Iğd Üniv Sos Bil Der / Igd Univ Jour Soc Sci
Sayı / No. 14, Nisan / April 2018: 441-455
Araştırma Makalesi / Research Article

Contraction of Circulating Debt: A Comparison of the Marx's and Minsky's Crisis Theories

DİCLE OZDEMİR *

ABSTRACT

Marx states that credit money is the form of capital and the circulation and creation of credit money enables the expanded reproduction of capital at a given rate under preconditions. Tendency of the rate of profit to fall leads to a devaluation of the value of capital which creates significant problem for credit system of a capitalist economy because of the continuity of the devaluation of capital through bankruptcies. In this sense, this part of Marx's crisis theory is not that far from Minsky's. According to Minsky, if optimism is high and too much funds are available for investment, investors try to make profits from the safe hedge to the risky speculative and Ponzi units. The purpose of this study is to explain how increased fund demand for borrowing to meet payment commitments lead to crisis conditions can be understood within the context of these two approaches.

Keywords : Financial Crisis, Fragility, Credit, Business Cycles
JEL Classification: E11, E22, E32

* Dr. Öğr. Üyesi. Mugla Sitki Kocman Universitesi, IIBF, Iktisat Politikasi ABD. e-posta: dicleozdemir@mu.edu.tr

Döngüsel Borcun Daralması: Marx ve Minsky Kriz Teorilerinin Bir Karşılaştırması

ÖZ

Marx'a göre kredi, sermaye yaratmanın bir biçimini oluşturur ve belli şartlar altında sermayenin yeniden üretimine katkıda bulunur. Kar oranının düşme eğilimi, sermayenin değerinde devalüasyona neden olurken, söz konusu devalüasyon sürecinin iflaslara sebep olması nedeni ile kapitalist ekonomideki kredi sisteminde büyük sorunlara yol açar. Bu bağlamda, Marx'ın kriz teorisi Minsky'nin görüşlerinden uzak değildir. Minsky'e göre iyimserliğin yüksek olduğu ve yatırımlar kaynak bulmakta güçlük çekilmiyorsa, yatırımcılar güvenli hedge pozisyonlardan riskli ve spekülatif yatırımlara yöneleceklerdir. Bu çalışmada amaç, ilerde oluşabilecek ödeme yükümlülüklerini karşılayabilmek için artan kaynak talebinin nasıl kriz koşulları yaratabileceğini söz konusu iki yaklaşım altında açıklamaktır.

Anahtar Kelimeler: Finansal Kriz, Kırılganlık, Kredi, İş Döngüleri

JEL Sınıflandırması: E11, E22, E32

Introduction

Crisis as rapid string of selloffs can further result in lower asset prices which affect the solvency of a large number of financial institutions and their ability to meet their commitments to their depositors. According to Marx, capitalist economic crises are the contradictions inherent in the capitalist system; that is crises of overproduction of commodities. While crises represent a breakdown in accumulation process, Marx did not assert an argument that is primarily attributable to the interpretation of crisis, however; capital accumulation process itself creates cyclical overproduction. Marx's most famous statement on overproduction as the fundamental cause of crisis as follows, "*The ultimate reason for all real crises is the restricted consumption of the masses, in the face of the drive of capitalist production to develop the productive forces as if only the absolute consumption capacity set a limit to them*" (Marx, 1981, vol.III, p.615). When this inevitably leads, all things being equal, to a declining rate of profit, default occurs first and bankruptcy second until the phase in which the economy as a whole is in decline. At the end, this can lead to production to pick up again with a recovery phase of prosperity, and eventually, the economy enters a next crisis.

