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Marx on Credit, Agency Problems, and Crises

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Abstract

As a journalist in the 1850s, Marx studied and wrote on recessions associated with financial crises, focusing on the panics of 1847 and 1857. In later work, Marx pursed the topic. First, in the three volumes of *Capital* and part II of *Theories of Surplus Value*, Marx used his circuits to analyze the role of credit in the accumulation process and crisis. Then in part V of volume 3 of *Capital*, Marx added a novel approach to analyzing credit crises. Marx argued that a banking system "subordinated" to capital accumulation would produce more robust, though fragile, expansions, by exacerbating the problems of "over-speculation" and "credit swindles." The reasons for the "purest and most colossal form of gambling and swindling" found in a modern credit system were the agency problems between rentiers and bankers, and bankers and capitalists. These agency problems arose because a "large part of the social capital is employed by people who do not own it and who consequently tackle things quite differently than the owner." In the recession phase of the cycle, these agency problems can erupt, causing runs on the banking system by panicked rentiers, credit stops by nervous bankers, and a scramble for liquidity by those with debts coming due.

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By

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1. Introduction

This paper pieces together Marx's early views of financial crises, a theme he visited as a journalist in the 1850s, with his "mature" writings, including chapter 17 of part II of *Theories of Surplus Value* and the three volumes of *Capital*. His insights into the impact of credit in a capitalist economy came from studying the "three panics" (Bagehot, 2015, 88) in the mid-19th century, especially the downturns of 1847 and 1857. These crises provided Marx with the raw material he needed to analyze the phenomenon of "recessions associated with financial crises" (Terrones, 2009), a topic of considerable relevance for our own era.

2. Marx's Early Views of Financial Instability

As a journalist, Marx studied and wrote on financial instability. He concluded that the supply of credit was pro-cyclical, and when an abundance of credit was combined with a "spirit of speculation," the result was a credit-fed "mania," followed by a crisis.

> "[In] the epochs of the great commercial crises of 1817, 1825, 1836, 1846-'47, although every branch of industrial and commercial enterprise was affected, one leading mania gave to each epoch its distinct tone and character. Every department being invaded by the spirit of speculation …" (Marx, 1856, 1).

An 1858 article, "British Commerce and Finance," encapsulated his early views on the relationship between credit and crises. Marx blamed the crisis of 1857-58 on "excessive speculation and abuse of credit." His intuition told him that financial crises were "inherent in the present system of production" and "so long as the system lasts, they must be borne with, like the natural changes of the seasons" (Marx, 1858, 1).

3. Simple Commodity Production

By the 1860s Marx developed a simple tool to analyze credit and crises – his circuits. His analysis started with the circuit of *simple commodity production* (SCP), where non-capitalist commodity producers sell commodities to consume (Marx, 1975, chapter 17 and 1974a, chapter 3). Marx used SCP to understand the basic reasons crises emerge in commodity producing economies, especially those using credit (For alternative perspectives, see Brunhoff, 2015, Crotty, 2017, and Shuklian, 1991).

3.1. Money and crisis

In SCP, commodities are "produced" and sold to obtain use values. Commodities (C) are either sold for money (M), the sale represented by C-M, or purchased with money, M-C (Marx, 1974a, 107). Together, the sale and purchase of commodities form a circuit, C-M-C.

In the C-M-C circuit, commodities are exchanged for money and the money is used to purchase commodities. Traders in this "commercial society" (Smith, 1976, 26) are "selling in order to buy" (Marx, 1974a, 107). Selling earns agents the income needed to purchase commodities. In the aggregate, the buying and selling of commodities creates a set of interdependent markets for inputs and outputs.

The use of money in a commercial society creates the first *possibility of crisis*. Money's basic function in SCP is to circulate commodities. However, once money is acquired, a seller can either spend it or *hoard* it, as the seller "is not compelled to buy again at once" (Marx, 1975, 509). Money held sits idle and is not circulating commodities (Marx, 1974a, 130-134, and Brunhoff, 2015, 41). Hoarders *sell to hold money, separating the sale from the purchase of commodities*. Thus, hoarding reduces demand, creating a "difficulty of converting the commodity into money" and "contains the *possibility of crisis*" (Marx, 1975, 509). An "impossibility to sell" problem becomes a crisis by spreading, and it spreads because selling and buying are interdependent. If commodity trader A is unable to sell to B, then A's income is lowered, and this means that A is likely to decrease their purchases from seller C, who now has the same problem.

