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10 Marx, Minsky and Crotty on crises in capitalism

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The relation between the theories of Marx and Minsky has been a topic of interest among heterodox economists in recent years (Crotty 1986, 1990), Pollin (1983, 1997), Dymski and Pollin (1992), Wolfson (1994) and Aron (1994)). Crotty has argued that Minsky’s theory of financial crises is compatible with Marx’s theory of crises, but Minsky’s theory is one-sided and focuses almost entirely on the financial sector of the economy, and ignores the real sector. Therefore, Crotty argues that Minsky’s theory of financial crises should be combined with Marx’s theory of crises in the real sector, in order to provide a more comprehensive theory of crises in capitalism.

This chapter explores further the compatibility – or lack thereof – of Marx’s theory and Minsky’s theory, by means of an examination of Crotty’s 1986 paper. The first section discusses the theories of crises presented by Marx and Minsky, and the second section discusses the conclusions of these two theories regarding the effectiveness of government policies to overcome capitalism’s tendency toward crises.

Crisis and profit

Financial crises

Crotty emphasizes that Minsky’s theory of crises focuses almost entirely on the financial sector of the economy. During a period of expansion, “boom euphoria” develops which results in increased risk-taking and higher debt levels for both firms and financial institutions. In Minsky’s words, the economy moves from a “robust” financial structure to a “fragile” financial structure. The downturn is usually initiated by an increase of interest rates, which forces over-extended debtors to sell illiquid assets to meet their current debt obligations, which in turn leads to falling asset prices and often to a debt-deflation recession or depression. On the positive side, the bankruptcies during the depression reduce debt levels and help restore a robust financial structure for the beginning of the next expansion.

Minsky’s theory can also explain secular trends. The central bank may intervene as lender-of-last-resort and seek to avoid a debt-deflation crisis. However, to the extent that the central bank is successful in these interventions, the restoration of a robust financial structure is aborted, and the economy emerges from the recession with a still fragile financial structure. As a result, the economy becomes more financially fragile over time, inflation increases, and the end result is stagflation.

Crotty argues that this Minskiean theory of financial crises is fully compatible with Marx’s theory of crises. Marx did not present a full and comprehensive theory of the role of the financial sector, but his various discussions on this topic are very similar to Minsky’s theory. As Crotty (1985) demonstrated, Marx suggested that a period of expansion inevitably produces an expansion of business debt, which drives the expansion further to even greater heights. However, this boom-induced increased debt also makes the economy more vulnerable to a downturn, which eventually comes. When the downturn comes, it is worse than it otherwise would have been and often turns into a financial panic and depression. In broad outlines, this is very similar to Minsky’s theory (although of course much less detailed and complete).

Real crises and profit

However, the main problem with Minsky’s theory, according to Crotty, is that it focuses almost entirely on the financial sector and ignores the real sector. According to Minsky’s theory, the real sector cannot be a source of crises and instability. This conclusion follows from Minsky’s theory of profit, which Crotty criticizes. Minsky’s theory of profit is actually Kalecki’s theory of profit, which Minsky accepts in full. According to Kalecki’s theory, profit (P) is determined by the sum of investment spending (I) and the government budget deficit (G − T) (in a simple model in which all saving comes from profit, and no foreign trade):

\[ P = I + (G - T) \] (1)

Kalecki treats this equation as an equilibrium condition, and assumes that it is always satisfied, so that the macroeconomy is assumed to be always in equilibrium. Crotty argues that such a “super equilibrium” theory does not allow for instability arising in the real sector.1

Furthermore, Minsky’s (Kalecki’s) theory assumes a constant profit share of income (i.e. a constant “mark-up”), which is determined by the degree of monopoly. Since the profit share remains constant, a crisis cannot be caused by a declining profit share leading to a decline of investment. Minsky emphasizes this point – that a decline of investment can never be initiated by a prior decline of profit – and argues instead that an initial decline of investment induces a subsequent decline in the amount of profit (“investment calls the tune, and profits dance accordingly”).

