

Malthus<sup>1</sup> was the next great English economist<sup>2</sup> to take up the cudgels against the overaccumulation of capital. Malthus was quite willing to admit that capital was quite deficient compared with the population, but he would not admit that it was deficient (he was writing during the post-Napoleonic depression) compared with "the demand for it, and the demand for the commodities procured by it."<sup>3</sup> Production, though decidedly deficient compared with the population, "is redundant, compared with the effectual demand for it and the revenue which is to purchase it."<sup>4</sup> The "low profits of stock" and the difficulty of finding employment for it, Malthus considered unequivocal proof that the immediate want of the country was not capital. The "stagnation which has been so generally felt and complained of since the war, appears to me inexplicable

<sup>1</sup> T. R. Malthus, *Principles of Political Economy* (1820).

<sup>2</sup> S. de Sismondi (*Nouveaux principes* (1819)) was the French representative of the overproduction theory. Sismondi argued that "last year's revenue pays for the production of this." If the production of this year exceeds the revenue of last year, a portion of the produce will remain unsold. See C. Gide and C. Rist, *History of Economic Doctrines* (D. C. Heath & Co.), pp. 176-177. See also M. Bouniatian's criticism of Sismondi in his article "Ma Théorie des crises," *Revue d'économie politique* (1924), p. 668. Sismondi's analysis reminds one of W. T. Foster and Waddill Catchings's statement that "time is the essence of the problem." He finally admitted the identity of production and consumption under conditions of perfect circulation of goods. But this "involves making an abstraction of time and place, and of all those obstacles which might arrest this circulation" (Gide and Rist, *History of Economic Doctrines*, p. 177).

<sup>3</sup> Malthus, *op. cit.* p. 379.

<sup>4</sup> *Ibid.* p. 382.

upon the principles of those who think that the power of production is the only element of wealth and who consequently infer that if the powers of production be increased, wealth will certainly increase in proportion."<sup>1</sup> The trouble is rather a "great diminution of the whole amount of consumption and demand."<sup>2</sup> This contraction of demand was caused by the cessation of war expenditures, the reduction of taxes, and the consequent increase in saving. "We should constantly bear in mind that the tendency to expenditure in individuals has most formidable antagonists in the love of indolence, and in the desire of saving, in order to better their condition and provide for a family; and that all theories founded upon the assumption, that mankind always produce and consume as much as they have the power to produce and consume, are founded upon a want of knowledge of the human character, and of the motives by which it is usually influenced."<sup>3</sup>

But now how increase the effective demand for consumables? Malthus believed that a more equal distribution of wealth would help. Despite certain evils attendant upon the increase in the public debt, he wondered whether these were not "more than counter-

<sup>1</sup> Ibid. p. 385. See also page 390, as follows: "If at the very time that the supply of commodities to revenue is already too great, we go on saving from our revenue to add still further to our capital, all general principles concur in showing that we must of necessity be aggravating instead of alleviating our distresses."

<sup>2</sup> Ibid. p. 386.

<sup>3</sup> Ibid. p. 389.

balanced by the distribution of property and income in the middle class of society, which it must necessarily create."<sup>1</sup> A more equal distribution of land would be desirable from the standpoint of the problem in hand, but Malthus opposed this on broad grounds of social policy.<sup>2</sup> Instead he favored the increased maintenance by landlords of "unproductive" laborers. "It is also important to know that, in our endeavor to assist the working classes in a period like the present, it is desirable to employ them in unproductive labors, or at least in labor, the results of which do not come for sale into the market, such as roads and public works."<sup>3</sup>

Karl Marx<sup>4</sup> held that the conditions of direct exploitation of labor and those of the realization of surplus value (profit) are not identical. "The first are only limited by the productive power of society, the last by the proportional relations of the various lines of production and by the consuming power of society."<sup>5</sup> The consuming power is restricted by the "tendency to accumulate, the greed for an expansion of capital and a

<sup>1</sup> Malthus, p. 392. Compare with the following by Foster and Catchings: "If, for example, there were only five million stockholders, a larger part of the dividends will be saved, and a smaller proportion spent, than would be the case if there were ten million owners" (*Profits*, p. 357).

<sup>2</sup> *Ibid.* pp. 391-392.

<sup>3</sup> *Ibid.* p. 395. Cf. Foster and Catchings (see Chapter III of this book).

<sup>4</sup> Karl Marx and F. Engels, *Communist Manifesto* (1848); *Capital* (1894), Vol. III.

<sup>5</sup> *Capital*, Vol. III, chap. xv.

production of surplus-value on an enlarged scale. . . . But to the extent that the productive power develops, it finds itself at variance with the narrow basis on which the conditions of consumption rest."<sup>1</sup> "Finally, if it is said that the capitalists would only have to exchange and consume the commodities among themselves, then the nature of the capitalist mode of production is forgotten; it is forgotten, that the question is merely one of expanding the value of the capital, not of consuming it."<sup>2</sup>

John A. Hobson<sup>3</sup> has restated the argument of his predecessors, but has contributed little, if any, to their work. The full, regular employment of the factors of production demands the maintenance of a proper proportion between the production of consumable commodities and that of capital goods. There exists at any given time an economically sound ratio between spending and saving. Under fairly equal distribution of income a right adjustment between spending and saving might be expected to be maintained. But the existing

<sup>1</sup> Ibid.

<sup>2</sup> Ibid. Note also Marx's statement that there can be a lack of demand for the very commodities which the mass of the people want "because in this specific capitalist interrelation the surplus-product assumes a form in which its owner cannot offer it for consumption, unless it first reconverts itself into capital for him." Compare this with Foster and Catchings's statement that money used twice in the production of goods before it is used in the consumption of goods creates a deficiency of consumer demand.

<sup>3</sup> John A. Hobson, *The Industrial System* (Charles Scribner's Sons, 1909); *The Economics of Unemployment* (George Allen & Unwin, Limited, 1922).



distribution of income tends to work a rate of saving that is excessive. This arises from the circumstance that the surplus incomes of the rich are excessive even for purposes of luxurious and wasteful consumption, and hence they accumulate automatically in the form of an excessive supply of capital.<sup>1</sup> The remedy lies in strengthening the consuming powers of the community, so that effective demand for consumable goods may keep full pace with increased productivity. And consumption, he contends, may be strengthened by a better distribution of the product of industry. In this way an "economically right proportion between expenditure in withdrawing commodities from the retail shops for consumption, and expenditure in maintaining and enlarging the plant and industries functioning in each stage of production" can be maintained.<sup>2</sup>

M. Bouniatian<sup>3</sup> speaks of an "excessive tendency to accumulation," the "excessive desire to save." It is this tendency which pushes capital formation beyond the limits compatible with the effective social consumption. He admits that there can be no excess of production over purchasing power, but contends that it is the desire to use the power of purchasing for productive

<sup>1</sup>Hobson is not, of course, opposed to the accumulation of capital per se. His point is that if a smaller *proportion* of the national income were saved, production would be steadier, the total national income would be greater, and so the *absolute volume* of capital accumulation might well be greater than now.

<sup>2</sup>Cf. Foster and Catchings (see Chapter III of this book).

