# Keynes, Say's Law and the Theory of the Business Cycle

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There are, broadly speaking, two ways to account for unsold goods during a recession. Goods may either be unsold because individuals prefer not to spend all of their income, or else goods may be unsold because producers have produced goods which those with incomes do not wish to buy. The first is the Keynesian approach and is based on the notion that goods remain unsold because of decisions to save. The second is the basis of the classical theory of the cycle which assumes that errors were made in the structure of production so that goods remain unsold because the wrong things were produced. Credit contraction can be associated with either form of theory.

Say's Law was the classical proposition which ruled demand failure out as a theory of recession. While there were a series of ancillary propositions which are properly associated with Say's Law - such as the notion that goods buy goods or that demand is constituted by supply - the classical statement which most clearly captures its historical meaning is the statement that there is no such thing as a general glut. The language to modern ears is somewhat archaic, but the meaning is clear: recessions cannot and are not caused by excessive production. Overproduction cannot and does not occur. An economy cannot produce more than buyers would be willing to buy. Demand deficiency is thus *never* a correct explanation for recession.

There should be no misunderstanding this issue. Theories of the cycle based on demand deficiency and overproduction were not considered to be merely unlikely. Belief in demand deficiency was seen as utterly fallacious. Acceptance of the law of markets meant that one recognised that recessions and unemployment were never to be accounted for by a failure of demand relative to supply. A typical statement of the classical position is provided in a late nineteenth century text:

> "*Pitfall.* To think depression of trade or a crisis may be due to a general over-production or a *general glut* or commodities. This is to think selling is like giving, a one-sided business, and is to forget that though currency may be used as a medium of exchange, what is ultimately wanted by sellers no less than buyers is not money, but other goods, and that precisely it is other goods that are wanting. For a crisis implies not over-production but under-production or mis-directed production." (Devas 1892: 314 - italics in original.)

When seen in this light, the arguments of the *General Theory* are obviously addressed towards refuting Say's Law. Where classical economic theory stated that demand deficiency is an invalid explanation for recession, Keynes argued that not only is it a valid explanation, but is the principal explanation. Keynes, in fact, said more than this. He argued that classical economists, because of their acceptance of Say's Law, not only failed to recognise the importance of demand deficiency, but failed even to have a theory which would explain the causes of recession and the existence of involuntary unemployment. Keynes, for example, wrote:

> "I believe that economics everywhere up to recent times has been dominated, much more than has been understood, by the doctrines associated with the name of J.-B. Say. It is true that his 'law of markets' has been long abandoned by most economists; but they have not extricated themselves from his basic assumptions and particularly from

his fallacy that demand is created by supply. *Say was implicitly assuming that the economic system was always operating up to its full capacity, so that a new activity was always in substitution for, and never in addition to, some other activity.* Nearly all subsequent economic theory has depended on, in the sense that it has required, this same assumption. Yet *a theory so based is clearly incompetent to tackle the problems of unemployment and of the trade cycle.*" (CW VII: xxxv - italics added.)

The aim of this paper is to explain the different theories of the cycle which follow from either taking the classical approach or the Keynesian. Much of the discussion will dwell on classical theory which may, in essence, be characterised as a theory of the cycle in which no aggregate demand curve exists. Keynes was dead right when he stated that, "the idea that we can safely neglect the aggregate demand function is fundamental to the Ricardian economics, which underlie what we have been taught for more than a century" (ibid.: 32). In these words he accurately characterised the views of classical economists. But as will be argued below, the deliberate absence of a theory of aggregate demand did not mean an absence of a theory of unemployment or of the cycle. It meant the development of a very different (but more accurate) theory of the cycle in contrast with the theory which developed subsequent to the publication of the *General Theory*.

## The Classical Theory of the Cycle

From the perspective of classical economics in general, the theory of recession is not independent of the theory of the cycle as a whole. One cannot fully understand the nature of the downturn unless one has also understood the boom which has preceded it. Haberler in his *Prosperity and Depression* makes a quite extraordinary statement which emphasises this point:

> "*There is complete unanimity amongst economists* that the problem of the recurrence of periods of economic depression and the cognate problem of acute economic or financial crises cannot fruitfully be discussed in isolation from the major problem of which they form part - viz., the problem of the business or trade cycle; by which is meant, a wavelike movement affecting the economic system as a whole." (p. 161 - italics added.)

