

Chapter Five

MARX'S THEORY OF CRISES: THE ANSWER TO SAY'S LAW

The general theory of capitalist breakdown, which proceeds from the law of value to overaccumulation, is only the first element in the Marxian theory of breakdown. It merely demonstrates that at a certain point the accumulation process reaches a limit. The next element in the theory of breakdown, the theory of cycles, is much less fully worked out in Marx. But since the business cycle is the specific form of capitalist development, the breakdown theory must be, by definition, a theory of cycles. It must explain the typically wavelike movement of the accumulation process and the necessary stagnation of this movement.

A theory of business cycles must be contained in a theoretical model. Most business cycle phenomena are far more complicated than the simple relations which appear in theoretical models, but the accidental, historical, secondary causes and effects must be eliminated so that the purely logical relations stand out. The correct procedure to this end is to start, as a first approximation, with a simple theoretical model, which can be supplemented by realistic detail in the successive stages of the analysis.

The elements of such a cycle model are all contained in Marx. But the theory of cycles is nowhere systematically presented. The problem is to reconstruct the theory of cycles from scattered passages in Marx and to embody this theory of cycles in the theory of breakdown.

Most of the discussion in the lengthy controversy on Marxian cycle and breakdown theory is characterized by two important sources of error: (1) a confusion between everpresent "contradictions of capitalism," and the specific, determinable, cause of cycles; (2) a confusion between the cycle as an inherent form of capitalist development, and the crisis which is but one phase of the cycle.

The first problem will be considered in more detail in our discussion of the underconsumption theory of cycles and breakdown. Here we simply observe that the mere assertion of everpresent contradictions is no demonstration of the necessary recurrence or periodicity of the cycle.

In this chapter we discuss the second problem, which, although logically subordinate to the first problem, must be considered first for the following reason: the confusion between the cause of cycles and the form of crises is in large part responsible for the multiplicity of the incorrect theories of cycles and breakdown ascribed to Marx. The particular form of the crisis is a question which logically should be considered only after the full development of a theory of cycles. But it is necessary to deal with Marx's discussion of crises first in order to clear up the confusion created by interpreters of Marx.

I. Digression on Say's Law

Of central importance to an understanding of Marx's theory of crises is Marx's critique of the fundamental doctrine of classical

economics known as Say's Law of Markets. Marx's denunciation of this doctrine is so strong that the impression prevails to this day that Marx allied himself with the underconsumptionist critics of Say's Law. Nothing is further from the truth. Marx attacks the doctrine, not because its conclusions do not follow from its premises, but because its premises conceal the most important features of the capitalist economy. Because Say's law with all its corollaries and implications summarizes the essential doctrines of the classical system, to which the Marxian system is fundamentally opposed, its history and meaning must be recounted. Thus, at this point, prior to an analysis of Marx's discussion of crises, we interrupt the main argument with a digression on Say's Law.

The fundamental conclusions of Say's Law are that (1) since commodities exchange against commodities, with money acting only as a medium of exchange, the price level is immaterial; (2) although misdirected production may give rise to "partial gluts", or overproduction of some commodities, a "general glut", or state of general overproduction, is impossible. From these conclusions it follows that there can be no endogenously induced crises. Economic stagnation is theoretically possible, even while Say's Law is fulfilled, as in the theory of Ricardo, only on the basis of additional postulates, such as those relating to the growth of population and the physical productivity of land. By itself, however, Say's Law implies unlimited development of an inherently adaptive economy. Moreover, it can be applied equally well to a

stationary or an accumulating economy.

A. The Development of the Law

The history of the law is well known, yet its parenthood is still disputed. While it bears Say's name, and is attributed to Say by Ricardo, it is more generally attributed to James Mill, who expounds the doctrine in Commerce Defended (1808), which appeared between the first edition of Say's Traité d'économie politique (1803), where the doctrine is barely outlined, and the second edition (1814), where it is more fully developed.¹ However, several observations in the four-page chapter, "Des débouchés," and in other chapters of Say's first edition of the Traité, really establish priority to Say.²

1. J. B. Say

The essentials of the doctrine appear in Say's observation that products are bought with products and that money is merely an instrument of exchange. This shows, he says, that "it is by no means an abundance of money which makes for easy markets, but an abundance of other products in general. . . . Money fills only a temporary office in this double exchange. The exchange terminated, it is found that one has paid for products with products."

In consequence, when a nation has too many products of one kind, the means of selling them is to create another kind.³

1. This is the view expressed by Jacob Hollander, after careful examination of the works of Say and Mill and of their correspondence, in his Introduction to Ricardo's Notes on Malthus, ed. Jacob W. Hollander and T. E. Gregory (Baltimore, 1928), lxxix-lxxxv.

2. This is the view taken by Joseph J. Spengler in "The Physiocrats and Say's Law of Markets," II, Journal of Political Economy, Vol. LIII, No. 4 (December 1945), 341-2.

3. Traité d'économie politique (Paris, 1803), I, 163-4.

In another chapter Say observes,

In order to consume, it is necessary to purchase; but one can purchase only with what one has produced. Is not the quantity of products demanded thus determined by the quantity of products created? Without any doubt. Each can consume as much as he likes of what he has produced; or with his product in buying another. The demand of products in general is thus equal to the sum of the products.⁴

The fundamental theorems of the law are thus contained in Say's first edition: (1) products are bought with products -- money is only a veil; (2) supply elicits its own demand -- consumption equals production.

