UNIVERSITY of GUELPH

DEPARTMENT OF ECONOMICS AND FINANCE

DISCUSSION PAPER 2013-06

Lectures on John Maynard Keynes' *General Theory of Employment, Interest and Money* (1)

Chapter 1, Background and Historical Setting

Brian S. Ferguson

JULY, 2013

CME

College of Management and Economics | Guelph Ontario | Canada | N1G 2W1
www.uoguelph.ca/economics

Lectures on John Maynard Keynes' *General Theory of Employment, Interest and Money* (1): Chapter One, Background and Historical Setting

Brian S. Ferguson
Department of Economics
University of Guelph
Guelph, Ontario, Canada N1G 4R9
brianfer@uoguelph.ca

July, 2013

Abstract

This paper puts John Maynard Keynes' *The General Theory of Employment, Interest and Money* into its historical context, both in terms of economic history and in terms of the history of economics. It discusses the post-World War I period as background to the *General Theory*, looks at the influence of other economists of the period on the evolution of Keynes' thought and considers the parallels between the post-World War period and the post-Napoleonic War period, when Ricardo and Malthus were debating issues very similar to the ones with which Keynes was wrestling.

JEL Codes: B10, B12, B13, B22, B31, E12, N12, N14

Keywords: Keynes, General Theory, Keynesian Economics, Classical Economics, Great Depression, Macro Modelling, Hawtrey, Pigou,

Lectures on Keynes' *General Theory* (1):

Chapter One, Background and Historical Setting[1]

Introduction:

John Maynard Keynes' *General Theory of Employment, Interest and Prices*[2] is one of those rare books which actually deserves to be labeled revolutionary. Regardless of one's take on Keynesian macroeconomics, the publication of the General Theory marked a major change in the way economists thought about macroeconomic issues. Indeed, Keynes can be credited with (or slammed for) creating the concept of macroeconomics. Arguably, prior to the *General Theory*, most professional economists thought of the macroeconomy in a general equilibrium sense, as an aggregate of a large number of individual markets, and they assumed that the analysis of how individual markets behaved could be carried over pretty much unchanged to the collection of markets which constituted the economy as a whole. There was, it seemed, no need to think of the economy as anything other than the sum of its parts, and an understanding of how those parts worked was sufficient to understand how the economy as a whole worked. After the *General Theory*, that no longer held. Economists started to think in terms of aggregates.

Not everyone agrees with that approach, nor does everyone agree with the analytical apparatus presented in the *General Theory*. On the policy side, the Keynesian Revolution provoked the Monetarist Counter-revolution which brought the money supply and monetary policy back into the prominent roles from which Keynes had ousted them with his rejection of the Quantity Theory of Money as a primary tool of macroeconomics[3] , while on the theoretical side the Rational Expectations, or New Classical revolution revived older ideas about the macroeconomy and reached decidedly non-Keynesian policy positions based on those models.

[1] I am indebted to Manuella Adrian, Eveline Adomait, Raechel Vriezen and students in my fourth year course on the *General Theory* for comments on earlier drafts of this paper. All remaining errors are my own.
[2] KEYNES, JOHN MAYNARD, (1936) *The General Theory of Employment, Interest and Money*, Macmillan, London
[3] When pre-Keynesian economists thought in terms of the aggregate economy as a whole, they often did it in the context of the Quantity Theory of Money, and framed the analysis in terms of changes to the velocity of money.

Keynesian macroeconomics ruled through the 1950s and 60s and into the 1970s, at which time the failure of the Phillips Curve methodology in the face of the stagflation episode ended its hegemony. Then in the 1970s and 80s, the Monetarist Counter-revolution won out, as Milton Friedman's theoretical system (in brief, inflation is always and everywhere a monetary phenomenon) yielded policies which brought the inflation of the period to a halt. Excessive monetary expansion was accepted as having been the cause of the inflation, and the monetarist explanation for the Great Depression in the United States – bank failures and an unresponsive monetary authority resulting in a major contraction of the money supply and with it a drastic fall in economic activity – came to be accepted widely. At the same time, the Rational Expectations revolution was bringing rationality in the formation of expectations about the future into the way the current behavior of the economy was modeled. The New Classical models which came out of this research program (with notable contributions by Robert Barro who, only a few years before, in conjunction with Herschel Grossman, had been one of the leading figures in the attempt to put the Keynesian model on what was seen as a more rigorous analytical footing[4]) led to a widespread rejection not only of the Keynesian analytical structure but also of Keynesian policy. The dominance of the New Classical view over the economics profession held until the onset of the recession of 2008.

Since then there has been a revival of interest in Keynesian economics, although much that has been written since then is not really Keynesian, at least if by Keynesian we mean based on the theoretical structure set out in the General Theory. The same can be said about the New Keynesian literature which began to appear in the 1990s: while claiming Keynes' mantle, that literature sets aside theoretical propositions which Keynes regarded as absolutely fundamental to his system of thought. Indeed, much of that literature is closer in spirit to what Keynes called Classical economics, and which he rejected quite firmly, than it is to Keynes' own model.

One reason much of the so-called Keynesian revival literature is at base non-Keynesian is that very few people have actually read the *General Theory*. In part that is because everybody thinks they know what's in it, based on textbook presentations by authors who themselves have not read Keynes. More important, perhaps, is the fact that the *General Theory* has a reputation for being virtually unreadable. Writing in 1946, Paul Samuelson, whose introductory economics textbook

[4] Robert J. Barro and Herschel Grossman (1976): *Money, Employment and Inflation*, Cambridge University Press.

was largely responsible for the epidemic-speed spread of Keynesian ideas through North America, said that[5]

> [The *General Theory*] is a badly written book, poorly organized; any layman who, beguiled by the author's previous reputation, bought the book was cheated of his 5 shillings. It is not well suited for classroom use. It is arrogant, bad-tempered, polemical, and not overly generous in its acknowledgements. It abounds with mares' nests and confusions: involuntary unemployment, wage units, the equality of savings and investment, the timing of the multiplier, interactions of marginal efficiency upon the rate of interest, forced savings, own rates of interest, and many others. In it the Keynesian system stands out indistinctly, as if the author were hardly aware of its existence or cognizant of its properties; and certainly he is at his worst when expounding its relations to its predecessors.

The fact that Samuelson went on to characterize it as a work of genius doesn't really salvage the situation.

There is no doubt that the *General Theory* is difficult to read. This must, however, be put in context. Keynes was, as we noted above, basically inventing macro-economics. Others had written on what we would now term macro-economic matters in the past, but Keynes was inventing a new way of looking at the economy as a whole. He was struggling to develop concepts and invent terms, and many of the terms which he invented are not the ones we use today. We read the *General Theory* through the filter of current-day macroeconomics, and don't find in it the exposition which modern introductory textbooks would lead us to expect. The fact that there is much more in the *General Theory* than our intro macro texts would lead us to expect tends to be overlooked. The result is a failure to understand what Keynes was doing and, as a consequence, a failure to understand how he did it.

The purpose of these lectures is to allow us to view Keynesian economics through the *General Theory* itself, undistorted by later filters. This requires that we plough through the concepts and terminology which Keynes introduced, so that we can see how it relates to the way we frame the Keynesian model today. The *General Theory* is nothing like as badly written a book as Samuelson's comments would make it out to be, but it is in many ways a frustrating book, and it is indeed a difficult book to read.

[5] Paul Samuelson, "Lord Keynes and the General Theory", *Econometrica* 14(3), July 1946

Chapter 1 of the General Theory:

Chapter One of John Maynard Keynes' *General Theory of Employment, Interest and Money* says:

> 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*[1] 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.
>
> 1. "The classical economists" was a name invented by Marx to cover Ricardo and James Mill and their *predecessors,* that is to say for the founders of the theory which culminated in the Ricardian economics. I have become accustomed, perhaps perpetrating a solecism, to include in "the classical school" the *followers* of Ricardo, those, that is to say, who adopted and perfected the theory of the Ricardian economics, including (for example) J. S. Mill, Marshall, Edgeworth and Prof. Pigou.

That's it, in its entirety, complete with footnote. Not exactly promising material on which to base an entire lecture. Still, it gives us an opportunity to set the scene and introduce some key players in the development of the *General Theory* and, by extension, much of modern thinking about macroeconomic theory and policy.

The *General Theory* was Keynes' definitive break with what he termed "classical" economics and with his own earlier thinking. Even his use of the term "classical" was idiosyncratic: while

today we typically define the classical era as running from Adam Smith to Karl Marx, with heavy focus on patterns of analysis developing from David Ricardo's writings, and use the term neo-classical for the post-Marxian developments in economic theory – developments associated by Keynes' time with writers such as Marshall, Jevons and Pigou, Keynes quite deliberately used it to mean all of economic theory prior to the writing of the *General Theory*. He did use the term neo-classical in the *General Theory*, but he used that term to refer to Lionel Robbins, F. A. Hayek and other members of what we today refer to as the Austrian School, who took, and take, their inspiration from Ludwig von Mises and who were, in England in Keynes' day, based at the London School of Economics.

Keynes refers several times to his own earlier writings as being classical: certainly, when he wrote the *Tract on Monetary Reform*[6] (1923) he was firmly in what he later termed the classical tradition. It's important to note, though, that when Keynes referred to classical economics he was thinking of his predecessors' approach to macroeconomics and macro policy, and in particular to the determinants of unemployment. The *Tract* was very much in that tradition, relying very heavily on the Quantity Theory of Money for its macro-monetary foundations[7]. It was also a book written for a world in which the gold standard was taken as a given: part of the difficulty we have today reading works from the 1920s lies in differences in the institutional factors taken for granted in the two eras.

Dramatis Personae

John Maynard Keynes was born in 1883, first son of John Neville Keynes (1852 – 1949) and Florence Ada Keynes (1861 – 1958). He had two siblings – Geoffrey(1887-1982) , who became a noted surgeon, and Margaret(1885-1974), whose husband, the Cambridge (and later Manchester and London) academic Archibald Hill, won a Nobel Prize in Physiology in 1922 and whose daughter, Polly, earned a PhD in social anthropology under Joan Robinson's supervision[8].

[6] John Maynard Keynes (1923): *A Tract on Monetary Reform*, Macmillan, London

[7] As he says at the beginning of Chapter 3 of the *Tract on Monetary Reform*, in the section headed *The Quantity Theory of Money*: "This Theory is fundamental. Its correspondence with fact is not open to question."

[8] Polly was given her PhD in 1967, but her thesis was actually based on work she had done as a research fellow at the University of Ghana in the 1950s and 60s.

Neville Keynes is today only vaguely remembered as the author of *The Scope and Method of Political Economy* in 1891, but at the time was regarded as a very promising economist, not least by Alfred Marshall, who kept trying to persuade him to apply for senior academic positions. Neville, however, apparently being insecure and risk averse, settled for taking academic administrative positions at Cambridge, turning down an offer for a professorship in Chicago in the process. (Which raises the interesting alternative history possibility of the Keynesian revolution and the Monetarist counterrevolutions both originating at the University of Chicago.) Neville may simply have had a good sense of his own comparative advantage, since (unlike most academics) he was apparently very good at academic administration[9]. Florence, meanwhile, became more and more involved in local affairs, becoming, at the age of 70, Mayor of Cambridge. Maynard Keynes' family, in other words, was very much a Cambridge family.

