MINSKY AND THE PERIODISATION OF CAPITALISM

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The periodisation of capitalism is a crucial, but neglected, aspect of political economy. The absence of a proper periodization leads to confusion about the financial processes that are taking place in any given phase of capitalist development.

The paper that follows puts forward a periodization based on the way in which capitalist enterprise is financed. The paper does not discuss the financing of the state, although as will be argued in the section that follows, this is a crucial aspect of capitalist financing in the present phase. The financing of sovereigns and their wars was an important activity of banking centres in pre-capitalist times, and a factor in the decline and fall of those centres. However, even in those times, such financing of the state was always conducted alongside the financing the nascent capitalism that was emerging. Nor does the paper consider the financing of private households, although this has featured greatly in virtually all the discussions and commentaries on the 2008 financial crisis and financialisation in general. In the view of the present author, most financing of the household sector involve purchases of residential property. This involves transfers between households: Household A buys a house from Household B with a mortgage from a bank. Household A is now indebted, and makes repayments with interest to the banks. However, Household B now has the credit counterpart of that debt as a deposit in their bank account, and receives interest from their bank. Even in the case of consumer debt or the purchase of new housing, most of the payment goes as an indirect transfer to the workers producing the consumer goods or new housing purchased. The process may accelerate the creation and circulation of money in the household sector. But if the money transfers are netted out, the effects beyond this redistribution of income in the household sector are negligible.

The financial process therefore reveals itself through the balance sheets of capitalist enterprise. These balance sheets show on their assets side the means by which the future income of the firm will be obtained, through the plant, machinery, stocks of finished and unfinished goods and raw materials, and financial assets at the disposal of the firm. The liabilities side shows the financing of those assets through equity and debt. As Minsky pointed out, these are sets of dated future income and payment commitments (Minsky 1986, pp. 69-70). They may therefore be short-term payment commitments, in the case of short-term bank borrowing or bills of exchange, for example, or longer-term commitments, such as bonds or shares. Assets too may be short-term: such as stocks of finished goods or raw materials, that are sometimes referred to as circulating capital, because they are rapidly turned over, or bank deposits. Factory or retail premises and capital machinery are longer-term assets.

The financial process arises out of the financing of the assets by the financing that appears on the liabilities side of the balance sheet. In turn, the financial cycle is determined by the scale of that financing and how short- and long-term financing is combined with the acquisition of short- and long-term assets by capitalist enterprises. For Minsky, this gave rise the particular financing structures that he classified as 'hedge', 'speculative' and 'Ponzi' structures, of which the latter became a crucial element of his financial instability hypothesis (Minsky 1986, appendix A). Towards the end of his life he argued that American capitalism had gone through different stages of 'Commercial capitalism', followed by 'industrial capitalism and wild-cat financing', 'financial capitalism and state financing', then 'paternalistic, managerial and welfare state capitalism', which had now given way to 'money manager capitalism' (Minsky 1996).

Minsky's periodization was put forward in a paper that was broadly about that final stage of capitalist development. He had very little in that paper about previous stages, apart from his enthusiasm for Roosevelt's New Deal in the 'financial capitalism and state financing' stage of capitalism. According to the paper, the key achievement of the New Deal was a 'restructuring of capitalism which contained uncertainty.' The stages of capitalist development referred to American capitalism, rather than capitalism elsewhere and did not discuss finance in any detail except in those latter stages. In particular, despite the crises in American stock markets in 1907 and 1929 (the latter had a very particular impact on Minsky's thinking) that were formative for American financial institutions, notably the Federal Reserve Bank system, Minsky gave little weight to the importance of long-term finance and capital markets in capitalist enterprise. His remarks on American financing follow on from his financial instability theory which is essentially a banking analysis. Like Irving Fisher's debt deflation theory that inspired him, Minsky's financial crisis is one about maturity transformation, that does not accommodate different kinds of maturity transformation, other than the one that banks perform in financing long-term assets with short-term liabilities. However, this maturity transformation changes with the evolution of capitalism. The differing maturity of financing in turn affects financial processes and the policies required for their stabilisation. This is further explored in the next section.

