The Grand Macroeconomics Circular Tour: from 'the Classics' to Keynes, and back again¹

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Introduction

The recent storm – indeed hurricane – which has hit the world economy, bringing financial crisis, falling output and sharply rising unemployment along with the threat of general deflation, has called into question the validity of much contemporary macroeconomic theory. Conventional mainstream economics has in recent years been teaching that great macroeconomic disruption, such as experienced in the inter-war period, is a thing of the past - attributable to bungling mismanagement - and that today, given more sophisticated theory and better economic management, we can safely relax in the confidence that modern advanced economies can be expected to operate at, or only deviate very temporarily from, their "natural" - that is to say, full employment - level of activity. Optimism as to the benevolent working of market forces has been the keynote.² When, however, in the autumn of 2008 the financial roof appeared to be falling in, and horrified commentators began to forecast for the world economy a re-run of the Great Depression of the 1930s - the name of Keynes³ was increasingly mentioned. Keynes was now suddenly remembered as the author of a powerful theoretical analysis which might again, as it did seventy years ago, provide understanding and guidance as to how to cope with conditions of collapsing activity across the world economy. However, for anyone seeking enlightenment on the nature of Keynes's ideas, a difficulty is that the Keynes vision of the working of the macro economy has largely disappeared from the mainstream textbooks. What, we may ask, has happened to it?

This article sketches in broad terms the changing course of mainstream macroeconomic thinking (with reference to developed economies) on the causes of, and remedies for, unemployment. Beginning with the traditional 'classical' conception (which has shown a remarkable power of survival) we note how, from the late 1930s, that corpus of theory was supplanted by the Keynesian analysis. The Keynesian conception, though for some time dominating the scene, has itself over the last thirty odd years been pushed very much into the background as old ideas of the pre-Keynesian, classical sort (albeit in fashionable modern dress) have come back strongly into vogue. We take the view that this rehabilitation of pre-Keynesian thinking represents a retrograde step: if contemporary economic problems are to be understood and handled effectively, it is, we believe, to the Keynesian tradition that a return must be made. The full extent of this classical revival needs to be recognised and the essential features of Keynes's vision be brought back out of the shadows into the light of day.

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² Not much attention seems to have been paid to the recent economic troubles of Japan.

³ J M (later Lord) Keynes (1883-1946), mould-breaking Cambridge economist, and public servant in two wars.

Classical Optimism with Respect to Aggregate Demand: Old Style

In the early years of the nineteenth century, when the effects of technological and industrial change in boosting productive capacity were becoming evident, there arose amongst those with an interest in economic affairs a debate as to the possibility of a 'general glut' – a state of overproduction relative to demand for output across all industries within the economy. Was there a danger, it was asked, that the economy's ability to produce could come to exceed the willingness of the community to buy the product, thus giving rise to a problem of underutilised industrial capacity and unemployment?

A fierce controversy developed. On the one hand, proponents of what was to become the orthodox view (Say, James Mill, Ricardo, J S Mill) were confident that no problem of general excess supply could arise: they rejected out of hand the 'heretical' view (Malthus, Chalmers and Sismondi) that 'too much' investment might be undertaken, causing expansion of productive capacity to outrun the growth of demand. While it was recognized that the oversupply of any *individual* commodity could occur, a *general* state of overproduction – an autonomously-occurring deficiency of demand across the economy, was deemed an impossibility. Supply was said to 'create its own demand'.⁴ Advocates of this position cited 'Say's Law'- the proposition that the very act of supplying goods to the market implies a corresponding volume of demand – arguing that a producer was desirous either of consuming his own product or of exchanging it for the products of others. Essentially, therefore, the view was that desire to purchase could not fail to keep up with the volume of goods produced; even if savings were made out of income, such savings were not viewed as 'non-spending': income saved was expected to flow naturally to investment in capital goods. While it was admitted that monetary disturbances such as a reduction in the note issue, or an increased demand for cash in hand in a crisis, could give rise, at least temporarily, to unemployment, the orthodox view was that the ill-effects of such events would be transient; the basic Say's Law belief in the impossibility of a general glut on account of the production capacity of the economy exceeding the community's wants remained unshaken.

In the nineteenth century debates about the possibility of an overall deficiency of demand, it was the Say-Ricardo-Mill view that carried the day. As Keynes put it one hundred years later in a famous 'purple passage' (1936, p.32):

The idea that we can safely forget the aggregate demand function is fundamental to the Ricardian economics, which underlie what we have been taught for more

⁴ With hindsight we can say that the 'supply creates its own demand' theory was erroneous for the reason that, while it is true that the act of production (supply) creates an equal amount of income (and thus purchasing power), planned spending by income recipients need not always (even in the longer term) be equal to the value of income earned or output which could be produced. In other words, while supply does create ability to buy (to purchase the output produced) it does not necessarily create at the same time an equal will to buy. Production and employment are adapted to the effective will to buy – to the volume of effective demand.

than a century, Malthus, indeed, had vehemently opposed Ricardo's doctrine that it was impossible for effective demand to be deficient: but vainly. For, since Malthus was unable to explain clearly (apart from an appeal to the facts of common observation) how and why effective demand could be deficient or excessive, he failed to furnish an alternative construction; and Ricardo conquered England as completely as the Holy Inquisition conquered Spain. Not only was his theory accepted by the city, by statesmen and by the academic world but controversy ceased. The great puzzle of 'Effective Demand' with which Malthus had wrestled, vanished from economic literature . . . it could only live on furtively, below the surface, in the underworlds of Karl Marx, Silvio Gesell or Major Douglas.