In Marx's analysis a credit crisis is laid bare by the breakdown the reliance on debt to finance the investment projects. In the crisis, a credit crunch tends to occur and this lead to bankruptcy of many profitable situations and then a panic. The cyclical analysis of crisis takes places with the conflict between financial and industrial form of capital. On the other hand, the theoretical framework behind the Minsky's financial instability hypothesis is to investigate the role of finance in economic and financial instability and crisis under capitalism. For Minsky, like Marx, capitalism is intrinsically cyclical (Howard, 2008). In the Minsky model, cycle is generated entirely by the interaction between finance and investment, and the resulting cycle in investment eventually causes a new cycle in aggregate demand and output. As the economy moves out of recession, a wave of cautious optimism hits economy and then to enthusiasm of

financial sectors, reflecting the pessimism of financial institutions on the part of borrowers. Then speculative finance takes over, which allows projects to be undertaken in which future cash flows are not expected to meet debts. Feedback effects from rising interest rates at the peak of the cycle, Ponzi finance makes its first appearance payments on debt are met by increasing the debt outstanding. Once that kind of economy had developed, panic behavior can be regarded as a new source of bank runs and the financial system with defaults and bankruptcies, which leads to increasingly vulnerable to a major shock like a collapse in real estate prices (Howard, 2008).

In this paper, we will focus on comparing and contrasting Marx's theory of crisis and Minsky's approach to financial crises to explain how increased fund demand for borrowing to meet payment commitments lead to crisis conditions can be understood within the context of these two approaches. The remainder of the paper is organized as follows. Section two reviews the concept of crises both in Marx's and Minsky's perspectives. Section three analyze and compare the theories of Marx and Minsky to explain the main determinants of crisis. Section four gives the conclusion.

I. The Importance of Crises:

The theory of crisis is evolving to explain how crises develop and evaluate the likely outcomes of the possible interventions. A comprehensive analysis and explanation of theoretical approaches was provided by Shaikh in 1978 (Shaikh, 1978). A significant part of the crisis theories is represented by economists who draw inspiration from Marx's explanation of contradictory nature of capitalism and Minsky's theory of financial fragility focuses on the financial sector of the economy. The law of capitalist production is central to the Marxian crisis theory and the functioning of the capitalist system cannot guarantee the crumbs that are thrown to the labor force (Easterling, 2003). In other words, crises are due to overproduction of the workers who would be the determiners of both demand and supply. As Crotty argues, "*Marx shows that an economic system organized through commodity exchange is anarchic: it is structurally vulnerable*

to disequilibrium and crisis" (Crotty, 1985, p. 75). As Dos Santos pointed out, Marx put crises in motion competitive struggles between capitalists. (Dos Santos, 2009). It is important to note that Minsky's theory of financial crises places finance at the hearth of the overall fragility theory. Since today's financial world is defined as a complex system bearing more risk and uncertainty, incoherence between payment commitments and growth of debt/shortfall of profits is at the center of Minsky's analysis. For Minsky, unlike Marx's scenario, first investments decline, then profits. That is, as Crotty makes it clear, a decline of investment can never be initiated by a decline of profit; instead, an initial decline of investment leads to a decline in the rate of profit (Crotty, 1985). However, according to Marx, once a decline in profits occurs, financial environment becomes fragile with an accompanying decline in investments. Consequently, Marxists tend to see financial crises as a result from a sudden cutoff of funds (Wolfson, 1979). From this point of view, we can now state liquidation of credits plays a major role in both theories. This is why Crotty states that Minsky's financial fragility theory should be supplemented with Marx's theory of crises in the real sector (Crotty, 1985).

Marx's theory of crisis, arising out of the consequences of value relations, mostly framed as a "Law of Tendency for the Rate of Profit to Fall", which is concerned with explaining the business cycle, recessions and crises in the capitalist system. Nevertheless, the statements of Marx for the role of monetary and financial phenomena on crises can be found in chapter 17 of "Theories of Surplus Value" (Marx, 1968). According to Marx, "*The world trade crises must be regarded as the real concentration and forcible adjustment of all the contradictions of bourgeois economy*" (Marx, 1968, p.510). In other words, "the tendency of the rate of profit to fall" states that the inability to extract enough surplus value lead to crises. For instance, a rise in the "*organic composition of capital*" lead to a fall in the rate of profit, which also leads to decrease in capital accumulation can be seen in the booms of 1920s and 1990s.