1. Stages of capitalist development and their financing

(i) Mercantile capitalism

Mercantile activity is a feature of all societies with commodity production. With the growing scale of exchange, over larger geographic areas, a class of people emerged who specialised in buying from producers and delivering to markets. The financial requirements of merchants are to finance their stocks and its transport. However, these requirements are relatively short-term, to finance 'circulating capital', and financing emerged to satisfy those needs, in the form of trade bills and bills of exchange. The risks were natural, affecting transport and agricultural production, or monetary, in the sense of depletion of monetary stocks in countries facing trade deficits or depreciation of metallic money by coin-clipping or reducing precious metal content. The Polish scholar Nicolas Copernicus advocated state control of mints specifically to prevent the corruption of the coinage, which he argued would create distrust among traders and producers.

Merchant capitalists used not only short-term bank finance and bills. They were also familiar with corporate financing structures in the form of companies there were set up for specific purposes say to deliver a particular cargo, with company financing of the leasing of ships. The early companies were temporary, often for only a few years, to be wound up when the purpose of the company had been achieved. The profits in the company would then be distributed to its shareholders. John Maynard Keynes cited the example of such a company in his *Treatise on Money*:

“The expedition of Mr. Phipps (afterwards Sir W. Phipps) to recover a Spanish treasure ship which was believed to have sunk some fifty years before off the coast of Hispaniola, is one of the most extraordinary records of improbable success. He returned to London in 1688, having fished out of the sea a sum estimated at between £250,000 and £300,000 and paid a dividend of 10,000 per cent (even Drake had only distributed a dividend of 4,700 per cent).’ (Keynes 1930, p. 135).

Along-side individual merchants and the their temporary companies were the chartered trading companies, the East India Company (established in 1600) or the Dutch Vereenigde Oost-Indische Compagnie (the Dutch East India Company, established two years later). These were permanent companies with long-term share capital financing global trade, but also long-term assets in the form of ships and warehouses (‘factories’) owned by the companies. The Dutch became specialists in this kind of financing, for companies that undertook the extensive canal and land-reclamation projects that created out of the sea much of today’s Netherlands. The permanent companies then gave rise to another financial innovation, the stock exchange, where shares in the trading companies could be bought and sold.

(ii) **Classic capitalism (up to the 1860s)**

'Classic' capitalism is the period of capitalism before the proliferation of long-term finance (Toporowski 2017). The typical 'classic' capitalist was financed by his own personal wealth, short term trade bills and short-term loans from banks. With industrialisation, the growing mechanisation of production left capitalists almost permanently short of finance, which was eked out by rolling over bills and short-term bank borrowing (Dobb 1967, pp. 26-30; Niebyl 1946, chapter 3; Kindleberger 1993, pp. 94-96). By the middle of the nineteenth century there were, in addition to the great chartered trading companies (such as the East India Company, the Hudson's Bay Company), railway companies, canal companies and some coal mines (see Sweezy 1938). These survived not much on the thriftiness of the middle classes, but on the liquidity in the stock market in which shares in the companies could be bought and sold.

It is possible therefore top identify two financial processes taking place at this stage of capitalism. In the capital markets, a small number of companies operated long-term infrastructure assets financed with long-term share capital. Those shares could be trade on stock markets that were subject to speculative booms and busts (Kindleberger 1993, pp. 191-196). During a speculative boom capital was readily available, but fled rapidly if stock prices failed to rise. While the capital market cycle was driven by the liquidity of the stock market, and the resulting market sentiment was undoubtedly dramatic to its participants and observers, the impact on the canals and railways was limited, because the companies concerned only needed to pay interest on bonds, since dividends on shares are discretionary. Because their financing was long-term, companies had little need to raise new money from their bankers or the stock market, except for very temporary cash flow management.