If demand falls for *all* goods it becomes a macroeconomic problem. Producers will find it is impossible to sell *in all markets at the same time*. A macro crisis is possible because when demand falls for one good, it does not increase for another good. Instead, a decrease in the demand for goods *increases the demand for money*. As Marx wrote: “the supply of all commodities can be greater than the demand for all commodities” because “the demand for the *general commodity*, money ... is greater than the demand for all particular commodities …” (Marx, 1975, 505 and see Kenway, 1980 for the relationship between Marx and Keynes).

3.2. Credit

The use of the “humble assistant” credit creates the *second possibility of crisis*. As trade expands, *mismatches between the sale and purchase of commodities* become common because: “Commodity-owner No. 1, may … be ready to sell, before No. 2 is ready to buy” (Marx, 1974a, 134-135).

Credit bridges the gap between buying and selling. Assume that sellers exchange commodities for a *promise to pay money* (an IOU) (Marx, 1974a, 134-135). By accepting IOUs, sellers become creditors. Buyers, in turn, become debtors and have an obligation to pay “future money.” As credit replaces money in circulation, money becomes *a means to settle debts* (Marx, 1974, 135).

The use of credit creates a chain of "mutual claims and obligations" between creditors and debtors. In a simple, "creditized" C-M-C circuit, a “sale” is made by accepting an IOU and the IOU obligates the borrower to pay money by some future date. Assume the borrower plans to sell a commodity to pay her debt. The debtor’s objective is then to *sell to pay a debt*. If for some reason the debtor is unable to sell and pay – *an impossibility to pay* problem – they default and disrupt the circuit. (Marx, 1975, 514).

The *second possibility of crisis is due to mounting defaults.* If everyone sells on credit, then traders lend to sell, and borrow to buy – creditors in one exchange and debtors in another. These “reciprocal transactions” make commodity sellers more vulnerable to default. To pay debts, each seller must not only sell commodities, but also collect from their debtors. If debtor A cannot pay creditor B, then B may be unable to

pay creditor C, and so on. In this way, the "inability to pay occurs not only at one, but at many points, hence a crisis arises" (Marx, 1975, 514).

4. Capitalist Commodity Production

Marx reasoned that *contagious demand and debt crises* are possible in all commodity producing economies, but only capitalist economies are riddled with such problems. To explain this, we must understand why "the potential contradiction contained in them becomes a real contradiction" under capitalism (Marx, 1975, 512).

4.1. The circuit of capital

The circuit of capital (COC) exists in a competitive system of generalized capitalist commodity production (CCP). The basic form of the COC is M-C-M', or what Marx calls *buying in order to sell* (Marx, 1974a, 145-146).

Capitalists start the COC with *money capital* (M), which is money that is *advanced* to purchase commodities. They first employ money capital to purchase commodities (M-C) and then sell commodities for money (C-M') to make a profit, M'>M. The difference between the M-C-M' circuit and the C-M-C circuit is that "the buyer lays out money in order that, as a seller, he may recover money." Thus, money is "advanced" "with the sly intention of getting it back again" (Marx, 1974a, 146-147). Furthermore: "The circulation of capital has no limits," because each capitalist buys to sell and then sells to buy, with the aim of achieving a "never-ending process of profit-making" (Marx, 1974a, 150-151)

4.2. Competition and capital accumulation

The "never-ending" drive for profits in CCP is compelled by competition between capitalists, an "external coercive force" in which each capitalist attempts to eliminate their rivals (Marx, 1974a, 555). To defend themselves, capitalists expand their capital "to preserve it." Each capitalist keeps "constantly extending his capital" "by means of progressive accumulation" (Marx, 1974a, 555). Thus, competition creates a law-like command: "Accumulate, accumulate! That is Moses and the prophets" (Marx, 1974, 558).

Expanding one's capital is a viable strategy because larger firms have advantages. They can reap economies of scale which lower their costs and prices, enabling the larger capitalists to

seize control of their market and become “the ruin of many small capitalists” (Marx, 1974a, 586). *The need to grow larger to compete in their industry also provides a powerful motive for capitalists to use credit*, as it is a “terrible weapon in the battle of competition” (Marx, 1974a, 587).