While Marx sees the main reason of crisis as overproduction-to get much profit, the root of problem is to produce without concern as to who might consume. At this point, it can be easily understood why Marx has several problems with Say's law, which means that there is always a demand for supply. Marx rejection of Say's law indicates it is not necessary that aggregate demand is always equal to aggregate supply. In a barter economy, where money does not exist and production is primarily for consumption, Say's law holds good; however, in a capitalist system, the ability of money to act as a store value is more important than its function as a means of circulation. What this in fact implies is that, for Marx, an insufficient level of aggregate demand, is the ultimate reason for all crises. Furthermore, if the money holders' propensity to hoard rises, this gives rise to overproduction crises. As we mentioned before, overproduction leads to a general crisis in the rest of economy and due to selling at a loss, the industries suffer and begin to purchase less constant and variable capital (Easterling, 2003). The natural result of this process would be "the chain of payment obligations due at specific dates is broken in a hundred places" (Marx, 1981, vol.III). This can be meant that the value of a commodity is independent in the form of money. The same basic point is made by Marx also as follows, "*It can therefore be said that the crisis in its first form is the metamorphosis of the commodity itself, the falling asunder of purchase and sale…The crisis in its second form is the function of money as a means of payment, in which money has two different functions and figures in two different phases, divided from each other in time*" (Marx, 1968, p.510). So, in the context of crises, the rate of profit to fall lead to a devaluation of the value of capital which creates significant problem for credit system of a capitalist economy because of the continuity of the devaluation of capital through bankruptcies. At this point, in the short run, while credit system can open a way to invest more capital than accumulated surplus value's capacity; in the long run, this expanded output, made by credit expansion, causes a credit or banking crisis.

A similar observation can be made with respect to Minsky's

"financial instability-fragility" hypothesis (Minsky, 1992). For Minsky, debt financing is the corner stone of capitalist production. Foley explains Minsky's hypothesis as follows, "*Minsky's thesis was that in periods of robust capitalist growth, financial institutions became more and more willing to make unsecured loans. This willingness increased the availability of finance, which encouraged further growth in business and household spending, but also increased the vulnerability of the financial system to an implosion if there was a faltering in the willingness of the financial institutions to expand unsecured borrowing*" (Foley, 2009, p.198). As highlighted by Wray, the financial instability hypothesis proposes that, as a result of changes in cash-flow, if interconnections end up with vulnerabilities, the normal functioning of the economy is transformed into a speculative phase (Wray, 2002). Minsky mostly focused on financial institutions and decisions for investing to physical capital, which an increase in these investments are initiated by financially robust environments, that is, a period of low interest rates in which non-financial corporate firms are in liquid positions with not much accumulated debt. Moreover, Minsky states that, "*…cash flows are a legacy of past contracts in which money today was exchanged for money in the future. In addition, we see deals being made in which commitments to pay cash in the future are exchanged for cash today.*"(Minsky, 1982, p.63). In other words, the borrower makes a promise to pay back the money in the future and the creditor receives more money through the interest. This is why the ratio between riskless cash flow and the risky cash flow is subject to liability structure of economic units.

II. The Financial Fragility Theory versus the Marx's Crisis Theory: Credit as Capital

According to the Marx, accumulation of capital plays the main role, and the financial sector plays the subordinate role in emergence of crisis (Marx, 1977). In Capital Vol. 1, Marx introduces his general formula of capital, M—C—M', which describes the transaction of money into commodities. The circula-

tion must involve capacity to create and mobilize money as capital and reproduction of surplus-money, the ultimate economic determinant of the accumulation process in a capitalist economy. With the reproduction of capital and its accumulation process, money, bearing interest, produces more money and reaches its fetishized state in M (Money)-M′(More Money), according to the definition of finance capital given by Marx.