Classical Optimism with Respect to Aggregate Demand: Neoclassical Style

Despite the fact that, from its emergence in the 1870s, neoclassical economics differed in certain other significant respects from classical political economy, with regard to the issue of aggregate demand, acceptance of Say's Law was, as Keynes emphasised in the passage just quoted, carried through into the new theoretical era, though given a characteristically neoclassical (marginalist) twist. The rationalisation now brought forward focused on the so-called 'interest rate mechanism' to ensure the transformation of savings into planned investment.

In the neoclassical era, as had not been the case in classical times, the balancing of savings and investment at the full employment level of income was recognised as problematical rather than simply automatic. It was held that establishment of the 'natural' rate of interest ensured that all incomes generated through production were directly or indirectly returned as demand for output. Neoclassical writers did however allow that slow working of the interest rate mechanism could give rise to short-term deviations of employment and output from their full employment levels. If, for instance, a change was perceived in investment prospects, the *natural* rate would alter to maintain equality between savings and investment. There was though a potential for trouble in that the banks could be slow in adjusting the *actual market* or *money rate* (that to which agents responded) to a change in the natural rate; if so, the consequence would be an excess or deficiency of investment above or below current savings. An excess of planned investment over savings or *vice versa* would then, via an increase or decrease of bank lending, cause, as the case might be, a rise or a fall in the money supply, that in turn implying an increase or decrease in spending.

What happened next with respect to employment and output, following an increase or decrease in spending, was held to depend on conditions of labour supply – specifically on the extent to which money wages responded to the change in prices (positive or negative) induced by the changed volume of monetary expenditure. If *money* wages responded immediately and fully to the change in prices, *real* wages would remain as before, and so correspondingly (as the neoclassical theory held) would employment and output; the only effect of the disturbance

would in these circumstances be a rise or fall of the price level. But if money wages failed to adjust fully to price changes (which was considered the more likely outcome), real wages would be affected, causing employment and output to alter. In other words, the neoclassical thesis was that stickiness of money wages in the face of price level changes meant that the real terms on which labour was being offered for employment were changing, with a direct effect on the quantity of labour taken into employment by employers.

In time, of course, once the money rate caught up with the natural rate of interest and real wages were restored to their 'proper' level, employment and output would return to their normal (full employment) levels. Cyclical unemployment as associated with such a sequence of events could therefore be classified as 'frictional'.

It was however evident to Professor Pigou (a distinguished Cambridge authority) that the abnormally high and prolonged unemployment suffered in Britain in the inter-war period represented something other than the regular fluctuations of the trade cycle as had been experienced in earlier years. Pigou's diagnosis (propounded in his 1933 *Theory of Unemployment*) was that the distressing contemporary situation could be explained only as the result of an unduly high - permanently high - level of real wages having become established as normal. Pigou surmised that, after the dramatic changes in prices and money wages that had occurred during the war and in the immediate post-war years, money wages had settled down in an inappropriate relationship to the level of commodity prices.

It was supposed, that is to say, that in the Depression years workers, in maintaining the going level of money – and so real-wages – were pricing themselves out of employment. The consequent unemployment could therefore be described as being, in effect, 'voluntary' – in the sense of being attributable to the decisions of the workers themselves. The remedy proposed was a cut in real wages. Pigou was confident that employment would then increase for the reason that with lower wages firms could be expected to move down their labour demand schedules; he evidently took it for granted that the associated increase in output would be matched by a corresponding increase in real planned demand. This is Say's Law again. It was specifically on Pigou's *Theory of Unemployment* that Keynes set his sights as providing the fullest and most explicit statement of what he described as the 'classical' position.

In summary, the pre-Keynesian orthodoxy, in both the 'old classical' period and the 'neoclassical' era, assumed that the real value of total spending would naturally – given wage and price flexibility – match the productive capacity of the economy. If unemployment existed, the cause lay not in an insufficient demand for the output of labour. Neoclassical theorists focused their attention on the *labour* market, not on the markets for output. It being assumed that the labour market operated just like any other market, the level of employment was understood to be determined within the labour market: with labour demand and labour supply represented as functions of the real wage, it was believed that the quantity of labour employed is established at the intersection of these two curves. Given that in the short term conditions of production fix the position of the labour demand curve (the marginal product of

labour curve), the position of the labour supply curve – reflecting the terms on which labour is offered for employment – is critical in determining the level of employment. With respect to both the short-term and the long, unemployment (as we have seen) was explained as being due to 'wrong' conditions of labour supply – with labour inadvertently or mistakenly asking for a rate of real wages incompatible with full employment. With hindsight we can now say that the fundamental error of the classical account of how employment is determined was the failure to integrate into the theoretical analysis the fact that *demand for labour depends directly on demand for the output that labour would produce*, that is to say, on conditions *outside* the labour market itself. In other words, it was not understood that, even if labour supply conditions are fully compatible with full employment of all the labour available for employment.