It is hard to imagine any non-trivial statement on macroeconomic theory written today which could begin with the words "there is complete unanimity amongst economists". Yet Haberler was able to make this statement of the economics profession of his time without drawing any disagreement from any of his professional colleagues: depressions could only be understood in relation to the previous upturn.[1]

The primary cause of recession, according to classical business cycle theory, was that during the up phase of the cycle, the various parts of the economy moved out of phase with each other. It was thus problems associated with the structure of demand which caused recession, rather than the level. Structure of production was the key concept. Put simply, production had to be so constituted that the incomes earned by those engaged in production would be used in such a way as to buy precisely those goods and services which had been produced. Those incomes might be spent directly on consumption goods, or they might have been lent to others to purchase investment goods. But those with incomes to spend had to want to buy what producers had previously decided to produce if deflationary pressures were to be avoided.

J.S. Mill, in his classic statement on the law of markets, had, for example, written that "every increase of production, *if distributed without miscalculation among all kinds of produce in the proportion which private interest would dictate* . . . constitutes its own demand" (J.S. Mill [1871] 1974, p. 73 - italics added). Production could rise without limit so long as producers were producing what demanders wanted to buy. Recessions would however occur when miscalculation occurred, that is, when the structure of demand was different from the structure of supply. If the goods which happen to have been produced did not coincide with the goods which consumers and investors wished to buy, some good would remain unsold. It was from miscalculations of this kind that the classical theory of recession was built.

Moreover, and importantly, such theories did not depend on monetary instability, although it was well recognised that monetary instability could start a recession or make a downturn worse. McCulloch provides a perfect description of how recessions come about even as he is explaining that it would never occur because of demand deficiency:

> "Setting apart for the moment the influence of sudden changes in the value of money, and of political regulations, if the market be encumbered and a difficulty be experienced in effecting sales, we may be satisfied that the fault is not in producing too much, but in producing articles which do not suit the tastes of buyers, or which we cannot ourselves consume. . . . We may increase the power of production ten or twenty times, and be as free of all excess as if we diminished it in the same proportion. *A glut never originates in an increase of production; but is, in every case, a consequence of the misapplication of the ability to produce*, that is, of the producers not properly adapting their means to their ends. Let this error be rectified, and the glut will disappear." (McCulloch: 155-156 - italics added.)

The classical theory of the cycle is thus a theory built on business miscalculation which can be, but is not necessarily exacerbated by credit contraction. The origins of the crisis and subsequent downturn are located in the processes of the upturn. Various forces are set in motion while the economy is expanding, which ultimately create stresses on the economic system. The longer an expansion has gone on, the more vulnerable the economy becomes to the forces of adversity. As classical economists understood the process, a downturn could commence in one or two areas, and then spread through the economy. That is, a "partial glut" could turn into a general downturn in economic activity.

But it was during the growth phase of the cycle that the seeds of subsequent problems were sown. During the upturn, distortions in the structure of production would appear. The goods produced would correspond less and less to the goods demanded. It could be the wrong consumer goods or investment goods, but the goods which the community wished to buy would be different from the goods which were being produced, and a proportion of production could then not be sold at cost-covering prices. Haberler describes, in some detail, the ensuing contraction process (op. cit. 224-226). The following passage provides the essence of his description:

> "When demand flags at various points, merchants will give lower orders to producers, production will be curtailed and workers will be dismissed. This reduces income. When incomes fall, the demand for all kinds of goods is further reduced and depression spreads to other parts of the system." (ibid. 224)

Haberler correctly states that his "general description of the contraction process may probably be taken as a correct description of the *common opinion* on the matter" (ibid.: 226 - italics added).

One would not know from a reading of the *General Theory* that the process of recession - starting from initiating causes through to the spreading deflation, up to and including the transmission mechanism - occurs through the law of markets. Demand being constituted by supply, as production contracts incomes contract. With the fall in incomes, demand for other goods and services contracts. Superficially, it may appear that there has been an overall fall in demand, but the underlying reality is that the various parts of the economy have gone out of phase. The economic system is no longer synchronised, and at least some parts must contract. A period of deflation occurs which may continue for a considerable period of time. Ultimately, the trough will be reached and a revival will occur.

An acceptance of Say's Law thus did not lead classical economists to believe, as Keynes argued, that there was no obstacle to full employment. The grand irony was that it was their understanding of Say's Law which was the basis for the classical understanding of the nature of recessions and indeed of the business cycle as a whole.

## Accelerator Principle

Theories based on the acceleration principle, a concept first introduced by J.M. Clark in his landmark paper (Clark 1917), may, however, need further amplification to demonstrate their consistency with the law of markets.