<sup>3</sup>"Ma Théorie des crises," *Revue d'économie politique* (1924).

ends in a proportion which is not compatible with the social consumption "which leads to the state of chronic overcapitalization."<sup>1</sup>

While overaccumulation is a grave evil, it does not, in Bouniatian's view, condemn the existing order. For even though the tendency to excessive accumulation gives rise to certain perturbations of the economic life, it assures at the same time, and in an automatic way, the rapid augmentation of capital and the elevation of standards for all classes. It is a great factor of economic progress which can be moderated and regulated.<sup>2</sup>

A position opposite to that of Lauderdale, Malthus, and Sismondi was taken by J. B. Say,<sup>3</sup> D. Ricardo,<sup>4</sup> James Mill,<sup>5</sup> and J. S. Mill.<sup>6</sup> These writers held that production can never be too rapid for demand, since demand depends on purchasing power, which in turn depends on the nation's aggregate production. General overproduction is impossible. Goods exchange against

<sup>1</sup> Op. cit., pp. 668-669. Bouniatian gives Lauderdale the credit for "signalling the danger of an excess of saving," but holds that it was Malthus who attributes the periodic overproduction to the excessive tendency to accumulate, which tendency is facilitated by the inequality of the distribution of wealth (p. 669).

<sup>2</sup> Ibid. p. 673.

<sup>3</sup> *Le Traité d'économie politique* (1803). Cf. Gide and Rist, *History of Economic Doctrines*, pp. 115-117.

<sup>4</sup> *Principles of Political Economy and Taxation* (1817). Cf. Gonner's edition, pp. 272-277.

<sup>5</sup> *Elements of Political Economy* (1821). Cf. 3d ed., pp. 228-245.

<sup>6</sup> *Principles of Political Economy* (1848). Cf. Ashley's edition, pp. 66-81, 556-563, 725-745.

goods. If the exchange value of one grade of goods is too low, it follows that the exchange value of other goods is too high. As a result, less of the former will be produced and more of the latter. There can be misdirected production, but no general overproduction. No matter how great the increase of capital or of productive efficiency, a market can always be found, for goods exchange against goods.

Suppose, says J. S. Mill, that capitalists and landlords decide, or are forced by law or opinion, to live no better than workmen. They accordingly save all their surplus income. "Unproductive expenditure," says Mill, "is now reduced to its lowest limit, and, it is asked, how is the increased capital to find employment? Who is to buy the goods which it will produce? There are no longer customers even for those which were produced before." But, Mill contends, this is only seeing one half of the matter. The capitalists and landlords, it is true, will no longer demand luxuries. But by investing their income they merely transfer their purchasing power from themselves to the laborers who are employed to make the capital goods.<sup>1</sup>

An increased accumulation of capital involves first

<sup>1</sup> J. S. Mill, *op. cit.*, pp. 67-68. This is similar to Foster and Catchings's Cases V and VI (see Chapter III). While the capital goods are being created the production-consumption equation is not disturbed. Foster and Catchings, however, follow the matter out further and show that when the capital goods are finally completed and begin to turn out consumers' goods, the flow of goods into the retail markets will exceed the flow of money into the hands of consumers, and so prices will fall.

a change in the proportion of the capital factor compared with the other factors of production, and eventually an increased output of finished goods. The first results in a fall in the income on capital (interest) and a rise in wages and economic rent;<sup>1</sup> the second involves a fall in prices unless counteracted by an increase in money incomes. Neither of these consequences implies that production has outrun consumption. In this Say, Ricardo, and Mill were right. But does it follow that neither of these consequences has any relation to the phenomena of business depressions?

Lauderdale and Malthus agreed with their opponents that an increase in the supply of capital tends to lower the rate of profit. Lauderdale said 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, and beyond which it will not naturally increase; because the quantity, when it exceeds that point, must increase in proportion to the demand for it, and its value, like that of all other commodities, must of consequence diminish in such a manner as effectively to check its augmentation."<sup>2</sup> Malthus remarked that if a "society were greatly and generally to slacken their consumption, and add to

<sup>1</sup> A fall in the interest rate means that a larger proportion of the national income is diverted from capitalists to laborers. Obviously it does not imply that production has outrun consumption.

<sup>2</sup> Lauderdale, *op. cit.*, p. 225.

their capitals, there cannot be the least doubt . . . that the profits of capitalists would soon be reduced to nothing."<sup>1</sup> These statements are quite in line with J. S. Mill, who argued that the net effect of oversaving would be a fall in the rate of profit. "What would really be not merely difficult, but impossible, would be to employ this capital without submitting to a rapid reduction of the rate of profit."<sup>2</sup> Note also the following from James Mill:

The doctrine of Mr. Malthus, on the subject of the glut, seems, at last, to amount to this: that if saving were to go on at a certain rate, capital would increase faster than population; and that if capital did so increase, wages would become very high, and profits would sustain a corresponding depression. But this, if it were all allowed, does not prove the existence of a glut; it only proves another thing, namely, that there would be high wages and low profits. Whether such an increase of capital, scarcely coming within the range even of a rational supposition, would be a good thing or an evil thing, it would infallibly produce its own remedy, as the power of capital to increase is diminished with the diminution of profits.<sup>3</sup>

Lauderdale and Malthus agreed with their opponents that a fall in the rate of profit would automatically tend to check oversaving. What they really meant to say was that you cannot usher in prosperity by

<sup>1</sup> Malthus, *op. cit.*, p. 384.

<sup>2</sup> J. S. Mill, *op. cit.*, p. 732.

<sup>3</sup> James Mill, *op. cit.*, p. 242.

artificially stimulating capital accumulation during the period of depression. Lauderdale argued against a proposal to raise by governmental action "fifteen millions for the purpose of accumulation" by "forcibly converting fifteen millions of revenue into capital." He opposed a "forced increase of capital."<sup>1</sup> Malthus was of the opinion that "if it were true that, in order to employ all that are out of work, and to create at the same time a sufficient market for what they produce, it is only necessary that a little more should be saved from the revenue and added to the capital of the country, I am fully persuaded that this species of charity will not want contributors, and that the change would soon be wrought in the condition of the laboring classes."<sup>2</sup> In this they were quite right. Their opponents thought that "industry is limited by capital." Any measure, whether reduced taxes or lower wages, which would increase the income of capitalists and so stimulate saving would, they thought, work to dissipate depression. Mill and Ricardo understood no better than Lauderdale and Malthus the disrupting forces which had disturbed the economic equilibrium and which made it impossible for industry to operate at capacity.

Neither of the two opposing schools understood the significance of the other possible result of increased capital accumulation; namely, the increased output of finished goods and the consequent fall in prices.

<sup>1</sup> Lauderdale, *op. cit.*, pp. 243-244, 248, 260.

<sup>2</sup> Malthus, *op. cit.*, p. 391.

J. S. Mill admitted this possibility, but he thought it of no consequence. He failed to take account of the price maladjustments that accompany price declines.

In a crisis there is "really an excess of all commodities above the money demand: in other words, there is an undersupply of money."<sup>1</sup> There may thus be an "extreme depression of prices, from what may be indiscriminately called a glut of commodities or a dearth of money." But what of it? "If values remained the same what becomes of prices is immaterial, since the remuneration of producers does not depend on how much money, but on how much of consumable articles, they obtain for their goods." That the decline of prices is, however, contrary to Mill's view, of utmost importance in the phenomenon of the business cycle is now well established, particularly through the researches of Mitchell, Veblen, Lescure, Fisher, and Hawtrey. This aspect of the matter will, however, receive treatment in a later chapter.

John A. Hobson, in his criticism of the classicals with respect to this point, fails to see the matter clearly. He denies that a fall in prices is an equilibrating factor, tending to increase consumption, to restore the balance between the demand for and the supply of goods.<sup>2</sup> In this he is quite right; but he fails to see that when the classicals and neoclassicals speak of a fall in price as an equilibrating factor, they are thinking of an economic

<sup>1</sup> J. S. Mill, *op. cit.*, p. 561.