In its bare theorems, Say's Law is a reformulation of the Physiocratic doctrine of the circular flow. In the Physiocratic system, income, production, consumption, costs, and revenues are all interrelated through a network of exchange relations which maintain the social aggregates in equilibrium. Yet within the Physiocratic system, with its concern for the maintenance of consumption (of agricultural products) and for the level of economic activity, are everpresent possibilities of disequilibrium and stagnation, which result from excess savings and interruption of the income stream.

Say's Law, while an outgrowth of the Physiocratic system, is, at the same time, directed against the conception central to the latter, that consumption is the primary activity in economic life. The rationale for this opposition is provided by Adam Smith's concept of "parsimony", which, like the identical doctrine

4. Ibid., II, 175-6.

of Target, asserts that the sole purpose of saving is immediate investment. Thus, saving is not a deduction from consumption, since in Smith's words,

What is annually saved is as regularly consumed as what is annually spent, and nearly in the same time too; but it is consumed by a different set of people.⁵

Rather than being a limit to consumption, saving involves a transfer of unproductive to productive consumption, and, thus, the expansion of both production and consumption.

The influence of the doctrine of parsimony appears in Mill's and Ricardo's version of Say's Law. Here Say's Law becomes a doctrine which not only denies the possibility of general overproduction of commodities, but also denies explicitly the possibility of overproduction of capital.

2. James Mill

Mill's formulation of Say's Law, in Commerce Defended is an answer to Lord Lauderdale's assertion that

. . . there must be, at all times, a point determined by the existing state of knowledge in the art of supplanting and performing labor with capital, beyond which capital cannot profitably be increased,⁶

Mill's immediate purpose, however, is to answer the Physiocratic anti-saving, anti-trade doctrines of William Spence.⁷

5. Wealth of Nations, 321.

6. James Maitland, Earl of Lauderdale, An Inquiry into the Nature and Origin of Public Wealth and into the Means and Causes of its Increase (Edinburgh, 1804), 228.

7. William Spence, Britain Independent of Commerce (London, 1807). Spence attempts to prove, as the title of his tract implies, that

In his formulation of Say's Law, Mill, unlike Say, opposes consumption to saving (or investment), in asserting that

the annual produce of every country is always divided into two parts, that which is destined for mere consumption, and that which is destined for the business of reproduction.⁸

But consumption and investment are not competitive, since "whatever is applied to augment the annual produce of the country, by consequence augments its annual consumption."⁹ Thus, "the augmentation of capital is of extraordinary importance to every community. . . ." ¹⁰ General overproduction is impossible because

the demand of a nation is always equal to the produce of a nation. . . . The extent of its demand, therefore, and the extent of its supply are always exactly commensurate.¹¹

In postulating the possibility of an unlimited accumulation of capital, Mill like Say ignores the problems of whether total revenue equals total cost at all levels of output, and whether the rate of profit imposes any limits to capital accumulation.¹² These

trade is not only unnecessary, as evidenced by the British experience with Napoleon's "continental system", but is actually harmful, because of the competition of foreign goods.

8. Commerce Defended (London, 1808), 73.

9. Ibid., 79.

10. Ibid., 86.

11. Ibid., 83.

12. Mill touches upon these problems in his Elements of Political Economy (3rd edition, London, 1826). He asserts that "There can never be a superabundant supply in particular instances, and hence

problems are included within the framework of Say's Law only in the celebrated controversy between Ricardo and Malthus.

3. Ricardo

As developed by Ricardo, Say's Law is the culmination of a complete system of political economy. The law was to be reduced to a mere tautology by Say himself, who, when confronted by criticism from Simondi and Malthus, compromised his argument in defining production as only that production for which receipts cover costs. Thus, he wrote:

In fact, one truly produces only when, after all the productive services having been paid, the product is worth its costs of production.¹³

But in Ricardo's hands the law appears in much stronger form, and buttressed by Ricardo's labor theory of value, and by his principles of population and of diminishing returns to land, Say's Law becomes a theory of general equilibrium. Any contradictions between Say's Law and the Ricardian theory of evolution, where the falling rate of profit plays a central role, are explained

a fall in exchangeable value below cost of production, without a corresponding deficiency of supply, and hence a rise in exchangeable value beyond cost of production in other instances" (*ibid.*, 240). Maladjustments tend to be self-correcting since "there are certain kinds of goods which it is less profitable than usual to produce; others which it is more profitable than usual to produce; and this is an inequality which tends immediately to correct itself." (*Ibid.*, 241.) But Mill's statement says nothing about the adequacy of the "usual" rate of profit at different levels of output.

13. Say, Cours complet d'économie politique pratique (2nd ed., Paris, 1830), 348.

by the operation of these principles of population and of diminishing returns to land. And if Ricardo's long run is extended sufficiently to allow for the adaptation of the population and improvements of technology, which raise the rate of profit, the contradictions themselves disappear.

It is in its Ricardian form that Say's Law was to be attacked for different reasons, both by the underconsumptionists (Sismondi, Malthus, and Rodbertus) and by Marx, and to be handed down to later economists for further controversy.

The two fundamental theorems that (1) money is a veil, and (2) there can be no general overproduction, appear explicitly in Ricardo's Principles. Here Ricardo explains that,

No man produces, but with a view to consume or sell, and he never sells, but with an intention to purchase some other commodity, which may be immediately useful to him, or which may contribute to future production. By producing, then, he necessarily becomes either the consumer of his own goods, or the purchaser and consumer of the goods of some other person. . . .