But this speculative capital did not move into manufacturing, where entrepreneurs financed their increasingly long-term capital assets with their own savings or short-term bank borrowing or bills. Here a different financial cycle prevailed. Banks would lend and support their credit-worthy customers whose investments and production would take cash out of the banking system and into general circulation. A financial crisis arose when a decline in bank reserves obliged banks to refuse to roll over the short-term loans on its books, or to discount bills presented to it by merchants or industrial capitalists. The crisis transmission mechanism led directly to production because, faced with an inability to repay loans, or to pay bills falling due, the industrial capitalist would cease production, to stem the outflow of expenditure. Through such a stoppage, the banking crisis became immediately an economic crisis.

This banking cycle was associated with the gold standard, which constituted the reserves of commercial banks. As history was later to reveal, a pure credit system offered a more flexible banking system, less prone to periodic breakdown. But to view this as a monetary option available in the period of mercantile or classic capitalism is to overlook the need in mercantile capitalism for a medium that could be used to make international payments. Gold and silver were the only common medium sufficiently widely held to allow for such payments on a routine basis. But it meant that classical capitalism was periodically brought to a stop by its use of the monetary arrangements of mercantile capitalism.

The cash shortage of the industrial capitalists gave rise to further financial innovation in the form of legislation that simplified procedures to allow companies to be established with limited liability by registering their articles of association with a commercial court or registry of companies. On the banking side, the practice of advancing loans against the security of capital market paper (bonds and shares) increased the amount of credit circulating in investment portfolios to support a much more liquid stock market. This then gave rise to the next stage of capitalist development.

(iii) **Finance Capital**

The stage of Finance Capital lasted roughly from the 1870s until the end of the 1920s, when it was broken by the 1929 Crash. During this time, production and exchange were dominated by corporations, whose operations and financing were analysed by Veblen in America, and Rudolf Hilferding in Europe (Veblen 1904, Hilferding 1910/1981). This phase is marked by the dominance in industrial production of those corporations, whose balance sheets were kept stable by two factors, their large and stable profit margins, and their long-term financing whose maturity matched the life-span of their capital assets. As with the railways, canals and mines of the nineteenth century, this avoided the drain on their cash flow of having to roll over short-term debt. At the same time, their capital market financing was kept secure by the expansion of credit going into that market.

As we now know, this prodigious expansion of credit was a factor in destabilising the gold standard of the time, precisely because credit expanded far beyond the possibilities of settlement by means of gold, and the pre-eminent world power, Britain, could only maintain itself on the gold standard by forcing its empire to run trade surpluses and hold gold deposits in London (de Cecco 1974). With the innovation of the Federal Reserve System in the United States after the Knickerbocker Trust Crisis of 1907, the reserve system became in effect a banking co-operative to ensure that the financial system did not run out of reserves. In this way, the stranglehold on capitalism of mercantile monetary arrangements was broken.

Excluded from this system of long-term financing ‘hedging’ long-term assets were small and medium-sized enterprises. While the corporations dominated fixed capital investment activity, and in this way determined aggregate output and employment in the economy, small and medium-sized enterprises have always been the employers of the bulk of private sector labour. As Hilferding and Kalecki were to show, this brought about a new kind of business cycle in capitalist economies, as adjustments in the capital stock became less flexible (Toporowski 2019).

In the capital markets, corporations acquired the habit of draining off excess liquidity in the markets, only to put it back into the market through mergers and acquisitions. In turn these activities destabilised the capital market. At the same time the rising market capitalisation (the value of total stocks listed in the market) required correspondingly growing credit in the market to maintain its liquidity. In 1929 the markets broke, and ushered in the next stage of finance capital.

(iv) **State Finance Capital**

The breakdown in capital markets in Europe and North America ushered in a period of State Finance Capital, from roughly the end of the 1920s to the end of the 1960s. This period was market by such illiquidity in the capital markets that central banks were obliged to intervene with open market operations to provide the liquidity necessary for major capital or bond issues by the government or large corporations. Corporations wishing to place a new bond or share issue would hire an investment bank to organise the issue. But an important part of the procedure was to go to the central bank to secure their part in ensuring that the capital market was liquid enough to absorb the issue. Needless to say, this gave the central bank a veto on corporate restructuring and mergers and acquisitions.