<sup>2</sup> *Economics of Unemployment*, pp. 53-57.

force of the static supply-and-demand variety.<sup>1</sup> In the dynamics of the business cycle the fall in prices is a tremendously powerful disrupting factor. This is in line with Hobson's criticism. But if he had followed this point out into all its ramifications he would not have been able to discount the influence of monetary factors in the business cycle, but would have been forced into a thoroughgoing analysis of the reasons why prices fall in the depression, and also why falling prices produce such disastrous effects upon business. This would have led him into an analysis of the lag of costs behind selling prices, the margin of profits, current income in relation to capitalization, prime and supplementary costs, and the maladjustments that force a curtailment of production. Holding fast to his consumption-and-production base, he was unable to follow out the lead here given to its logical conclusions.

Two meanings may be properly attached to the term "limited market." In the first place, there may be a limited market in the sense that there is not a sufficient quantity of money offered by buyers to take the goods off the market at the existing level of prices. Say's law of markets failed to take into account the money econ-

<sup>1</sup> Note the following significant statement from J. M. Clark: "The distinguishing characteristic of economic forces of the supply and demand variety . . . is that they are self-limiting; the more they prevail the weaker they become, and the stronger grows the resistance. The business cycle forces are, however, cumulative and self-reinforcing." — *Economics of Overhead Cost*, p. 388. The University of Chicago Press



omy.<sup>1</sup> As is pointed out by F. M. Taylor, the "law of markets" holds good only in the long run. And this is true for the reason that except "under the most primitive conditions, every exchange of product for product is broken into two parts (1) exchanging one's own product for money or bank credits and (2) exchanging the money or bank credits thus obtained for the product of the other man. Obviously, an interval of time can be put between these two operations; and as a matter of fact, such an interval, short or long, almost always intervenes. It follows . . . that it is possible for us to postpone for a long period, even indefinitely, the second part of the operation, thus cutting down for the time being the general demand for goods, though we have not cut down the amount of production. On the other hand, it is possible that, by getting possession of the medium of exchange, money or bank credits, in ways other than by exchanging our goods for that medium of exchange, we should perform the second half of the exchange operation before having performed the first half. In this way demand may be increased enormously, though production has not been increased at all. . . . But the case is very different if . . . buyers generally are suspending the second half of the exchange operation. Such a procedure means a general decline in demand, hence of necessity a general slackening of productivity all along the line. A situation like this

<sup>1</sup> Cf. Alfred Marshall, *Principles of Economics* (7th ed.), pp. 710-711. Macmillan & Company, Limited.

is characteristic of the depression which follows a business crisis. If now, under such a condition of things the public authorities step in and undertake a large program of road-building or building construction or harbor improvements, this will really mean a considerable increase in total demand and so an increase in general prosperity.”<sup>1</sup> Similarly, Hawtrey points out that with respect to the government policy of execution of public works in periods of depression the additional public expenditure must be met, if it is to improve employment, not out of increased taxation but by the creation of greater purchasing power through increased borrowing at the bank.<sup>2</sup>

The term “limited market” may also be used to indicate that the marginal utility of the goods offered in exchange does not equal the marginal disutility or sacrifice involved in production. This gets at the problem from the angle of the producer. Producers cannot find employment that will yield them sufficient returns to induce them to undertake the effort. As D. H. Robertson has remarked, there may be general overproduction in terms of sacrifice and utility. The point may be reached where the “effort demand for commodities in general becomes inelastic.”<sup>3</sup>

It is clear, however, that this phase of the matter has

<sup>1</sup> F. M. Taylor, *Principles of Economics*, pp. 202-203. The Ronald Press Company, 1921.

<sup>2</sup> *Economic Journal*, March, 1926, p. 98.

<sup>3</sup> D. H. Robertson, *A Study of Industrial Fluctuations*, p. 200. P. S. King and Son, Limited.

to do with the total national product and income from a long-run standpoint. It accounts for a considerable amount of continuous unemployment. It accounts in part for the limited purchasing power and limited market found in many backward unprogressive countries, whose people lack ambition and energy. But it is difficult to see that this sort of limited market has anything to do with the cyclical fluctuations of business. These fluctuations are the product of human behavior motivated not by considerations of disutility or sacrifice, but by pecuniary considerations of the sort that face the entrepreneur. Mr. D. H. Robertson's recent attempt<sup>1</sup> to show that entrepreneurs have a high elasticity of demand in terms of effort is not very convincing. As Hawtrey points out,<sup>2</sup> the decision of the employer as to the output of his business is in no way dependent upon his own personal exertions; in fact, a restricted output may easily give him more trouble than capacity production.

<sup>1</sup> D. H. Robertson, *Banking Policy and the Price Level*, p. 20. P. S. King and Son, Limited.

<sup>2</sup> *Economic Journal*, September, 1926, p. 418.

## CHAPTER III

### THE THEORY OF FOSTER AND CATCHINGS IN COMPARISON WITH THE CAPITALISTIC- DISTRIBUTION THEORIES

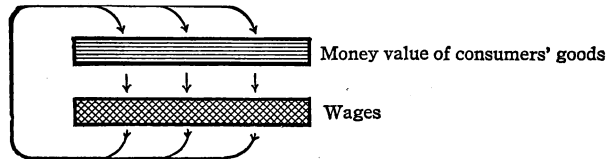
It is not the purpose of this chapter to give a summary of the whole contents of *Profits*. We shall proceed at once to an analysis of the main argument. In order to do so it will be necessary to make a thorough statement of the illustrative cases by which the authors of *Profits* have developed their central thesis.<sup>1</sup> In doing so we shall not simply paraphrase the authors' words. We shall elaborate the cases in our own way and at the same time adhere strictly to the fundamental position taken in *Profits*. Having elaborated their illustrative cases, we shall then reduce their argument to its lowest terms and show precisely what points are involved. We shall then be in a position to examine in later chapters the theory of Foster and Catchings in relation to other business-cycle theories. This will prepare the way for a final evaluation of their thesis.

Let us consider in detail the argument presented in *Profits*. Concrete cases are given showing how the

<sup>1</sup> William T. Foster and Waddill Catchings, *Profits*, Part V. Houghton Mifflin Company.

circuit flow of money from consumer back to consumer is affected by certain business practices in the modern order. To begin with, certain fundamental assumptions are made: (1) Complete integration of industry, vertical and horizontal, in a single corporation. (2) This integrated corporation is the source of all consumers' income, and all the money disbursed by the corporation is paid in the form of wages or dividends. (3) The price level remains unchanged. (4) The volume of circulating media remains unchanged. (5) The velocity of money remains unchanged. (6) There are no taxes or governmental expenditures. (7) The wages are paid as goods are produced, and goods are sold and dividends paid in the succeeding unit of time. (8) All wages and dividends are spent for goods in the unit of time in which they are received. These assumptions are merely to make the exposition easier, and in the course of the argument many of these assumptions are withdrawn so as to conform more nearly with the facts of the actual world.