Productions are always bought by production, or by services; money is only the medium by which the exchange

14. The final formulation of the law appears in John Stuart Mill. (Principles of Political Economy, 66-73.) But Say's Law, in John Stuart Mill's version, is considerably weakened by the circularity of Mill's cost of production theory of value. If value is defined with reference to costs of production, total revenue must equal total cost at all levels of output.

In formulating the law elsewhere, J. S. Mill admits that "This argument is evidently founded on the supposition of a state of barter; . . . If however we suppose that money is used, the propositions cease to be exactly true." (Essays on Some Unsettled Questions of Political Economy, 2nd ed., London, 1874, 69.) Mill goes on to discuss the separation of purchase and sale, later to be emphasized so strongly by Marx as a source of crises, and notes the possibility of a strong rise in liquidity preference which may result from "a want of commercial confidence." (Ibid., 74.)

is effected. Too much of a particular commodity may be produced, of which there may be such a glut in the market, as not to repay the capital expended on it; but this cannot be the case with respect to all commodities. . . .¹⁵

Of disproportional production, which creates partial gluts, Ricardo notes, in answer to an objection of Malthus, that

Mistakes may be made, and commodities not suited to the demand may be produced -- of these there may be a glut; they may not sell at their usual price; but then this is owing to the mistake, and not to the want of demand for production.¹⁶

Disproportions will automatically be corrected, as the fall in the price of overproduced commodities implies a fall in profits, and leads to a transfer of capital to industries whose products are in deficient supply, and whose profits are, consequently, above the average.

Since price flexibility and mobility of capital automatically correct "mistakes" in production, it follows that

There cannot, then, be accumulated in a country any amount of capital which cannot be employed productively until wages rise so high in consequence of the rise of necessaries, and so little consequently remains for the profits of stock, that the motive for accumulation ceases.¹⁷

Ricardo's explicit limit to capital accumulation, the adequacy of profits, is not a contradiction of Say's Law, as he defines it. It does indicate, however, that while Say's Law holds at any given level of output, that level itself depends on the rate of profit.

15. Principles of Political Economy and Taxation, 1954:4.

16. Notes on Malthus, 160.

17. Principles, 193.

B. The Critique of the Law

We do not attempt here to give a detailed account of the historical criticism of Say's Law. Most of the objections from Sismondi to Foster and Catchings are based on some form of underconsumption theory, which is logically untenable, and rejected by Marx no less than by the classical proponents of Say's Law. Before proceeding with Marx's critique of Say's Law, we will indicate the main arguments directed against the law by Sismondi and Malthus, whose work forms an essential part of the classical controversy.

Malthus, more than Sismondi, is the central figure in this controversy. In fact, all the arguments on both sides are found in the Ricardo-Malthus debate on accumulation. We deal with Sismondi first, however, because his work slightly antedates that of Malthus.

1. Simonde de Sismondi

Sismondi attacks the classical doctrine that competition inevitably restores equilibrium between production and consumption. For him general gluts are not only possible, but inevitable, in a society where production is for the market, rather than for immediate consumption. Sismondi explains crises by the inadequate purchasing power of the working class. His underconsumption theory is essentially a theory of frictions. His argument can be divided into two parts. One states that when production is for the market, rather than for personal consumption, mistakes in production are unavoidable. These are not corrected,

but lead inevitably to general overproduction, both from the frictions which prevent mobility of labor and capital, and from the fact that with the uneven expansion of industries through technological change (displacement of labor by machinery), purchasing power tends to lag behind output.¹⁸

The second part of the argument concerns only the time lag between production and expenditure which creates a difference between the value of current output and available income. Consumption lags behind production because

It is the revenue of the past year which must pay for the production of this year; it is a predetermined quantity which serves as measure of an indefinite quantity of labor to come.¹⁹

In criticising Ricardo and Say, Sismondi says,

The error into which they have fallen is due entirely to this false principle that in their eyes, annual production is the same thing as the revenue. . . .

With this principle it becomes absolutely impossible to understand or to explain the most obvious fact in all the history of commerce, that is the fact of the glutting of markets.²⁰

Sismondi's further attempt to demonstrate a necessary inequality between the annual revenue and the annual product, and, therefore, an inevitable shortage of purchasing power, rests on two familiar errors. First, he divides the value of the national product into the $C + V + S$ of Marxian terminology, and demands that

18. Jean Charles Leonard Simonde de Sismondi, Nouveaux principes de l'économie politique (Paris, 1819), I, 303-11; 374-381.

19. Ibid., I, 120.

20. Ibid., I, 341.

it be fully consumed by the national income, $V+S$. Thus his assertion that capitalist production necessarily leads to overproduction is based on his neglect of the demand for constant capital. Further, although Sismondi admits that accumulation can result only from saving, he continues to use the assumptions of simple reproduction in his analysis of accumulation.²¹

Sismondi never proves the inevitability of general overproduction as the cause of crises. Nor can the case be proved. Marx refutes the theory that crises are due to insufficient demand. Yet he praises Sismondi for the latter's "deep feeling that capitalist production contradicts itself"; at the same time he criticizes Sismondi's failure to realize that the contradictions of capitalism cannot be solved within capitalist production, where "the relations of distribution are only the relations of production sub alia specie."²²

Sismondi's theory of underconsumption and his stress of the need for continual expansion of markets appears again and again in both bourgeois and Marxist literature. The theory is full of logical contradictions, yet as the first theory of capitalist dynamics, it shows considerable insight into the real operation of the economy.