The Keynes Theory

By the mid-1930s Keynes had eventually arrived, he believed, at an understanding of what was wrong with the traditional analysis and of what was needed in its place. The short introductory chapter of the *General Theory* (1936, p.3) describes a radical ('revolutionary') agenda.

I have called this book the General Theory of Employment, Interest and Money, placing the emphasis on the prefix general. The object of such a title is to contrast the character of my arguments and conclusions with those of the Classical theory of the subject, upon which I was brought up and which dominates the economic thought, both practical and theoretical, of the governing and academic classes of this generation, as it has for a hundred years past. I shall argue that the postulates of the Classical theory are applicable to a special case only and not to the general case, the situation which it assumes being a limiting point of the possible positions of equilibrium. Moreover, the characteristics of the special case assumed by the Classical theory happen not to be those of the economic society in which we actually live, with the result that its teaching is misleading and disastrous if we attempt to apply it to the facts of experience.

As Keynes saw the situation, the classical theory failed to engage with the real-world conditions of the time – it failed to provide a believable explanation of the major contemporary (and world-wide) economic problem, that of high and persistent unemployment. The classical theory was, in his opinion, incapable of comprehending what had gone wrong:

In addition to 'frictional' unemployment, it (the Classical theory) is also compatible with 'voluntary' unemployment due to the refusal of a unit of labour, as a result of legislation or of social practices or of combination for collective bargaining or of slow response to change or of mere human obstinacy, to accept a reward corresponding to the value of the product attributable to its marginal productivity. But these two categories of 'frictional' and 'voluntary' unemployment are comprehensive. The Classical postulates do not admit the possibility of the third category which I shall define as 'involuntary' unemployment. (Keynes, 1936, p.6)

Keynes's explanation of the occurrence of involuntary unemployment depended on his identifying aggregate demand for output, *not* the conditions of labour supply, as the key determinant of production and employment within the economy. Aggregate demand was no longer treated as a 'tame' variable, ultimately tied to the value of output supplied. Keynes argued that if there happened to be insufficient demand within the system to justify the full employment of the workforce – as he believed was in fact the case in the early 1930s – workers would find themselves, against their wishes, without a job, but not on account of any action on their part in respect of wages. Involuntary unemployment occurs with want of demand relative to production capacity.

Keynes rejected both rationalisations previously offered for not worrying about the adequacy of aggregate demand. He saw aggregate demand as independent of supply, as an unstable and unreliable factor reflecting the planned expenditures of consumers and investors: there was no guarantee, as the old authorities such as Ricardo and J S Mill had maintained, that the very act of production implied a corresponding volume of planned demand. Neither, Keynes argued, could reliance be placed on the neoclassical notion of the 'interest rate mechanism': according to his new theory of liquidity preference, the role of the rate of interest was to reconcile asset preferences and supplies in the financial markets, and not to equate the flow of spending on new capital goods with the value of current saving.

This new conception of the working of the economy was expounded via a then novel macroeconomic model in which levels of output and employment depended on the total volume of demand, which was broken down into its component elements, the determination of each of which was analysed. Keynes's 'consumption function' postulated, for the first time, a key link between current income and the volume of consumption spending. With consumption (and savings) dependent on income, Keynes was able to explain how the economy responded to changes in demand through changes in output and employment income changing until savings are brought into line with the current volume of investment spending. In dealing with (and he emphasised that this was crucial) a world of uncertainty, Keynes attached particular importance – because of its potential instability – to investment as a critical component of demand, stressing the dependence of investment on subjective factors of business confidence and expectations, factors liable to sudden and substantial revision. In times of particular uncertainty and perceived danger of loss, investors would avoid commitment to illiquid assets - such as new investment goods - preferring to keep their options open by reserving borrowing power or keeping unspent money in hand. The volume of effective demand, therefore, would fall and the initial contraction would be amplified through the multiplier process.

In the Keynesian model of the income-expenditure (circular flow) system it was through changes in the level of activity that any imbalance arising between aggregate demand and the volume of current output was eliminated: output would (according to the circumstances) rise or fall, bringing the savings (leakage) from the circular flow of income and expenditure into balance with investment (injections) until planned investment and savings were again equal. Changes in output and employment were now recognised as the natural, equilibrating response of the economy to changes in demand, not viewed as a temporary aberration.