The acceleration principle is the proposition that changes in demand for consumption goods lead to much larger proportional changes in the demand for capital goods. Therefore, a fall, or even a slowing in demand for consumer items may lead to a more than proportional fall in the demand for capital goods and, therefore, to a more rapid downturn in economic activity than the fall in consumer demand might otherwise have occasioned. Thus, if the law of markets means that recessions are not due to demand failure, then it might at first sight appear that the acceleration principle is contradictory to that principle.

This is, on closer analysis, not so. The issue of demand failure is the equivalent of over-production, that is, too much being produced relative to demand. The acceleration principle, in contrast, is related to the structure of demand rather than to its level. The acceleration principle posits a functional relationship between the demand for capital goods and the demand for consumer goods such that, if the demand for consumer goods should slow, there is a more rapid slowing in demand for capital goods. The consequent economic downturn is thus not due to too much having been produced, but that it is the wrong assortment of goods that has been produced. This is entirely within the classical mould and is one further example of an economic downturn occurring due to structural maladjustment.

## Keynes's Theory of Recession

What Keynes introduced into mainstream economics was a theory of recession explicitly built on the possibility of demand failure. In so doing, he was introducing a theory which virtually all economists had, until then, rejected as fallacious. According to Keynes, a general glut, or over-production, was possible. Too much could be produced relative to the aggregate level of demand.

This is the grand difference in economic theory before and after Keynes. Until 1936, only economic cranks, as Keynes himself noted in listing his "brave army of heretics" (CW VII: 371), suggested that demand in the aggregate could be deficient. Following publication of the *General Theory*, the possibility of aggregate demand deficiency became a live possibility accepted by virtually all economists. Demand deficiency became the first place to look when an economy went into recession and unemployment struck. Finding means to stimulate demand became the standard response to recession and unemployment.

There are few if any introductory texts on macroeconomics in the English speaking world which do not explain, at least in the first instance, the generation of recession in terms of the Keynesian-cross 45-degree diagram. Virtually every economist, in being initiated into the rites of the profession, is taught how demand may become deficient and is then taught a series of remedial actions which might or might not be effective in creating additional demand. Virtually every economist is taught some variant of the Hicks-Hansen IS-LM approach in which variations in economic activity are explained in terms of factors which affect the level of demand.

Both the Keynesian-cross and the IS-LM analysis can be seen as consistent with the aim and intent of the *General Theory*. Both transfer the cause of recession to the demand side of the economy, a theory of recession found nowhere amongst the theories of Keynes's mainstream contemporaries or their classical predecessors.

## Notes on the Trade Cycle

It is important in understanding Keynesian views on the business cycle not to be distracted by what Keynes specifically said about business cycles. Keynes, in his "Notes on the Trade Cycle", stresses that it is variations in the marginal efficiency of capital that is the root cause of recession (CW VII: 313, 315). If he meant no more than to say that recessions are brought on because something causes a fall in confidence which leads investors to produce less than they had until then been doing, then there is nothing novel or interesting in Keynes's analysis. This had been a standard argument of economists for more than a century and was hardly the stuff of revolutions.

Indeed, the specific theory of the cycle hinted at in his chapter on the trade cycle seems to be a caricature of the classical theory. It consists of a world of moody and temperamental investors who are at various times over-wrought with high and mutually unrealisable expectations. During periods of high optimism their tendency is to over-invest. However, as soon as actual outcomes turn out to be less profitable than they had originally hoped, pessimism takes over with a consequent rise in liquidity preference. Recession at that point can only be forestalled if interest rates fall sufficiently far and do so rapidly. Institutional factors, however, ensure that interest rates do not fall to a sufficient degree. There is, therefore, a reduction in investment, output and employment which persists until business confidence is once again restored.

This is a variant of the theory of misdirected production which was the staple of the classical theory of the cycle. And if that was what Keynes had to say, he had little new to add to what had gone before. But Keynes meant something else and was understood to mean something else. He wished to demonstrate that demand deficiency in the sense of a refusal to spend lay behind recession and involuntary unemployment. In explaining why "the insufficiency of effective demand will inhibit the process of production" (ibid.: 31), Keynes had written in one of the scene-setting chapters of the *General Theory*:

> "The richer the community, the wider will tend to be the gap between its actual and potential production; and therefore the more obvious and outrageous the defects of the economic system. For a poor community will be prone to consume by far the greater part of its output, so that a very modest measure of investment will be sufficient to provide full employment; whereas a wealthy community will have to discover much ampler opportunities for investment if the saving propensities of its wealthier members are to be compatible with the employment of its poorer members. If in a potentially wealthy community the inducement to invest is weak, then, in spite of its potential wealth, the working of the principle of effective demand will compel it to reduce its actual output, until, in spite of its potential wealth, it has become so poor that its surplus over its consumption is sufficiently diminished to correspond to the weakness of the inducement to invest." (ibid.)