Apart from his father, the economists who played roles in the development of Keynes' thinking can be divided into a number of relatively clear groups.

Elders:

Standing above them was Alfred Marshall (1842-1924), in many ways the dominant figure in the creation of the neo-classical tradition in economics, and founder of the modern Cambridge school of economics. Marshall's *Principles of Economics* (1890)[10] brought together into one framework the individual tools of modern economics, in the process creating the discipline. It supplanted John Stuart Mill's *Principles of Political Economy*[11] as the dominant textbook in economic theory, to such a degree that there developed a saying that, as far as economic theory was concerned, "it's all in Marshall". Marshall's main contribution to the Keynesian revolution was to persuade Keynes to become an economist.

When Keynes left Eton for King's College, Cambridge, the general expectation was that he was destined to become a mathematician, ironic though that might seem given later assertions by some of his colleagues at Cambridge that he wasn't very good at math. Keynes himself seemed

[9] Robert Skidelsky (2005): *John Maynard Keynes: 1883-1946: Economist, Philosopher, Statesman* Penguin
[10] Alfred Marshall (1890) *Principles of Economics* Macmillan, London
[11] John Stuart Mill (1848): *Principles of Political Economy, with some of their Applications to Social Philosophy* Longman and Green, London

more inclined to pursue a broad range of studies, although he did manage a first class degree in mathematics at Cambridge. His career as an economist was ultimately a result of his post-graduate studies with Marshall, the only formal training he took in economics. Even then, he seemed to be turning away from an academic career, choosing to write the 1906 civil service exam, in which he came second. Since the candidate who came first[12] chose the open slot at the Treasury, Keynes went to the India Office, where his first job, which apparently took several months, was to arrange the shipment of ten pedigree bulls to India. In its way, though, Keynes' job at the India office contributed to his later academic career, since it led to the publication, in 1913, of his first book[13], *Indian Currency and Finance*. This was well received, not least because in those days India was on a gold exchange standard[14] rather than a pure gold standard, and [15], *Indian Currency and Finance* was regarded as a very clear exposition of how a gold exchange standard worked. It also marks the beginning of Keynes' career as a specialist in monetary economics.

In 1908, bored with life in the civil service, Keynes returned to Cambridge. The process by which this happened sounds to us unusual, to say the least. Arthur Cecil Pigou (1877 - 1959) had just succeeded Alfred Marshall as Professor of Political Economy at Cambridge (he would hold the post until 1943), and chose to follow a practice which Marshall had established of paying a lecturer in Economics out of his own pocket. At Marshall's suggestion, Pigou offered the lectureship to Keynes, Marshall's lecturer having just left to take up a permanent position elsewhere. This brought Keynes back to academia, but didn't sever his ties with the civil service. While he was writing his book on Indian finance, Keynes was invited to become a member of royal commission on Indian finance and currency, where his contribution was well received and influential, and where he made a significant impression on a number of people who

[12] Otto Niemeyer (1883-1971), who stayed at the Treasury for many years, rising in 1922 to be controller of finance and principal adviser to the Chancellor of the Exchequer, and who frequently crossed swords with Keynes on policy issues. In 1927 he resigned from the Treasury and moved to the Bank of England.

[13] John Maynard Keynes (1913): *Indian Currency And Finance*, Macmillan and Company, London

[14] For foreign exchange purposes, the Indian currency was backed not by reserves of gold but by reserves of British Pounds, which were themselves backed by gold.

[15] John Maynard Keynes (1913): *Indian Currency And Finance*, Macmillan and Company, London

would be important in his later career, including Austen Chamberlain[16]. Keynes was, by this stage, established in both academia and the civil service.

Pigou is the second of the older generation of Cambridge economists to play a significant role in the evolution of Keynes' career as an economist, although he was not particularly happy with his ultimate role. Pigou had begun lecturing in economics at Cambridge in 1901, becoming a Fellow of Kings College in 1902, and in his early days was extremely outgoing and a lover of mountaineering and of practical jokes. That changed in his later years, as he became increasingly reclusive and eccentric, and the former active debater came to hate public discussion of economic issues. There is some evidence that this dates from his experience during the First World War – Pigou was a conscientious objector, but volunteered frequently to serve as an ambulance driver. The dramatic shift in his personality (he became increasingly unapproachable, and took to sitting, oddly dressed, in a lawn chair outside Kings, reading thrillers) apparently stems from this period.

Pigou's election as Marshall's successor was not without controversy: he won out over much better established academics with much more impressive track records. His win was taken as a clear sign that economics at Cambridge would from then on continue along the analytical lines established by Marshall, and not be handed back to the historical school, as represented by Pigou's opponents in the election. Pigou became one of the strongest early proponents of mathematics, and in particular calculus, as a key tool of economic analysis[17], and there is no doubt that his calculus-based arguments are much easier to follow than are the strictly verbal, logical arguments of other writers of the period, including Pigou's own non-mathematical papers, which can be virtually impenetrable.

[16] Austen Chamberlain (1863 – 1937), son of Joseph Chamberlain (1836-1914), half-brother of Neville Chamberlain (1869 – 1940), Chancellor of the Exchequer twice, 1903-1905 (under Arthur Balfour) and 1919-1921 (under David Lloyd George).

[17] In the Preface to *The Theory of Unemployment*, Pigou writes: "Addressing myself to economists, I have made use without disguise of whatever tools have appeared to me, in different parts of the analysis, to be helpful. In some chapters of Parts II. and III. this method has involved the employment of a little elementary differential calculus. I am aware that there are writers on economic subjects, unacquainted with this tool, who resent its use by others. To them it is sufficient to reply with Pareto that persons ignorant of the German language are ill-qualified to criticize German literature."

We tend today to think of Pigou as a microeconomist and welfare theorist, associating him with the notion of Pigou taxes – taxes aimed at correcting externalities. In the 1920s and 30s, however, he was very much involved in macroeconomics, writing at least three books which dealt with unemployment. In the *General Theory* Keynes invokes Pigou's writings on unemployment as exemplifying failed, classical thinking on the issue, and setting his own new theory up as the alternative, correct view of how labour markets worked. The impression Keynes gives in the *General Theory* is that classical economists assumed that unemployment was basically a non-issue, and that they invoked Say's Law and the efficiency with which labour markets functioned to justify ignoring it. Pigou was particularly hurt by Keynes' characterizing his writings this way, not only because he had written several books in which unemployment was a key focus but also because he had on several occasions written articles in support of the view that public spending could be used to counter unemployment, and had, a few years before the publication of the *General Theory*, been a co-signatory, along with Keynes, of a letter to the **Times of London** calling for expanded public works spending (that letter had provoked the LSE group to respond with a letter opposing public works). Pigou undoubtedly felt that he deserved better treatment that he received in the *General Theory*, and there is a strand of literature in the History of Economic Thought which holds that Keynes either misunderstood Pigou's work or, more likely, deliberately misrepresented it in an attempt to stimulate controversy. (We will discuss this argument in detail later, when we reach the sections of *The General Theory* which deal with Pigou's model. Keynes was quite open, at least in his correspondence, about his view that controversy was necessary if his arguments about classical economics were to be taken seriously.) Pigou felt hard done by by Keynes' acolytes, too, again with justification. He has gained something of a reputation as a misogynist, but there is no doubt that he was much more supportive of Joan Robinson's work on Imperfect Competition than was Keynes[18].

<u>Dennis Robertson</u>

[18] Karen Knight and Michael McLure (2012): "The Elusive Arthur Pigou" Economics Working Paper 12-05, Department of Economics, University of Western Australia. On reading an early draft of *Imperfect Competition*, Pigou came across a critical part of the argument which needed much more rigorous proof than Joan Robinson had given. She proved unable to handle the math required, but Pigou was able to provide her with a formal proof, which he published in the *Economic Journal*. A.C. Pigou (1933) "A Note On Imperfect Competition" *Economic Journal*, 43(169) March, 108-112. On this episode, see see Nahid Aslanbeigui and Guy Oakes (2009): *The Provocative Joan Robinson: The Making of a Cambridge Economist* Duke University Press.

Moving on to Keynes' own generation of economists at Cambridge, the most important figure was undoubtedly Dennis Robertson (1890-1963). Like Pigou, Robertson was a convinced follower of Marshall, and like Pigou he came to feel hard done by by Keynes' circle of disciples, to the point that he left Cambridge to go to the University of London to take up the Sir Ernest Cassel chair in money and banking at the LSE, returning only in 1944 when he was elected Pigou's successor as Professor of Political Economy. Robertson had been a student of Keynes', and through the 1920s Robertson and Keynes were close collaborators on monetary theory, to the point that it has been suggested that their solo-authored books should really be regarded as co-authored. The split between them became increasingly serious after the publication of Keynes' *Treatise on Money* in 1930, but reached its most severe stages after the publication of *General Theory*. Ultimately it came down to the determinants of saving and investment and to the question of whether the interest rate brought savings and investment into equilibrium. Just as Pigou was unhappy with the way he was treated in the *General Theory* as representative of erroneous thinking about the labour market, Robertson felt that he was being treated unfairly in Keynes' discussions of savings and investment and of established monetary theory. More than that, he came to resent the way Joan Robinson treated him in her lectures on monetary theory. At one point Joan Robinson was scheduled to give the second year lectures on monetary theory, which by then would be firmly Keynesian in character, and Robertson to give the third year monetary theory lectures. Robertson made it quite clear that he had no desire to have to deal with students who had already had a course in which they had been told, in no uncertain terms, that the material Robertson was about to teach them was rubbish. Robertson remained a severe critic of Keynesian economics through the period when he held the Chair at Cambridge. (As with the case of Pigou we will discuss these debates in more detail when we reach the sections where they arise in the *General Theory*.)

The Cambridge Circus

Some of the most important figures involved in the development of Keynesian economics were Keynes' students, the Cambridge Circus, part of a group who gave Keynes detailed feedback on the draft chapters of the *General Theory*. The student membership of the Circus consisted

primarily of Joan and Austin Robinson, Richard Kahn and James Meade (who was only at Cambridge for a post-graduate year, before taking up a position at Oxford). In addition to the group of Cambridge students, Keynes was given detailed comments, in letters, by Roy Harrod, who had briefly attended lectures by Keynes but by then was back at Oxford and who was ultimately responsible for the only diagram in the *General Theory*. Harrod wrote the first biography[19] of Keynes, a book which today is regarded more as an exercise in hagiography than in biography. And finally, the Circus might be taken to include Piero Sraffa, who was a close friend of Keynes (who worked tirelessly to keep Sraffa at Cambridge rather than have him return to Mussolini's Italy, where he would have been in grave danger) but who ultimately had more influence on Joan Robinson than he did on Keynes. Sraffa came to Cambridge riding a wave of enthusiasm for his work on the significance of increasing returns to scale for the Marshallian model of equilibrium, but is better known today as the editor, with Maurice Dobb, of the collected works of David Ricardo. He was also the author of a slim (83 pages) volume entitled[20] *Production of Commodities by Means of Commodities*, a piece of very Ricardian technical analysis relying heavily on assumptions of linearity in production. In the introduction to *Production of Commodities*, Sraffa thanks Keynes for comments on earlier drafts. *Production of Commodities* was published in 1960, Keynes died in 1946.