Crotty argues that Minsky’s (Kalecki’s) constant mark-up theory of profit is clearly unsatisfactory because it is contradicted by a substantial body of empirical evidence that suggests that there is significant cyclical variation in the profit
share, and that the profit share also generally declines well before the end of cyclical expansions and substantially earlier than investment spending. Furthermore, it is well known that there was a very significant secular decline in the share of profit and the rate of profit in the US economy from the early postwar period to the mid-1970s, which also contradicts Minsky’s (Kalecki’s) theory of profit.

Therefore, Crotty argues that: Minsky’s theory of crises in the financial sector should be supplemented with Marx’s theory of crises in the real sector, and in particular with Marx’s theory of profit and the falling rate of profit. Crotty discusses the following factors as determinants of the rate of profit, according to Marx’s theory: the cost of inputs (especially wages); the type of technology; labor discipline and effort; and the aggregate demand for output. Crotty argues that in an expansion, these factors will generally change in ways that have a negative effect on the rate of profit – especially increasing wages. The decline of the rate of profit causes investment spending to decline and leads to a general recession. Combined with the high levels of debt built up during the expansion, a lower rate of profit makes it even more difficult for firms to meet their debt obligations, and forces many firms into bankruptcy, and the economy into depression. Therefore, according to Marx’s theory, the falling rate of profit in the real sector is a source of crises and instability in capitalist economies, which is even more important and more fundamental than the instability originating in the financial sector, as emphasized by Minsky.

I am in broad agreement with Crotty’s evaluation of Minsky’s theory of crises – that Minsky’s theory of financial crisis is compatible with Marx’s theory, and is a valuable framework for analyzing financial crises, but it needs to be supplemented with Marx’s theory of crises in the real sector, caused primarily by a falling rate of profit. I also agree with much of Crotty’s interpretation of Marx’s theory of crises, especially his emphasis on the rate of profit as the key variable in Marx’s theory. However, I would put more emphasis on labor-saving technological change (i.e. increasing composition of capital), rather than rising wages, as the main cause of the falling rate of profit, according to Marx’s theory. And I would also prefer to analyze Marx’s theory of the rate of profit explicitly in terms of the key determinants of the rate of profit – the rate of surplus-value (R/S) and the composition of capital (CC). Algebraically:

\[ R/P = S/C = (S/Y)/(C/Y) = R/S; CC \]  \hspace{1cm} (2)

Thus the rate of profit varies directly with the rate of surplus-value and inversely with the composition of capital. Implicitly, Crotty emphasizes a decline in the rate of surplus-value as the main cause of the falling rate of profit. This is a possible cause of the falling rate of profit, but Marx himself emphasized an increase in the composition of capital as the main cause of the falling rate of profit.

This difference has important implications for the necessary conditions for the restoration of the rate of profit and the recovery of the economy from a crisis. If higher wages and a declining rate of surplus-value cause the falling rate of profit, then wage cuts and an increasing rate of surplus-value should suffice to restore the rate of profit. On the other hand, if labor-saving technological change and an increasing composition of capital cause the falling rate of profit, then wage cuts by themselves are not likely to be enough to fully restore the rate of profit. Instead, what is required in addition is a reduction in the composition of capital, i.e. a "devaluation of capital" (the numerator in the composition of capital), brought about by widespread bankruptcies of capitalist firms. In stark terms, the necessary condition for a full recovery of the rate of profit is a prior depression. (Bankruptcies also wipe out much of the debt, and thus also help to restore the financial stability of the economy, as Minsky emphasizes.)