4.3. Industrial and merchant capital

In volume I Marx assumes that each capitalist performs multiple tasks – they are their own industrialist, merchant, rentier, and banker. In contrast, in later volumes the circuits are made distinct. In volume II Marx introduces the *circuit of the industrial capitalist* (CIC), and in volume III the *circuit of the merchant capitalist* (CMC).

The industrial capitalist uses money capital (M) to purchase inputs (C) – fixed and circulating capital (Marx 1974b: chapter 1). The capitalist then leaves circulation and transforms inputs into output (…P…). Returning to circulation, they sell their output (C’) for money (M’). The general form of the CIC is: M–C…P…C’–M’.

In a sophisticated and growing capitalist economy, credit becomes necessary for industrial capital to reproduce and expand. Early on, capital requirements are minimal, and capitalists finance the purchase of fixed capital out of prior profits. Once “there is an increase in the minimum amount of individual capital necessary to carry on a business” (Marx, 1974a, 587), industrialists need long-term credit to purchase fixed capital and shorter-term credit for acquiring circulating capital.

With the development of industrial capitalism, merchant capital functions alongside industrial capital (Marx, 1974c, Part IV). Merchants facilitate the transfer of inputs between industrial capitalists, M-C, and the sale of the finished output, C’-M’. Merchants start with money capital (M) which they use to purchase commodities (C). They then sell the commodities for money at a profit (C’-M’). Normally, merchants leave circulation and add value to output by the “transport …, storage and distribution of commodities” (…Mer…) (Marx, 1974c, 267-268). The CMC is: M-C…Mer…C’-M’.

Merchants are dependent on credit. Like industrialists, merchants require long-term credit to purchase fixed capital. What is unique is their need for short-to-medium term credit to operate. In transforming C-M, merchants buy from one industrialist and later sell to another. To do this, they first “borrow on credit,” exchanging IOUs for commodities. Then to resell, they “sold on

credit," exchanging commodities for IOUs. Thus, merchants borrow at one end of their circuit and lend at the other (See Marx, 1974c, 447 and Bagehot, 2015, 24).

4.4. The macro circuit of capital

In volume III, Marx implicitly aggregates the COC into a *macro circuit of capital* (MCC). The MCC consists of four phases: 1) money capital is used to purchase inputs; 2) the inputs are consumed (so-called "productive consumption") to produce final output; 3) the output is sold for money; and 4) revenues from the sale of output are distributed to capitalists, workers, and others.

The MCC assumes that merchant and industrial capitalists are reproducing the larger circuit by reproducing their own circuits. Marx argues that credit starts and completes each phase of the MCC. In the M–C phase, credit "promotes the actual successive phases in the production of the same article." To sell the final product for money, C'–M', credit "promotes the transfer of the article, including its transportation, from one merchant to another." The transition from each of the four phases is made possible by credit as well. "It is … the metamorphosis of commodities that is promoted by credit; not merely C-M, but also M-C and the actual production process" (Marx, 1974c, 482).

Therefore, Marx believed that: "With the development of commerce and the capitalist mode of production, which produces solely with the eye to circulation, this natural basis for the credit system is extended, generalized and worked out" (Marx, 1974c, 400).

5. The Credit System

In part V of volume 3 of *Capital*, Marx divided the private credit system into three parts: credit money, money lending, and a "paper world" (Krause, 2017, 575-576). We concentrate here on organized money lending by the banking system, which was the "most developed product turned out by the capitalist mode of production" (Marx, 1974c, 606).

5.1. The capitalist lending system

To be effective, lending requires "the subordination of interest-bearing capital to the conditions and requirements of the capitalist mode of production" (Marx, 1974c, 600). Once lending is "subordinated," it provides industrial and merchant capitalists with *a cheap and abundant supply of credit* for stimulating capital accumulation (Marx, 1974c, 360 and 481).

5.2. Organized lending

Two pre-conditions are required for *organized* lending. The first is that lenders must tap into "the money savings of all classes of society" (Marx, 1974c, 362) by pooling savings and turning them into "borrowable money" (Bagehot, 2015, 3). To centralize savings in the hands of bankers, rentiers must "entrust them with the business of loaning them out." In Britain, bankers paid interest to entice deposits, amassing the "money savings and temporarily idle money of all classes" (Marx, 1974c, 403). Eventually, "all money-capital available for lending exists in the form of deposits with banks" (Marx, 1974c, 499).