In Case I it is assumed that all the goods produced are consumers' goods, and that the money received from the sale of the goods is all distributed in wages. We may diagram the situation as follows :



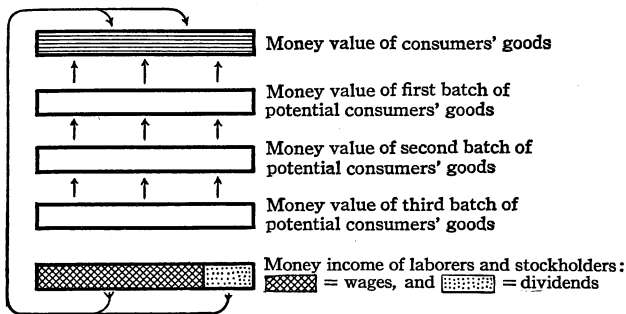
In this diagram the barred area represents the money value of consumers' goods, and the crisscrossed area the money wages received. Labor is represented as the sole agent of production, and the full value of its product flows to it in the form of wages. The wages, in turn, are spent on the consumers' goods that labor has produced. Thus we have an equilibrium of supply and demand and no tendency in the direction of a change in prices.

In Case II a new situation is introduced. The money received from the sale of the goods is distributed in part to labor in the form of wages, and in part to capitalists in the form of dividends. The value of the products thus flows to two groups of sharers. Presumably the payment made in the form of dividends is not a mere gift, but is paid as a reward for a function performed in the process of production. The function performed by the dividend receivers is in part, let us say, that of risk taking, in part that of furnishing capital, or, in the more technical language of the economists, of "waiting" or saving. We may represent the process of production as having now become indirect or roundabout. Labor is applied directly in the production of machines, tools, and capital equipment, which in turn are worn out in the process of making consumers' goods. But labor could not engage in the roundabout method of production unless it was financed in the undertaking; unless capitalists were ready to make the necessary "advances"; or, to put it another way, unless someone was willing to sink present purchasing power in these

production goods, which will only be able to yield consumers' goods gradually and piecemeal and over a considerable period of time. That is to say, a machine is worth something only because you can get consumers' goods out of it. But you cannot get the goods out of it all at once. You have to wear it out in the process of production, and bit by bit the consumers' goods emerge. In the meantime purchasing power is stored away in the machine and is not available for consumption. The roundabout or machine process of production cannot be engaged in unless someone is willing and able to finance it; that is to say, unless someone is willing and able to save, to "wait." "Waiting" is thus as necessary to the roundabout method of production as is labor itself.

Labor and waiting are thus combined in a joint venture of production. The joint functions of labor and waiting, however, do not produce consumers' goods directly: the first and immediate product is capital goods, and these capital goods, in turn, produce consumers' goods. Let us say that the machinery automatically turns out consumers' goods (without the aid of labor to tend it), and that all labor is devoted exclusively to the production of capital goods. But the capital goods do not, let us say, yield their full measure of consumers' goods in a year: it takes, it may be, several years for them to wear out and yield their full quota of consumers' goods. Let us say that three annual increments of consumers' goods emerge before each batch of capital

goods is worn out; a third of the potential consumers' goods which the instrumental goods are capable of yielding is given off each year. If, now, labor replaces one third of the existing equipment each year, the total quantity of capital goods will remain intact. While labor is replacing the capital worn out, indirectly it may be said to produce the batch of consumers' goods that the machines yield each year. We may picture the capital goods as three potential bundles of consumers' goods, one of which is given off each year, and we may picture labor (aided by the "waiting" function) as engaged in replacing a batch of potential consumers' goods to take the place of the batch of consumers' goods that is coming to fruition each year. The conditions represented in Case II may thus be diagrammed as follows:



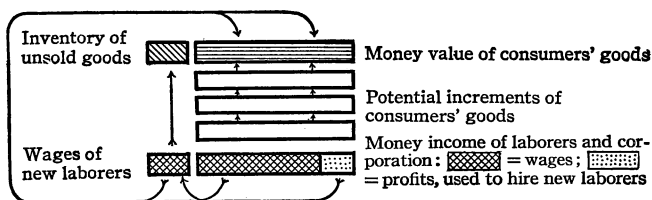
Here, again, a balance is struck between production and consumption, between supply and demand, between the flow of money income into the hands of consumers (laborers and stockholders) and the money value



of the consumers' goods produced. In Case II the authors assume that goods worth \$1,000,000 are purchased, that \$900,000 are paid out in wages and \$100,000 in dividends.

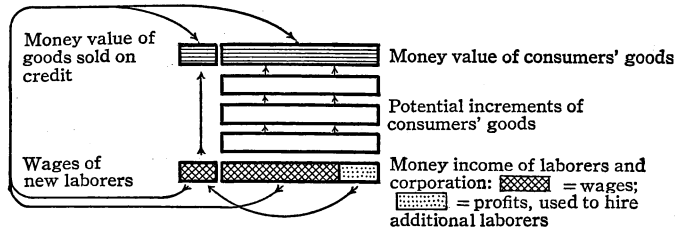
We now come to the third case presented by Foster and Catchings. Here we encounter for the first time the phenomenon of additional saving. In Case II we have assumed a certain amount of past saving, since there was available a certain amount of accumulated capital. But in Case II there was no *new* saving. The capital worn out each year (converted, as it were, into consumers' goods) was replaced by a new batch of capital. But the total volume of capital goods remained the same. In Case III, however, we have a fresh addition to the capital accumulation in the form of an inventory of unsold goods. This extra batch of goods is the result of the employment of an additional number of laborers. We may assume (without doing violence to the authors' argument) that these new goods are produced by the direct application of labor without the use of any fixed capital, thus leaving the former system of production (as pictured in Case II) intact. The authors of *Profits* assume that the same quantity of consumers' goods is sold as before, namely, \$1,000,000 worth, and that \$1,000,000 are paid out in wages (\$900,000 to the old workers and \$100,000 to the new). The wage-earners thus have a sufficient flow of money income to take off all the consumers' goods placed on the markets. In this case, however, no dividends are distributed, but, instead,

the money (\$100,000) is used to pay the new laborers. The former dividend receivers are now, of course, in no position to buy consumers' goods, but, instead, these goods are purchased by the new laborers. The stockholders do, however, receive something for the performance of their function, but their reward takes the form of an increase in the assets of the corporation — the unsold inventory of goods. Thus the equilibrium between the production of consumers' goods and the flow of money income into the hands of consumers is maintained, and supply equals demand. Case III may be diagrammed as follows :



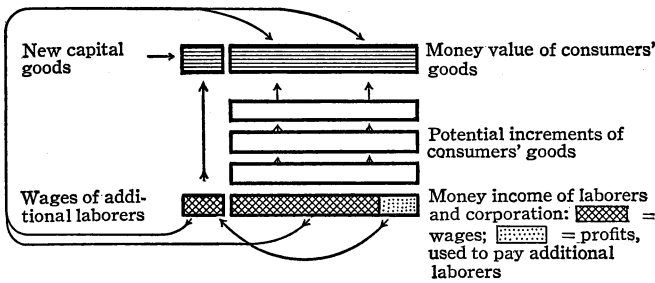
In Case IV the new goods produced by the additional laborers are sold, but not for money. Instead the corporation receives, in return for the sale of the goods, accounts receivable. In other words, the goods are sold on credit. The wage-earners, as before, are able to take off the old stock of consumers' goods, and since the new stock is being sold on credit, equilibrium again exists between production and consumption, between demand and supply. There is not a sufficient flow of money income into the hands of consumers, but the deficiency of

money purchasing power is offset by the granting of credits and the accumulation of accounts receivable in the hands of the corporation. Case IV may be diagrammed as follows:



In Case V the situation is very similar to that obtaining in Cases III and IV, with the exception that the additional laborers are supposed to produce capital goods and not consumers' goods, as in the previous cases. Instead of the profits (\$100,000) being distributed to stockholders, as in Case II, they are kept in the business, are used to employ additional laborers who are put to work (directly without the aid of machinery, we may assume for the sake of simplicity) to construct capital, or producers', goods. The profits of the corporation (\$100,000) are carried to the surplus account, and the assets of the corporation are increased by a corresponding addition to its fixed capital equipment. The old laborers are still engaged as before in producing (by the roundabout method) consumers' goods amounting in money value to \$1,000,000. These laborers are paid as before, \$900,000. The total volume of wages paid to the old and new laborers is therefore \$1,000,000, just

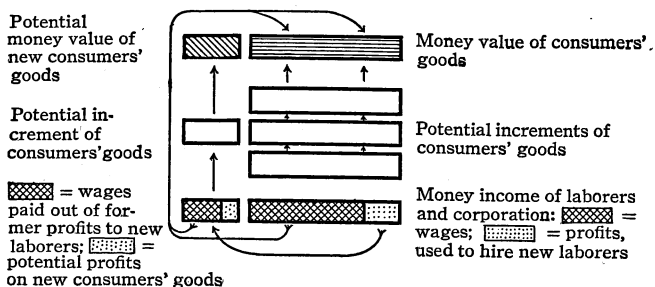
enough to buy the \$1,000,000 worth of consumers' goods produced. Since the stockholders are paid no dividends, they are not in a position to make any purchases, but content themselves by the fact that the net assets of the corporation have been increased. Equilibrium between the supply and the demand for consumers' goods is thus maintained. Case V may be diagrammed as follows :



We now come to Case VI, a very important one. Here it is assumed that the additional capital goods, created as explained in Case V, are put to work to produce consumers' goods. For the sake of simplicity we shall assume that the rate of depreciation on this new capital is 100 per cent per annum. It is thus worn out in a year, and in the process gives off consumers' goods. We shall assume that the laborers who originally created this equipment are next employed to build a new batch of capital goods which will replace the batch worn out in the process of producing additional consumers' goods. We again assume that the

machinery is completely automatic and requires no labor to tend it.

Case VI may be diagrammed as follows :



In Case VI, then, we witness an enlarged output of consumers' goods as a result of the employment of new laborers, precisely as in Cases III and IV. The essential difference between the former cases and the present one is this: in Cases III and IV the *new* laborers were set to work to produce consumers' goods directly, whereas in Case VI they work indirectly *via the production of capital goods*. Working by the roundabout, or capitalistic, method, the product should be greater than would be possible by the direct method, and we should therefore expect them to produce goods worth (on the old price basis) say \$110,000. Foster and Catchings, however, assume the production to be exactly the same as in Cases III and IV. But that would leave no profits for the corporation in spite of the fact that an additional investment is now made in fixed capital. In Cases III and IV there was no investment, and hence we have

assumed (as have Foster and Catchings) that there were no profits, but that the value of the whole product was identical with the wages paid. To be strictly accurate this would, of course, not be the case. But no matter. The chief point to notice is that the value of the product of the new laborers should be greater in Case VI than in Cases III and IV owing to the use of machinery.

Case VI is again differentiated from Cases III and IV in that an effort is here made to sell the goods for cash. But since only \$1,000,000 have been paid out in wages, and since no dividends have been distributed, it follows that the flow of money income into the hands of consumers is not sufficient to purchase the consumers' goods (worth \$1,110,000) which have been produced. Hence the equilibrium between demand and supply is upset. If prices remain constant (as is at first assumed by the authors of *Profits*), the result is that a stock of unsold goods is left on the market, and if this process is continued year after year a larger and larger stock of unsold goods will appear. The crux of the matter is, the authors state, that money once used to bring about the production of goods is again used to bring about the production of goods before it is used to bring about the consumption of goods. "If we have come upon anything of major importance since we left our pioneer on the very first page, this may well be it."<sup>1</sup>

Let us pause here and take stock. What is the fundamental thing that has occurred? At first the cases in

<sup>1</sup> *Profits*, p. 279.

*Profits* appear involved, but in reality the matter is quite plain. What has occurred is simply this: A part of the old consumers (the stockholders) have refrained from consumption, have saved, have employed more laborers, and thus have increased the total output of consumers' goods. If these laborers are employed in the roundabout method (as in Case VI), the added value output is still greater than if they produced consumers' goods directly (or worked along with the old laborers by the aid of the old machinery). In the former case, however, the overproduction of consumers' goods would be postponed as long as they were engaged in constructing the new capital and until the new capital was put into operation to turn out consumers' goods.

It is to be noticed that the increased production has come about by means of the employment of additional laborers (working either directly or indirectly). But a similar result, different only in degree, would occur if additional capital were accumulated without employing more laborers. This aspect of the matter the authors of *Profits* have not considered. In a society in which some laborers were engaged in the replacement of capital goods and others in the production of consumers' goods, an addition to the capital equipment could be accomplished by withdrawing laborers from the production of consumers' goods and engaging them upon the production of producers' goods. This change in the currents of production may be accomplished in one of two ways: In the first place, the stockholders may voluntarily

direct their demand from consumers' goods to producers' goods. In this event the equilibrium of consumer demand and consumer supply would not be upset until the new capital goods began to function. Consumer demand and consumer supply would both be reduced. In the second place, the corporation might *arbitrarily* decide to divert production from consumers' goods to producers' goods, without, however, curtailing its distribution of dividends. We suppose, moreover, that the stockholders would continue to purchase consumers' goods. The first effect of such a change in the currents of production would be a deficiency in the supply of consumers' goods coming on the markets, with no corresponding curtailment of consumer demand, since no change is assumed either in the amount of money paid out to wage-earners and stockholders or in the spending habits of these individuals. It follows that the demand for and supply of consumers' goods is upset, and the prices of consumers' goods will rise. The rise in prices comes about as a result of the effort of consumers to bid the limited supply away from each other. In the end, however, no consumer has been able to purchase as many goods as was possible before the corporation changed its production policy. The new capital goods which the corporation is making and accumulating are therefore being paid for out of the purchasing power which each consumer has lost through the rise in the prices of consumers' goods. The new capital is the product of the enforced saving imposed upon all con-



sumers as a result of the changed production policy of the corporation and the consequent decline in the supply of consumers' goods.

But eventually the new capital goods will have been completed and will be utilized for the making of consumers' goods. The corporation's labor force is then equipped with more elaborate machinery, and so it follows that the total output of consumers' goods will exceed the production maintained under the old régime before the corporation began to add to its total capital equipment. The productive process has been made still more roundabout, more capitalistic than before, since there has been a net addition to the total capital equipment. As a result the final output of consumers' goods is increased. There has not, however, occurred any increase in the money income received by wage-earners and stockholders. The final result of the addition of the new capital equipment is therefore an oversupply of consumers' goods. The prices of consumers' goods will fall before a new equilibrium can be reached. Thus while the new capital equipment is being made, a deficiency of the supply of consumers' goods raises prices; but when the new capital goods begin to make consumers' goods, a deficiency of consumer demand relative to the supply of consumers' goods develops, and either a mass of unsold goods accumulates, or prices are forced even below the original level.<sup>1</sup> And,

<sup>1</sup> Compare with J. S. Mill, *Principles of Political Economy* (Ashley edition), pp. 67-68, 561.

as is well known, falling prices destroy the profit margin and put a damper on production.

Attention should again be called to the fact that the illustration immediately preceding is not derived from the cases presented in *Profits*. The illustration in *Profits* assumes that the new capital is made by *additional* laborers. Both cases, however, involve saving. Both appear to support the authors' contention that the process of corporate or individual saving inevitably creates a deficiency of consumer demand, resulting in either an accumulation of unsold goods or a fall in prices and consequent business depression, unless such deficiency can be made up in some other manner.

