Marx's anti-quantity theory of money:
A critical evaluation

Pichit Likitkijsomboon[1]

1. Marx's anti-quantity theory of money

One of Marx's most important, original contributions to political economy is his theory of value-form and capital-form, in which the category of money goes through stages of dialectical development from the accidental form to the universal form (gold money), money as the general form of capital and, finally, fictitious capital. On the other hand, Marx's theory of monetary mechanism, which involves the anti-quantity theory, is equally important but has rarely been discussed in Marxian literature. The purpose of this paper is to evaluate Marx's theory of monetary mechanism and to show that Marx's treatment is incomplete. Moreover, the theory, in its Classical form, contains serious logical flaws.

Marx discusses his "law of money circulation" for the first time in the context of simple commodity production and metallic money in Chapter 3 of *Capital I*:

> Hence, for a given interval of time during the process of circulation, we have the following relation: the quantity of money functioning as the circulating medium is equal to the sum of the prices of the commodities divided by the number of moves made by coins of the same domination. This law holds generally.
>
> (Marx, 1867: 121)

The following identity is obtained:

$$M \_ PQ/V$$

[1] Faculty of Economics, Thammasat University, Bangkok, Thailand. This paper is drawn heavily from

where M is the quantity of money in circulation; P, the average price of commodities; Q, the total quantity of commodities; V, the velocity of money. The velocity is the reflection of the rapidity of commodity circulation (Marx, 1867: 121-2). Based on Marx's labor theory of value, the price-sum of commodities (PQ) is determined by the production conditions, the labor-value ratios between commodities and gold money (when money is the standard of price) and, hence, is independent of the quantity of money in circulation.

Marx asserts his "law of money circulation":

> The total quantity of money functioning during a given period as the circulating medium, is determined, on the one hand, by the sum of the prices of the circulating commodities, and on the other hand, by the rapidity with which the antithetical phases of the metamorphoses follow one another. … These three factors, however, state of prices, quantity of circulating commodities, and velocity of money-currency, are all variable. Hence, the sum of the prices to be realized, and consequently the quantity of the circulating medium depending on that sum, will vary with the numerous variations of these three factors in combination.
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> (Marx, 1867: 122-3)

The identity turns into a behavioral equation: M = PQ/V. *The quantity of money in circulation is determined by the money-velocity and the price-sum of commodities*.

If there is an excess or a shortage of money (M) relative to the requirement of commodity circulation (PQ/V), the quantity of circulating money must decrease or increase to restore the equilibrium. Marx refers to the existence of money hoards acting as the pool to release idle money into circulation or to absorb excess money out of circulation as required _ the hoarding mechanism.

> We have seen how, along with the continual fluctuations in the extent and rapidity of the circulation of commodities and in their prices, the quantity of money current unceasingly ebbs and flows. This mass must, therefore, be capable of expansion and contraction. At one time money must be attracted in order to act as circulating coin, at another, circulating coin must be repelled in order to act again as more or less

> constantly saturate the absorbing power of the circulation, it is necessary that the quantity of gold and silver in a country be greater than the quantity required to function as coin. This condition is fulfilled by money taking the form of hoards. These reserves serve as conduits for the supply or withdrawal of money to or from the circulation, which in this way never overflows its banks.
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> (Marx, 1867: 134)

But how hoarding operates as the mechanism to maintain the equilibrium is not explained by Marx. Specifically, what is the intermediate link from the state of monetary disequilibrium to individuals' hoarding decision? How does the excess or shortage of circulating money induce individuals' decision to hoard or release money?[2]

There is one curious implication from Marx's hoarding mechanism. *Other things being the same, there will be only one unique quantity of money required to circulate a given quantity of commodities.* Additional money will not be accepted since it is superfluous to the circulation requirement. Thus, if one "forces" more money, say, one coin, into circulation, other things being equal, another coin will be withdrawn into the hoard at some other point in the circulation chain. 'Since the quantity of money capable of being absorbed by the circulation is given for a given mean velocity of currency, all that is necessary in order to abstract a given number of sovereigns from the circulation is to throw the same number of one-pound notes into it, a trick well known to all bankers' (Marx, 1867: 121). This is an anticipation of Marx's "law of reflux", which is the hoarding mechanism operating under capitalist commodity circulation.

