the state of trade and prices, the only remaining way for the monetary authority to influence effectual demand in the economy is thru controlling the interest rate. The effectiveness of such a policy depends on the interest responsiveness of spending, which unfortunately is not high enough in the case of consumption expenditures. Tooke saw it impossible to affect commodity prices thru temporary alterations of the interest rate. Permanent alterations of the interest rate however could have an effect because it is, according to Tooke, a cost of production, which enters the calculation of the normal prices of commodities. Thus permanently higher interest rates would mean higher prices and lower rates, lower prices.

Another interesting point in this respect relates to the theory of distribution Tooke has at the back of his mind. It is the classical theory of distribution with the average money rate of interest systematically governing the normal rate of profit on productively employed capital. A permanent increase in the interest rate means higher prices and a higher ratio of the price level to the money wage and consequently lower profits and vice versa. This supports the view that profits can be determined outside the system, and provides an additional degree of freedom to the classical system.

Tooke's theory of the interest rate postulates a positive relation between the price level and the interest rate, which is referred to as the Gibson paradox. Yet such a relation constitutes a paradox only if interest rate is seen as a factor that influences the level of expenditure, which Tooke clearly rejects. In Tooke's scheme the monetary authority could not affect the long run interest rate since the "average" rate was determined by political, institutional and conventional factors as well as the normal conditions of production. The authority could temporarily affect short run rates but there was no robust relation between interest rates and spending so price effects were ambiguous. Only predictable effects on price could work thru asset prices and credit conditions.

2.5 The Balance of Payments

The BOP adjustment mechanism accepted by the currency school was the price specie flow mechanism, which consists of a series of causal relationships where the BOP influences the quantity money thru gold movements, and the quantity of money determines absolute prices. These changes in prices, in turn influence exports and imports and the BOP. Equilibrium is defined by absence of gold flows; any divergence is assumed to be taken care of smoothly and quickly by movements in the quantity of money and prices under convertibility.

Tooke on the other hand had reservations about the relevance of this self-correcting mechanism. He thought gold movements were not caused solely by over issue, real factors like bad seasons, allowances for allies also caused gold movements. Moreover the adjustment process proposed by the price specie flow mechanism could involve time lags, especially in the influence of price changes on the exchanges. On top of that excess internal circulation could be transferred to other countries thru international circulation of credit and the eventual gold settlement may be considerably postponed.

Tooke differentiated between temporary and permanent disturbances to BOP. Most disturbances were due to external factors independent of the internal amount of money in circulation and were normally self-correcting. The right course of action for the Bank of England was to hold a large enough amount of reserves to cushion temporary gold drains and try to manage capital flows thru discretionary policy on interest rates.

2.6 Free Banking

An interesting line of argument in Tooke's work that has recently enjoyed a revival involves competitive issue of money, usually referred as free banking meaning free trade principle in banking.

In his early work Tooke rejected free banking based on the argument that money is not productive. He thought money facilitates exchange but does not influence production and distribution. The arguments for free trade in production could not be carried over to exchange. In his comparison between the two proposals for the reorganization of the note issuing business, which were a central issuer and competitive issue, he favored the central issuer claiming that the degree of price and interest fluctuations would be far less in this case.

As his ideas on the nature of money and the two-way relation between money and prices matured, he moved away from his initial position. The idea that "the quantity of money which may be unpredictable and volatile under competitive issue can affect prices and free trade should not be applied to banking", he discovered, was not all that relevant since the Bank, even in the case of central issue, in fact had little control over the quantity of money and prices. So there was no reason to leave the issuing business in the hands of the greedy state.

With credit, however, his overall framework implies free banking is not appropriate. Unlike currency, the law of reflux does not work for credit so credit does not adjust itself automatically to the needs of the economy. Tooke thought that credit usually expanded at those times when it was necessary to contract the amount of notes in circulation, causing inflation. Thus in case of an over issue of credit notes due to competition there would be no corrective mechanism. The fact that he never spelled out this incompatibility of credit with free banking can be explained in terms of his focus on preventing overlegislation (Arnon, 1984). After making his point about the how state intervention is unnecessary he did not work on further implications of free banking.

3. SUMMARY AND CONCLUSIONS

Tooke's analysis provided three basic policy implications:
1. Bank of England did not have discretionary power to regulate the quantity of money in circulation
2. Bank of England could not exert a predictable influence on aggregate demand and the demand for money. What it could systematically influence was share prices, exchange rate, specie flows and its reserves.
3. The long run average rate of interest, which regulates profits, was independent of the influence of Bank of England.

Currency school proposal of separating the Bank of England into two departments was likely to aggravate interest rate fluctuations. The solution to this problem was to hold large enough reserves to contain transitory movements of gold.

To summarize monetary transmission according to Tooke, in the long run causality run from the interest rate to prices, and from prices to the quantity of money in circulation. In the short run causality ran from fluctuations in nominal income to the quantity of money in circulation. This was fundamentally different from the Currency School's direction of causality, which was the orthodox quantity theory running from money to prices.

Eventually, starting with the renewal of the charter, currency school became the dominant way to view monetary matters but it is impossible to deny the empirical relevance and insightfulness of the banking school.

Thomas Tooke's monetary theory was original in terms of his novel understanding of the nature of money, the idea of endogeneity of money, the understanding of interest rate as a cost component as well as the sluggishness of BOP adjustments. In fact as Smith (2007) points out these ideas were the forerunners of many of the recurrent themes in Keynesian and heterodox discussions of monetary theory and policy. The rules vs discretion controversy in monetary policy design, monetarism vs horizontalism controversy, cost-pust channel of monetary transmission, all of which which can be traced back to Tooke's original contributions to monetary theory, are as relevant treads of discussion as ever. In this respect his ideas seems to have stood the test of time as well as those of the classics.

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