I am also in broad agreement with Crotty’s critique of Minsky’s theory of profit – that it is a "super-equilibrium" theory with no room for instability and that it is contradicted by the empirical evidence of cyclical and secular variations in the profit share. However, Crotty does not clearly and explicitly present Marx’s own theory of profit. Crotty’s discussion is entirely in terms of the share of profit and the rate of profit, not the amount of profit. Marx himself first presented his theory of the amount of surplus-value in Chapter 7 of Volume 1 of Capital, and then derived his theory of the rate of surplus-value in the rest of Volume 1 and his theory of the rate of profit in Part 3 of Volume 3. According to Marx’s theory, the amount of surplus-value depends on the amount of surplus labor, which in turn depends on four key variables: the length of the working day (WD) (positive), the intensity of labor (INT) (positive), the real wage (RW) (negative), and the productivity of labor (PR) (positive). Algebraically:

\[ S = f(SL) = f(WD'; INT'; RW', PR') \]  \hspace{1cm} (3)

On the basis of this theory of profit, Marx’s theory is able to explain the following very important phenomena in the history of all capitalist nations: conflicts over the length of the working day, conflicts over the intensity of labor, conflicts over wages, and inherent technological change. Crotty mentions the real wage, the productivity of labor, and the "discipline" of labor as determinants of the rate of profit, but he does not state explicitly the Marxian variable of the intensity of labor, and he does not mention the length of the working day as a determinant of the rate of profit.

Marx’s theory provides the basis for an even stronger critique of Minsky’s theory of profit. Minsky’s theory assumes that the total amount of profit is determined by investment spending and the government deficit (and the balance of trade), and that the share of profit is determined by the degree of monopoly. Thus, according to Minsky’s theory, the amount and the share of profit are independent of the length of the working day, the intensity of labor, the real wage, and the productivity of labor. Therefore, Minsky’s theory is unable to explain the important phenomena just mentioned, and thus has considerably less explanatory power than Marx’s theory. Crotty emphasizes that class conflict is missing in Minsky’s theory, but he does not make clear that the absence of class conflict in Minsky’s theory follows from his theory of profit, just as the centrality of class conflict in Marx’s theory follows from Marx’s theory of surplus-value.
Therefore, this is one important sense in which Marx’s theory and Minsky’s theory are not compatible — they have entirely different theories of profit.

**Effectiveness of government crisis intervention policies**

Crotty also argues that, since Minsky’s theory ignores class conflict in general, it also ignores class conflict over government economic policies in particular. Crotty discusses Reagonomics and industrial policy as examples of class conflict over government policies. However, Crotty does not discuss the important question of the likely effectiveness of government policies, i.e. the ability of government policies to resolve and overcome capitalism’s tendency toward crises, both real and financial. According to Minsky’s theory, there are two types of government policies which virtually guarantee that a major debt-deflation depression (“it”) could never happen again:

1. **Expansionary fiscal policy**, which (according to Equation 1 above) increases profit, and thus “sets a floor” under profit in a downturn; and
2. **Central Bank intervention** as lender of last resort, which prevents a financial crisis from spreading, as discussed above.

The following will examine each of these two types of crisis intervention policies in turn, from the Marxian perspective discussed above.

**Expansionary fiscal policy**

Crotty does not explicitly discuss the likely effectiveness of expansionary fiscal policy in resolving a profitability crisis in the real sector. But this is a crucial question which should be thoroughly examined. The following analysis is based largely on Paul Mattick’s pioneering extension of Marx’s theory to this important question in *Marx and Keynes: The Limits of the Mixed Economy* (1969).

In order to analyze the ability of expansionary fiscal policy to overcome a profitability crisis in the real sector, assume the following scenario: during a period of expansion, the rate of profit falls and the level of business debt rises. Eventually these two trends cause a downturn — investment falls, delinquencies and bankruptcies rise, and output and employment contract. As output and employment contract, the amount of profit falls further, below the already-too-low level at the peak of the expansion.

Now assume that the government increases its spending in order to stop the downturn and revive the economy, and that this increased government spending is financed by borrowing (selling bonds). Assume further (to begin with) that the money supply remains constant, i.e. that the expansionary fiscal policy is not accompanied by expansionary monetary policy (the case of “accommodating” monetary policy will be considered below).