2. The law of money circulation under capitalism

Under capitalist production, money circulation is the reflection of the circulation of capital since the commodity itself is a form of capital (Marx, 1894: 321). Money circulation under capitalist production using gold money (without the credit system) is fundamentally the same as simple commodity production. The quantity of circulating

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[2] In a footnote, Marx refers to John Stuart Mill on the fact that, in India, silver ornaments perform the function of hoard, the quantity of which is inversely affected by changes in the interest rate (Marx, 1867: 134, n.1). But Marx does not discuss the issue in the main text. It is impossible for Marx to put in the interest rate as the intermediate link at this point because the category of interest has not been derived at

money is dependent upon all other variables in the exchange equation. Money hoards take the form of the capitalists' reserve funds acting as the reservoir to adjust the quantity of circulating money (Marx, 1894: 103, 116). As the credit system emerges, gold currency is replaced by paper money while reserve funds are converted into bank reserves. Nonetheless, these developments do not alter the law of money circulation (Marx, 1894: 445-6). The law is readily extended to govern paper money:

> We have already demonstrated in the discussion of simple money circulation … that the mass of actual circulating money, assuming the velocity of circulation and economy of payments as given, is determined by the prices of commodities and the quantity of transactions. The same law governs the circulation of notes.
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> (Marx, 1894: 522)

The same holds true for credit instruments such as bills of exchange because bills are created and circulated only to facilitate capitalist transactions (Marx, 1894: 540). Thus, the quantity of paper money and bills of exchange required in circulation depends on the price-sum of commodities and the velocity. All these independent factors are summed up in the terms "the needs of transaction", "the requirement of commerce", and alike.

Bank reserves play the equilibrating role to release or absorb money under capitalist production just as money hoards do under simple commodity production. As money influx and efflux are subject to the requirement outside the banks, fluctuations in bank reserves merely reflect changes in "the needs of transaction" (Marx, 1894: 494-5, 502). But what happens if banks issue more notes (by discounting bills or buying securities)? Marx maintains that excess notes beyond the needs of transaction will be returned immediately to the banks as deposits or debt settlements (Marx, 1894: 454,523, 524-4). The reason is that capitalists will find no use of the money in capital turnover, and will reduce the excess by paying off previous debts to the banks. Note issues beyond "the needs of transaction" only result in debt liquidation without any effect on capital turnover, capitalist spending and the price level. 'The quantity of circulating notes is regulated by the turnover requirements, and every superfluous note wends its way back immediately to the issuer' (Marx, 1894: 524). The same holds true if banks create credit checking deposits for the borrowers; checks are drawn to pay previous which is the hoarding mechanism operating under capitalist production. Excess notes and bills will be returned to bank reserves just as excess gold money will flow into hoards.

> So far as the bank itself is concerned, all the notes outside its wall, whether circulating or in private hoards, are in circulation, i.e., are out of its hands. Hence, if the bank extends its discounting and money lending business, its advances on securities, all the bank notes issued by it for that purpose must return, for otherwise they would increase the volume of circulation, something which is not supposed to happen.
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> (Marx, 1894: 454)

However, in order to issue notes which exceed “the need of trade”, the bank has to lower the interest rate which will induce borrowing to pay previous debts (which cost a higher interest rate) with no change in capital turnover, capitalist spending and commodity prices. That is to say, the lower interest rate has no effect on capitalist spending and prices. This implication is incongruent with Marx’s own analysis of the inverse relationship between interest and profit of enterprise. Since interest determines the margin for profit of enterprise which is the incentive for industrial and commercial capitalists, the variation in the interest rate should have negative relation with capitalists’ investment spending and demand for loan capital. However, Marx does not even mention the interest rate at all in his discussion of the law of reflux although the category of interest has already been derived at this level of abstraction.

Marx’s law of reflux provides an accommodative banking system responding passively to changes in “the needs of transaction”. Banks do not exert influence on the market of loan capital, nor on the rate of interest. Such a view is in contrast with Marx’s own discussion of cycles and crises which describes the active role of the banking system in varying the interest rate and its lending policy, and interacting with the circulation of capital to generate cycles and crises.