Keynes's meaning seems clear. The more wealthy the community, the more that investment can be expected to remain too low to soak up all available savings. Therefore, even though a community may be potentially very well off, because the level of demand for investment goods is too low, the level of effective demand will also be too low. Therefore, the level of involuntary unemployment will remain high.

In the long run the problem would be secular stagnation. In the more immediate term, demand deficiency was associated with those institutional factors which prevented the rate of interest falling low enough or fast enough to ensure that all savings were invested. Potential abundance leading to poverty because of the failure of interest rates to adjust was what Keynes seemed to believe had already happened in Britain and the United States. As he wrote:

> "The post-[first world] war experiences of Great Britain and the United States are, indeed, actual examples of how an accumulation of wealth, so large that its marginal efficiency has fallen more rapidly than the rate of interest can fall in the face of the prevailing institutional and psychological factors, can interfere, in conditions mainly of *laissez-faire*, with a reasonable level of employment and with the standard of life which the technical conditions of production are capable of furnishing." (ibid.: 219)

The three additions to economic theory on which Keynes himself put so much store were related towards explaining why demand might in fact be deficient. In the *General Theory* Keynes wrote:

> "The analysis of the propensity to consume, the definition of the marginal efficiency of capital and the theory of the rate of interest are the three main gaps in our existing knowledge which it will be necessary to fill" (CW VII: 31).

That is, Keynes sought to explain why consumers would not spend their incomes, why businesses would choose not to invest as much as they might and why interest rates would not fall to a sufficient degree to ensure all savings were put to use.[2] None of these were related to the structure of production as had been the classical concern. These were elements used to explain why demand would simply not keep pace with the production capabilities of a fully employed economy.

Keynes's meaning was underscored by his discussion of under-consumptionist theories of recession in the *General Theory*. As he noted, his only practical difference with their views was that they emphasised to a slight extent the importance of consumption at the expense of investment:

> "It may be convenient at this point to say a word about the important schools of thought which maintain, from various points of view, that the chronic tendency of contemporary societies to under-employment is to be traced to under-consumption; - that is to say, to social practices and to a distribution of wealth which result in a propensity to consume which is unduly low.
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> "In existing conditions . . . where the volume of investment is unplanned and uncontrolled, subject to the vagaries of the marginal efficiency of capital as determined by the private judgement of individuals ignorant or speculative, and to a long-term rate of interest which seldom or never falls below a conventional level, these schools of thought are, as guides to practical policy, undoubtedly in the right. . . .
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> "Practically I only differ from these schools of thought in thinking that they may lay a little too much emphasis on increased consumption at a time when there is still much social advantage to be obtained from increased investment." (CW VII: 324-325)

## Keynes and the Classics

Just how great the distance is between the views of classical economists and Keynes on the issue of demand deficiency may be seen in an interesting contrast. In a footnote in *Commerce Defended*, James Mill, as part of his discussion on the law of markets, makes the following observation on the views of William Spence who had sought to encourage growth through increased expenditure on durables:

> "Mr Spence will surely allow that the pyramids of Egypt are sufficiently durable. Yet the political philosopher would amuse us, who should advise us to enrich our country, by building a few of these durable structures." ([1808] 1966: 116n)

Yet Keynes in the *General Theory* did just that, and not once but twice. First, at the end of the chapter on the marginal propensity to consume, he wrote:

> "Ancient Egypt was doubly fortunate, and doubtless owed to this its fabled wealth, in that it possessed *two* activities, namely, pyramid-building as well as the search for precious metals, the fruits of which, since they could not serve the needs of man by being consumed, did not stale with abundance." (CW VII: 131)

And then, in discussing the nature of capital, Keynes wrote:

> "In so far as millionaires find their satisfaction in building mighty mansions to contain their bodies when alive and pyramids to shelter them after death . . . the day when the abundance of capital will interfere with abundance of output may be postponed." (Ibid.: 220)

Mill believed himself to be saying something utterly fantastic. He would have found it unimaginable that such views should be taken seriously. How incredible, then, would he find it that such sentiments formed part of the most influential economics text of the twentieth century and have been accepted as literally true by leading economists since the publication of the *General Theory*.[3]

## Conclusion

Keynes introduced into mainstream economics a theory of recession which virtually all economists up until the publication of the *General Theory* had rightly regarded as fallacious. The conclusion reached at the end of the general glut debate of the early nineteenth century was that demand deficiency (i.e. a general glut) was never the right explanation for recession. It was this judgement which stood for more than a century until overturned by Keynes. It was this judgement which was generally referred to by classical economists as the law of markets. It was the supposed refutation of the law of markets (which Keynes referred to as Say's Law) which constituted the main aim of the *General Theory*. It is this legacy which has been maintained to this day.