The first question is whether the increase of government spending will result in an overall increase of aggregate demand and output. The answer to this ques-

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The devaluation of capital requires widespread bankruptcies, and the increase of government spending does not result in bankruptcies. Indeed, by stabilizing demand and the economy, the increase of government spending probably would allow some firms to avoid bankruptcy. This is good for the economy in the short-run, but according to Marx’s theory, bad in the long-run, because it postpones the adjustments that are necessary (painful though they may be) in order to restore the rate of profit.

The amount and rate of surplus-value at full employment depend on the variables in Equation 3 above: the length of the working day, the intensity of labor, the real wage, and the productivity of labor. None of these variables are affected much, if at all, by an increase of government spending.

Another way of looking at this is that the total amount of surplus-value in the economy as a whole (S) depends on the total amount of surplus labor (SL) \(S = f(SL)\), which in turn depends on the product of the surplus-value produced by an average worker (SLw) times the number of workers employed (n) \(SL = n SLw\), and the surplus-value produced per worker depends on the four independent variables in Equation 3 above \(SLw = f(WD, INT, RW, PR)\).

An increase of government spending could affect the number of workers employed, and thus could affect the total amount of surplus labor and surplus-value;
but it has little or no effect on the determinants of $SL_a$ and thus little or no effect on $SL_b$ itself. And these increases of $n$, $SL$ and $S$ only reverse prior declines in these variables from the "full employment rate of profit" at the peak of the expansion. Since it does not affect the "full employment $SL_a$" it does not affect the total amount of surplus-value that the economy is capable of producing at full employment. The "full employment rate of profit" would still be insufficient to maintain and continue the expansion, as before.

Although an increase of government spending does not increase the "full employment rate of profit," Minsky is correct that the increase of government spending does "set a floor under profit," at least temporarily. The decline of profit resulting from the downturn is stopped and to some extent reversed. This "floor on profit" would presumably enable some firms to meet their debt obligations and avoid bankruptcy, which would reduce the severity of the downturn. However, once again, by avoiding bankruptcy, the "floor under profit" postpones the devaluation of capital which is necessary in order to restore the "full employment rate of profit," it does not make the devaluation of capital unnecessary.

Next relax the assumption of constant money supply, and assume instead that at least part of the increase of government spending is financed ultimately by printing money. In this case, the increase of government spending would always increase aggregate demand, and thus would always lead to some recovery in the economy, i.e. to some increase in output and employment and profit. But again, these increases of output and profit only reverse the prior declines in these variables during the downturn; they do not solve the fundamental problem of insufficient profitability at full employment. According to Marx's theory, this fundamental problem can be solved only if capital is devalued or if the "full employment rate of surplus-value" is increased. This combination of expansionary fiscal policy and expansionary monetary policy might lead to a small increase in the rate of surplus-value by increasing the rate of inflation and reducing real wages. But this effect is likely to be small in the short run.

Therefore, Marx's theory implies very different conclusions than Minsky's theory with respect to the ability of expansionary fiscal policy to solve a profitability crisis in the real sector, at least in the short-run (see pp. 600-600 for a consideration of the long-run). Minsky's theory implies that expansionary fiscal policy leads to higher profit and would always solve any profit problems that might exist. Marx's theory, on the other hand, concludes that expansionary fiscal policy would lead only to short-run increases in output and profit, and would not solve the fundamental problem of insufficient profitability at full employment. 

**Central Bank intervention as lender of last resort**

Minsky argues that Central Bank intervention as lender of last resort can always in principle stop a financial crisis (assuming the intervention is appropriate and timely). However, Minsky also argues that there is an undesirable side-effect of such successful intervention — there is much less debt liquidation, so that the financial structure of the economy continues to be fragile.