The State and the monetary authorities do not exist in Marx’s monetary framework. Marx made numerous comments on the Bank of England. But, in Marx’s times, the institution was still far from being the genuine central bank acting as the sole supplier of paper money and the lender of last resort. However, even if such a central bank does exist in Marx’s theory, it is still doubtful whether it could have any active

Marx's discussion of inconvertibility is set in the context of simple commodity production in the early part of *Capital I*, not capitalist production in *Capital III*. For Marx, convertibility prevents inflation not by the risk of gold drains and the international specie-flow mechanism as in Ricardo's theory, but by the law of reflux, namely, notes are issued only when they are "needed" by capitalists. On the other hand, inconvertible notes are "forced" into circulation by the State to act as a "symbol of value" in the exchange process in which the existence of real gold is not necessary, and the value of commodity takes the transitory form of symbol (Marx, 1867: 128-9). The analysis of inconvertible notes must refer to gold money as if the latter were in circulation. '[T]he issue of paper money must not exceed in amount the gold (or silver as the case may be) which would actually circulate if not replaced by symbols'(Marx, 1867: 128). If the State increases the amount of notes, each unit of circulating notes will represent a smaller quantity of gold, smaller labor value and, hence, higher paper prices of commodities. However, Marx does not provide an analysis of the depreciation process of inconvertible notes, the causal link from the increase in note issue to higher paper-prices of commodities. Thus, there remains a question of what renders the hoarding mechanism ineffective under inconvertibility, i.e., why the excess inconvertible notes are spent on commodities to boost the price level instead of being put into hoards.

A corollary of Marx's theory is the impossibility of inflation of the monetary type. The hoarding mechanism and the law of reflux effectively rule out such a possibility. Inflation caused by an exogenous increase in the quantity of money simply does not exist. Marx admits the possibility of exogenous gold flows caused by foreign trade imbalance (Marx, 1894: 569-70).

Then what is the effect of international gold movements on the quantity of domestic money, the interest rate, and the price level? Marx simply quotes numerous passages from parliamentary reports without any comments. It is said that a trade deficit will cause an unfavorable exchange rate and an outflow of gold. However, the efflux only reduces the level of the banks' gold reserves. The banks will have to raise the interest rate to mitigate the gold outflow. Prices of securities fall and the loan market is tightened. If there is a trade surplus, the opposite occurs (Marx, 1894: 549-50, 571-2, 575-7, 590, 592). In short, external gold flows result in changes in bank reserves, the exchange rate and the domestic interest rate without effect on the quantity of circulating money, domestic spending and the price level.

The missing detail and the apparent incongruities in Marx's theory are attributable partly to the unfinished state of *Capital III*. In fact, Marx heavily draws on the ideas of two prominent English monetary writers of the Banking school, Tooke and Fullarton. While criticizing their confusion between money and capital and about the nature of capitalist economic crises, Marx takes over their anti-quantity theory, the hoarding mechanism and the law of reflux. A study of the Banking school's theory will provide details which are absent in Marx's works.

3. The Classical anti-quantity theory of money

The anti-quantity theory of money can be traced far back to the period of mercantilism when mercantilist writers were resisting the theoretical assaults from the Quantity theorists. Major figures include Sir James Steuart, Tooke and Fullarton.

Sir James Steuart was highly praised by Marx as the first who correctly deduced the law of money circulation. He asserts that the total quantity of money in a country is divided into two portions: money in circulation and money hoards. The former is determined by the state of trade and prices while the latter act as reservoirs to adjust the quantity of the former through hoarding and lending by money owners.

Tooke maintains that total money income of the country, not the quantity of money in circulation, determines prices. It is the change in the price level that causes the change in the quantity of circulating money (Tooke, 1844: 123). Tooke also gives an explanation of the concomitance between the discovery of new gold mines and higher prices. New gold does cause higher prices but through the income adjustment mechanism. New gold raises income, spending and prices in the gold-producing country, which then spread to all other countries via international trade. Finally, the larger quantity of circulating money is validated through higher prices. (Tooke and Newmarch, 1857: 210-3). Tooke envisages the disconnection between international gold movements and money in domestic circulation. Foreign trade imbalance and international specie-flow do not affect the quantity of domestic money and prices because the gold flow is neutralized by money hoards in the form of bank reserves (Tooke, 1844: 13-4).