Demand Deficient Involuntary Unemployment

Let us now focus our attention on Keynes's concept of involuntary unemployment. Keynes's identification of this hitherto unrecognised category of unemployment follows directly from his rejection of the old, complacent view that aggregate demand could be relied upon (at least in due course) to match supply. As we have seen, Keynes emphatically rejected the notion of aggregate demand being a 'tame' factor, as determined effectively by conditions of labour supply and output. What happens to output and employment reflects what is happening with the independent, potentially unstable, variable of aggregate demand. In explaining variations in employment, it is therefore necessary to look to conditions beyond the labour market – to the conditions prevailing in the product markets. Demand for labour, that is to say, is recognised as 'derived demand' – derived from the demand for output which justifies the employment of that labour in production. With a general deficiency of demand (relative to that required for full employment), the consequence of that deficiency emerges in the labour market as involuntary unemployment. As Keynes saw it, this is a misfortune that happens to



workers as passive victims: demand for output can vary causing employment to rise or fall without the workforce having done anything to bring these changes about – or being able to do anything practical to remedy the situation. Demand-deficient unemployment is strictly

'involuntary'; in terms of the labour market diagram, labour is 'off its supply' curve. See figure 1(a).

In figures 1(a) and 1(b) quantity of employment is measured on the horizontal axis and the real wage on the vertical axis. The labour supply curve (Sn) is drawn with a reverse L shape; this accords with the form suggested by Pigou, indicating that a given labour supply is available at a particular 'stipulated' rate of real wages. The downward-sloping marginal product of labour curve (MPn) is shown. In neoclassical theory this is identified as the labour demand curve, but in Keynes's terms (bearing in mind that the demand for labour is derived demand) it shows not labour demand as a function of real wages, but a relationship between employment (the independent variable) and wages (the dependent variable). The demand for labour is represented in the diagram by the vertical line DDn (derived demand for labour), the position of which reflects conditions in the output markets and the quantity of labour required to produce the output demanded in these markets. In this model, employment is not determined at the point of intersection of the MPn and Sn curves (as it is in the orthodox neoclassical theory) but at the level of N at which the vertical DDn curve intersects Sn. DDn will move left or right as demand for output falls or rises: full employment will be achieved only when the position of DDn corresponds to Nf – that is to say, when demand for output is consistent with employment of all the labour available for employment. If, as in figure 1, the position of DDn is not compatible with full employment, the gap in employment between N1 and Nf corresponds to the quantity of demand-deficient involuntary unemployment.

Consider the sequence of events brought about by a fall in effective demand for output. Starting with a situation of full employment (N = Nf), demand falls in the product markets, and DDn shifts to the left. This movement of DDn corresponds to the reduction in employment made by producers who are unable to sell as much output as previously they could; involuntary unemployment equal to Nf - N1 emerges.

There is a complicating quirk in this story as told by Keynes in the *General Theory* (1936) – a quirk subsequently eliminated – and, this is important – *eliminated with no change in the substance of the theory* from his subsequent 1939 account. We need to be clear about this 'quirk'. In the *General Theory* version, Keynes supposed that with demand for output declining and employers laying-off labour, firms would be moving leftwards down their positively-sloped short-run supply curves (corresponding to an increasing marginal product of labour/diminishing unit costs as output decreases), so that with costs and thus commodity prices falling, but with money wages unchanged, *real* wages would actually be rising. In terms of figure 1, that adjustment process is represented as a leftward movement up the MPn curve; as production falls, employment declines from Nf to N1, and at the same time (corresponding to the increase in the marginal product of labour with the lesser number of workers employed) the real wage rises from (w/p)1 to (w/p)2

Thus we are presented in the *General Theory* with a scenario of *rising* real wages accompanying *falling* employment and output. This may look like the traditional classical theory, but Keynes was emphatic that it was not. The crucial difference between the

Keynesian theory and the traditional theory is that in the Keynes theory, the increase in the real wage is no more than an incidental *consequence* of the fall in output and employment, *not the cause*; production has been reduced and with it employment, because demand for output has fallen, not because conditions of labour supply have autonomously altered. By contrast, the classical story is that the rise in the real wage is the initiating factor – the higher wage reduces the demand for labour and, as employment falls, so then does output; the rising real wage is the cause of the observed unemployment.

Keynes was, in 1936, under the impression that an inverse relationship between employment and real wages, such as he was assuming when composing the General Theory, was in accord with both the empirical evidence and with the standard micro theory. However, soon after publication of the General Theory questions were asked as to whether real wages actually did move in the counter-cyclical manner predicted by the standard theory and assumed by Keynes so to do. New investigations revealed not only that the facts of the matter did not support the neoclassical prediction, but that Keynes, relying on Marshall's report on the issue, had been misled by Marshall's selective interpretation of the evidence available to him. It appeared to be the case that, over cyclical fluctuations, no regular inverse relationship between employment and real wages was to be found in reality. That being so, Keynes (1939) realised that the complicated story told in the General Theory was redundant, and that the actual course of events was much simpler than he had been supposing. All that had to be said, therefore, was that while employment varied with changes in production, ceteris paribus, no accompanying variations took place in real wages. Although Keynes's revised story was more straightforward than his earlier account, the concept and explanation of involuntary unemployment remained exactly as before. The diagrammatic treatment can however be simpler: the occurrence of demand-deficient involuntary unemployment may be demonstrated (as in figure 1(b)) using a horizontal 'real wage-employment curve'⁵ in place of the downward sloping marginal product of labour schedule.