Marx's theory would agree with this conclusion, and would add another undesirable side-effect to successful lender-of-last-resort intervention — it does not resolve the profitability crisis in the real sector. What is necessary to restore the rate of profit in the real sector, as discussed above, is to increase the rate of surplus-value and reduce the composition of capital (and reduce unproductive labor). Central Bank intervention as lender of last resort accomplishes none of these necessary adjustments. To the contrary, lender-of-last-resort intervention stops the bankruptcies from happening, and thereby inhibits the restoration of the rate of profit. Lender-of-last-resort intervention is even less successful in the long run than Minsky thought.

Therefore, we can see from this Marxian perspective that bankruptcies in depressions are a necessary element of the adjustment process (i.e are "functional") for two reasons:

1. Bankruptcies partially eliminate debt, which restores financial stability, as emphasized in Minsky's theory; and
2. Bankruptcies devalue capital, which restores the rate of profit, as emphasized in Marx's theory.

The two theories combined imply that Central Bank intervention as lender of last resort, although it can stop a spreading financial crisis and spreading bankruptcies, precisely because it stops the bankruptcies, it inhibits the adjustments that are necessary in order to restore the rate of profit and to restore financial stability, which would make possible another extended period of growth and prosperity.

**Longer-run effects**

Although government intervention policies do not directly increase the "full employment rate of profit" in the short-run, they may do so indirectly in the long-run in the following way: the government intervention policies would presumably stabilize the economy and "put a floor under profit," as discussed above. The economy could then remain in such a state of "contained crisis" or stagnation for many years, perhaps even decades, with slower growth and higher unemployment. The higher unemployment would put continual downward pressure on wages. In addition, inflation might also increase, as another way for firms to restore their rate of profit, especially if the expansionary fiscal policy is accompanied by expansionary monetary policy. The net result would be constant or declining real wages, so that any increase in productivity during these years would increase the "full employment rate of surplus-value" and thereby also increasing the "full employment rate of profit."

Something like this seems to have happened in the past several decades in the US economy. Government intervention policies have prevented a major depression from happening and have "put a floor under the economy," but they have also resulted in a long period of "stagnation." Three decades of slower growth and higher unemployment have resulted in little or no increase in real wages.
over this entire period, while productivity increases have been continual, first at slow rates through the mid-1990s, and then at faster rates since then. This combination has produced a very significant increase in the rate of surplus-value over this period (it has roughly doubled from approximately 1.5 to approximately 3.0).

Indeed, the rate of surplus-value has increased so much over these decades that as of today (2007), the rate of profit seems to have almost fully recovered from its decline and restored to its early postwar levels. (I refer here to the “conventional rate of profit” on the total capital invested, including unproductive capital, which declined approximately 50 percent from the early postwar period to the mid-1970s). Therefore, although the government intervention policies of this period did not directly increase the “full employment rate of profit” in the short-run, these policies were successful in stabilizing the economy at slower rates of growth and higher rates of unemployment than normal, which provided the conditions for a slow increase of the rate of surplus-value over many years, which eventually restored the “full employment rate of profit.”

This almost complete recovery of the “full employment rate of profit,” without a serious depression and devaluation of capital, might seem to contradict Marx’s theory of the falling rate of profit. It is certainly not what Marx expected, but it can be explained on the basis of Marx’s theory. Even though the decline of the rate of profit was not caused by a decline in the rate of surplus-value, but instead was caused by increases in the composition of capital and unproductive labor, 30 years of stagnant real wages and increasing rate of surplus-value have finally been enough to offset these causes of the prior decline of the rate of profit. Therefore, 30 years of stagnant real wages appears to be a viable alternative to bankruptcies and deep depression as a means of restoring the rate of profit, at least in this case. But it takes a long time (as of ten years ago, the rate of profit was still approximately 25 percent below its early postwar peak).