While the causal link from excess or shortages of money to hoarding decision is missing in Marx's theory, this question is clearly answered by Fullarton. *It is the variation in the rate of interest that constitutes the signal for individuals to hoard or*

> Let us think, then, how the money market of a country transacting all its exchanges through the medium of the precious metals only, would be likely to be affected by the necessity of making a foreign payment of several millions. Of course the necessity could only be satisfied by a transmission of capital; and would not the competition for the possession of capital for transmission which the occasion would call forth, necessarily raise the market rate of interest? If the payment was to be made by the Government, would not the Government in all probability have to open a new loan on terms more than usually favourable to the lender? And would not all this inevitably act upon the hoards, and draw forth into activity a portion of the gold and silver which the money dealers had been accumulating, and some of them with the express view of watching such opportunities for turning their treasures to advantage?
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> (Fullarton, 1845: 140-1)

The law of reflux was formulated by Tooke and Fullarton as the hoarding mechanism under the convertible paper money and credit system. Notes are issued based on commercial loans which arise only from the needs to accommodate certain commodity trade. After the transaction is accomplished, the notes become superfluous and will be returned to the issuers.

There are three channels of reflux into the banking system. The excess notes return as bank deposits or debt liquidation. The third way, redemption of notes for gold coins, is possible but least likely (Tooke, 1848: 185). If notes are issued on loans, they return as debt repayment. If they are issued by any other means, e.g., by securities purchase, the notes return as deposits. However, the reflux via debt liquidation requires that the banks must discount only *short-term real bills*, which represent real commodities already produced, so that the debts will be liquidated when the commodities are sold. According to Tooke, the banks must pursue the policy of real-bills discounting in order that the law of reflux is effective. ‘If the loans or discounts are advanced on proper banking securities, for short periods, the reflux of the notes, if any have been issued, will be equal to the efflux, leaving the circulation unaltered.’ (Tooke, 1848: 194) ‘The banker has only to take care that they are lent on sufficient security, and the reflux and the issue will, in the long run, always balance each other’ (Fullarton, Thus, note over-issue is impossible. The banks have no control on the volume of notes in circulation. Any changes in the quantity of circulating media purely reflect changes in “the needs of trade”. Additional notes issued by the banks beyond “the needs of trade” are simply returned to the issuers without any changes in spending and prices. ‘All the country bankers examined concur in stating that they have not the power by loans or discounts beyond the ordinary transactions of the neighbourhood to extend or contract the local circulation of notes, or to influence prices.’ (Tooke, 1844: 38)

4. Criticisms of the Anti-Quantity Theory

First, in the anti-quantity theory, the volume of transactions is determined before the quantity of money in circulation, given the money-velocity. But the volume of transactions itself is in money terms. The problem is how to determine the monetary magnitude of this quantity. Most writers of the Banking school fall back on the simple demand-supply determination. But if they apply this principle equally to both commodities and money, they fall into the trap of the Quantity Theory, namely, the value of money is determined by the supply of money. Marx fills the gap with his labor theory of value.

Second, the hoarding mechanism and the law of reflux imply that the trade balance and the balance-of-payments equilibrium is independent of international relative prices, and that international gold movements have no relation with money in domestic circulation. In other words, trade imbalance and international gold movements are not caused by disequilibrium in international relative prices, and hence it can be cured without any adjustment in domestic prices.

But how to explain trade imbalance and international gold movements that happen from time to time? The only alternative is to explain these by external shocks or internal accidents. And, indeed, the anti-quantity theorists constantly sought to explain trade imbalance, foreign exchange disturbances and external gold drains by exogenous accidents such as bad harvests, wars, extraordinary foreign remittances, and so on. This assertion has culminated in the doctrine of “the self-liquidating character of exports of bullion” espoused by Tooke and Fullarton. They maintain that any gold drain, however is caused, is terminable by itself, so that large gold reserves at the central bank is sufficient to cope with the drain without any effect on the quantity of circulating money and domestic price levels. This view of the disconnection between external trade and as a “false conception” (Marx, 1867: 142, n.1). However, such view of external-internal disconnection is not sustained by the long history of international trade. Robbins puts it:

> But a theory which exhibits this concept as something *rival* to any explanation invoking the internal circulation is not merely inferior, rather it is positively misleading; and the long dreary history of exchange crises in which the authorities concerned, under the influence of theories of this type, have looked everywhere save in the right direction from the causes and cures of their difficulties, shows how disastrous can be its influence in practice.
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> (Robbins, 1958: 133-4)

Third, the anti-quantity theory divides the total quantity of money into two portions, one active in circulation, the other idle in hoards. This point underlies Marx’s repeated criticisms of Hume, Ricardo, and James Mill on their assumption that all money is in circulation (Marx, 1859: 164, 174, 181). For Marx, the quantity of money M, is the quantity of money actually in circulation, and V is the velocity of circulating money. Money hoards are not included.