Joan Robinson (1903 – 1983) was a significant figure in the history of economic thought beyond her contributions to the development of Keynes' thought, and a controversial one. Her work on Imperfect Competition was immensely influential and she was often mentioned as a candidate for the Nobel Prize in Economics, although she was never awarded one. It has been argued that her left wing politics prevented her winning - she declared that North Korea was the way of the future – but her later repudiation of her own work on Imperfect Competition probably had something to do with it. Joan Robinson became the fiercest proponent of Keynesian theory, with no concern for how badly or unfairly she might be treating her intellectual opponents, but over time her version of Keynesianism became increasingly Marxist, under the influence of Sraffa's Ricardian models, Michal Kalecki's Marxist models and her own work on Marxian economics. She took to saying in later years that Maynard hadn't really understood the implications of his

[19] Roy Harrod (1951): *The Life of John Maynard Keynes*, Harcourt Brace, New York
[20] Piero Sraffa (1960): *Production of Commodities by Means of Commodities: Prelude to a Critique of Economic Theory*. Cambridge University Press.

own model. Beyond her Keynesian involvement, she was a driving force beyond the Cambridge Capital Debates of the 1960s and 70s, which revolved, first, about the measurability of aggregate capital (an issue about which Keynes had serious doubts, as we shall see in a later lecture) and then about reswitching, which dealt with the question of whether there was a monotonic relation between the wage-profit ratio and the capital-labour ratio in production[21]. Robinson's aim in the capital debates was essentially to prove that neo-classical (in our sense, not Keynes') economics was logically flawed and should be replaced by her own version of Marxian economics. The term "Cambridge Capital Debates" refers to the fact that the debates basically involved Joan Robinson and her group of followers at Cambridge UK on the one hand and a group of neo-classical economists associated with Paul Samuelson at MIT in Cambridge Mass. on the other. The debate dragged on far longer than its fundamental merit deserved, mainly because the American group was not prepared to cede the technical issues to the UK group. It has been said since that the Cambridge UK group was right on certain key technical issues, but that ultimately those points didn't matter, and Cambridge UK capital theory was absorbed into neo-classical capital theory without so much as a hiccup. It has also been said that the only reason the UK side persisted in the debate was that none of them were good enough mathematicians to handle simultaneous equation systems. (The standard book on the debates written from a very Cambridge UK point of view, is probably still Harcourt's[22]; for a neoclassical perspective on capital theory see Burmeister[23] (1980).)

Joan Robinson's ferocity in defending her interpretation of Keynesian theory came very close to turning the Keynesian school of thought into a cult. The fact that Keynesian economics escaped that fate is due to its rapid reception outside Cambridge UK, among economists whom Joan Robinson's true believers referred to as bastard Keynesians. For all Joan Robinson's ability, her influence can arguably be said to have ossified Cambridge economics for a very long time.

Joan Robinson was married to Austin Robinson (1897-1993), also a member of the Circus, but one who slipped fairly easily into academic administration and civil service roles. After a couple

[21] On Joan Robinson's adoption of reswitching as a fundamental issue (and her originally referring to it as the Ruth Cohen Curiosum) see Harry G. Johnson: "Ruth Cohen: A Neglected Contributor to Contemporary Capital Theory" In Harry G. Johnson and Elizabeth S. Johnson (1978): *The Shadow of Keynes* University of Chicago Press.
[22] G. C. Harcourt (1972): *Some Cambridge Controversies in the Theory of Capital*. Cambridge: Cambridge University Press
[23] Edwin Burmeister (1980): *Capital Theory and Dynamics*, Cambridge University Press, Cambridge,

of significant early pieces of work, his influence seems to have been primarily behind the scenes: it seems to have been one of his students, Charles Gifford, who came up with the marginal revenue curve and it may well have been Austin Robinson who named it.

Richard Kahn (1905-1989) was Keynes' favourite student and is generally credited with having been the first to set out the logic of the multiplier, in a 1931 paper in the Economic Journal[24]. He published very little of what he wrote, but was a meticulous reader of other people's work. He was the primary channel of communication between the Circus and Keynes, who didn't come to their sessions. His comments were sufficiently important in turning Keynes away from the approach he'd taken in his *Treatise on Money* (1930)[25] (he and the Circus convinced Keynes that one of the fundamental theoretical propositions in the Treatise only held if you assumed continuing full employment) and simplifying many of the original drafts of the *General Theory*, that he has sometimes been referred to as Keynes' co-author on the *General Theory* [26]. He was a trustee of Keynes' estate (we shall return to his role in this capacity later), the guardian of Keynes' papers and, as he saw it, of his intellectual legacy (although Joan Robinson and Roy Harrod apparently each saw this latter as their job).

Hawtrey and the Treasury View

In addition to the people we have just discussed, one more economist played a key, if odd, role in the evolution of the *General Theory*. Ralph Hawtrey (1871 – 1975) was a close friend of Keynes and went, a few years earlier, the same route as Keynes did, from Eaton to Cambridge (although Trinity, not Kings) to the civil service. Unlike Keynes, he stayed in the civil service, spending

[24] R. F. Kahn (Jun 1931). "The Relation of Home Investment to Unemployment" *The Economic Journal* **41** (162): 173-198

[25] John Maynard Keynes (1930): *A Treatise on Money: The Pure Theory of Money and The Applied Theory of Money*, Macmillan, London,

[26] Kahn also played a key role in the development of Joan Robinson's 1933 book *The Economics of imperfect Competition*, helping her develop the model and resolve theoretical puzzles. In addition, he was visiting at Harvard and Chicago during part of the period when Joan Robinson was producing the book, and devoted considerable effort to establishing her work's academic priority over Edward Chamberlain's *Theory of Monopolistic Competition*, even though Chamberlain's book was published before Robinson's. Kahn published very little himself, but his feedback was very important in the evolution of two Cambridge "revolutions" in economic theory. On Kahn's role in *Imperfect Competition*, see Nahid Aslanbeigui and Guy Oakes (2009): *The Provocative Joan Robinson: The Making of a Cambridge Economist* Duke University Press.

most of his career (after one year at the Admiralty) as Director of Financial Inquiries at the Treasury. He was often referred to as the Treasury's only professional economist, at least until the Second World War, though he had, if anything, less formal training in economics than Keynes did. Nevertheless he wrote copiously and was influential on issues of monetary and foreign exchange economics (at least outside the Treasury – it was said that the Treasury tended to forget he was there). He came to the view early on that business cycles were primarily monetary phenomena, and he held to that view, attributing the Great Depression to ill-advised monetary policy associated with the maintenance of the gold standard.

Hawtrey played a number of roles in the evolution of Keynesian economics. To begin with, he is generally credited with having convinced Keynes that the analytical approach of the *Treatise on Money* was fundamentally wrong. In the *Treatise*, Keynes focused on the adjustment of prices to changes in economic conditions, with quantity adjustments being something of an add-on. Hawtrey convinced Keynes that the first thing firms do in response to a reduction in demand is not to cut prices, it is to cut output, with price adjustments following later. This ultimately led Keynes to the formulation in the *General Theory* in which prices are moved aside and the primary adjustment to changes in aggregate demand take the form of changes in aggregate output and employment. Hawtrey's correspondence with Keynes after the publication of the *Treatise* was instrumental in Keynes' development of a quantity and output based model of the macroeconomy.

Hawtrey's views on the adjustment process followed from his own studies of how the bits of the economy linked together. His primary focus was on middlemen – wholesaler-distributors in goods markets and bond dealers in financial markets. Despite the amount of ink Keynes devotes to financial markets in the *General Theory*, he included remarkably little on the actual workings of financial intermediaries. Adding Hawtrey's detailed analysis of the responses of for-profit financial intermediaries to a Keynesian macro framework would have allowed modern macro models to do a much better job of explaining the recent recession than they have done.

In the goods markets, Hawtrey's argument ran, when wholesalers, who were the crucial middlemen between producers and retailers and consumers, experienced a decline in demand, their first response was not to cut prices, rather it was to reduce the quantity of orders they placed

with producers. In the case of a general downturn in demand, there will be a broad reduction in the orders placed with producers and producers' first response will be to cut their own output levels. Price adjustments will come later, when producers and retailers have evaluated the state of the market. The story which we frequently tell to explain the Keynesian adjustment process, which says that cuts in production are a response to unanticipated build-ups in inventories, comes from Hawtrey, not from Keynes. (Keynes mentions Hawtrey's notion in the *General Theory*, but expresses reservations about its importance.) In bond markets, Hawtrey's argument focused on bond dealers, who acted as middlemen between the issuers and ultimate buyers of bonds. We shall return to this point below.

Hawtrey also came very close to setting out the theory of the multiplier. In a draft manuscript of a book on central banking, he describes the working of the multiplier in considerable detail[27]. When the book was published[28] in 1932, however, the multiplier material was omitted. Hawtrey's history with the multiplier concept goes beyond that though. In the 1920s, there were a number of exchanges between Hawtrey and Pigou on the matter of public works as a counter for unemployment. In a 1925 article[29] on public works and the trade cycle in which he set out his arguments against countercyclical spending, Hawtrey made reference to Pigou having supported countercyclical public works spending since 1912. A particularly interesting exchange between Hawtrey and Pigou in 1929, beginning with a review[30] by Pigou of one of Hawtrey's books, had Pigou setting out a version of the multiplier effect based on the velocity of money. (Much macroeconomic theorizing in the 1920s was done in terms of the velocity of money, making some of it very difficult for modern readers to follow.) Admittedly Pigou's story is sketchy and hard to follow, but Hawtrey responded[31] to Pigou's logic with an argument that convinced Pigou that his original multiplier story had been wrong. (It's hard to shake the feeling that poor Pigou couldn't catch a break in the Keynesian debate, coming under attack from Hawtrey for his support for public works spending as a remedy for recessions and being held up by Keynes as the archetypical classical, anti-interventionist macroeconomist.)

---

[27] G. C. Peden (2004): *Keynes and His Critics: treasury Responses to the Keynesian Revolution 1925-1946* pub. Oxford University Press for the British Academy, pg. 111

[28] R. G. Hawtrey (1932): *The Art of Central Banking* , Longmans

[29] R. G. Hawtrey (1925): "Public Expenditure and the Demand for Labour" *Economica* 13, March

[30] A. C. Pigou (1929): "The Monetary Theory of the Trade Cycle" *The Economic Journal* 39(154) June

[31] R. G. Hawtrey (1929): "The Monetary Theory of the Trade Cycle" *The Economic Journal* 39(156) December

But more than all of that, despite almost discovering the multiplier concept before Kahn and Keynes did, and convincing Keynes that quantity adjustments were the way to go, Hawtrey was the intellectual progenitor of the Treasury View.