This takeover of the capital market by the state arose not because corporations were minded to accept regulation in the face a dire economic situation but because of the dire absence of liquidity in capital markets. The situation has rarely been recognized in the economics literature, where it has been generally regarded as an outcome of a political mood favouring regulation. One exception was the American Marxist, Paul Sweezy who, in 1941, wrote an essay on 'The Decline of the Investment Banker', describing what he regarded as the 'socialisation' of the capital market, after he noted that the US Department of Commerce was organising capital issues for American corporations, rather than the investment banks that had been hobbled by the stock market crash and the Glass-Steagall Act (Sweezy 1941). This state organisation of the capital market was not just an American phenomenon. In Italy the state-owned Istituto per la Ricostruzione Industriale (Institute for Industrial Reconstruction) played the part of organising the capital market for Italian companies requiring fresh capital. Similar institutions were established in other European capitalist countries.

The period of State Finance Capital came to an end in the 1960s, with the rise of the Euromarkets, or markets in currencies outside their respective countries of issue. Loans in such currencies could be obtained outside central bank regulations. The Euromarkets effectively undermined the state-managed markets in foreign currencies, bonds and loans, forcing the abandonment of the Bretton Woods system of fixed exchange rates, and the regime of low interest rates. A period of capital market instability and crisis followed until the 1980s, when capital markets in the United States and Britain were revived by a shift from state pensions to funded pension schemes.

(v) **Pension fund capitalism and capital market inflation**

State pension schemes had been extended during the period of state finance capital because of the difficulties of the capital market where private pension schemes purchased the financial assets that generated the income flows for their pensioners. In the 1970s, state pension schemes were criticised for their potential insolvency, allegedly threatening a fiscal burden on taxpayers, and their failure to provide funds for private sector long-term investment in fixed capital. The inauguration of funded pension schemes, that is pension schemes in which contributions are invested in stocks that are supposed to generate the future incomes for pensions, gave a boost to struggling capital markets in the 1980s. The structure of long-term financing now shifted towards pension funds, long-term or, in current terminology, ‘patient’ investors. In the 1960s, most stocks and shares were owned by private individuals. By the 1980s, some two thirds of stocks were held by pension funds and insurance companies.

The problem that emerged was that the cash flow of pension funds was dependent not only on the pensions that funds were obliged to provide, but also on the state of the labour market, where employment and wages determined the inflow of contributions to funds. In any funded scheme, there is a point of 'maturity' when the inflow of contributions equals the outflow of pension payments, after which the excess of pension commitments requires the 'mature' scheme to run down, or gradually sell off its portfolio of securities. With unemployment, early retirements, and the casualization of labour contracts, the point of maturity is brought forward (Toporowski 2000, Part II). By the end of the 1990s, most pension funds in Britain and the United States were 'mature'. Meanwhile most central banks, and especially the key central banks in North America and Western Europe, had abandoned open market operations, which might have provided liquidity to stock markets, in favour of regulating short-term interest rates. When the dot.com 'bubble' burst in 2000, central banks lowered interest rates, but, with the exception of the Bank of Japan, did not engage in buying securities to alleviate the illiquidity in capital markets.

The lack of buying in stock markets set the scene for the 2008 crisis, when a number of large corporations which had indebted themselves heavily in banking markets, in order to finance mergers and acquisitions, expecting to be able to refinance their debts in the capital market, found themselves unable either to sell new stocks, or roll over their short-term borrowing. They responded to this alarming drain on their liquidity by cutting back on the investments in plant and machinery, thereby creating the 'Great Recession' in economic activity (Toporowski 2016).

(vi) **Quantitative Easing. The Return of State Capital Finance?**

The financial crisis, if not the 'Great Recession' itself was remedied not so much by the reduction of interest rates to zero, or below, but by the resumption of open market operations by central banks, beginning with the Troubled Assets Relief Programme in the United States in October 2008. This, and subsequent programmes of 'quantitative easing' restored liquidity to banking and financial markets. Corporations have benefitted from their renewed ability to issue bonds. But with central banks unwilling to buy shares in companies, the equity market has not been restored to the point of supporting any but the most exceptional new share issues and bond issues have largely been used to finance the acquisition of financial assets, rather than productive investment in economies. This failure of private sector investment is a major factor in the continuing recession in Europe. In New York, the Fed's injection of $66bn to support lending in banking markets on the 23 September 2019, when the New York banks were sitting on record levels of reserves, suggests that economic revival requires something more than just the provision of additional reserves. In the 1930s that 'something more' was the expectation that corporations would undertake new investments. This expectation is singularly lacking in our times.