However, there is no fundamental difference between money in circulation and money in hoards. What is the supposed difference between coins in the individual’s pocket waiting for the moment of purchase and coins locked up in the desk or in banks as money hoards? It is the frequency of their movements that is different: one making some moves in a certain time period, the other with less frequent moves to restore the equilibrium as required by the hoarding mechanism. Thus, they are different in their velocities. The distinction between “active” and “passive” money is nonexistent. Money hoards are also part of money in circulation.

The alternative is to treat both money in circulation and money in hoards as the total quantity of circulating money (M), but different portions with different velocities. Hence, the aggregate money-velocity (V) is the average of the velocities of all portions of money. The flows between “active” money in circulation and “idle” money in hoards will affect the magnitude of aggregate velocity, V, but do not change the aggregate amount of money, M. This is the formulation adopted by the Classical Quantity theorists.

If the hoarding mechanism is analyzed using the Classical formulation, a strange

PQ, will be offset *completely* by the proportional change in V. For example, if the price-sum (PQ) increases, part of money in hoards will become "active" in circulation, resulting in a proportional increase in the aggregate money-velocity (V), leaving M constant. Likewise, any exogenous increase in money (e.g. gold influx from abroad) will also be neutralized *completely* by the proportional decrease in the aggregate velocity (V) as the additional money flows into hoards, leaving the volume (and prices) of transactions unchanged. *Hence, the anti-quantity theory is virtually a theory of perfectly elastic money-velocity to neutralize any changes in PQ or M.* The working of such a perfectly sensitive money-velocity is unlikely to be true in an actual economy.

Fourth, the hoarding mechanism depends on the variation in the interest rate to trigger hoarding or lending and requires that the demand for money hoards is negatively related to the interest rate. However, if hoarding is to be so effective that it can absorb any exogenous changes in the quantity of money without price effects, the money hoard demand function must be infinitely elastic with respect to the interest rate. *It also implies that individuals' spending decision are wholly unaffected by changes in the rate of interest* --- a perfectly interest-inelastic spending function. This simplistic view is difficult to sustain in light of the modern development of monetary theory.

Fifth, the anti-quantity theory maintains the view of an accommodative banking system. The law of reflux is based on the belief that no one will borrow money and pay interest if it is not needed in trade. So the charge of interest as such, regardless of the level of the rate, is sufficient to prevent note over-issue. In other words, the demand for loan capital is exclusively determined by "the needs of trade" and is not affected by variations in the interest rate _ the perfectly interest-inelastic demand for loan capital. This view of the demand for loans is over-simplistic.

Sixth, according to the law of reflux, excess notes issued on securities purchase will return to the banks as deposits, leaving the amount of circulating notes unchanged. However, anti-quantity theorists overlook the fact that the deposits thus created still constitute additional purchasing power of the public despite the same volume of "real transactions" and the same quantity of circulating notes.

Lastly, the law of reflux, as espoused by Tooke and Fullarton, requires that banks must follow the real-bills doctrine for the law to be effective. However, even if the bank does adopt the policy of discounting only "short-term real bills" in the belief that the quantity of note issue will always correspond to the volume of "real transactions", and that the notes will return periodically as soon as the transactions are forward thorough criticisms of the doctrine. First, the same quantity of commodities is usually sold several times before it reaches consumers. And each time of sale and resale generates a "real bill", resulting in several "real bills" for the same bundle of commodities. Second, the notes thus issued will finally validate themselves through their effect upon prices, i.e., more notes in circulation raise prices and the monetary magnitude of transactions which will automatically require a larger quantity of notes to accommodate. And it will appear to individual bankers as if the anti-quantity theory were correct as the rising prices come *before* the rising demand for bill-discounting. Third, the banks under certain circumstances cannot even distinguish "real" bills from "fictitious" bills. And this is most likely under the situation of expansion-speculation when a large number of bills are generated in a short time period. Fourth, the real-bills doctrine is believed to prevent note over-issue through the periodic reflux of notes when debts fall due, but this prospect is based on the assumption that banks do not vary the quantity of bill-discounting over a given time period, so that the efflux and influx of notes are equal. But if the banks are increasing the volume of bills being discounted, the influx of notes will be smaller than the efflux, hence the rising quantity of circulating notes . Again, this is usually the case in the expansion-speculation phase of the cycle.