Keynes's key insight, as revealed in the *General Theory*, had turned the traditional theory of employment on its head: as he explained the situation, the main line of causation linking the goods and labour markets ran not from the labour market to the goods markets, *but the other way*, from the goods markets to the labour market. Of great practical importance, the dominant economic problem of the day was now recognised to be one of *involuntary* unemployment, with its resolution to be found in stimulating aggregate demand, not in cutting wages.

After Keynes

In due course, indeed pretty quickly, the Keynesian theory became established as the new orthodoxy: a completely novel body of economic analysis – modern macroeconomic theory – developed. This was truly 'revolutionary'. Prominent in the new literature was the Hicks (1937) – Hansen (1953) IS/LM model which, integrating the income-expenditure and

⁵ Showing that the real wage is invariant with respect to changes in employment.

monetary elements of Keynes's system in a convenient diagram, was generally accepted as a satisfactory representation of the essentials of the Keynes conception. For more than thirty years, certainly until the late 1960s, Keynesian theory, though not unchallenged, formed the basis of mainstream macroeconomics. At the same time, in respect of practical policy, a new consensus developed. With a new understanding of the working – and possible malfunctioning - of the macro economy, it became generally accepted amongst academics, politicians, and the wider public that the government had an obligation to try to maintain an acceptable level of employment, and that it was feasible to use fiscal and monetary policy as means to that end.

The theoretical challenges to mainstream Keynesian orthodoxy that emerged in these first thirty odd years, although coming from sometimes hostile traditionalists, nevertheless implied acceptance of the essential Keynes proposition that aggregate demand was what mattered with respect to the determination of output and employment. The fact that attention was directed to the state of aggregate demand rather than, as in earlier times, to the level of real wages or to disparity between the 'natural' and 'money' rates of interest, indicated just how widely and profoundly thinking had been changed by the publication of the *General Theory*.

One critical line of argument explored in the 1950s and 1960s by theorists reluctant to accept the revolutionary Keynesian implication that the economy lacked any reliable 'self-righting' capability, was built on the notion of a 'wealth' or 'real balance' ('Pigou') effect providing a possible rescue-mechanism for an economy sunk in heavy unemployment. The thesis was that lower prices would increase the real value of the nominal money stock, thus generating a positive effect on spending⁶. If, the argument went, prices were to fall far enough, aggregate demand would be boosted to full employment level, regardless of any liquidity trap or interest inelasticity of investment demand. It was, however, explicitly recognised by theorists who investigated the potential of this mechanism (Pigou, Patinkin, and Keynes himself – who had in the *General Theory* given careful attention to the possible consequences of deflation) that the weakness of the wealth-effect on consumption, and even more importantly, the negative effects of falling prices on demand – rising indebtedness, expectations of further deflation – ruled the real balance effect out of court as a practical equilibrating mechanism. It was agreed that a decline of money wages and prices in a depression might actually make things worse rather than better. Patinkin's summing up on the issue is worth noting (Patinkin, 1959):

The automatic adjustment process of the market is too unreliable to serve as the practical basis of a full-employment policy. In other words, though the real balance effect must be taken into account in our theoretical analysis, it is too weak – and, in some cases, too perverse – to fulfil a significant role in our policy considerations.

⁶ The idea is that if the real value of people's money holdings rise, they will feel better-off and consumption spending will increase.

Further reason to be sceptical of the argument that a process of deflation can have a positive effect on demand and employment is provided by recent experience in Japan, where falling prices have certainly not rescued the economy from recession. Thus J H Makin (2006), an informed observer of the Japanese scene, writes:

Deflation is dangerous. The nightmare of a deflationary spiral arises from the fact that as deflation intensifies and prices fall more rapidly, the real cost of borrowing rises. With a zero interest rate and 1 per cent deflation, the real cost of borrowing is 1 per cent. If deflation intensifies to 2 per cent, while the demand to hold cash strengthens because the rise in deflation represents a rising, risk-free, tax-free return on cash, more cash will be demanded. The move into cash further depresses spending, and thereby further intensifies deflation. The real cost of borrowing keeps rising, imparting an accelerating drag on the economy. . . . As noted, a deflationary spiral produces a sharp increase in the demand for liquidity that, if not satisfied by the central bank, will be satisfied by households and businesses selling goods and services, thereby intensifying the deflationary spiral.

Far from welcoming falling prices as a means to recovery, the Japanese authorities were desperate to escape from deflation. So much for the practical relevance of the real balance effect.