There were actually two strands to the British Treasury's opposition to Keynesian fiscal policy proposals, a theoretical one, developed by Hawtrey, and a pragmatic one, associated with more senior Treasury officials. Hawtrey's argument is the one which Winston Churchill, then (1929) Chancellor of the Exchequer, labeled the Treasury View and which we today associate with that term. It ran, basically, that all debt-financed government spending had to compete with private investment opportunities for funds, and built on Hawtrey's analysis of the role of bond dealers as middlemen. Bond dealers bought bond issues from issuers using the financial resources at their disposal, then sold those bonds to buyers. If a bond dealer misjudged the state of the demand for the bonds they were proposing to re-sell, they could find themselves in serious financial trouble, as happened on a number of quite significant occasions in the history of the City of London financial market. Since bond dealers bought newly issued bonds in the first instance, the quantity of bonds which made it to market depended on the bond dealers' financial resources. When faced with a new government bond issue in addition to private issues, dealers would have to make a choice about whether to buy the government or the private issue. If they chose to take the government bonds, then, given their budget constraint, they would be unable to buy an equivalent value of private issue. Thus a new government issue would crowd out an equal value of private bonds, and private investment spending would be reduced by the amount of the increase in bond financed government spending.

While we tend to dismiss the crowding out argument today, the question of the practicalities how an increase in government spending was to be financed was a chink in the Keynesian armor through the early years of the Keynesian revolution. The early Keynesians tended to include government spending under the heading of consumption or investment spending, not distinguishing between the private and government sectors. This recognized the fact that that an increase in government investment spending had to be financed through the same mechanisms as did an increase in private investment, which is, of course, at the root of Hawtrey's crowding out argument. This meant, however, that the Saving = Investment condition of the *General Theory* had to be satisfied for government and private investment spending combined. Given that S = I

in recessions as well as in booms, if private saving and investment have settled into a recessionary equilibrium the flow of saving in any period will be matched by the flow of private investment bonds. (To follow the argument it is important to differentiate between the stock of assets, financial and physical capital, which have built up in the past, and the current period's flow of saving, which is defined here as additions to financial assets, and investment, defined as additions to physical capital. In the Keynesian model, current period investment spending must be financed out of current period saving, so it's not a matter of being able to draw on accumulated past assets. We shall return to these definitions in the lectures on the relevant chapters in the *General Theory*.) The question of how an increase in the quantity of bonds being offered to the market was to be accommodated seemed a perfectly reasonable one for the Keynesians to have to deal with, but it was one which they did not handle well. Keynes argued that the cost of the investment would be covered in part by reduced dole payments, but this argument was vulnerable to questions of timing and to the issue of whether the unemployed would be the first people employed on the project (rather than the first employees being drawn away from existing jobs). Joan Robinson was prone to asking, one suspects with a sneer, whether the Treasury critics had never heard of the multiplier. This was not likely to convince policy makers who were doubtful about Keynes argument in the first place, and was particularly unconvincing given the Cambridge tradition of dynamic analysis. Marshall had laid considerable store on the importance of time periods in economic analysis, and an important aspect of Dennis Robertson's work was that the order in which events occurred had to be taken into account. Joan Robinson's argument sounded like comparative statics, meaning it looked at the jump from one equilibrium point to another with no attention given to the transition path. Keynes attempted to deal with this in his discussion of the multiplier in the *General Theory*, but apparently not to his critics' satisfaction, since he was reduced, after the publication of *General Theory*, to arguing that investment spending could be done before the funds for it were raised.

Even when he was setting out the crowding out argument, though, Hawtrey recognized conditions under which government spending could be expansionary. One was in the state of the world which we would today term a liquidity trap. The other went back to his analysis of the workings of the various parts of the bond market which acted to link the ultimate issuers of bonds with their ultimate buyers. Given that bond dealers faced a budget constraint defined by

their financial resources, crowding out could be avoided if those resources were increased and the constraint eased. Thus an increase in government investment would not crowd out private investment spending if it were matched by an increase in the issue of bank credit by the banking system. Essentially, Hawtrey was arguing that a money-financed increase in government spending could be expansionary. Again, however, Hawtrey declined to endorse an increase in public works spending: he argued that what mattered in this case was not the increase in government investment, but rather the increase in bank credit. If the banks increased the credit they made available to the bond dealers, the bond dealers would be able to take more new bond issues and private investment spending could be increased. In the case of an increase in bank credit, an increase in government investment was superfluous: the expansion of bank credit to the bond dealers would have the same effect all by itself.

Keynes was always frustrated that he was unable to convince Hawtrey of the correctness of the argument in the *General Theory*. He told Hawtrey, the strongest proponent of the crowding out hypothesis, that he didn't number Hawtrey among the classical economists, despite Hawtrey having been an opponent of countercyclical fiscal expansions since well before Keynes came around to supporting them (Keynes, in the 1920s, held policy views which matched to some degree with Hawtrey's, in that he thought that recessions could be cured by a monetary easing, reducing the bank rate)[32].

While Hawtrey's crowding out argument is the one we associate today with the term Treasury View, there was, as we have noted, a more pragmatic line of argument made by the Treasury against Keynes' proposals. In fact, there were a couple of lines of argument, although they stemmed from the same general premise.

The main argument which the Treasury made publicly came down to the availability of suitable public works projects in the right places – shovel-readiness. Treasury officials argued that it wasn't as easy as Keynes supposed to start up major public works projects. To some degree this is the policy lag argument which is still accepted today – it takes significant periods of time to design and approve large scale public works projects, and another significant length of time to

[32] Keynes did, as we have seen, number Pigou among the classicals, despite Pigou having supported public works as a counter for downturns from a time when Keynes himself was firmly in the classical camp. As we noted above, Pigou really couldn't catch a break.

put them underway, to the point that it is quite possible that actual spending on them won't begin until a cyclical upturn is already underway. As the Treasury officials saw it, Keynes was assuming that large-scale public works projects could be put into operation instantly, whereas they were of the opinion that there could be a lag of up to three years between the decision to implement a project and actually getting it underway. In that case, even in a modern Keynesian model what was intended to be counter-cyclical policy could easily turn out to be pro-cyclical, and a project intended to fight unemployment could wind up stimulating inflation. Beyond that there are locational problems: there is no guarantee that major public works projects can actually be implemented in the areas with the most severe unemployment problems, so the success of government spending projects may well depend on the mobility of unemployed labour (as well as on the match between the skills possessed by the unemployed labour and those needed for the project).

There were also political considerations. The practice of the Treasury had always been to undertake public investment projects only if they could be shown to generate a reasonable rate of return. Keynes countered that a less than market rate of return was acceptable if you counted the savings on dole payments as part of the return. More importantly, significant areas of public spending in Britain at the time were under the control of local government authorities, and there was no guarantee that local governments would agree to the central government's spending proposals. There was also the real risk that cash-strapped local governments would cut back on their spending in response to increased central government spending in their areas. This appears to have happened in the US during the early years of the Depression: Herbert Hoover, contrary to the image which he has acquired as a consequence of not being FDR, did not cut American federal government spending in response to the Depression, rather he increased it dramatically. Hoover did not approve of simply giving handouts to the unemployed; his preference was for job creation through public works projects. His first policy efforts involved spending federal money on shovel-ready public works projects, meaning projects which were already well into the planning stages and which needed only to have their commencement dates brought forward. In addition to finding that there weren't anything like as many shovel-ready projects as he had hoped, Hoover found that state governments, whose own revenues were severely stressed by the Depression, responded to inflows of federal money by cutting their own relief spending, and

moving to balance their budgets. (Many years later, officials from Franklin Roosevelt's administration acknowledged that the bits of the New Deal which had actually worked were the bits they had simply taken over from Hoover. By then, though, Hoover's reputation was pretty much beyond repair.)[33]

Keynes' Treasury opponents, then, whether or not they accepted Hawtrey's crowding out argument (and a number of them seem to have dropped it pretty quickly) thought that Keynes' proposals were simply impractical; likely to do more harm than good. Likely to do more harm than good in another way, too: Peden[34] argues that one reason the Treasury officials opposed not only deficit spending but also British departure from the Gold Standard was concern for long term fiscal stability. The need to keep the budget balanced had come to be accepted over the years by politicians as a matter of good governance. Treasury officials were concerned that if they accepted Keynes' argument and gave politicians an excuse to spend in excess of revenue in some circumstances, the floodgates would burst and it would be impossible to prevent politicians from overspending under virtually all circumstances. The concern seems to have been that no matter what the circumstances, politicians would be able to come up for Keynesian reasons for deficit spending. In that fear, the Treasury officials seem to have been vindicated. As for staying on the Gold Standard the concern within the Treasury was similar: adherence to the rules of the Gold Standard was the best safeguard against unrestrained printing of money. (When Britain went off the Gold Standard for good in 1931, Sidney Webb[35], a member of a previous Labour party government, was reported to have lamented that when they had been in office nobody had told them that they were allowed to do that.)

The LSE Austrians

[33] Hoover then tried to persuade the Federal Reserve to engage in what we would now term unconventional expansionary monetary policy, but failed.

[34] G. C. Peden (2003): "Keynes and His Critics: Treasury Responses to the Keynesian Revolution 1925-1946" Hitotsubashi Workshop presentation

[35] Sidney Webb (1859-1947) raised to the peerage as the 1st Baron Passfield, 1929, early member of the Fabian Society and co-founder of the London School of Economics, 1895. President of the Board of Trade, 1924, Secretary of State for the Colonies 1929-1931, secretary of state for Dominion Affairs 1929-1930. To the surprise of some of his Fabian Socialist friends, he insisted that the LSE should be a centre of free intellectual debate, not an institution aimed at propagating socialist theory, and that ideology should play no role in making appointments to the LSE.