The second condition is to break the monopoly power of usurious money-lenders and lower interest rates. Child (1688) famously blamed England's relatively high interest rates for hampering its merchant capitalism and he wanted the government to force a "compulsory reduction of the rate of interest" (Marx, 1974c, 602). Marx argued it was the advent of competition between lenders that "robs usurer's capital of its monopoly" (Marx, 1974c, 603) and establishes a "general rate of interest," where prior, "no country had a general rate of interest" (Marx, 1974c, 597).

5.3. The subordination of interest-bearing capital

Finally, the "right" conditions are necessary to subordinate "interest-bearing capital to … the capitalist mode of production." It is not sufficient that a potential supply of loanable money capital exists, there must be a *credit worthy class of borrowers* as well. With capitalism, we get "the transformed character of the borrower," where credit feeds capitalists' "never-ending process of profit making." (Marx, 1974c, 600).

In summary, a "subordinated" credit system ready to finance capital accumulation requires two concurrent developments. 1) The establishment of an organized lending market, capable of supplying an unlimited amount of "loanable capital." 2) The rise of a vibrant capitalist economy consisting of industrial and merchant capitalists with an unlimited thirst for credit.

5.4. The money capitalist and the rentier

Subordinated lending creates a new variant of capitalist — the "money capitalist" (Marx, 1974c, 504), who controls the supply of "interest bearing capital" (Marx, 1974c, chapter 24). The circuit

of interest-bearing capital (CIBC) begins with a concentration of money capital (M) in the hands of bankers. It is loaned by bankers to capitalists in exchange for an interest-bearing IOU, IOU_{Cap}. In return for supplying money capital, the banker receives a share of the capitalist's prospective profits paid to them in the form of interest. Thus, the general form of the CIBC is: M-IOU_{Cap}-M', where M'= M + Interest (Marx, 1974c, 341-342).

We assume that a professional class of rentiers develop "with the growth of material wealth" along with the "class of money-capitalists" (Marx, 1974c, 510). Rentiers lend their savings to bankers to allow them to make loans to capitalists (Marx, 1974c, 362). In their circuit, rentiers lend savings (M) to bankers in exchange for a banker's IOU, IOU_{Bnk}, which pays interest (though less than the interest rate charged by bankers to capitalists). The circuit of rentier's capital (CRC) is: M-IOU_{Bnk}-M', where M'= M + Interest.

The lending system, therefore, intertwines rentiers, bankers, and capitalists in a complex web of debt, with the banking system as an intermediary sandwiched between the rentiers who fund it and the capitalists who accumulate debt to accumulate capital.

6. The Two Agency Problems

Marx's analysis of agency problems in the banking system provides the most direct link between his early writings on credit and his mature analysis of capitalism in *Capital*. The rise of an organized banking system separates the interests of rentiers who own the money capital, from the bankers who lend it, and the capitalists who borrow it. This means bankers and capitalists "consequently tackle things quite differently than the owner." These *agency problems* are responsible for "over-speculation" – high risk borrowing and lending – and "credit swindles" – abuses of credit (Marx, 1974c, 441).

There are two, central agency problems in a subordinated banking system. The first is *the rentier-banker agency problem*, for rentiers must trust bankers to lend their savings. Conflicts develop between the two parties once the interests of bankers diverge from those of rentiers. The second is *the banker-capitalist agency problem* as bankers must trust capitalists to invest their borrowed money capital wisely. Agency problems arise in this relationship once the interests of capitalists and their bankers diverge and come into conflict.

6.1. The "bad" banker problem

Rentiers fear lending their savings to a “bad” banker; i.e., a banker who takes undue risks with their money. They cannot monitor their banks’ lending because the complexity of the credit system shrouds it in secrecy. This leaves rentiers with only a vague notion of their banker’s practices and makes them vulnerable to unforeseeable losses. Marx provided an interesting example of this from the crisis of 1857-58:

> "This is how credits are 'nicely' devoured. The rural depositor fancies that he deposits only with his banker, and he fancies furthermore that when this banker lends to others, it is done to private persons whom he knows. He has not the slightest suspicion that this banker places his deposit at the disposal of some London bill-broker, over whose operations neither of them have the slightest control" (Marx, 1974c, 498-99).