Marx states that credit money builds the most adequate form of money as capital; moreover, money is created and enters the economy under preconditions which make possible the expanded reproduction of capital at a given rate. The evolution of the contracts and credit system implies the establishment of interest-bearing capital involves the redistribution of surplus value. According to Marx, capitalist appears as a buyer and advance money to purchase commodity (C), means of production and labor power, uses the commodity in the process of production (P), to produce different commodities of greater value; leading to the emergence of finished commodities, C′ which are sold in market for a higher amount of money to generate profit, (M'): M − C...P...C'−M. In a growing capitalist economy, capitalist will only advance money if he expects the process to be profitable sufficient to cover credit costs. Otherwise, he will not commence it. In this respect, as money advances by the capitalist class, profit depends ultimately on credit costs related to producing the money commodity or expected profits (Marx, 1977).

While the circuit of capital can be broken down into three stages, a possible interruption in these stages leads to the possibility of the breakdown of the system. As Bell&Cleaver mentioned, according to Marx, the most important measures of crisis is profit and so credit worthiness and this is why credit is seen as the main mechanism for capitalists attempting to overcome the barriers to reproduction through the exchange of commodities; moreover, the credit system tends to intensify and worsen crisis conditions since as crisis worsens, a massive increase in risk aversion leads risk-corrected present values to rise in the long term (Bell and Cleaver, 2002).

In this sense, this part of Marx's crisis theory is not that far from Minsky's. However, in contrast to Marx, Minsky's financial fragility hypothesis pay attention only to the monetary side of crisis rather than accumulation of capital and the relation between real capital and financial capital due to the financial sector's main role after the 1980s. Minsky defines money as a bond, not neutral buy its design. In Minsky's words, "*Bank money arises in financial activity, and the money creating process includes commitments to make payments that will destroy money*" (Minsky, 1982, p.13). In Minsky's view, money creation and destruction is the outcome of the financial system's balance sheet, the structure of assets, liabilities of the banking sector and the expectations of the savers, lenders and borrowers on the state of commercial circulation. In his model, in a capitalist economy, finance is needed to produce current output and banks, strictly defined, are the providers of short-term finance; but in the long term, debt financing is provided by intermediaries, or directly by savers, through convertible money instruments (Wray, 2002).

Table 1. Minsky's Stages of Finance

	HEDGE	**SPECULATIVE**	**PONZI**
FIRM	Firm's expected income is enough to pay interest payments and principal- cover financial obligations out of current receipts	Firm's expected income is enough to pay interest, but principal must be rolled over- occasional cash shortfalls in the near term	Firm's expected income is not enough to pay interest or principal, so the firm must borrow to pay interest- can meet neither current nor medium term obligations except by continuously increasing their debt
NATION	Nation's current account surpluses are enough to meet financial obligations	Nation's accumulated and borrowed foreign reserves together are enough to meet financial obligations	The only way the nation can meet its debt commitments is by borrowing foreign reserves

The most important side of Minsky's model is the distinction he introduced between three modes of finance: hedged, speculative and Ponzi, which financing firms may choose, according to their tolerance of risk (Bell and Cleaver, 2002). For hedge finance, a borrower possesses sufficient cash flow for debt service in both principal repayment and interest payment; therefore, income flows are expected to meet financial obligations in every period. Speculative financing occurs when firms roll over debt in order to commit to principal repayment. For Ponzi finance, debtor doesn't have enough cash *flow* to *cover* either the principal or the *interest*, so the firm must borrow more or sell off assets to honour his debt commitments. Here, the critical point is that there is a hope that the market value of assets or income will raise enough to pay off interest and principal. As it can be seen from the Table 1, Minsky provides a framework for distinguishing between stabilizing and destabilizing debt structures.