One more group of economists deserves a mention in a discussion of the evolution of the *General Theory*; these were the Austrian-inspired theorists at the LSE. They were brought together by Lionel Robbins (1898 – 1984), a young professor whose aim was to create a department which would equal Cambridge's importance in British economics. (At the time the LSE was headed by Sir William Beveridge, whose 1942 report to the British government laid the foundations for the postwar National Health Service and the British welfare state in general, and who doesn't seem to have gotten along all that well with either Robbins or Keynes.) Robbins is probably best known today for defining economics as the study of the allocation of scarce resources among competing ends. Robbins was, and remained a committed free-trader: Keynes had been a firm free trader at one point but swung over to the protectionist side in the 1930s. Robbins served with Keynes (at Keynes' suggestion) on a committee of economists of the Economic Advisory Council[36] in 1930, where their disagreements degenerated into bitter shouting matches. They also differed starkly in their interpretations of the Great Depression, Robbins taking the view that it was the result of excessively easy monetary policy in the 1920s, in line with the Austrian view that there existed a natural rate of interest which equated savings and investment, and that when the market rate was held below the natural rate as a result of a deliberately easy monetary policy the result would be over-investment and a fundamental imbalance between the capital-goods and consumer-goods sectors of the economy. Eventually this imbalance would lead to a bust (as a result of price inflation reducing the purchasing power of consumer incomes). Any attempt to respond to the bust along the lines Keynes was advocating in the early 1930s, by running an easy money, low interest rate policy, would simply prolong the agony. Slightly confusingly, in Austrian theory, a low interest rate which was the result of an increase in savings (a theoretical point which Keynes strongly rejected, as we shall see in a later lecture) would stimulate economic activity, since it reflected a change in consumers' preference for the future relative to the present. Investment which was done in response to a signal from consumers that they were looking more to future than to current consumption was appropriate investment.

[36] Robert Skidelsky (2005): *John Maynard Keynes: 1883-1946: Economist, Philosopher, Statesman* Penguin

In 1934, Robbins wrote a book, entitled *The Great Depression*[37] in which he set out the Austrian, anti-Keynesian argument. In later years he came to regret his opposition to Keynesian fiscal policies (he said in later years that he would be perfectly happy if his book on the Great Depression simply vanished) but maintained his disagreement with Keynes on the causes of the problem. His later position was that the cure to the problem could not be simply a reversal of the causes of the problem. Robbins' conversion to Keynesian economics was not unusual among LSE economists: the group he assembled to counter Cambridge included such later staunch Keynesians as Nicholas Kaldor, John Hicks, who later wrote the definitive Keynesian IS-LM paper, and Abba Lerner, who introduced the concept of functional finance to economics. Robbins, however, remained much more neo-classical in his orientation than some of the other converts.

In 1931, while in his anti-Cambridge phase, Robbins brought Friedrich Hayek (1899 – 1992) to LSE, first to give a series of lectures (which eventually became Hayek's book *Prices and Production*), and then in a permanent position. Robbins' expectation was that Hayek would set out a strong theoretical basis for a school of economics which could counter the Keynesian school that was developing at Cambridge (Robbins and Hayek signed the letter to the **Times** responding, critically, to the pro-public works letter signed by Pigou and Keynes, among other Cambridge economist). This never really happened, although there were some dueling lectures and book reviews. Hayek wrote a very critical review of Keynes' *Treatise on Money* to which Keynes responded with a comment which included some very un-complementary remarks on *Prices and Production* (he called it a frightful muddle) but Hayek never wrote the anticipated review of the *General Theory* (he apparently[38] got hopelessly bogged down on the definitions of income, saving and investment in Chapter 6, a plight with which anyone who reads Chapter 6 of the *General Theory* can sympathize). Contrary to the impression some modern anti-Keynesians seem to give, there never was a great Keynes-Hayek cage match (and Keynes and Hayek seem to have gotten along very well on a personal level).

[37] Lionel Robbins (1934): *The Great Depression* Macmillan, London
[38] Susan Howson, "Keynes and the LSE economists", *Journal of the History of Economic Thought* 31 (3) (2009)

Ricardo and Malthus

Two other economists play a role in the evolution of the *General Theory*, but neither were contemporaries of Keynes. These were David Ricardo (1772 -1823) and Thomas Robert Malthus (1766 – 1834). In the *General Theory*, Keynes lamented the dominance of Ricardo in English economics, and held that it would have been much better for the profession and the country had Malthus won their debates. This is a sentiment which puzzles many readers (the more so when they consider the very Ricardian nature of the post-Keynes work of Sraffa and Joan Robinson), since there seems no good reason to regard the doctrine of comparative advantage as all that disastrous (although Keynes did turn away from his early support of free trade and advocate protectionist policies of various sorts at various times for various reasons). Similarly we tend to think of Malthus as the author of the *Essay on the Principle of Population* (1798) , and forget that he was also the author of *Principles of Political Economy* (1820) and was in fact the first academic to hold the official title of Professor of Political Economy[39]. Keynes, however, was thinking of different, and today less familiar, elements of Ricardo's and Malthus's work.

One of Ricardo's habits to which Keynes objected was his tendency to focus on long run equilibrium positions. The effects of policies were analyzed in comparative static terms – where was the old long-run equilibrium and where would the new long-run equilibrium be? Ricardo tended on the whole to neglect transitional states, assuming that the economy would move quickly to a new equilibrium position. Malthus disagreed with this approach, and it was natural that Keynes would object to it: one of Keynes best known aphorisms, from his *Tract on Monetary Reform*, was that "in the long run we're all dead". This has been interpreted in various ways, but when Keynes wrote it he was referring to the tendency of economic analysis to ignore transitional dynamics in favour of focusing on equilibrium conditions[40]. As he put it, policy advice is not much good if all it can say is that after the storm has passed, whenever that might be, the seas would be tranquil again. Keynes took the view that relative to the span of human life, periods of disequilibrium were more important than periods of equilibrium.

[39] At the East India Company's training college, Haileybury.

[40] Arguably many macroeconomists still ignore Keynes' maxim, preferring to compare the properties of the equilibria of dynamic macro models rather than tackle the properties of the transition paths between equilibria.

The second piece of the Ricardian approach to which Keynes objected was Ricardo's belief, expressed in his correspondence with Malthus (much of which Piero Sraffa turned up and brought to Keynes attention in the process of producing the Sraffa-Dobb edition of the collected works of Ricardo), that labour markets worked efficiently and that wages would adjust quickly to restore equilibrium after a labour market shock. This was the view that Keynes particularly objected to by the time he was writing the *General Theory* and this, rather than any other piece of Ricardian analysis was what he took as defining classical economics. However different an economist's analytical apparatus might be from Ricardo's in any or all other ways, belief in the tendency of changes in the wage to restore labour market equilibrium, and full employment, marked that economist as a classical economist. This explains how Keynes was able to justify lumping together pretty much every mainstream economist from Adam Smith to the Keynes of the *Tract* (with the exception of Malthus and one or two oddballs, and, apparently, Hawtrey) under the heading of classical economist.

Keynes would have seen other parallels between himself and Malthus. Most important was the state of the world, or at least of England, at the time when they were writing. The Malthus-Ricardo debate, embodied in their large (and friendly) correspondence, dealt with the state of the British economy after the upheavals of the Napoleonic Wars. Neither disputed the idea that the transition from war to peace would lead to unemployment, and as Ricardo put it, the end of a major war could be associated with large scale unemployment. Ricardo's view was that a prolonged war would lead to significant shifts in the distribution of capital across sectors of the British economy relative to the peacetime distribution of capital. Once the war ended, recovery required the reallocation of capital and labour from wartime uses to peacetime production, and the reallocation of capital would have to precede the reallocation of labour, since the capital would be have to be present before jobs could be created for labour. Ricardo expected that the reallocation of capital would occur quickly, and that wages would be bid up in those industries to which the capital had gone, so that the labour which been laid off in the wartime sectors which had, as part of the transition, lost capital, would be attracted to jobs in the newly expanded peacetime sectors. He took the view that the labour market was efficient, so that wages would adjust quickly to signal which sectors were expanding and which contracting, and that labour would move quickly in response to the wage signals. Because he took the view that both labour

and capital markets operated efficiently, he saw no particular point in studying transitional dynamics, which was the reason he focused on states of long run equilibrium and in particular on the factors determining the distribution of income in long run equilibrium.

To appreciate Ricardo's position it is necessary to take account of the fact that, when he was writing, a much higher portion of the total capital stock was made up of financial and working capital than of fixed capital. These non-fixed capitals included inventories of raw materials and unfinished goods, and also what was known in classical economic theory as the firm's wage fund. The classical economists (in the sense in which we use the term today) gave a lot of attention to periods of production – the steps in the production process. One element of this discrete-time dynamic view was that labour had to be paid before the product of its effort had been sold – labour wanted to be paid while it was working, and was not willing to wait until the producer had sold the output produced by labour's efforts before being paid. This meant that the firm had to have funds on hand – working capital – out of which it could pay its labour. These funds were known as the wage fund, and once the firm was in business the wage fund would be replenished out of the revenue which had been earned from the sale of previously-produced output. One implication of this argument, which some classical economists carried to extremes, was that it was the wage fund which had been accumulated out of the previous production period's sales revenue which determined and set a limit to the level of employment in the current period. If poor sales last period reduced this period's wage fund, the demand for labour would fall. Full employment could only be maintained if the wage rate was to fall to a degree sufficient that the existing, reduced, wage fund would employ the same number of workers as in the previous period. In essence, the wage fund meant that in any period the labour demand curve was a rectangular hyperbola, where wL, the product of the wage rate, w, and the level of employment, L, was just equal to the value of that period's wage fund.

Ricardo's expectation of a quick transition from a war-time to a peace-time economy, then, was based on his view that most capital was financial or working capital. This meant that it could shift quickly from declining war-time industries to expanding peace-time industries, taking the wage fund with it, and that labour would move quickly to the jobs created by the economic relocation of the wage fund. Ricardo recognized the dependence of his argument on the ease of mobility of financial capital, and acknowledged that the greater the proportion of fixed to

working capital in an economy, the slower and more difficult such a transition would be. In Keynes' day, Dennis Robertson's theory of business cycles was Ricardian in this sense, in that it was built on the presence of fixed capital and the costs and difficulties of adjustment this would create. Robertson's model was also one which the Austrians would find sympathetic, in that it involved over-investment and the misallocation of capital among sectors.

Malthus argued, in their correspondence, that the empirical evidence on post-war Britain refuted Ricardo's model. Writing in the decade after Waterloo, he took the view that the end of the war had been followed by a decade-long depression. He argued, in a manner that appealed to Keynes, that the explanation had to lie in some general deficiency of demand. Whether the mechanism of Malthus' "general gluts" model appealed to Keynes is not clear, although the Harrod-Domar growth model, which is generally regarded as a dynamic Keynesian model, has strong echoes of the general gluts argument, but his view of a general deficiency of demand clearly resonated with Keynes, and Malthus had a stronger claim to respectability than some of the other writers who had, over the years, espoused demand deficiency arguments (in Keynes' own day, one of the best known exponents of the demand deficiency view was Sir Oswald Mosley, later founder of the British Union of Fascists).