2. Malthus

Malthus' critique of Say's Law, like that of Sismondi,²³ is a theory of underconsumption, yet it differs from that of Sismondi

21. Ibid., I, 196-211; 119-122; Études sur l'économie politique (Paris, 1837-38), 81-91 note.

22. Theorien über den Mehrwert, III, 55.

23. Marx claims that Malthus simply plagiarizes Sismondi. (Ibid.,

in being clearly based on a theory of value, however confused that theory may be.

Malthus' objections to Say's Law do not strike at the weak point of the doctrine, to the fact that Say's Law cannot hold at all possible levels of output, because of the limits which the fall in the rate of profit impose on capital accumulation. Malthus does, in fact, relate his objections to the rate of profit, but the difficulties with his rate of profit arise only because of his confusion in value theory. From the labor-command theory of value, taken over from Adam Smith, which is really only a numeraire and is reduced to a theory of demand and supply, underconsumption and general gluts appear inevitable.

Malthus objects first to the formula that commodities exchange against commodities. He says,

It is by no means true, as a matter of fact, that commodities are always exchanged for commodities. The great mass of commodities is exchanged directly for labor, either productive or unproductive; and it is quite obvious that this mass of commodities compared with the labor with which it is to be exchanged, may fall in value from a glut just as any one commodity falls in value from an excess of supply, compared either with labor or money.²⁴

What Malthus really means is that since supply exceeds demand, commodities may be sold at prices which do not furnish adequate profits. The reason for the deficiency in purchasing

III, 56, 61.) This seems very much to overstate the case. While it is true that Sismondi's Nouveaux principes appeared in 1819, and Malthus' Principles in 1820, with very similar doctrines, Malthus' underconsumption theory logically follows from his own theory of value.

24. Principles of Political Economy (London, 1820), 353-4. The exchange

power, or lack of effective demand, can be found in Malthus' theory of value. Here the value of a commodity is equal to the value of labor it will command. But if profits are to be made, the total value of commodities must exceed the total value of wages. All commodities must therefore sell at prices in excess of their costs. In order to explain profits, Malthus must find a source of demand other than that of the workers. His deus ex machina is the demand of the unproductive consumers -- the source of whose purchasing power is never explained. And, as Marx points out, whatever producers gain as sellers they lose as buyers, so that total profit remains unexplained.

Malthus attributes the fall in profits, and consequently the general glut, to overaccumulation of capital. He states that

On the supposition indeed of a given consumption, the accumulation of capital beyond a certain point must appear at once to be perfectly futile. But, even taking into consideration the increased consumption likely to arise among the laboring classes from the abundance and cheapness of commodities, yet as this cheapness must be at the expense of profits, it is

of commodities against labor need not invalidate Say's Law. Say himself invalidates Malthus' objection by admitting that labor is a commodity. (J. B. Say, Letters to Malthus, London, 1821, 22-3.) What Malthus asserts is that labor may be in deficient supply as compared with capital. This is a possible situation, but one which does not follow from Malthus' own theory of population, where the working population tends to be in excess, rather than in deficient, supply. Malthus' argument here is similar to Smith's argument that the rate of profit falls with the increased competition of capital, which "raises the wages of labor, and sinks the profits of stock." (Wealth of Nations, 336.) But in Malthus' system the situation cannot be improved if wages fall with prices; this would only further reduce the level of effective demand.

25. Theorien über den Mehrwert, III, 10.

obvious that the limits to such an increase of capital from parsimony, as shall not be attended by a very rapid diminution of the motive to accumulate, are very narrow, and may very easily be passed.²⁶

However, according to Malthus, there is an optimum rate of accumulation. Thus,

. . . there must be some intermediate point, where, taking into consideration both the power to produce and the will to consume, the encouragement to the increase of wealth is greatest.²⁷

Malthus' theory of the general overproduction is hardly a refutation of Say's Law. It rests on nothing stronger than Malthus' unsatisfactory theory of value, to which he appends the doubtful concept of "normal profits." The weakness of the theory is the weakness of its premises. Ricardo writes to Malthus, in criticism of the latter's "measure of value",

Allowing you your premises, I see very few instances in which I can quarrel with your conclusions. I agree with all you say concerning the glut of commodities; allow to you your measure, and it is impossible to differ in the result.²⁸

26. Principles of Political Economy, 370.

27. Ibid., 9. The optimum rate of accumulation is a hazy concept since it is defined with reference to a "normal" rate of profit. (The objection also applies to Ricardo's normal rate of profit.) But this normal rate can never be defined without circular reasoning. More recent attempts to escape the circularity are unsuccessful. Harrod, for example, merely paraphrases Malthus, in defining normal profit as the profit earned at optimum capacity. (R. F. Harrod, "Notes on Supply," Economic Journal, Vol. XL, No. 168 (June 1930), 235.)

28. Letters of David Ricardo to Thomas Robert Malthus (ed. James Bonar, Oxford, 1887), 216.

Yet Malthus' analysis, however faulty, does constitute a contribution to economic theory in that (1) it stresses the importance of short-run effects; (2) it introduces monetary analysis into classical theory; (3) it raises the question of the level, as well as of the proportions of production, in using the concept, later to be taken over by Wicksell and Keynes, of demand for output as a whole. ²⁹

Since the time of the classical controversy, Say's Law has continued to be attacked by the theory of underconsumption. But the most popular theory of underconsumption is not that of Malthus, which has a logic of its own, but the theory of Rodbertus, which explains overproduction and crises from the fact that with the increase in productivity the working class receives a constantly diminishing share of the national income. ³⁰ As we shall see when we examine the Marxian versions of the theory of underconsumption, which are only restatements of Rodbertus' argument, the theory is not one of underconsumption, but one of disproportionality. The alleged overproduction is nothing more than the theorists' failure to account for the fact that the relative demand for producers' goods rises as the relative demand for consumers' goods falls.