The banking history is full of financial crises. How to explain away these phenomena? Tooke and Fullarton inadvertently reveal their own logical flaw by blaming the banks for not following the real-bills doctrine and thus rendering the law of reflux ineffective (Tooke, 1840: 154-5, 157-9). Their analysis of contemporary financial crises reveals that the law of reflux is no law at all; it is conditional on the "real-bills" policy, and hence is not an automatic mechanism. In short, there is no law of reflux in the world in which banks widely finances capitalist production by giving not only short-term credit (on "real bills") but also long-term loans for large-scale investment (on "fictitious bills").[3]

The hoarding mechanism and the law of reflux are one good example of the fallacy of extending the viewpoint of an individual banker into a general economic principle. It is true that an individual banker cannot affect "the needs of trade" and the demand for loan capital, that the reflux is constantly taking place when the notes which the individual banker has previously issued return as loans mature, and that, if the banker over-issues notes, he will find his own bank's balance at the clearing house worsened, and he will feel pressure upon his limited volume of cash reserve, and, hence,

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will be forced to contract his note issue. If the banking system as a whole acts simultaneously and proportionally to increase their note issue, there will be no worsening of the balances of all banks at the clearing house. As long as banks have sufficient cash reserves, and the central bank stands ready as the lender of last resort, all the banks together can increase note issue at will. Moreover, under the competition between banks to command greater shares in the loan market, an increase in note issue by one bank may trigger off increases in note issue by the banking system as a whole since each bank will try to defend or increase its own share in the loan market.

5. Conclusions

The anti-quantity theory in its original form espoused by Tooke and Fullarton, and in Marx's version, is far from being a consistent theory of monetary mechanism. It is a one-sided viewpoint of an individual banker on the working of the money market outside his bank, mistaken as the general principle of monetary theory. With its view of the accommodative banking system, it is understandable why the theory is appealing to Marx. With his aim to show that the capitalist crisis is not a monetary phenomenon but rooted in capitalist production, he is too hasty to import the anti-quantity theory into his framework, as the supplement to his original and important theory of value-form and capital-form which gives a critical role to money in capital accumulation and crises, hence rendering Marx's overall monetary theory incoherent.

Marx's adherence to the anti-quantity theory has affected all Marxian writers on money. A few of them mention Marx's anti-quantity relation and the hoarding mechanism. But all of them are unaware of theoretical problems in Marx's monetary theory. See, for example, Dobb's *Introduction* to Marx (1859: 16), Junankar (1982: 114-5), Itoh (1988: 93, 96) and Weeks (1981: 109-10, 111-2, 117, 118-9, 120). Hilferding (1981: Ch.2) acknowledges the reflux of notes as the hoarding mechanism under capitalism. De Brunhoff (1976) is extensive on Marx's "esoteric theory" but very brief on the "exoteric side", endorsing Marx's anti-quantity theory of gold money and hoarding, hoarding-equal-discharge in simple reproduction, the anti-quantity theory of bank notes, the primary role of "the needs of trade" and the reflux of notes in the banking circuit (De Brunhoff, 1976: 31-2, 35-6, 37, 40, 67-8, 80-3). Thus, all these writers are uncritical of Marx's anti-quantity theory.

An alternative to the anti-quantity theory is the Ricardo's monetary theory which mechanism. However, Ricardo's theory suffers from Classical weaknesses such as the narrow view of the function of money as the means of exchange. This is a result of Ricardo's belief in Say's law; hence, his assumption of the constant money-velocity and the strictly proportional relation between the quantity of money and prices. The concept of money-velocity which is variable and sensitive to "public confidence and changes in the interest rate" was developed by Thornton, pointing towards the replacement of the concept of money-velocity by the modern concept of money demand. Torrens expands Ricardo's concept of money to include "auxiliary media" such as secondary deposits and other credit instruments, pointing towards the modern concept of the broad money supply.

However, all these Classical writers misconceived the nature of capitalist cycle and crisis as an accidental or a monetary phenomenon. Marx has readily provided a theory of accumulation, crisis and its monetary expression.

The anti-quantity theory, the hoarding mechanism and the law of reflux must be banished from Marx's theory. Marx's theory of value form and capital form does *not* logically involve the anti-quantity theory of money and the concept of perfectly elastic money-velocity. The only logical requirement in Marx's value-form theory is that money can be the object of hoarding, and that at least a part, but not necessary all, of additional money can be hoarded _ the variable money-velocity.

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