In Keynes' case, the war was, of course, the First World War. The consensus among economists after the War was that the pre-War British economy had worked pretty well – that it had basically been in equilibrium. The early Keynes, the Keynes of *The Economic Consequences of the Peace* and the *Tract on Monetary Reform*, accepted this view, as his brief depiction of the state of pre-War England from *The Economic Consequences of the Peace* suggests:

> What an extraordinary episode in the economic progress of man that age was which came to an end in August, 1914! The greater part of the population, it is true, worked hard and lived at a low standard of comfort, yet were, to all appearances, reasonably contented with this lot. But escape was possible, for any man of capacity or character at all exceeding the average, into the middle and upper classes, for whom life offered, at a low cost and with the least trouble, conveniences, comforts, and amenities beyond the compass of the richest and most powerful monarchs of other ages. The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit, and reasonably expect their early delivery upon his doorstep; he could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the

> world, and share, without exertion or even trouble, in their prospective fruits and advantages; or be could decide to couple the security of his fortunes with the good faith of the townspeople of any substantial municipality in any continent that fancy or information might recommend. He could secure forthwith, if he wished it, cheap and comfortable means of transit to any country or climate without passport or other formality, could despatch his servant to the neighboring office of a bank for such supply of the precious metals as might seem convenient, and could then proceed abroad to foreign quarters, without knowledge of their religion, language, or customs, bearing coined wealth upon his person, and would consider himself greatly aggrieved and much surprised at the least interference. But, most important of all, he regarded this state of affairs as normal, certain, and permanent, except in the direction of further improvement, and any deviation from it as aberrant, scandalous, and avoidable. The projects and politics of militarism and imperialism, of racial and cultural rivalries, of monopolies, restrictions, and exclusion, which were to play the serpent to this paradise, were little more than the amusements of his daily newspaper, and appeared to exercise almost no influence at all on the ordinary course of social and economic life, the internationalization of which was nearly complete in practice.[41]

As a monetary theorist, this Keynes was open to the view that a suitable interest rate policy (or bank rate policy as it was known, in acknowledgement of the role and independence of the Bank of England which was still, at that time, a private institution, balancing the role of central bank with the need to make a profit) could speed up the return to full employment after a shock, but he was still, in his own words, a classical economist.

Like Malthus's in the 1820s, Keynes' doubts about the classical model grew as the 1920s passed with no return to pre-war full employment (which Pigou, among others, took to have meant about four per cent unemployment). Much of his writing during the 1920s was in the popular press. He was moving, during that period, away from the classical model and towards what became the Keynesian view, and was starting to advocate public works spending as a response to continuing unemployment, but he (like the "cranks" he acknowledged but rejected) had not yet developed a model to explain why the recovery was taking so long, especially in the face of the fact that the United States was enjoying the Roaring Twenties. (He had not yet read the Malthus-

[41] John Maynard Keynes (1919): The *Economic Consequences of the Peace* London, Macmillan, pg. 6

Ricardo correspondence, and it's not entirely clear whether he developed his own model of demand deficiency before or after Sraffa's discovery of the relevant letters.) By the time of the *Treatise on Money* in 1930, he had rejected much of the classical view, but he was still not a Keynesian in the post-*General Theory* sense of the term.

Some authors object to the characterization of Keynes' thought through this period as an evolution, since in the *General Theory* Keynes explicitly repudiated much of the argument he'd made in the *Treatise on Money*. We can, however, see a thread linking his writings in the period of the 1920s, in that they were all groping for an explanation of prolonged recession (even before the rest of the world entered the Great Depression). We can also see why some people became exasperated with Keynes (there is a story attributed to various British Prime Ministers which says that when whichever PM it was asked four economists for advice on a policy issue he got five completely contradictory answers, two of them from Maynard Keynes). Some of Keynes' Cambridge colleagues (Gerald Shove, for one) were so insecure in their personalities that they wouldn't publish an idea until they were absolutely certain it was right, with the result that they published virtually nothing. Keynes, on the other hand, was so certain of his analytical powers that he stated his views, and policy prescriptions, with absolute assurance, regardless of how completely his current views might contradict his previously held views which he had stated with equal confidence and certitude. He was also very quick to adapt his policy prescriptions to the current policy climate, unlike, say, Lionel Robbins who remained a vocal supporter of free trade regardless of how protectionist the general policy climate might be.

In 1930 Keynes was made a member of the Macmillan Committee on Finance and Industry, which had been appointed to try and explain the depressed state of the British economy. In addition to questioning witnesses (and virtually writing the committee's report single handed) Keynes gave several days of private evidence, based on his *Treatise on Money* which was then in galley proofs. The private evidence (basically Keynes acting as the committee's only witness for several days, setting out the views he held then) gives us some insight into his groping for a new theory of the macroeconomy. Most important, from our point of view, is something he said almost as an aside, to the effect that he had come to the conclusion that it was wrong to treat unemployment simply as a side-effect of an economic downturn and that what was needed was a theory of unemployment. It was this view which was at the base of his dispute with Pigou. In

1912, in a book entitled *Wealth and Welfare*[42], Pigou had said that he had set out to write a book about unemployment but had come to realize that to explain unemployment you had to be able to explain industrial fluctuations (as the second of his books on unemployment, published in 1927, would be titled). Keynes would have had no objection to the need to study the causes of cycles – much of his career was devoted to that – but he did come to reject the idea that, once cycles have been explained, there is no more to be said about unemployment.

Even so, at the time of the Macmillan Committee, Keynes did not yet have a Keynesian model of unemployment, but rather was still in classical mode. In particular, at that time he took the view that the difference between the pre- and post –First War periods in terms of the behavior of the labour market was increased wage stickiness caused in part by the growing strength of the labour unions. The Keynes of the Macmillan Committee evidence (which came, remember, between the writing and the publishing of the *Treatise on Money* and before he had been convinced by feedback from people like Hawtrey and the Circus that the argument in the *Treatise* was wrong) essentially believed that prolonged unemployment was a result of a combination of a drop in aggregate demand and downward inflexibility of wages. The argument he made to the Committee was in essence that, in the new industrial climate, while prolonged unemployment would eventually drive wages down and restore full employment, the social and economic costs of that prolonged, deep unemployment were sufficiently high that it made sense for the government to increase aggregate demand by increasing its loan-financed spending, and drive prices up to the point that the cost of labour was once again consistent with industrial profitability.

It is important to emphasize that the Keynes of the Macmillan Committee was not, in certain important regards, the Keynes of the *General Theory*. In particular, the downward-sticky wage story, which is at the core of much of what we teach as Keynesian economics today, was present in the Macmillan Committee evidence but was rejected in the *General Theory*. If anything, as we shall see in a later lecture, the downward-sticky wages story is Pigou's explanation for unemployment, not Keynes', at least by the time of the *General Theory*. This is important for our understanding of the model in the *General Theory*, but also for our understanding of Keynes' place in the history of economic thought and why people find him so frustrating a subject.

[42] A. C. Pigou (1912): *Wealth and Welfare* London, Macmillan

Which statements, made with absolute certainty in one year, were still part of his understanding of how the economy worked a year later? His remarks about gold being a barbarous relic, and about how in the long run we're all dead, are from his earlier, classical period: can we still cite them as often as we do, with the post-*General Theory* Keynes in mind? On the whole yes, but it is important that we keep in mind that all of the sudden, and complete, shifts in Keynes arguments were part of his effort to develop a coherent theory of unemployment which was not simply an afterthought to a theory of the business cycle.

The *General Theory*, then, is the result of Keynes' attempts to bring unemployment to the forefront of macroeconomic modeling. Whether it would have been his last word on the subject had the Second World War not diverted his energies from academic work to wartime policy making is an unanswerable question. There are tantalizing hints in his comment at a lunch at the Bank of England, a few days before his death in 1946, to the effect that he increasingly found himself turning, for solutions to economic problems, to that Invisible Hand which he had worked so hard to excise from economic theory, and in his final published paper[43], a 1946 article on the US balance of payments position, that there was much that was good in classical economics and that the objective of policy should not be to displace classical theory but rather to make it work better. The readiness with which he abandoned propositions which he had set out in the *Treatise on Money*, not to mention his earlier works, has inclined some authors to believe that he might well have abandoned the model of the *General Theory* as easily. Others point to the fact that while he quickly backed off the Treatise arguments in the face of criticism, he defended the theoretical arguments of the *General Theory* much more vigorously[44].

In general we can say that Keynes backed off the Treatise arguments when they were shown to be wrong, as many were, or to be logically strained (as we shall see when we talk about Robertson's comments on the Treatise definition of saving). Keynes wrote the Treatise without the benefit of his usual support system: Hawtrey and Robertson were both out of the country for long periods at critical stages in the writing of the Treatise. When Hawtrey, in particular, returned, it was his comments on the Treatise model which convinced Keynes that the approach which he had taken in the book, focusing on prices and profits and treating output as a bit of an

[43] John Maynard Keynes (1946): "The Balance of Payments of the United States" *The Economic Journal* 56
[44] Don Patinkin (1976): *Keynes Monetary thought: a study of its development* Duke University Press.

afterthought, was fundamentally flawed, and led to the quantity focused approach which Keynes took in the *General Theory*. In addition, at the time of writing of the Treatise, Keynes didn't have a group of students of the standard of the Circus, who also pointed out flaws in the argument of the (published version of the) Treatise. It was the Circus, for example, who convinced Keynes that his Widow's Cruse[45] story of spending out of profits (his argument in the Treatise that any spending done by entrepreneurs out of their profit income simply increased total profits) required fixed output and full employment, making it inappropriate as part of an argument that was supposed to explain recessions. Once he was convinced that he was on the wrong track, Keynes changed tack quickly. The feedback that he got on early drafts of the *General Theory* led to him making significant changes in those drafts, but made him much more confident about the correctness of the final product.

Historical Background

We noted above that a key parallel between Keynes' era and the era of the Ricardo-Malthus debate was the transition from a war-time to a peace-time economy. Ricardo argued that capital and labour were mobile and that markets sent efficient price signals which would direct resources, quickly, to their most productive uses. Malthus argued that this hadn't happened in the post-Waterloo decade, and that a new theory of (what we today would call) macroeconomics was needed.

For the most part, historians have tended to side with Malthus on the empirical evidence from the early 19th century period, seeing it as a decade-long slump. This view is not, however, universally held. Davis, for example[46] argues that the decade in question should be seen as a series of episodes. In this view, Ricardo's views about the quickness of the immediate post-war transition held up (as Ricardo argued they did, based on his reading of reports on taxation revenues), but the period as a whole was hit by a number of negative shocks. There was the financial crisis of 1825, but also the lesser known one of 1815 which has close parallels with our own recent financial crisis, in that it was the result of irrational exuberance in land speculation. (During the Napoleonic Wars, the Napoleon's Continental System cut off food supplies to

[45] A term meaning an inexhaustible source of supply, referring to the biblical story (1 Kings 17:16) of the widow's jug of oil that miraculously replenished itself to supply Elijah during a famine.

[46] Timothy Davis (2005): *Ricardo's Macroeconomics: Money, Trade Cycles and Growth* Cambridge University Press

England from the continent, driving the price of food up. This in turn drove up the price of English agricultural land and brought into production marginal land: land which of sufficiently low quality that it had not been worth clearing and farming it before the war drove up the price of food. As the price of food and of land rose, investors started borrowing from the country banks outside London for the purposes of buying land, with the result that many of those banks would up in the situation where virtually all of their portfolio of assets consisted of loans for the purchase of expensive, but poor quality land. When the war ended and food supplies from the continent reappeared, the price of food, and of English agricultural land, collapsed leaving many investors unable to pay off their loans. They defaulted, leaving the banks with worthless portfolios, and many of the country banks went under. The situation was partly eased by a series of poor harvests on the continent, which drove the price of food back up and revived some of the banks' loans.)