Unfortunately, Marx had little more to say about the rentier-banker agency problem and how it can erupt into a banking crisis by inciting runs by rentiers on their banks.

6.2. The “bad” capitalist problem

Bankers must decide which capitalists to finance, knowing there are “bad” capitalists who will default on their loans, and that too many defaults can push them into insolvency. For the most part, banks must trust capitalists to use their borrowed funds in a manner that protects their interests. In an “alarm,” rising defaults and the fear of insolvency can lead bankers to “stop” all new lending and thus provoke or worsen a downturn.

Marx believed that the banker-capitalist agency problem develops over the business cycle. In the expansion, as the “production process has again reached the state of prosperity,” confidence is high, and the risk of defaults seem low, so bankers increase their risk by financing “cavaliers.” These are the businessmen “who work without any reserve capital or without any capital at all and who thus operate completely on a credit basis” (Marx, 1974c, 488).

Trouble usually begins at the height of the expansion, perhaps due to sagging sales and profits – “the high rate of profit [anticipated] may be partly speculative and prospective” (Marx, 1974c, 512). Some capitalists find they can no longer make debt payments, except by increasing their borrowing, what Minsky calls “speculative finance” (Minsky, 1982, 26-28). “During such times, everyone borrows only for the purpose of paying, in order to settle previously contracted,

obligations." This contrasts with the use of credit earlier in the cycle, when "loan capital is demanded for the purpose of buying and for the purpose of transforming money-capital into productive or commercial capital." (Marx, 1974c, 513).

Initially at least, the complexity of the system hides the abuses of credit from the bankers. "[T]he whole process becomes so complicated, … that the semblance of a very solvent business with a smooth flow of returns can easily persist even long after returns actually come in only at the expense partly of swindled money-lenders and partly of swindled producers" (Marx, 1974c, 484). A subtler point Marx makes is that as lending continues at the height of the boom it papers over the cracks by reinforcing the belief that all is sound. This *self-fulfilling optimism* lasts as long as capitalists retain access to cheap credit, which makes the "appearance of rapid and reliable refluxes" in the MCC continue because "credit refluxes take the place of real ones" (Marx, 1974c, 447).

When the moment of reckoning comes, it is always a surprise to the bankers. They may "scent danger" (Marx, 1974c, 447), but: "Business is always thoroughly sound and the campaign in full swing, until suddenly the debacle takes place." (Marx, 1974c, 485). Eventually the rot – "swindle," "unsuccessful speculation," and "commodity capital" which "has depreciated or is completely unsaleable" – "reaches the light of day" (Marx, 1974c, 490). When the "crisis sets in" bankers recoil and try to limit the damage by refusing to grant additional credit. "It [the interest rate] reaches its maximum … as soon as the new crisis sets in. Credit suddenly stops then, payments are suspended, the reproduction process is paralysed ..." (Marx, 1974c, 488).

The credit "stop," an inability to sell goods, mounting debt problems, and a collapse of financial markets brings a new development — a scramble "for all real wealth … to be actually and suddenly transformed into money" (Marx, 1974c, 574). This is because: "[I]n certain periods of crisis, namely, when credit collapses completely and when not only commodities and securities are unsaleable … nothing counts any more but money payment, or, as the merchant puts it, cash" (Marx, 1974c, 459).

7. Conclusions

Marx's analysis of credit adds an interesting dimension to his theory of capitalism and crisis. The main conclusions from it can be summarized as follows: 1) All commodity producing economies that use money and credit can fall victim to contagious demand and debt crises. However, in pre-

capitalist societies the possibility of an inability to sell and to pay crises remains dormant. 2) In capitalist economies, the production and circulation of commodities become infused with credit, which allows demand and credit crises to become a regular occurrence. 3) The rise of a banking system subordinated to capital accumulation provides capitalists with what they crave, a cheap and abundant supply of credit. At the same time, the expansion of credit links rentiers, bankers and capitalists in a complex web of debt, making them vulnerable to cascading defaults and crisis. 4) Two principal agency problems emerge between rentiers and bankers, and bankers and capitalists. In general, agency problems can make the credit structure fragile, and prone to sudden, spectacular crises. 5) The rentier-banker agency problem is a way to understand runs and panics by rentiers, which result in banking crises. 6) Banker-capitalist agency problems have the potential to produce crises characterized by stops in the supply of credit, cascading defaults, and destructive increases in the demand for liquidity.

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