29. This is really a negative contribution since the Marshallian demand and supply analysis applies only to small and unimportant commodities, not to aggregates. Changes in the supplies and prices of important commodities so influence total income as necessarily to shift the demand and supply schedules for other commodities. Moreover, the very concept of demand for output as a whole implies less than full employment, a situation which under classical assumptions is impossible.

30. Karl Rodbertus, Overproduction and Crises (New York, 1898), 123-32.

C. The Recent Controversy on Say's Law

In recent years Say's Law has again been subject to debate. The controversy concerns the question of an alleged logical contradiction between Say's Law and its classical corollary, the quantity theory of money. According to Lange,

Either Say's Law is assumed and money prices are indeterminate, or money prices are made determinate -- but then Say's Law, and hence the neutrality of money must be abandoned.

In order to deal with this question we must first reformulate the conditions of Say's Law. The first theorem, that money is a veil, and that the level of prices is, therefore, of no consequence, requires (1) zero homogeneity of all demand and supply functions, which means that any change in the quantity of money equally affects all prices and incomes; (2) that the demand and supply of money be identically equal, which means that with a change in the quantity of money there is no shift in the total liquidity preference schedule, or the K of the Cambridge cash balance equation.

The second theorem that partial gluts will be corrected

31. Oscar Lange, "Say's Law: A Restatement and Criticism," Studies in Mathematical Economics and Econometrics (ed. Lange, McIntre and Yntema, Chicago, 1942), 65. Lange later admits that the neutrality of money does not require the fulfillment of Say's Law, but only the homogeneity of zero order of all supply and demand functions. (Franco Modigliani, "Liquidity Preference, Interest, and Money," Econometrica, Vol. 12, No. 1 (January 1944), 70, note.) Modigliani points out that with changes in the quantity of money, zero homogeneity does not depend on Say's Law, but only on homogeneity of the expectation functions, or constancy of the marginal rate of substitution between commodities (ibid., 60).

and that a general glut is impossible, requires

- (1) Price flexibility
- (2) Mobility of all factors of production
- (3) Full employment of all resources
- (4) Elasticity of total demand equal to unity ($N = 1$), or, what is the same thing, that the sum of the marginal propensity to consume and the marginal propensity to invest equals unity $(\frac{dc}{dy} + \frac{di}{dy} = 1)$
- (5) No decrease in the level of productivity.

Lange's criticism concerns the first theorem relating to the neutrality of money. He argues that when Say's Law holds, not only is the price level unimportant, but that it is indeterminate. According to this argument, since the demand and supply of money are identically equal in Say's Law, the equational system for the $n-1$ unknowns (assuming there are $n-1$ commodities and money) lacks one equation necessary to transform the exchange ratios into absolute prices. The price level is therefore indeterminate.

On the other hand, according to Lange, if the demand and supply of money are not identically equal, but are equal only in equilibrium, the price level is determined but Say's Law fails to hold.

The alleged contradiction, however, arises only from Lange's particular interpretation of Say's Law. According to Say's Law of the classical system,

$$\sum_1^{n-1} p_i D_i = \sum_1^{n-1} p_i S_i$$

where the n th commodity is money. But according to Lange, money is included with all other commodities, so that,

$$\sum_1^n p_1 D_1 = \sum_1^n p_1 S_1$$

In Lange's system any disequilibrium in the market for one commodity is balanced by a disequilibrium in the money market. But in the classical system, any disequilibrium in one commodity market implies a balancing disequilibrium in another commodity market.

In the further development of his argument, although he does not mention Say's Law explicitly, Lange assumes that with no "monetary effect" (no substitution of money against goods), a disequilibrium in one commodity market can lead to an infinite rise of prices, at the same time that Say's Law holds. ⁵² The price level is indeterminate despite the fact that Say's Law holds, only because money is classified with other commodities. In Say's Law of classical theory, since one disequilibrium implies another, equilibrium is restored without monetary effect. The price level is automatically determined, given the quantity of money and the habits of payment. The system is determined even when the supply and demand for money are identically equal. The missing equation

⁵². Price Flexibility and Employment (Bloomington, Indiana, 1944), 7 ff. This result, it should be noted, depends on Lange's inadmissible assumption, without which a proportional change in prices is impossible, that the rate of interest remains constant (ibid., 10). In the normal case, the rate of interest should move with prices, to compensate the gains or losses in purchasing power.

is supplied by the fact that in equilibrium the marginal utility of the money commodity as a commodity equals the marginal utility of the money commodity as money; or, in Marxian terms, given the quantity of money, the price level depends on the value of the money commodity.

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While the price level is determinate at the same time Say's Law holds, the question of whether money is truly a veil is not settled. Say's Law implies the neutrality of money and the insignificance of the price level. Yet Say and the classicists contradict the alleged insignificance of the price level by allowing for an increase in the quantity of money with an increase in production. There is no contradiction, however, if we look upon the price level as unimportant (although determined) if the position of static equilibrium is given, but not unimportant, because of the lag between costs and revenues, in the movement from one equilibrium position to another. Finally, if all frictions and time lags are assumed away, the level of prices is truly immaterial.