According to Minsky, especially during boom periods, "*households will become more willing to use more debt to own shares, bankers will be more willing to finance such 'margin' purchase of shares*" (Minsky, 1975, p.112). Marx has similar discussions of credit cycles with Minsky on increasing financial fragility during boom periods as credit and the growth of fictitious capital spur labor force and then speculators. Marx pointed out fixed capital is withdrawn from circulation, and its price is determined from complex financial products such as derivatives, credit default swaps rather than technological innovations and competition. In other words, Marx assumption as commodities realize themselves as use-values before realizing their price is not different from Minsky's well-known threefold taxonomy of hedge, speculative and Ponzi, which describes the liquidity and solvency of an economy.

III. Minsky's Dynamic Theory of Monetary Non-neutrality:

Minsky developed the "financial instability hypothesis" to describe the possibility of a credit crunch as the expansion phase of the business cycle comes to an end. The instability of the capitalist economy is, for Minsky, as for Keynes, systemic, and

this is why instability and financial crises are inherent features of a modem capitalist economy. While the economy naturally moves to a more fragile system, interest rates will eventually rise under this kind of circumstances (Lavoie, 1986). Minsky argues that business cycles cannot be eliminated and, at this point, only macroeconomic stabilization policies would be able to speed up the recovery in case of recession. The main stages of the business cycle by Minsky is suggested in detail by Tymoigne (2006) as follows (p.7):

Stage I→*Crisis*→ "*A sharp change occurs when position making by refinancing breaks down*"

Stage II→*Debt-Deflation*→ "*Liquidation of assets and repayment of debts are the first priorities of economic units." wealth and collateral decrease*"

Stage III→*Stagnation*→ "*Economic units are traumatized*"

Stage IV→*Recovery*→ "*Strong memory of the penalty" induced by past behaviors. Liability structures are "purged of debt*."

Stage V→*Expansion*→ "*Over time the memory of the past disaster is eroded; the leverage is a convenient way to increase profit. The expansion will, at an accelerating rate, feed into a boom*."

Stage VI→*Boom*→ "*The economy is close to full employment level. The leverage is not risky and provides automatically great profits*."

Minsky mostly focused on financial institutions and decisions for investing to physical capital, which an increase in these investments are initiated by financially robust environments and provides a framework for distinguishing between

stabilizing and destabilizing debt structures. According to Minsky, especially during the boom periods, "as *households become more willing to use more debt to own shares, bankers will be more willing to finance such 'margin' purchase of shares*" (Minsky, 1975). Moreover, if no new money comes into the economy to allow the refinancing process, a real economic crisis begins, similar to Marx as he already pointed out in his Capital. So, Marx has similar discussions of credit cycles with Minsky on increasing financial fragility during boom periods as credit and the growth of fictitious capital spur labor force and then speculators (Marx 1981: 619-625, 634-645)

It can be easily realized that Marx pointed out fixed capital is withdrawn from circulation, and its price is determined from complex financial products such as derivatives, credit default swaps rather than technological innovations and competition. In other words, Marx quota as "*realising the price of the commodity … before the commodity is handed over*" is not different from Minsky's well-known threefold taxonomy of hedge, speculative and Ponzi, which describes the liquidity and solvency of an economy.

Conclusion

In Marx's analysis of the money-form within the simple commodity framework, with the growth of banking system and financial sector, we can see the consequences and contradictions of the financial system in the context of capitalist system in a more developed form. Moreover, Marx has a descriptive definition for financially-driven periodic crises. His analysis draws a cyclical perspective with the interaction of the rate of interest with the rate of economic growth. According to Marx, the main reason that leads to recession period is the accumulation of private debt. This aspect of Marx is therefore compatible with Minsky, pioneered the idea of the financial instability hypothesis with an inherent tendency to financial vulnerability that leads inability of financial sector to debt-finance investment to be biased towards overall financial sector fragilities. Moreover, Marx and Minsky both argued that the cyclical crises are the inherent nature and the result of normal function of capitalist

economy. While at the beginning of the booms the worth of the firms begin to rise, at the top of the expansions, debt rate begin to shift gradually from hedge to speculative. At his point, because the value of expected capitalized profits begins to decline, Ponzi positions begin to take place which, at the end, lead to bankruptcies and financial collapses. With this explanation of the modern financial system, Minsky's theory of financial instability gives sufficient answers to explain how Marx's loanable money can lead to huge profits for the financial sector that will eventually result in economic crisis similar to global financial crisis struck in 2007.