Corporations and individuals must necessarily save; yet saving creates a deficiency of consumer demand. This is the "dilemma of thrift," the most essential conclusion of *Profits*. It is contended by Foster and Catchings "that money spent is used *first* to take away consumers' goods, whereas in many cases money invested is used *first* to produce more consumers' goods. And when individual income is invested, and thus used twice in succession to bring goods to market, it creates a deficiency in purchasing power."<sup>1</sup> If consumers, instead of *spending* all their incomes, invest in corporation securities, and if the corporation disburses the money in the process of increasing production, consumers will still have just enough money to buy the original output,

<sup>1</sup> *Profits*, pp. 284-285. Compare with Marx, *Capital*, Vol. III, chap. xv.

but not enough to buy the additional output. "To prevent such a deficiency, to maintain the balance between production and consumption, and thus to make sustained prosperity possible, money which is used in the production of goods, must be used in the consumption of goods before it is again used in the production of goods, or the effect of such use on the annual equation must be offset in some way. In short, whenever money is used twice in succession to produce goods, as it is in many cases when individuals invest their incomes, it is doing its part, as our Cases show, to stock the market beyond the capacity of consumers to buy at current prices."<sup>1</sup>

This condition, they contend, is, however, brought about only when individuals save in certain ways.<sup>2</sup> They therefore raise two questions: (1) Which ways of saving cause deficiencies in purchasing power? (2) What proportion of individual incomes is saved in these ways?

The authors of *Profits* enumerate and discuss seven ways of saving: (1) in real estate, (2) in commodities, (3) in hoarded money, (4) in banks, (5) in life insurance, (6) in corporation securities, and (7) in government securities. The first in no way involves the production-consumption equation. The total volume of money in consumers' hands and the total volume of commodities in consumers' markets remain exactly as before. Nor

<sup>1</sup> *Profits*, p. 285.

<sup>2</sup> Compare and contrast with Hobson, *The Economics of Unemployment*.

does the second method cause a deficiency in purchasing power. But when these hoarded goods are later used up and current buying is correspondingly curtailed, a deficiency of consumer demand is created. Saving, in the form of consumable goods, is therefore likely to develop trouble eventually.<sup>1</sup> The third method, the hoarding of currency, causes a dollar deficiency in consumer purchasing power to the extent of the dollars hoarded.<sup>2</sup> Whether or not savings in banks, the fourth method, cause a deficiency in consumer buying depends on what the banks do with the money. If it is invested by the banks in such a way that it is used twice in succession for the production of goods, a deficiency is created. The authors believe that more than one half the savings deposits are so used. Likewise savings in life insurance, the fifth method, are invested in large part in production loans, and hence are used twice in succession in creating supply instead of being used alternately in creating and in absorbing the supply. Thus a deficiency of consumer purchasing power is created. The same argument applies to savings invested in corporate securities. Savings invested in government securities, the last method enumerated, are usually used by the government for consumption purposes, and so create no

<sup>1</sup> See also Arthur Spiethoff, "Krisen," *Handwörterbuch der Staatswissenschaften* (1925), VI, p. 74.

<sup>2</sup> This is Case VII. It assumes that cash savings are hoarded. Consumer purchasing power is correspondingly curtailed, and so consumer demand fails to keep pace with the supply of consumers' goods. This case is intended to show the effect of *hoarding*, as distinct from *saving*.

deficiency of consumer demand.<sup>1</sup> Thus the conclusion is reached that if people do not spend all their income, there is a deficiency in consumer demand unless the effect of their savings is offset in some other way.

Now before going any farther, it may be well to state at this point that a similar deficiency of consumer demand might occur for numberless other reasons besides the one here discussed; namely, an increase in capital goods or saving. In fact, all that the authors have shown is that if the production of consumers' goods is increased, and if there has not at the same time occurred an increase in the flow of money income into the hands of consumers, overproduction and falling prices will ensue.

Let us suppose that new natural resources are discovered. There follows an increased output of goods even though no additional saving takes place. Assuming no change in the volume of circulating media, or the amount of money income flowing into the hands of consumers, the demand for these goods fails to keep pace with the supply. Either there will develop an inventory of unsold goods or prices will fall.

A precisely similar situation will develop in each of the following cases (among many others that might be cited), as can readily be seen without further argument: (1) increased personal efficiency of labor, (2) improved management methods, (3) new inventions and improved processes, (4) increased population and labor supply.

<sup>1</sup> Cf. Malthus, *Principles of Political Economy*, p. 395.

The last-named situation perhaps needs brief comment. More laborers will be applied to the old resources and capital equipment, the total output of consumers' goods will be increased, though the average product will probably be lower. Consumers' *wants* and *needs* will increase even faster than the production of consumers' goods; but consumer *demand* (in money terms) will not increase at all, since with the same volume of circulating media the flow of money into the hands of consumers will be no greater than before. Thus there must develop a supply of unsold goods, or else prices will fall.

Moreover, while Foster and Catchings are quite right in assuming that an increase in capital equipment will eventually result in an increased supply of consumers' goods, in the opposite direction attention may be called to the fact that the failure to replace capital goods, and the utilization of capital-replacing labor to produce consumers' goods, may temporarily (until the old capital goods are used up) result in an increase in the supply of consumers' goods. Saving will *eventually* result in an increased output of consumers' goods, but, on the other hand, a society may temporarily increase its current output of consumers' goods by eating up its capital supply.<sup>1</sup> Any sudden increase or decrease of capital accumulation and saving *tends* to upset the equilibrium of demand and supply.

<sup>1</sup>Cf. H. B. Hastings. *Costs and Profits*, chap. v. Houghton Mifflin Company.

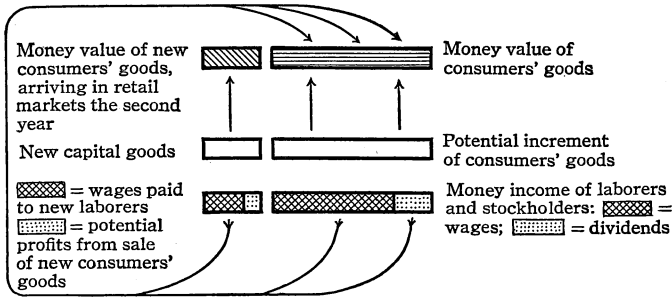
It will be seen from the foregoing that there is no more reason to suppose that thrift and capital accumulation will eventually upset the equilibrium of consumer supply and demand than many other dynamic factors. If we must assume, as do the authors of *Profits* in the cases cited, that the flow of money income into the hands of consumers remains unchanged, then it must follow that *any change* in the productive process which increases the output of consumers' goods will upset the equilibrium of consumer demand and supply. If it is correct to say that thrift and saving will inevitably develop an overstocked market, then the same must be said of the discovery of new natural resources, of an increase in population, an advance in the arts, or an increase in personal efficiency.

But now why assume that the "money" supply is fixed. Everyone knows that it actually is not. And this Foster and Catchings admit. They therefore withdraw this artificial assumption and proceed to ask the question May not the deficiency of consumer demand be offset by an increase in the circulating media?