The AD/AS Model

From some date around the 1970s the macroeconomic theory presented in the mainstream textbooks began to undergo a significant change. The principal contemporary challenge to the Keynes theory comes from the recent resuscitation of employment theory of a pre-Keynesian sort. The adoption of AD/AS as the expository model of choice for analysis of simultaneous changes in output and the price level has provided a vehicle by which a pre-Keynesian conception of the working of the macro system has been smuggled into, and established within, the mainstream of textbook teaching. Utilisation of AD/AS has not only been associated with a powerful resurgence of pre-Keynesian modes of thinking, it has had the further effect of obscuring and confusing the issue as to the nature of the fundamental difference of vision which separates the Keynesian and classical conceptions.

Recall how the AD/AS model comes into the story. In the typical textbook treatment,⁷ when the exposition moves beyond the fix-price world of the Keynesian cross and IS/LM, the familiar story is that, within the economy, the volume of output (and with it employment) and

⁷ The 'typical textbook treatment' may be found in, for example, Gordon (2006), Froyen (2008), Mankiw (2010) and Abel, Bernanke and Croushore (2011). Criticism of the AD/AS model has been advanced by, amongst others, Rao (1991, 2007), Colander (1995), Grieve (1998, 2010) and Moseley (2010). Attempts have been made by Kennedy (1998) and Scarth (2010) to defend the model. It should however be noted that most, but not *every* textbook, use the 'standard' AD/AS model with the deficiencies of which we are here concerned: Blanchard (2011) for one, while keeping the usual label of 'AD/AS', in fact employs a quite different and self-consistent construction which does *not* make use of the usual classical-type AS curve. (His treatment of AD is however conventional.)

the level of prices are simultaneously determined at the point of intersection of the AD and AS schedules. (See figure 2.) The negatively-sloped AD curve, showing quantities of output corresponding to IS/LM equilibrium at different levels of price, *ceteris paribus*, is said to represent the value of effective demand as a function of prices. In deriving the positively-sloped AS curve it is supposed that expenditure changes affect commodity prices, but when prices change, money wages – whether because of misperceptions or rigidities – are slow to respond. The *real* terms on which labour is supplied are thus understood to alter, so that, with (in the labour market) this implied shift of the labour supply curve, a change in employment, and consequently of output, occurs. In this way price level changes are supposed to induce, at least in the short term, changes in the level of activity. In the longer run, as misperceptions are corrected or inflexibilities relaxed, the labour supply curve returns to its original position, yielding a vertical long run AS curve.



There is a problem – a double problem – of consistency with this model. Not only do the two halves of the model derive from incompatible theories of output and employment, they simultaneously represent complete (and conflicting) accounts of the relationship between the price level and the level of *output*. Far from it being the case that the two schedules together (supposedly representing aggregate *demand* and *supply*) determine a unique equilibrium, each in itself represents a self-contained explanation of the equilibrium level of output. If we focus on either curve, the other is redundant.

With respect to the AD curve, both Rao (1991) and Colander (1995) have observed that, while it is described or defined as being analogous to a micro demand curve, it is in fact, as derived from IS/LM, not really a demand curve at all. Since what it shows in relation to levels of price are levels of income corresponding to IS/LM equilibrium, the AD curve is actually a locus of points of equality of aggregate demand and aggregate supply. Colander (1995) suggests the designation 'aggregate equilibrium curve'.

An equivalent situation exists with respect to the supposed supply side. The AS curve is evidently based on a pre-Keynesian understanding of the functioning of the labour market. The significant feature of that pre-Keynesian analysis is that the labour market is treated in exactly the same terms as the market for any final commodity – say, pineapples – ignoring the special nature of the market for labour services.⁸ It is supposed that in the labour market price and quantity are (in diagrammatic terms) determined by intersection of demand and supply schedules of the usual sort: labour demand and supply are both taken to be functions of the real wage. Changes in employment must then be attributed to movement of one or other curve: in the short run, with the marginal product of labour ('labour demand curve') fixed in position in accordance with the given technological conditions, it is only through movement of the labour supply curve that employment can alter. If employment is to change whenever (ceteris paribus) the labour supply curve shifts, and labour demand is to remain equal to labour supply, demand for output must be whatever is required to take up the output corresponding to the volume of employment determined in the labour market. In other words that neoclassical representation of the labour market depends for its validity on the assumption that aggregate demand for output is 'tame', i.e. that supply really does create its own demand. An aggregate supply curve based on these pre-Keynesian foundations therefore depicts, as a function of the price level, quantities of output which are matched by an equal volume of effective demand. That is to say, with aggregate supply matched by aggregate demand at all points along the curve, we have a second 'aggregate equilibrium curve'

The standard AD/AS construction must be recognised as fatally flawed – its two component elements are fundamentally incompatible. Nevertheless textbook authors continue to make use of it. To be able to do so they must, wittingly or unwittingly, employ some strategy to obscure the unavoidable incoherence of any analysis derived from use of AD/AS. Two such strategies can be identified: one (widespread) is to treat the AD and AS curves as if they actually were (which of course they are not) macro equivalents of micro demand and supply curves; the other is effectively to neutralise one of the two conflicting theories of output and employment embodied in the AD/AS construction. It is the latter that particularly concerns us here: we find that the usage typically favoured in the textbooks essentially washes the Keynesian element out of the story, so that we are left with an analysis of a basically pre-Keynesian character.