The above periodization is based on the experience of the 'financially advanced' countries. It does not do full justice to developing and emerging economies, where the 'holding company' structure becomes the system for stabilising the balance sheets of larger companies. Such holding company structures in effect 'internalise' the capital market into the balance sheets of a holding company. Such internalisation is an institutional response to small and undeveloped capital markets. At another extreme, in the most financially-advanced economy, the largest corporations also effectively 'internalise' the capital market through the issue of capital in excess of their production or trading requirements. Such excess capital is then held in the form of liquid assets used to make money out of financial operations, in particular mergers and acquisitions. Developing and emerging market economies (and the companies in them) are also drawn into the periphery of global financial centres. These institutional and market structures, and the financial processes associated with them, are complex and deserve separate analysis. But such an analysis would require a whole paper on its own to do justice to those structures and processes.

Conclusion

The periodization presented in this paper shows the evolution of capitalism in a more systematic way than Minsky was able to do. It has important implications for the way in which financial instability arises, because the financial circulation of money differs in the respective phases of capitalist development. In respect of Minsky's work, the periodization suggests that his financial instability hypothesis needs to be extended in order to discriminate between financial instability in different periods.

There are other important implications of the above periodization for the methodology of financial macroeconomics and critical studies of finance. The analysis rejects notions that the evolution of capitalism is caused by neo-liberalism, globalisation and financialisation, rather than being due to financial processes operating in institutional structures of capitalist production and distribution, of which financial systems are a part. The outcomes of those processes may be neo-liberal, globalised, deregulated and financialised economies. But these outcomes are appearances, and serious studies need to go beyond to expose the corporate finance structures at the heart of the financing of capitalist enterprise. Genuine insight into finance requires the specification of institutional structures and processes.

Examining such detail reveals different stages in the development of capitalist finance. In each of these stages, the financial process differs, as summarised in the previous section of this paper. This gives rise to a second general conclusion, that particular categories used in finance, such as debt, or the rate of interest, have a different meaning and economic consequences in the different periods of capitalism (cf. Chick 1986). Long-term studies of finance that seek to draw conclusions from across all periods of capitalist finance, such as the recent study of debt crises by Reinhart and Rogoff, can only present trans-historical conclusions that lack significance for any particular period of financial development (Reinhart and Rogoff 2009). Even the great financial historian Charles Kindleberger was not averse to applying an ahistorical psychology of greed and disappointment, in his book *Manias, Panics* *and Crashes* that contradicts his more carefully evolutionary *Financial History of Western Europe*. (Kindleberger 1978 and 1993).

The above periodization shows the scope for state intervention in each of the successive periods of capitalist development. In mercantile capitalism, state intervention is required to secure the value of money used in exchange. In classic capitalism, the state or its central bank intervenes to provide the reserves needed in the banking system to allow capitalist accumulation to continue. In finance capital, the state and its central bank facilitate the functioning of the capital market and the expansion of markets through imperialism and militarism. With state finance capital, the state takes over the capital market and manages the expansion of domestic markets through public services, welfare and military expenditure. Under capital market inflation through the funding of pension schemes, the state organises the expansion of pension schemes as passive suppliers of long-term capital for corporations, suppliers that will not interfere in the exercise of their prerogatives by managers of those corporations.

The present condition of renewed dependence of capital markets on the support of central banks presents new dilemmas for government policy-makers. The panic reactions of stock markets to any attempt to reduce quantitative easing indicates that central banks need to commit to their support for the long-term. At the same time, governments have not even considered using this leverage on corporations to pressure business to boost investment, as governments did in the previous period of state finance capital. At best, central banks have tried to induce commercial banks to expand their lending. But even these modest efforts have signally failed (Toporowski 2012).

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