In Case X<sup>1</sup> additional bank credit is issued amounting to \$90,000. These loans are made to manufacturers,

<sup>1</sup> In Cases VIII and IX the authors withdraw their original assumption that the price level remains unchanged, and show the effect of a decline in the price level resulting from the failure of consumer demand. They argue that if prices of all sorts fell simultaneously, synchronized, continued production at a profit would be possible. They show, however, that prices do not move in this fashion; that there are lags that destroy the profit margin.

who use the added funds to employ additional laborers (over and above the number employed in Case II) in order to increase production. Case X<sup>1</sup> may be diagrammed as follows:



During the first year the new laborers are building new capital equipment. Only in the second year do the new consumers' goods finally arrive in the retail markets. Until the new capital goods finally begin to turn out consumers' goods, consumer demand will outrun the supply of consumers' goods, since the former has increased by \$90,000 (the amount of the new bank credit created), whereas the latter, for the time being, is no greater than before. Accordingly, the prices of consumers' goods will rise until a new equilibrium is reached between demand and supply.

But now what will happen the following year, when the new consumers' goods begin to arrive in the retail

<sup>1</sup> In Case X we have assumed, for the sake of simplicity, that all capital equipment is worn out in one year, whereas in Case II the depreciation period is three years.



markets? We now find that the supply of consumers' goods more than matches the additional consumer demand. Ten per cent more laborers were added, and so the wage bill was increased 10 per cent; that is, from \$900,000 to \$990,000. But the original money value (see Case II) of the former supply of consumers' goods was \$1,000,000, the extra \$100,000 being paid out in dividends. The new consumers' goods should likewise sell at a figure that would yield a profit. If the old laborers produced a product worth more than their wages, the new laborers should likewise. If the new laborers and the new capital which they produce are assumed to be as productive as the old, the total increase in the physical output of consumers' goods should be 10 per cent. But we have seen that the money income paid out to wage-earners and stockholders did not increase 10 per cent but only 9 per cent. Thus the supply of consumers' goods has increased more than the increase in the flow of money income compared with the condition obtaining before the new bank credit was issued. The prices of consumers' goods will therefore fall from the high level reached during the first year of the expansion to a point even below that which obtained prior to the disturbance of the old equilibrium.

Now suppose, however, that still more bank credit is issued. Another \$90,000 of loans are made and credited to the deposit accounts of business men. With these added funds they employ an additional group of laborers. This brings us to Case XI. The total wages paid

are now \$1,080,000. Add to this the \$100,000 dividends, and you have a total consumer demand of \$1,180,000, or an increase of 18 per cent. The consumers' goods which were in process of being produced (via the production of capital goods) during the first year of the expansion emerge in the second year and are placed in the retail market together with the former annual supply. This makes an increase in the supply of consumers' goods of 10 per cent. Relative to the preëxpansion period, therefore, consumer demand has outrun consumer supply; but relative to the preceding year — the first year of the expansion — the increase in consumer demand has not kept pace with the increase in consumer supply, and so the price level falls below the high point reached in the first expansion year. This is evident from the fact that in the first year of expansion consumer demand stood at 109, and consumer supply at 100, relative to the preëxpansion period. In the second year, as we have shown, consumer demand stands at 118 and consumer supply at 110. Foster and Catchings conclude that the higher price-level which first results from an increase in the volume of "money" cannot be sustained, so long as production expands, unless the volume of money is increased at an accelerating rate.<sup>1</sup>

<sup>1</sup> As a matter of fact, the authors' illustration does not consider a uniform *rate* of increase, but only an equivalent *absolute* increase. A uniform *rate* of increase would, however, give the same conclusion, the difference being only one of degree. The real point is that as the volume of consumers' goods created increases 10 per cent per annum, consumers' incomes increase only 9 per cent per annum.

This brings us to Case XII. Here we return to the conditions obtaining in Case X during the first year of expansion. Suppose, now, that in the subsequent year the corporation repays its loan of \$90,000 at the bank. The new laborers are discharged, and consumer demand falls back to the relative figure 100, the same as in the preexpansion period. But during this second year the new consumers' goods emerge and are placed in the retail markets. Consumer supply therefore equals 110. Obviously the equilibrium is disturbed, and the price level will fall 10 points or so below the preexpansion level.

What do these cases show? They show, the authors tell us, that an expansion of circulating media by means of an issue of bank credit will not in the long run offset any deficiency of consumer demand arising out of such an increase in the supply of consumers' goods as was assumed in Cases III to VI. In fact, the issue of bank credit itself sets up a chain of reactions which will eventually result in a deficiency of consumer demand. Thus instead of offsetting any deficiency created by saving, it tends itself to develop a deficiency of consumer demand.

The manner in which the money is used is of prime importance. A balance must be maintained between money *used to buy goods and money used to produce goods*. If the "increase of money is too large on the producers' side, the result is an output of goods beyond the capacity of consumers to buy them. If, on the other hand, the

increase of money is too great on the consumers' side, the result is a bidding up of prices which in the ordinary course of business also culminates in overproduction."<sup>1</sup>

Supply and demand are indeed always equal in a barter economy. Overproduction — a supply in excess of demand — is held to be a purely monetary phenomenon. "Money is suspended purchasing power, left hanging over the markets to be used nobody knows *when*, or *where*, or for *what*. The sale of goods for money, therefore, creates the new possibility of a demand without supply, or a supply without demand."<sup>2</sup>

Two erroneous assumptions, the authors tell us, are commonly made: (1) "that the goods produced and the credit created correspond dollar for dollar," and (2) "that the new goods and the new credit affect the markets at the same time."<sup>3</sup> The cases presented show that an increased output of money "at first yield consumers more than enough money, and presently far less than enough money, to buy the available goods at the current price-level."<sup>4</sup> "The fact that all the goods belong to some one does not mean that some one receives the money income capable of buying them."<sup>5</sup> The "time inevitably comes in a period of expanding production when the *total* flow of money to consumers does not keep pace with the flow of goods."<sup>6</sup>

Bank loans are used principally to increase production

<sup>1</sup> *Profits*, p. 318.

<sup>2</sup> *Ibid.* p. 320.

<sup>3</sup> *Ibid.* p. 320.

<sup>4</sup> *Ibid.* p. 320.

<sup>5</sup> *Ibid.* p. 321.

<sup>6</sup> *Ibid.* p. 321.

rather than to increase consumption. When they are invested in new capital facilities the first effect, it is true, is an increase in consumers' purchasing power. But investments in new capital facilities are made for the purpose of creating goods that can be sold at a profit; and if this expectation is realized, the result is a deficiency of consumers' purchasing power. Thus the first effect of new bank loans used in production is to bring new money into consumers' markets in advance of new commodities, and this "raises prices, makes the business outlook seem better than it is, and creates overconfidence."<sup>1</sup> After a while the expansion of bank credit for the purpose of production "increases the means of producing commodities out of proportion to the means of buying them."<sup>2</sup>

The authors have so far taken no account of government taxes and expenditures. They now raise the question whether or not these operations in any way offset the deficiency of consumer demand. Their conclusion is that, in so far as government expenditures are financed by means of taxes and loans which do not involve an expansion of the volume of money in circulation, these operations do not offset in any degree the deficiencies in purchasing power which are caused by private industry.

The following quotation gives a concise summary of the conclusion reached by the authors:

<sup>1</sup> *Profits*, p. 325.

<sup>2</sup> *Ibid.* p. 325.