In the case of post-World War One England, we need to take account of the presence of other explanations for Britain having gone into Depression a full decade before the rest of the world did. As in the post-Napoleonic War case, the explanation rests on a series of events.

We noted above that the consensus among economists, as expressed by Pigou, was that prior to the First War the English economy was pretty much in long term equilibrium, with unemployment averaging about 4% for several decades. It is important to know, though, that this 4% figure was an average, not a steady value. While actual unemployment did fluctuate around 4%, year to year changes were large. According to the best available data, which seems to match up pretty well with the data available to Pigou when he was writing his 1927 book *Industrial Fluctuations*[47] (a book which Keynes has been criticized for ignoring when he wrote about Pigou in the *General Theory*) it was not at all unusual for unemployment to spike from 4 to 10% in a matter of a couple of years and then fall to 2% equally swiftly (see Figure 1 below). When economists spoke of the British economy as being in equilibrium around an unemployment rate of 4%, they meant not that unemployment was consistently low but that labour markets were efficient, with wages responding quickly to shocks and restoring full employment quickly. It is in this sense that they (including the young Keynes) were what Keynes termed "Ricardian".

[47] Arthur Cecil Pigou (1927): *Industrial Fluctuations* London, Macmillan

From a historical perspective, unemployment in the first few years after the First World War was not unusually high: it was, in fact, not much higher, if at all, than its pre-War peaks. What was different after the war was the fact that it didn't come back down again anything like as quickly as pre-War experience would have predicted. For this, a number of non-Keynesian explanations could be, and were, suggested.

One was the presence of unemployment insurance. We are accustomed today to thinking of the 1920s as a period before the existence of social safety nets, but while it was true that there was no universal safety net, significant segments of the (unionized) British labour force did have unemployment insurance schemes, and the replacement rate, defined as the ratio of UI payments to average wages, did increase after the War[48]. This led many commentators to suggest that the combination of unemployment benefits and of stronger unions refusing to allow wages in key sectors to fall was the explanation for the prolonged slump. Related to this was the success of the Eight Hour Day Movement. In 1919, in what was seen in a sense as a peace dividend for workers, the length of the working day was cut by roughly 13%, with no reduction in weekly earnings for workers who were paid by the week and with a corresponding increase in hourly wages for workers who were paid on that basis. This resulted in a significant increase in the unit labour cost of output (the labour cost of producing a unit of output). How significant this was is unclear, since the Eight Hour Day movement was an international one and the working day was reduced in a number of countries at the same time, so while there was an increase in English labour costs there may not have been much of an effect on the international competitiveness of English export industry. Indeed, since the reduction in the working day was introduced in England through industry-by-industry negotiation rather than being imposed by legislation, English industry might have been in a better position to adapt to it than were its international competitors. Still, the possibility that the peace dividend proved more costly than anticipated should not be ignored.

[48] According to Stevenson, the 1911 Unemployment Insurance Act covered 2.25 million out of 19 million workers, but by 1921, 12 million workers out of a labour force of about 20 million had coverage, and coverage continued to be extended during the 1920s. Agricultural workers, domestic servants and the self-employed were generally not covered. John Stevenson *British Society 1914-45,* Penguin, London, 1984.

Two other possible explanations were ones which Keynes was very familiar with. The first parallels some of the detail of the argument that Ricardo was right about the post-Napoleonic transition. In essence, it is that there was no immediate post-World War One slump.

This is an argument which rings odd to the modern ear, since we are used to the claim that the application of Keynesian policies after the Second World War was aimed at avoiding a repetition of the post-WWI experience. In the year or so immediately after the 1918 Armistice, however, the risk to the English economy appeared not so much to be unemployment as to be inflation.

While there is no doubt that the First War was, in the long run, disastrous for England and the rest of Europe, it did blow some people some good. Employment in wartime industries resulted in significant increases in the incomes of families at the lower end of the income distribution, an effect which showed up in considerable improvements in the health of school-age and younger children in the poorest parts of the country. Towards the last year of the war incomes spiked, so that at the time of the Armistice there was a considerable amount of pent-up consumer demand, and consumer prices surged immediately after the war. The boom seems to have been prolonged by easy money, and by banks continuing to lend, even if they had doubts about the sustainability of the boom, because their competitors were lending. In the opinion of many economists, including the young Keynes, the government and the Bank of England were too slow to respond by raising the bank rate, perhaps out of a fear that quashing the post-War celebration too quickly would trigger major social unrest. As a result, while the inflationary boom began in 1919, it was not until 1921 that the government responded. The bank rate had in fact been rising over the previous couple of years, going from 5 to 6%. In 1921, Keynes argued that it should be raised to 10% and kept there for as long as was necessary to stamp out the inflationary pressures. In the event, the bank rate was only raised to 7% and held there into 1922. What had not been anticipated was the extreme sensitivity of economic activity to the interest rate. The result of the 1921 tightening was not just the end of the post-War boom but a drop into recession[49].

The second obvious isolated event was the return to the Gold Standard, at the pre-World War One parity in 1925. Keynes had been arguing against the planned return on the grounds that

[49] See Susan Howson (1974): "The Origins of Dear Money, 1919-20" *The Economic History Review* 27(1), February, 88-107

setting the price of gold in terms of the pound at the pre-WWI level would seriously over-value the pound, in particular relative to the US dollar. Since the US was also on the Gold Standard, the effect was to overvalue the pound on foreign exchange markets and immediately raise the price of British exports. Based on the data he had available on US prices, Keynes estimated that the result of the re-valuation would be to overprice British goods by about 10% in foreign markets. The only way to counter the effect of the overvaluation of the pound would be to reduce the UK price of British goods by an amount sufficient to cancel out the effect of the increased price of the pound on the US price of British goods. That, however, would require a cut in British costs of production if the UK price were still to be profitable, and since labour's share of GDP was over 60%, that cut would require a significant cut in British wage costs. While in principle it would be possible to move immediately to a new equilibrium in which all domestic prices were lower than before by the amount necessary to cancel the effect of the overvaluation, in practice that was unlikely to happen. In a dictatorial country the government could simply order a reduction in all incomes in domestic currency terms, but that would not be feasible in the UK. The necessary reductions in wages would have to be achieved by negotiation, the alternative being that British industry would have to cut back on production until unemployment had risen sufficiently to force wages down to a level which would allow British industry to price at a level that would make it profitable at the higher exchange rate. Negotiation was unlikely to be successful since, while it was easy enough to say that wage reductions would be followed immediately by reductions in prices so that workers' real standard of living would be protected, workers were being asked to cut their wages first, and to trust that general price cuts would follow immediately. This was a story which they seemed unlikely to buy into. Keynes expressed his concerns in *The Economic Consequences of Mr. Churchill*[50], Winston Churchill having been the Chancellor of the Exchequer who made the decision to return to gold at the pre-War parity (Churchill later acknowledged that the decision had been a disastrous mistake[51]).

[50] John Maynard Keynes (1925): *The Economic Consequences of Mr. Churchill*, L. and V. Wolfe

[51] Otto Niemeyer played a key role in convincing Churchill to return to gold. Churchill apparently didn't forgive him, or Montagu Norman (1871 – 1950), Governor of the Bank of England, for convincing him to return to gold – when Norman retired as Governor of the Bank in 1944, Niemeyer wasn't seriously considered for the job as he was unacceptable to the Prime Minister of the day, Winston Churchill.

Keynes was skeptical about the chances of a negotiated reduction of wages, and events supported him. The first industry to be hit by the overvaluation of the pound was the British coal industry. While this sector had been doing well, the overvaluation of the pound overpriced British coal relative to the output of the recovering European fields. The mine owners asked the miners unions for wage cuts and the unions refused. The result[52] was a miners' strike, and the general Strike of 1926. While the General Strike lasted only twelve days (the Trade Unions Congress had called the General Strike in solidarity with the miners, but the miners were not popular among other workers, being regarded as overpaid to begin with, and the miners' insistence on controlling strike strategy created a further split which contributed to the collapse of the General Strike), the miners stayed out for several months, seriously damaging British industry in the process.

The General Strike calls attention to another aspect of the Post World War One British economy that we must not overlook, and one which is consistent with Robertson's fixed capital explanation for slumps. The coal industry was particularly hard hit by the return to Gold in 1925 because it was facing competition from reviving European coal sectors, whose product was suddenly significantly cheaper than British coal. Coal wasn't the only industry facing changed foreign completion, though. The War had given non-belligerent countries and belligerents which were less heavily involved in the war effort an opportunity to make inroads into traditional markets for British products. Industries in the United States were obvious beneficiaries, but they were not the only ones: Japan, for example, took advantage of the War to expand its textile industries. One explanation of the Slump makes the point that the parts of the country which were hardest hit in Britain were old industrial areas, and that other parts of the country actually boomed, under the impetus of the development of new industries – the motor car industry, for example. Unemployed workers from South Wales who were marching on London demanding relief in 1936 (hunger marchers) found themselves marching through new industrial areas where factories were advertising job vacancies and hiring[53]. Perhaps, as Ricardo had suggested after the Napoleonic War, the problem was the need for capital to be reallocated, exacerbated by the

[52] The 1926 strike was the culmination of a period of unrest in the coal mining sector, from the beginning of the 1920s.
[53] John Stevenson *British Society 1914-45,* Penguin, London, 1984.

fact that in the 1920s a much higher proportion of the capital used in any industry was fixed capital, as compared with the situation in the 1820s.

Arguably then, the prolonged British Slump of the 1920s was a result not of a change in the workings of the economy, and in particular of the labour market, but of a pair of mistimed policy decisions – the interest rate hike of 1921 followed by the return to Gold in 1925. Indeed, Keynes suggested as much in some of his writings. If that were the case, no new macroeconomic model was needed – the old classical model explained things quite well, when you took account of governments making, and sticking to, bad policy choices. Even the Great Depression of the 1930s can be explained by bad policy. The failure of the US Federal Reserve to prevent bank failures and a massive contraction of the US money supply is well understood as a contributing factor to the Depression. Another factor, which was discussed in the 1930s (Keynes and Hawtrey both refer to it in various writings) and which has come back into the literature in recent years is the operations of the French and American central banks under the Gold Standard.

Both France and the US were experiencing significant inflows of gold in the late 1920s, the US because it was a booming economy and a safe haven and France because it had returned to gold at a significantly lower value of the franc than the pre-war value: whereas the UK had overvalued the pound, France had deliberately undervalued the franc. The US had, of course, also accumulated great quantities of gold during the First World War. Under the theory of the specie flow mechanism, an influx of gold to a country with a gold-backed currency should result in an increase in that country's money supply and a price inflation which would reduce its exports, increase its imports and bring the inflow to a halt. In the 1920s, however, neither France nor the US was playing by the rules of the gold standard: both were accumulating gold but not expanding their money supplies. This reduced the amount of gold on world markets and meant that other countries which, like Britain, had returned to gold but which were not experiencing exogenous inflows had to raise their interest rates in order to prevent themselves losing gold, if they were to stay on the gold standard at the pre-set par. The resulting high interest rate policies would be damaging to investment in countries which were trying to re-build after the War.