Marx’s theory provides an explanation of why the stabilization of the rate of profit has taken so long—because the rate of surplus-value had to overcome these prior and continuing increases in the composition of capital and unproductive labor. At the very least, the decline of the rate of profit and its slow recovery can be explained much better by Marx’s theory than by Minsky’s theory, which provides no explanation at all of these all-important trends.

Conclusion

I agree with Crotty’s conclusion that both Marx’s theory and Minsky’s theory have important roles to play in developing a comprehensive radical theory of capitalist crises. The main role of Marx’s theory is to provide a theory of profit in the real sector, and a theory of the tendency of the rate of profit to fall, as the main cause of crises in the real sector. The main role of Minsky’s theory is to provide a theory of the tendency toward financial fragility in the financial sector, as an additional cause of instability in capitalist economies. Such a combination of Marx’s theory and Minsky’s theory would provide a comprehensive theory of crises and instability in capitalist economies, as due to internal causes, which is much superior to mainstream theories, which generally assume that capitalism is inherently stable, and that crises and instability are caused only by external, accidental causes.

Minsky’s theory of financial fragility seems to be especially relevant to the current situation in the US economy. The Marxian problem of the falling rate of profit seems to have been more or less solved by the past 30 years of stagnant real wages and increasing rate of surplus-value. So the crucial question for the present is whether the Minskyan problem of financial fragility has also been solved, or perhaps has gotten worse. A thorough examination of this crucial question would seem to be a top priority for future research.

Notes

1 Lavoie and Secareccia (2001) point out that Kalecki’s theory of profit, which Minsky seems to accept, contradicts Minsky’s theory of increasing financial fragility during an expansion. Even if individual firms increase their debt in order to increase investment, the increased investment results on the macroeconomic level in an equivalent increase of profit, and thus there is no increase in the aggregate debt/profit ratio. Lavoie and Secareccia conclude from this contradiction that Minsky’s theory of financial fragility should be rejected. I conclude, to the contrary, that Minsky’s (i.e. Kalecki’s) theory of profit should be rejected.

2 It should also be noted that Marx’s theory of the falling rate of profit in Part 3 of Volume 3 of Capital is at a high level of abstraction; in particular, it is in terms of productive capital and productive labor only. Unproductive labor—labor employed in circulation and supervisory activities, which although entirely necessary in capitalist economies and which allow individual firms to collect profit, nonetheless (according to Marx’s theory) produce no additional value for the economy as a whole—is abstracted from. I, and others, have extended Marx’s theory to the “conventional” rate of profit on the total capital invested, which also includes unproductive capital invested in unproductive activities. The main new point in this extension of Marx’s theory is that the conventional rate of profit depends, not only on the composition of capital and the rate of surplus-value (as in Marx’s theory of the falling rate of profit), but also depends on the ratio of the wages of unproductive labor to the wages of productive labor (inversely), which in turn depends primarily on the ratio of unproductive labor to productive labor (directly). If these ratios increase, then a greater share of the total surplus-value that is produced by productive labor must be used to pay the wages of unproductive labor and a smaller share is left over as the profit of capitalists, so that the conventional rate of profit declines. In this case, a restoration of the conventional rate of profit would require, not only an increase in the rate of surplus-value and a decrease in the composition of capital, but also a reduction in the ratio of unproductive labor to productive labor.

3 The Marxian theory of the “conventional rate of profit” (on the total capital invested, including unproductive capital, discussed above in footnote 2) suggests in addition that the “conventional rate of profit” could be increased by a reduction in the ratio of unproductive labor to productive capital. Expansionary fiscal policy does not accomplish this necessary adjustment either.

4 The long period of stagnation of real wages has also been caused by "globalization," the essence of which is to move production to low-wage areas of the world, and also by the entry of China and India into the capitalist world economy, with their huge labor forces. The combined effect of these two changes has been to roughly double the labor
force of the capitalist world, and thus to greatly increase the global "reserve army," which has exerted (and continues to exert) strong downward pressure on wages in the US and other advanced countries.

References