It is an amazing fact, however, that consumption cannot long keep the pace since, as industry is now financed and corporate savings are now effected, the flow of money to consumers does not long keep pace with the flow of goods ; and without a full flow of *money* into consumption there cannot be a full flow of *goods* into consumption. The necessary flow of money is not sustained because, when the output is enlarged, producers do not disburse to consumers, directly or indirectly, an amount of money equal to the final sales price of their products. This failure of industry to provide consumers with enough money to buy its products is inherent in the profit system, for all payments by industry to consumers are advances made with the expectation of recovering from consumers all that has been advanced, with profits in addition. As business expands and profits are thus realized, approximately half the profits are used to produce more goods. In fact, it is the established, approved, and, under the present system the necessary, practice of the various industries to distribute only part of the realized profits and to use the rest, in one way or another, to increase capital. Thus the flow of goods which consumers must buy if business is to prosper increases more rapidly than the flow of money to consumers.

Furthermore, even if producers disbursed all their profits and all other incomes, and even if they acted promptly enough — which is impossible since profits cannot be distributed until after they are realized — there would still be a deficiency of consumer buying ; for consumers must save, and usually they save in ways which increase the output of industry. Thus a part of the corporate income which is received from consumers and returned to

them, as wages, rent, interest, and dividends, is used by them not to purchase goods, but to bring about the production of more goods; and every dollar which is thus saved instead of spent increases the initial deficiency. . . .

Both producers and consumers must save. Since, however, it is consumption and not abstinence that stimulates production, neither producers nor consumers are able to save without to some extent frustrating the social object of saving. This is what we have called the dilemma of thrift.<sup>1</sup>

The deficiency in consumer purchasing power is not made up from "additions to the money in circulation, because these additions, originating as they do principally on the producer side, and being used to turn out goods to be sold at a profit, lead presently to increases in goods which exceed the increases in purchasing power."<sup>2</sup>

The leading conclusions of Foster and Catchings may then be stated as follows:

1. If bank credit is expanded for purposes of increased production, the flow of consumer demand will increase before there is any increase in the volume of consumers' goods. This is due to the fact that production takes time. The productive factors employed are paid while the productive process is going on, but the product is not completed for several months or perhaps even years. In the meantime consumer demand outruns consumer supply, and prices rise.

<sup>1</sup> William T. Foster and Waddill Catchings, *Profits*, pp. 399-401. Houghton Mifflin Company.

<sup>2</sup> *Ibid.* p. 401.

This analysis, is, we believe, sound for certain phases of the business cycle, but it contributes nothing new, as we shall see later, to the theory of the business cycle, nor does it grapple with the forces that underlie these movements.

2. Unless bank credit is issued at an accelerated *rate*, consumer supply will outrun consumer demand as soon as the new batch of consumers' goods begin to be poured on the market. As a result, prices fall. This conclusion is based on the assumption that consumer income (and therefore demand) is increased at a rate corresponding to the ratio of the increased *outlay* (expenses incurred in expanding production) to the former consumers' income, whereas consumers' supply is increased at a rate corresponding to the ratio of the added expense outlay to the former expense outlay. Or, to put it in *absolute* terms, rather than in terms of *rate of increase*, the conclusion is based on the assumption that the absolute increase in consumer money income (or demand) is equal to the added expense outlay, whereas the absolute increase in consumers' supply (measured in terms of money) is equal to the added expense outlay *plus profit*.

The assumption is that a 10 per cent increase in expenses will employ 10 per cent more productive factors and eventually result in a 10 per cent increase in product. But since a 10 per cent increase in expenses will only add 9 per cent to consumers' incomes (assuming that the expenses of production constitute 90 per cent of the total value output, the remaining 10 per cent being



profits),<sup>1</sup> it follows that consumers' supply will outrun consumers' demand, and prices will fall.

This statement of the case suggests a point which contributes to an understanding of the business cycle, but the manner in which it is stated by Foster and Catchings leads, as the present writer sees it, to wrong conclusions.

3. If increased output is financed out of corporate and individual savings (instead of by bank credit), consumers' demand will remain equal to the flow of consumers' goods so long as the new production is in process; but when the new finished products are at last turned out, the supply of consumers' goods will exceed consumers' demand, and prices will fall unless offset by an expansion of bank credit. But, as we have seen, Foster and Catchings contend that such an expansion of bank credit even though issued at precisely the right time could at best only defer the failure of consumers' demand. This follows, it is claimed, from the argument presented in (2) above, to the effect that bank credit is issued mainly to producers and therefore eventually results in consumer supply outrunning consumer demand.

It follows that it is impossible for society to save without producing price fluctuations, prosperity, and depression. This the present writer believes is not true. We shall show later that a uniform rate of saving is con-

<sup>1</sup> The words "expenses" and "profits" are here used in the business, or accounting, sense.

sistent with a stable economic equilibrium; that the disruption of this equilibrium is not due to the fact of saving per se, but to dynamic forces inherent in a progressive industrial order which carries on production by means of the capitalistic, or roundabout, method in a highly complex money and exchange economy.

We conclude, then, that the argument advanced in *Profits*, reduced to its lowest terms, amounts to this: Consumer demand and consumer supply must remain equal, or the prices of consumers' goods will rise or fall. A rise in prices stimulates industry, and a fall in prices brings depression. Consumer demand runs in terms of money. It varies with the money income flowing into the hands of consumers and the per cent of this income used by them to buy consumers' goods. Consumer supply varies with the consumers' goods flowing into the retail markets. Anything that upsets the equilibrium between consumer demand and consumer supply will start industry on the up-grade of prosperity or the down-grade of depression, as the case may be. A change in the production of consumers' goods unaccompanied by a simultaneous change in the money demand for consumers' goods would disturb the equilibrium.

This skeleton statement of the conditions necessary for economic equilibrium is satisfactory as far as it goes, but it is too simple for an adequate analysis of the complex forces at work in the business cycle. However, taking it as it stands, it is pertinent to show that the

authors have overlooked many factors that would disturb the equilibrium they have sketched. They have limited their discussion to the effect of saving and the issue of bank credit on consumer demand and consumer supply. But there may be other disturbing factors, such as an increase in the labor supply, a discovery of new natural resources, invention and scientific discoveries, improved management processes, increased personal efficiency of the population, and a prodigal eating up of past capital accumulations.

On the other hand, they have not taken sufficient account of the continuity of the modern production process and the equilibrating forces.

It is not the purpose of this chapter, however, to discuss *Profits* critically, but merely to state and analyze the main arguments presented by the authors. In a later chapter we shall examine their theory in the light of the literature pertaining to the business cycle.

## CHAPTER IV

### THE CAPITALISTIC PROCESS OF PRODUCTION AS CAUSE OF THE BUSINESS CYCLE

In Chapter II we have considered a group of writers who find the disturbing factors which upset the economic equilibrium, and so produce the business cycle, in the manner in which, under the capitalistic order, the income is distributed. This theory, as we have seen, aroused the Say-Ricardo-Mill school, which developed the so-called law of markets. This law in essence means that a nation's purchasing power is not affected by the *manner* in which income is distributed but solely by the national product; that the manner in which income is distributed only affects the *direction of demand* but not the totality of demand; that the manner in which income is distributed will therefore only affect the kinds of things produced but not the totality of production.<sup>1</sup> *Changes* in income distribution would, it is true, bring

<sup>1</sup> From the long-run point of view, the classicals did not hold that total production is unaffected by the distribution of income, since the distribution of income affects the accumulation of capital. Moreover, it is to be noted, as George Gunton pointed out (*Wealth and Progress* (1887), pp. 8, 30, 268, 278), that a more equal distribution of income, giving greater purchasing power to the masses, tends in the direction of mechanized, large-scale production. In this respect the physical output is therefore likely to be greater if the income is more equally distributed. Thus the *direction of demand* itself affects the *totality of demand*.