REFERENCES

Bell, P. and Cleaver, H. (2002). Marx's Theory of Crisis as a Theory of Class Struggle, *The Commoner*, *5*, 1-61.

Crotty, J. (1985). The Centrality of Money, Credit, and Financial Intermediation in Marx's Crisis Theory: An Interpretation of Marx's Methodology. In *Rethinking Marxism, S. Resnick and R. Wolff (eds.).* pp. 45-81. New York: Autonomedia

Dos Santos, P. L. (2009). At the Heart of the Matter: Household Debt in Contemporary Banking and the International Crisis. *Ekonomiaz. Revista vasca de Economía, Gobierno Vasco / Eusko Jaurlaritza / Basque Government*, 72(03), pages 54-79.

Easterling, S. (2003). Marx's theory of economic crisis. *International Socialist Review*, (32), p. 14.

Foley, D. K. (2009). *The Anatomy of Financial and Economic Crisis*. http://blog.santafe.edu/wpcontent/uploads/2009/05/anatfineconcrisesrev4.pdf

Howard, M.C. and King, J.E. (2008). Reflections on the Long Australian Boom. *Journal of Australian Political Economy*, No. 61.

Kregel, J. and Burlamaqui, L. (2006). Banking and the Financing of Development: A Schumpeterian and Minskyian perspective (with Leonardo Burlamaqui), in *Reimagining Growth – Towards a Renewal of Development Theory*, Silvana de Paula and Gary A. Dimsky, eds., London and New York: Zed Books, 2005, pp. 141-167.

Lavoie, M. (1986). Systematic Financial Fragility, *Journal of Post Keynesian Economics*, 9(2).

Lavoie M. and Seccareccia M. (2001). Minsky's financial fragility hypothesis: a missing macroeconomic link?, in *Financial Fragility and Investment in the Capitalist Economy: the Economic Legacy of Hyman Minsky*, R. Bellofiore and P. Ferri (eds.), Vol. II, Cheltenham: Edward Elgar, pp. 76-96.

Marx, K. (1968). *Theories of Surplus-Value, Part II*. Moscow: Progress Publishers.

Marx, K. (1977). *Capital: A critique of Political Economy*. Vol. I. New York: Vintage.

Marx, K. (1981). *Capital: A critique of Political Economy*. Vol. III. New York: Vintage.

Minsky, H. (1975). *John Maynard Keynes*. New York: Columbia University Press.

Minsky, H. (1982). The Financial Instability Hypothesis: A Restatement. In Ca*n It Happen Again? Essays on Instability and Finance. Armonk*, N.Y.: M. E. Sharpe, 90-116.

Minsky, H. (1992). The Financial Instability Hypothesis: Capitalist Process and the Behavior of the Economy. In *Financial Crises: Theory, History and Policy*, Ed.: Charles Kindleberger, Jean Pierre Laffargue, Cambridge: Cambridge University Press, 13-39.

Wolfson, M. (1979). Three Stages in Marx's Thought, *History of Political Economy*, March; 11 (1), 117–146.

Shaikh, A. (1978). An Introduction to the History of Crisis Theories, in: *U.S. Capitalism in Crisis*, New York, pp. 219-241.

Tymoigne, E. (2006). *The Minskyan System, Part II: Dynamics of the Minskyan Analysis and the Financial Fragility Hypothe-*

sis, The Levy Economics Institute Working Paper Collection. Working Paper No. 453

Wray, L. R. (2002). The Economic Legacy of Hyman Minsky, Volume 2: Financial Fragility and Investment in the Capitalist Economy, *Journal of Economic Literature,* vol. 40, no. 4, 1231-1233.