For our purposes, the more relevant theorem of Say's Law is that which denies the possibility of general overproduction. Marx's theory of crises, as distinct from his theory of cycles, is a direct contradiction of this theorem. Marx's thesis is not that general overproduction is the cause of crises, but that the capitalist economy always presents the possibility of crises, which

33. It is interesting to note, in this connection, that Marx holds the quantity theory of money in its inverse form. In the quantity theory of the classical system, given the velocity of money, the level of prices is determined by the quantity of money. In the Marxian system, the quantity of money is determined by the sum of the commodity values. (Capital, III, 627.)

are always characterized by general overproduction.

II. Marx's Discussion of Crises

In various connections Marx mentions the many phenomena which may precipitate the crisis: overspeculation, overproduction of important commodities, periodic replacement of fixed capital, strain on the credit system, and unusually good or bad harvests. But unlike many business cycle theorists, including his own followers, he never confuses the precipitating factors with the fundamental cause of the crisis. The cause of the crisis must be the cause of the business cycle itself, which is, ^{of} the very nature of the capitalist process of accumulation. The actual precipitating factors of the crisis, however, depend on the concrete constellation of market forces, and are not the same in each historical crisis.

Marx's purpose is not to describe actual crises, nor to discuss the particular set of relations of credit and competition that prevail in the real world at different times and give to each crisis its particular form and historic individuality. In his discussion of crises he says,

We have to consider here only the forms which capital goes through in its different stages of evolution. Thus the real relations within which the actual production process proceeds are not developed. It is always assumed that the commodity is sold at its value. Competition of capital is not considered anymore than credit or the actual constitution of society, which is not at all composed only of the classes of workers and industrial capitalist. . . .³⁴

Much of the confusion created by Marxian writers stems from a misunderstanding of the purpose of Marx's only systematic

³⁴. Theorien über den Mehrwert, II (2), 263-4.

discussion of crises in the third chapter of Volume II (2) of Theorien über den Mehrwert. This is a discussion of the possibilities and abstract forms of the crisis, forms which by careless interpreters, are taken to mean causes of the crisis, and by extension, causes of the cycle.

The purpose of this discussion on crises is to refute the theorem of Say's Law which holds that endogenously created crises are impossible. Marx's proof is a purely formal one; it merely demonstrates the possibility and likelihood of crises, or interruptions of the accumulation process. It is definitely not a theory of cycles.

In order to understand the particular errors of most interpretations of Marx, it is necessary to consider Marx's formal demonstration of the possibilities of crises.

A. The Two Abstract Forms of Crises

In the chapter on crises in Theorien über den Mehrwert, Marx's purpose is to give the abstract forms of crises, which, in reality, are filled with varying content, determined by competition, credit, and the real relations of production. These abstract forms are deduced from the nature of capitalist production and circulation, and present merely the possibility of crises. The source of this possibility is the metamorphosis of the commodity with its necessary separation of purchase and sale.

The most abstract form of the crisis, and, therefore, the formal possibility of crises, is, thus, the metamorphosis of the commodity itself, which (only as a complete

movement), contains the contradictions between use value and exchange value included in the unity of the commodity, and between money and commodity. . . .

The crisis in its second form arises from the function of money as a means of payment, whereby money figures in two different moments separated in time, and in two different functions. . . . Both of these forms are entirely abstract although the second is more concrete than the first.³⁵

1. Separation of Purchase and Sale

The metamorphosis of commodity-capital, C-M-C, means that sale and purchase are distinct in both time and place. In commodity exchange, unlike barter, the direct exchange of use value, there is the everpresent possibility that the commodity which exists really as a use value, and only ideally as an exchange value, may not be realized as an exchange value. This is because at any given moment, contrary to Say's Law, total purchases and total sales need not be in equilibrium. Marx says of this,

Nothing can be more childish than the dogma that because every sale is a purchase, and every purchase a sale, therefore the circulation of commodities necessarily implies an equilibrium of sales and purchases. If this means that the number of actual sales is equal to the number of purchases, it is a mere tautology. But its real purport is to prove that every seller brings his buyer to market with him. . . .

No one can sell unless some one else purchases. But no one is forthwith bound to purchase because he has just sold.³⁶

The metamorphosis of commodity-capital, C-M-C, presupposed the inverse metamorphosis of money-capital, M-C-M. A disturbance of the latter metamorphosis means a disturbance of the former.

³⁶. Capital, I, 127.

If the interval in time between the two complementary phases of the complete metamorphosis of a commodity becomes too great, if the split between the sale and the purchase becomes too pronounced, the intimate connection between them, their oneness, asserts itself by producing--a crisis. ³⁷

The crisis is nothing more than the process by which the unity of production and circulation, of purchase and sale, is forcibly restored. ³⁸

2. Money as Means of Payment

The fact that money serves not only as the means of circulation, but also as a store of value and means of payment, gives rise to the second possibility of crisis. If, because of changes in tastes or savings habits, any commodity cannot be sold in a given period of time, although its value remains the same; or if the value of the commodity changes in the interval between sale and purchase, money can no longer function adequately as a means of payment.