The change to theory and policy brought about by of the *General Theory* could not have been more revolutionary. Well within a decade, demand deficiency became accepted by the economics mainstream as the principal explanation for recession and unemployment and itself became the orthodoxy. The conclusion of the law of markets, that demand deficiency did not cause recession, disappeared from economic discourse. Indeed, it was no longer even properly remembered what the conclusion of the law of markets was. A warning not to look to over-production as an explanation for recession was replaced by the Keynesian judgement that Say's Law meant that supply created its own demand which somehow was taken to mean that there was no obstacle to full employment.

What may well be the greatest irony in the history of economics was that the economic principle which was one of the pillars in the classical economic explanation for recession was transformed into a principle which denied that recessions could even occur.

More crucially, the theory of the cycle, which had been constructed on the importance of the structure of demand, was replaced with a concern about the quantum of demand. The actual conclusion of the law of markets was rejected and ignored. It was accepted that a general glut could occur, there could indeed by over-production relative to demand. Policy considerations were therefore no longer related to how to ensure that markets cleared but were instead based on considerations of how to raise aggregate demand when unemployment rose. Government spending and public sector deficits became major tools of economic policy.

The theory of unemployment and recession introduced into economic theory by Keynes stands in a chain of descent leading from Malthus in which the problem is seen in terms of demand deficiency. The tradition which accepted Say's Law and denied the possibility of demand deficiency, a tradition which stretched from James Mill and J.-B. Say down through every leading economist of the nineteenth century and the first third of the twentieth, has disappeared. If you would therefore like to know why the theory of the cycle has lost its way, the disappearance of the Say's Law tradition may be the best place to start to look.

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## Notes

1 It need hardly be pointed out that there would not be anything like unanimity amongst economists on this point today. Cf. Röpke when discussing the origins of the Great Depression:

> "The causation of the crisis and of the depression must be traced back to the mechanism of the boom. We understand now not only why the boom simply comes to a halt but also why it is usually followed by a painful process of contraction and liquidation. A satisfactory explanation of the boom implies, therefore, the explanation of the crisis as well. For this reason the theory of crises and cycles is essentially a theory of the boom. In the crisis, what has been sown during the boom has to be reaped; a readjustment of the disjointed economic system cannot be avoided. This is a point which must be emphasised strongly." (p. 119)

2 The same three issues were listed by Keynes in his famous letter to Harrod where he wrote of, firstly, "the psychological law that, when income increases, the gap between income and consumption will increase"; secondly, "the notion of interest as being the measure of liquidity preference"; and, thirdly, "the proper definition of the marginal efficiency of capital" (CW XIV: 85).

3 Joan Robinson (1965:114) has a typically robust defence of Keynes's position.

## References

Clark, J.M. 1917. "Business acceleration and the law of demand." *Journal of Political Economy*, vol 25, pp. 217-235.

Devas, Charles, S. 1892. *Political economy*. London: Longmans, Green & Co.

Haberler, Gottfried. 1937. *Prosperity and depression: a theoretical analysis of cyclical movements*. 1st edn. Geneva: League of Nations.

Keynes, John Maynard. 1936. *The general theory of employment, interest and money*. Vol VII of *The collected writings of John Maynard Keynes*. Edited by Donald Moggridge. London: The Macmillan Press Ltd.

Keynes, John Maynard. 1973. *The general theory and after: Part II, defence and development*. Vol XIV of *The collected writings of John Maynard Keynes*. Edited by Donald Moggridge. London: The Macmillan Press Ltd.

McCulloch, J.R. [1864] 1965. *The principles of political economy, with some inquiries respecting their application*. 5th edn. New York: Augustus M. Kelley.

Mill, James. [1808] 1966. *Commerce defended*. 2nd edn. In Winch, Donald (ed.) *James Mill: Selected Economic Writings*. Edinburgh: Oliver and Boyd Ltd, pp. 85-159.

Mill, John Stuart. [1874] 1974. "Of the Influence of Consumption on Production." In *Essays on Some Unsettled Questions of Political Economy*. 2nd edn. Clifton, New Jersey: Augustus M. Kelley, pp. 47-74.

Robinson, Joan. 1965. *Collected economic papers*. Vol 3. Oxford: Basil Blackwell.

Röpke, Wilhelm. 1936. *Crises and cycles*. Adapted from the German and revised by Vera C. Smith. London: William Hodge & Company, Ltd.