Consider the standard textbook account. (See again figure 2.) To make the model usable – although the reader is not warned of the trick being pulled – the AD and AS curves are treated as corresponding to ordinary micro demand and supply functions. Starting from an equilibrium position at A (Y*, P1) corresponding to employment at the 'natural' rate, a disturbance, for instance a sharp contraction of the money supply occurs: the AD curve therefore shifts to the left, giving a temporary equilibrium with lower output and employment and some reduction of prices. The interpretation is that while spending and prices fall, money wages – either because of misperceptions or institutionally determined stickiness – fail to

⁸ What is missing from this treatment of the labour market is, of course, recognition that the demand for labour is 'derived demand' depending on conditions beyond the labour market itself – on demand for output in the commodity markets.

keep pace with the falling prices, and as real wages accordingly rise, employment therefore falls. The economy has moved down the short run AS curve to position B (Y2, P2). Subsequently, over time, wages do adjust and the price level falls further, the short run AS curve sliding down AD, and the economy eventually reaching position C (Y*, P*). The economy has then returned to the 'natural' (full employment) level of activity.

This analysis, employing the theory of changing conditions of labour supply which is built into the AS curve, evidently constitutes a straightforward pre-Keynes account of the occurrence and resolution of a temporary deviation from the normal state of full employment. Variations of employment are explained as due to temporarily shifting conditions of labour supply; if however money wages adjust fully and immediately as the price level falls, real wages would remain constant and, in classical terms, so also should employment. According to this analysis, with employment determined as corresponding to the point of intersection of the marginal product of labour and labour supply curves, equilibrium *can only be* on the vertical long-run AS curve at the level of output implied by the labour market equilibrium.⁹ If the model is to yield a determinate solution, the system must be represented as adjusting down the AD curve to its point of intersection with the vertical long-run AS curve.¹⁰

What has happened to the Keynesian theory of demand? *There is no place here for an alternative theory which explains employment as determined by a factor independent of labour supply conditions – that is to say, by real effective demand.* The only role left to the AD curve is to determine the price level at which the real value of monetary expenditure accords with the output which corresponds to the labour market equilibrium.¹¹ While the AD curve is derived from Keynesian foundations (IS/LM), as it is used in this context, its Keynesian ancestry is effectively neutralised. The message of this analysis is that aggregate demand is a 'tame' variable, the real value of which can always be adjusted by appropriate change in money wages, so as to accommodate whatever volume of output, corresponding to the given conditions of labour supply, is offered for sale on the market.

Having thus arrived at a traditional 'classical' understanding of the determination of employment and output, we might as well then forget about the notion of planned real demand being something of significance. With the Keynes theory 'crowded out' of the story, out goes the concept of demand-deficient involuntary unemployment; whatever unemployment is envisaged from this perspective can only be frictional (presumed in time to be self-correcting) or voluntary.

⁹ Note: if (as in the Pigouvian scenario) wages demanded are too high to ensure a normal level of employment for all the workforce, the position of the long-run AS curve will be further to the left than socially desirable.

¹⁰ If the AD/AS model is properly read as including two aggregate equilibrium curves, it can be interpreted as indicating (at any price level other than that which AD and AS intersect) the simultaneous existence of two different equilibrium levels of output corresponding to the different theories embodied in each of the curves. In that case the model is incoherent and its prediction meaningless. See Moseley (2010.)

¹¹ We might as well have here, instead of the AD curve, the rectangular hyperbola of the quantity theory analysis which indicates the equilibrium price level, given real output and the money supply.

'Right Back Where We Started From'

We have indeed come round in a circle. The whole vision of the working of the macrosystem presented, in terms of the AD/AS model, by far too many contemporary textbooks, is essentially pre-Keynesian. Monetary spending may fluctuate, but whether or not such fluctuations affect employment and output is said to depend on reactions with respect to money wages and prices. Slow adjustment of money wages to price changes is held to account for cyclical variations in employment and output. With respect to the longer term, it is presumed that real wages return to their proper full-employment level. There are then – as implied by the downward-sloping AD curve – no obstacles on the side of demand to prevent re-establishment of the 'natural' (full employment) level of activity.

Finally, and further to emphasise the 'classical' character of this contemporary analysis, notice how closely the modern textbook conception corresponds to the views presented eighty years ago by Professor Pigou, whose *Theory of Unemployment*, identified by Keynes as 'the fullest presentment' of the classical theory. As regards the short run, we find in Pigou (1933, pp.293-297) an account of the implications of wage stickiness, *virtually identical to the story told in present day textbooks*.

He refers to 'factors of inertia' operating on both sides of the labour market: these make employers reluctant to raise wage rates when conditions improve, and employees resistant to wage cuts when activity is declining:

Thus, except in periods of very violent price oscillations, employers in general fight strongly against upward movements in money rates of wages and workpeople themselves against downward movements. Money wage-rates show themselves highly resistant to change.