A single producer cannot pay his debts or realize the value of his commodities, as a result the whole network of mutual debts and obligations is disturbed. ³⁹ This second possibility always requires the first, the separation of purchase and sale, but the first possibility may exist without the second, that is, without the credit system. The second possibility is realized not because commodities are unsaleable, but because they are unsaleable within a given period. ⁴⁰ All monetary crises are, in fact, the realization of this second form.

37. Ibid., I, 128.

38. Theorien über den Mehrwert, II (2), 282.

39. Ibid., II (2), 284.

40. Ibid., II (2), 288.

The formal possibilities of crisis, the separation of purchase and sale and the fact that money serves as means of payment, both existed long before the era of capitalism without giving rise to crises.⁴¹ The real problem is to show how these possibilities are brought into play within capitalist production.

In summary, Marx says,

The general possibility of crises is the formal metamorphosis of capital itself, the separation of purchase and sale in time and space. But this is never the cause of crises. It is nothing more than the most general form of crises, thus of the crisis in its most general expression. One cannot say that the most abstract form of the crisis is the cause of the crisis. If one seeks the cause, it is to know why its abstract form, the form of its possibility becomes a reality.⁴²

B. The Realization of the Abstract Forms of Crises

The possibility of crisis can be realized in many different ways. Any disturbance of the equilibrium conditions of the reproduction process may give rise to a crisis. These equilibrium conditions are merely formal conditions, whose fulfillment by no means assures unlimited accumulation. Capitalist development is inherently cyclical, and hence marked by crises even when the equilibrium conditions of reproduction are fulfilled. Disturbance of these formal equilibrium conditions gives merely the particular

41. Ibid., II, (2), 287.

42. Ibid., II (2), 289. (My emphasis.) This passage is of key importance. Careful reading of the chapter on crises in the Theorien über den Mehrwert, and especially of this passage, avoids the greatest misunderstanding of Marx's theory of cycles. The theories of "realization" crises (crises due to underconsumption and/or disproportional production) so popular in neo-Marxist circles, rests on the very confusion Marx warns against, the confusion between the abstract form and the cause of the crisis.

form of the crisis. It does not determine the cause of the crisis, if the crisis is properly regarded as merely one phase of the business cycle whose explanation must be based on the fundamental laws of capitalist production.

Each disturbance of equilibrium illustrates the abstract forms of crises. For example, the money accumulated for the ~~purchase~~ replacement of fixed capital may exceed or fall short of actual depreciation and technical requirements for replacement. This is a form of disequilibrium arising from the separation of purchase and sale -- even within simple reproduction. Similarly, changes in productivity, or the ^{period of} turnover of capital; and any disequilibrium between money capital accumulated for investment (savings) and actual investment in productive capital; between the physical depreciation and replacement of the money supply; or in the exchange between the two departments, may lead to a crisis. In

43. It is recognized, of course, that there is no such thing as strictly technical requirements for replacement. Depreciation and replacement problems are always economic, and involve the rates of profit and of interest. Thus the difference between the "money accumulated for replacement" and the "technical requirements for replacement," is really a difference between estimates of depreciation made at different times, a difference that might be analyzed in terms of expectations. But into these problems we cannot enter here.

44. Capital, II, 543-7.

45. This does not imply any savings-investment theory of cycles. For Marx saving out of surplus value is specifically designed for accumulation, or investment. But the accumulation of capital means the purchase, by individual capitalists, of use values -- material means of production and labor power. The formation of a "hoard," or the accumulation of money capital is a prerequisite for such investment. For the whole economy, the money accumulated or saved in any given period may be unequal to the actual investment.

each case the separation between purchase and sale gives the possibility of crisis. The longer the separation, and the more extended the use of credit, the more difficult it becomes for money to serve as means of payment.

Each form of disequilibrium realizes the possibility of crisis. In each case some commodities appear to be overproduced. The partial glut leads, in turn, to a general glut.

Marx is so explicit in his rejection of Say's Law, the doctrine that general overproduction is impossible, that his objections have been formulated by various writers into an underconsumption theory or a disproportion theory of crises. As a matter of fact, Marx holds neither theory. He explicitly rejects the underconsumption theory of a necessary shortage of effective demand. When he speaks of underconsumption, he refers not to an inequality between total supply and total demand, but to the conflict between the drive to accumulate, to produce for the sake of production, and the increased productive power which constantly extends the (unrealized) possibilities of consumption. When he speaks of disproportions, he refers to the result of uneven expansion of production due to uneven development of productivity, not to the disproportions resulting from the planless character of capitalist production. Marx makes this clear when he says, in his discussion of crises due to partial overproduction,

Here we do not speak of the crisis so far as it rests upon disproportional production, that is, upon a faulty distribution of social labor among the individual spheres

of production. This can come into consideration only so far as the discussion concerns the competition of capitals.⁴⁶

The problem is one of crises resulting from changes in values, not from competitive deviations of price from value.

So far as it asserts that in equilibrium total production equals total consumption, and that total supply equals total demand, Say's Law is a theorem to which Marx must adhere. His own reproduction schemes are, in fact, an illustration of the equalities asserted by Say's Law. What Marx rejects are the assumptions on which Say's Law is based regarding the nature of the capitalist system and the mechanisms of its equilibration.

Marx makes the following criticism of the classical doctrine that there can be no general overproduction and therefore no crisis since goods buy each other, money serving only as a means of exchange, and since all cases of partial over- and underproduction compensate each other and will be corrected automatically by price movements:

In order to prove that capitalist production cannot lead to a general crisis, all conditions and determining forms, all principles and differentiae specificae, in short, capitalist production itself, is denied; it is proved, in fact, that if the capitalist form of production, instead of being a specifically developed, particular form of social production, were a form of production which lies behind its most elementary beginnings, its particular oppositions and contradictions, and, therefore, their eruption in crisis, would not exist.

According to Ricardo, following Say, products are always bought by products or services; money is only the "medium through which the exchange is accomplished."

⁴⁶. Theorien über den Mehrwert, II (2), 300-1.

Thus, in the first place, the commodity, in which there is an opposition between use value and exchange value, is transformed into a mere product (use value); therefore, the exchange of commodities is transformed into mere exchange of products, that is mere use values. That means not only going behind capitalist production, but even behind the mere production of commodities, and it means assuming away the most complicated phenomenon of capitalist production--the world market crisis--by denying the first condition of capitalist production, namely, that the product must be a commodity, must therefore appear in the form of money, and must go through the process of metamorphosis. Instead of speaking of wage-labor, he speaks in terms of "services," a word in which the specific characteristics of wage labor and its use--namely, to increase the value of the commodities against which it is exchanged and thus to generate surplus value--is again omitted, and thereby, also, the specific relationship through which money and commodity are transformed into capital is omitted. . . . Money is considered only as a means of exchange, not as an essential and necessary form of existence of the commodity, which must present itself as exchange value, namely as general social labor. By striking out the essence of exchange value through transforming the commodity into a mere use value (product), one can easily deny, and, in fact, must deny, an essential, independent form which also has an independent existence, as against the original form of the commodity, in the process of the metamorphosis. Here the crises are reasoned away by forgetting or denying the first prerequisites of capitalist production, the existence of the product as a commodity, the duplication of the commodity in commodity and money, the resulting separation in the exchange of commodities, finally, the relationship of money or the commodity to wage labor.⁴⁷

Marx points out, in refutation of classical doctrine, that in capitalist society producers and consumers are not identical -- workers consume less than they produce, landlords consume without producing at all. The goal of production is not the production of use values for consumption, but the production of surplus value for accumulation. The contradiction between a given magnitude of exchange value produced, and the use values demanded, is not an

47. *Ibid.*, II (2), 274-6.

accident of disproportional production, but an inherent contradiction of commodity production as such.

Marx attacks the Ricardian doctrine that only a partial glut is possible. The very nature of the metamorphosis of commodities, the necessity for all commodities to be transformed into money, implies the possibility of a general glut. Total supply can exceed total demand if all commodities are in excess except money.⁴⁸ This is not the cause of the crisis; it is the crisis.

Marx agrees with Ricardo that general overproduction cannot be the cause of crises. But general overproduction, the possibility of which Ricardo denies, is the result of partial overproduction.

Marx's argument, in opposition to that of the classical writers, is that partial gluts are not accidental, but inherent in the capitalist economy. These partial gluts are not compensated by adaptations (price changes and mobility of capital), but equilibrium is restored through the crisis. Overproduction and inadequate returns in one industry means falling demand for the products of other industries. Overproduction is cumulative, and becomes general as soon as there is overproduction in a few important industries.⁴⁹

The essential cause of partial overproduction is the uneven increase in productivity and the expansion of production without

48. Ibid., II (2), 292. Thus total supply exceeds total demand for commodities because the demand for money exceeds the supply. It is this sudden rise in liquidity preference, or what Lange calls the desire to substitute money for goods that leads to a general fall of prices.

49. Ibid., II (2), 292-3.

regard to the market. Even with a simple increase in the scale of production, capital becomes more productive; a quantitative change in the scale of production leads to a qualitative change in productivity.⁵⁰ If the methods of production are changed (a change in the production function as well as in the scale of production), the increase in productivity, and in the mass of use values produced, is even greater.⁵¹

The fact that productivity increases unevenly among different industries means that the proportions of production are continually altered. The limitations to the size of capitals, the variability of agricultural output, and the fact that instruments of production increase faster than the quantity of raw materials available in a given time, all make proportional increases in productivity and in the expansion of production impossible.⁵²

Overproduction in the Marxian sense is thus not simply the result of frictions.⁵³ Nor is it a result of any necessary

50. Increasing returns to scale are due to either of both of the familiar Marshallian internal and external economies. In general, the former are a result of the concentration of capital, the latter, of the centralization of capital. In either case, such increasing returns raise the rate of surplus value.

51. *Ibid.*, II (2), 301-2.

52. *Ibid.*, II (2), 313-4.

53. With elasticity of demand equal to unity for each commodity whose output increases with increasing productivity, total revenue covers total cost regardless of the change in output. That this is not so may be regarded as a case of friction only by stretching the coverage of the term friction. The real difference between Marx's disproportions and those of the classicists (and some Marxian critics, especially Tugan-Baranowsky) is that the

conflict between supply and demand. The conflict is rather between what Marx calls the productive forces, which continually, but irregularly, increase the possibilities of consumption, and the relations of production, which require a continual increase in the scale of accumulation.

The conclusions of the preceding argument are (1) that the form of the crisis is not the cause of the crisis; (2) that general overproduction while not the cause, but the consequence of the crisis, can result from partial overproduction; and (3) that disproportions in the Marxian sense are not due only to the planlessness of capitalist production, but essentially to uneven increases in productivity. With these three conclusions we can more fruitfully examine some of the neo-Marxian theories of cycles and breakdown.

former are due to changes in productivity which must be uneven by definition, and the latter are due solely to incorrect estimates of demand.