Pigou continues:

These factors of inertia, which in an economy where wage-rates were always contracted for in kind, would tend to keep real wages stable in the face of changing demand, in a money economy tend to keep money wages stable. . . . In general, the translation of inertia from real-rates to money-rates causes real-rates to move in a manner not compensatory, but complementary, to movements in the real demand function. Real wage-rates not merely fail to fall when the real demand for labour is falling, but actually rise; and in like manner, when the real demand for labour is expanding, real wage-rates fall.

It is to be understood - in accordance with the classical belief that employment is determined in the labour market at the point of intersection of the marginal product of labour curve and the labour supply curve – that fluctuations in employment and output accompany these variations in real wages. As regards the longer term, the Pigou theory is, again, essentially the same as that of the textbooks. There is a difference – but as regards empirical facts rather than the basic theory. Pigou looked to inappropriate wage demands by the workforce and wage rigidity as preventing the establishment of equilibrium at the proper full-employment level, meaning that persisting high unemployment was experienced. But Pigou had no doubts that, whatever the situation in the labour market, aggregate demand for output could be relied upon to take up whatever volume of output corresponded to the existing conditions of labour supply and employment. Pigou (1933, p.73) expressed this 'Say's Law' understanding in the following words:

If the real wage rate is reduced in the wage-goods industries, a powerful reaction is set up for an expansion in the demand for labour in the non-wage-goods industries. . . . it is certain that in practice the reaction on (employment) will be substantial.

The current textbook accounts differ from Pigou's in assuming greater flexibility of wages. Nevertheless, both Pigou and the modern authors share the vision that, if real wages can be kept at, or adjusted to, the appropriate level, there need be no anxiety about employment: we can then be confident that the real value of total expenditure will be sufficient to absorb whatever volume of real output is produced when the economy is operating at full employment. Pigou held by Say's Law; the textbook authors' confidence stems from reliance on the downward slope of the AD curve (reflecting the real-balance-effect notion, long past its sell-by date) to ensure that the real value of current monetary expenditure matches the real value of the full employment volume of output. The two rationalisations essentially come to the same thing.

Thus as regards the fundamental elements of the Keynes conception – that planned aggregate demand is an independent and unreliable determining factor of output and employment, that deficiency of aggregate demand causes involuntary unemployment and that there is no reason to suppose that the 'default' state of the macroeconomic system is one of full employment – all have disappeared. We are back in a 'classical world'; but in the real world, things are very different - the macroeconomy insists on misbehaving.

How have we got into this situation? In the 1970s, reflecting a general change in the intellectual climate, economic theorists and commentators of a right-wing, free-market persuasion began to advance, with renewed vigour, old ideas which had for the last few decades been put to the side. Under novel labels such as 'New Classical' and 'New Keynesian' theory, explanations of unemployment being simply of a voluntary or merely frictional character were reasserted, attracted sympathetic listeners and soon found their way into the burgeoning crop of macro textbooks coming on the market. Over the years distinctive features of the Keynes theory – such as the concepts of involuntary unemployment, of the marginal efficiency of capital as distinct from the marginal productivity of capital, of uncertainty as something different from mathematically measurable risk, and the understanding that the macro economy contained within itself, even in the long run, no

reliable self-righting mechanism to guarantee the automatic establishment of full employment – have tended to slip out of the mainstream picture. Scholars who should have known better have been all too ready to adopt the old classical labour market theory of unemployment as embodied in the AS curve, apparently seeing the AD/AS model as a convenient and acceptable device for allowing analysis to be extended beyond the fix-price world of IS/LM. The upshot is that mainstream teaching of macroeconomic theory is today typically propounding a view of the working of the economy which is a very long way from the vision presented in the *General Theory* or from the conventional wisdom of the post-war years, but strikingly similar to views current long ago, before the 'Keynesian Revolution'. It is not going too far to say that the practical common-sense of the Keynesian perspective has (at least in some not un-influential quarters) been replaced by irrelevance and fantasy.¹²

It would not be a matter for concern if the eclipse of the Keynesian theory had occurred for the reason that it had been assessed and found wanting on empirical or theoretical grounds. But that is not what has happened. Rather it seems that we have drifted into this position through failure (when, with the revival of the old orthodoxy, it really mattered) to understand or remember just what differentiates the Keynesian from the classical theory. In the light of recent experience involving financial crisis, collapsing business and consumer confidence and unemployment reaching levels reminiscent of the inter-war years, the Keynesian approach may, we suggest, be seen as somewhat more relevant than a theory which blames the unemployed for their plight and confidently asserts that the macroeconomic system possesses a strong natural propensity to establish a comfortable situation of full employment.

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¹² 'Fantasy'? – While the traditional classical theory held that workers could be unemployed because they were unwisely demanding wages too high for full employment, New Classical analyses present the thesis that when workers are unemployed they are actually in their preferred position: they are supposed deliberately to have chosen leisure over work.

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