Britain was in this situation from the time of its return to gold in 1925 until it went off gold in 1931. Arguably the British economic recovery dates from 1931[54].

Economic circumstances and policy changes related to the Gold Standard help explain some of the differences in emphasis between the Treatise and the *General Theory*. Much of the work on the *Treatise* was done in the 1920s, while Britain was still on the Gold Standard and before what we now regard as the onset of the world-wide depression. Britain was in a prolonged slump and much of Continental Europe was still in a mess, but the US had not yet entered a major downturn. By the time of the publication of the *General Theory* both Britain and the US had gone off the Gold Standard, the 1929 Crash had occurred and the Depression had gone world-wide. One result of these factors was that the gold standard focused analysis of the *Treatise* no longer applied: in the both *Treatise* and the private evidence to the Macmillan Committee the need to balance gold inflows and outflows played a key role in Keynes' modeling and policy recommendations. There had also been a sense that Britain's economic problems could be resolved by correcting Britain's international competitive position. By the time of the *General Theory* the gold standard material was irrelevant, but beyond that, since the Depression was by then world-wide there was no value in a model which assumed that the US could pull Britain out of its problems. As a result, the open economy model of the *Treatise* is replaced by what is essentially a closed economy model in the *General Theory*, and the focus has shifted to what a country could do to pull itself out of a slump. A model in which a country relied on trade to pull it out of a depression was of no value whatsoever when every country was in Depression.

It is possible to argue (and some authors do argue) that there was no need to replace the classical model with a new theory which replaced the traditional demand and supply analysis of the labour market with some other mechanism. This does not, of itself, mean that the classical model is right and Keynes' model wrong, simply that the models need to be given careful scrutiny, both for logical consistency and for concordance with the facts. The validity of the Keynesian model was called into serious question during the 1970s and 80s, while the validity of the New Classical model is under question today. Much of the debate about which model holds suffers from a lack of understanding of the models involved. There is also the question of what aspects of the Keynesian model we should be evaluating. It is often said, for example, that the mark of a

[54] Otto Niemeyer opposed the abandonment of the gold standard in 1931.

Keynesian economist is a belief that public works spending can be used to stimulate the economy, yet as we have noted (and will return to in more detail in a later lecture) Pigou believed that fiscal stimulus could be helpful in a downturn, yet Keynes regarded Pigou as a classical economist. The difference was not in their policy prescription but in the theory of the labour market which they adopted. Should we, then, limit the term Keynesian to analysts who accept the Keynesian model in all of its detail?

To answer that question, we have to be able to say what constitutes Keynes' model: the model of the *General Theory*. We have already noted that the model which we typically teach as the Keynesian model is in many ways the model of the Keynes of the Macmillan Committee, lying perhaps somewhere between the *Treatise* and the *General Theory*, probably closer to the *Treatise*. The purpose of these lectures is to go through the *General Theory* in detail, setting out the Keynesian model as it is set out there, and making at least some observations about how we might go about testing it against real world data.

Keynes' major books in economics:

1913 *Indian Currency and Finance*

1919 *The Economic Consequences of the Peace*

1921 *A Treatise on Probability*

1922 *Revision of the Treaty*

1923 *A Tract on Monetary Reform*

1930 *A Treatise on Money*

1936 *The General Theory of Employment, Interest and Money*

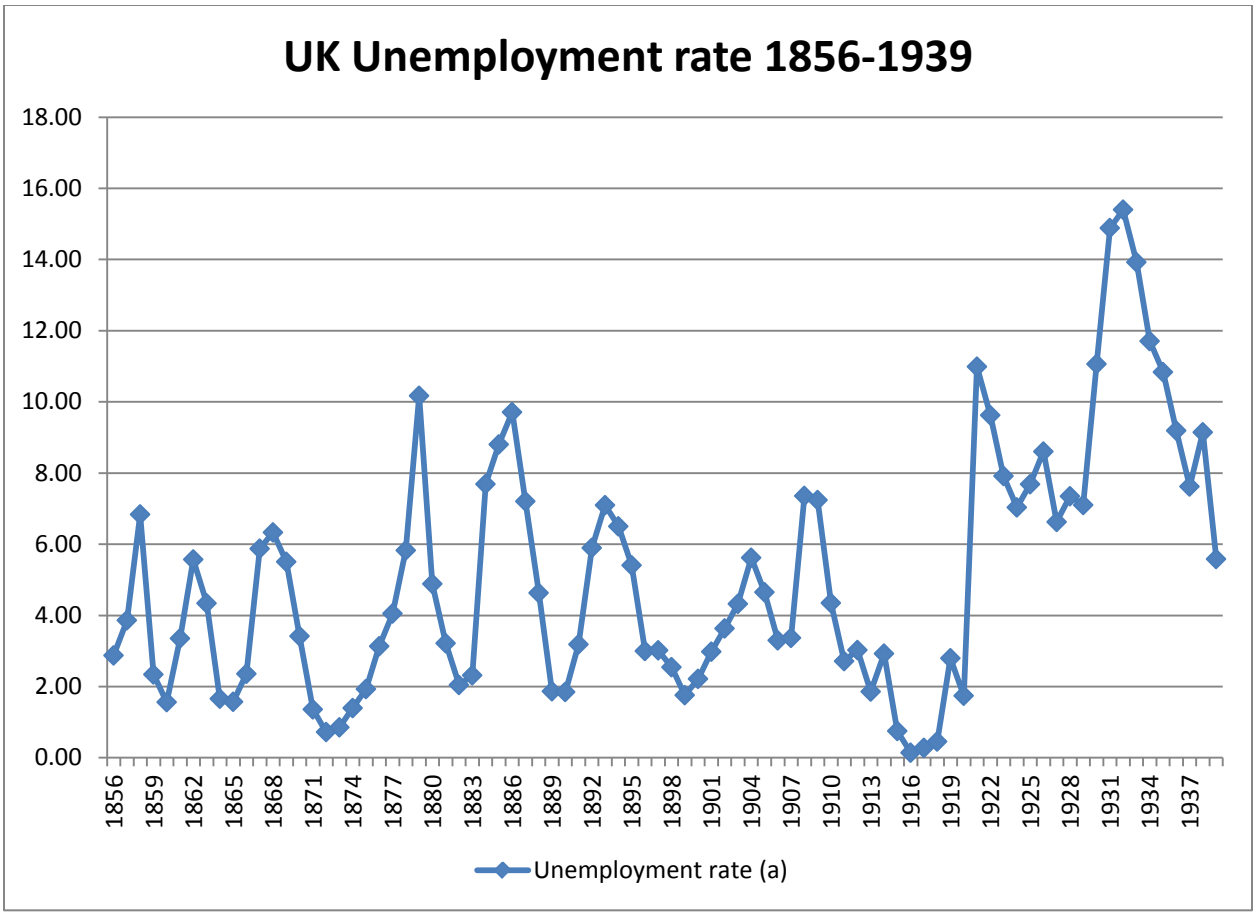
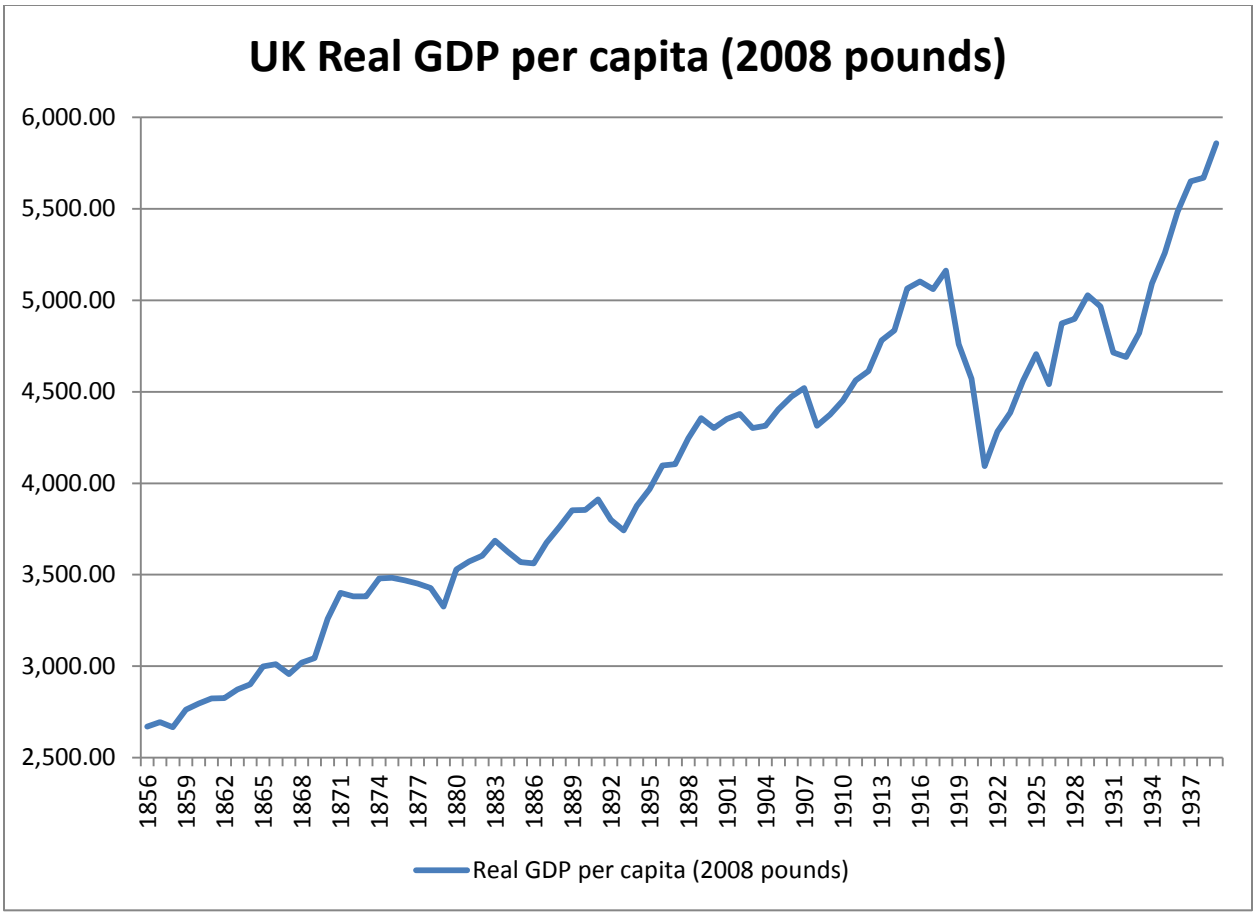
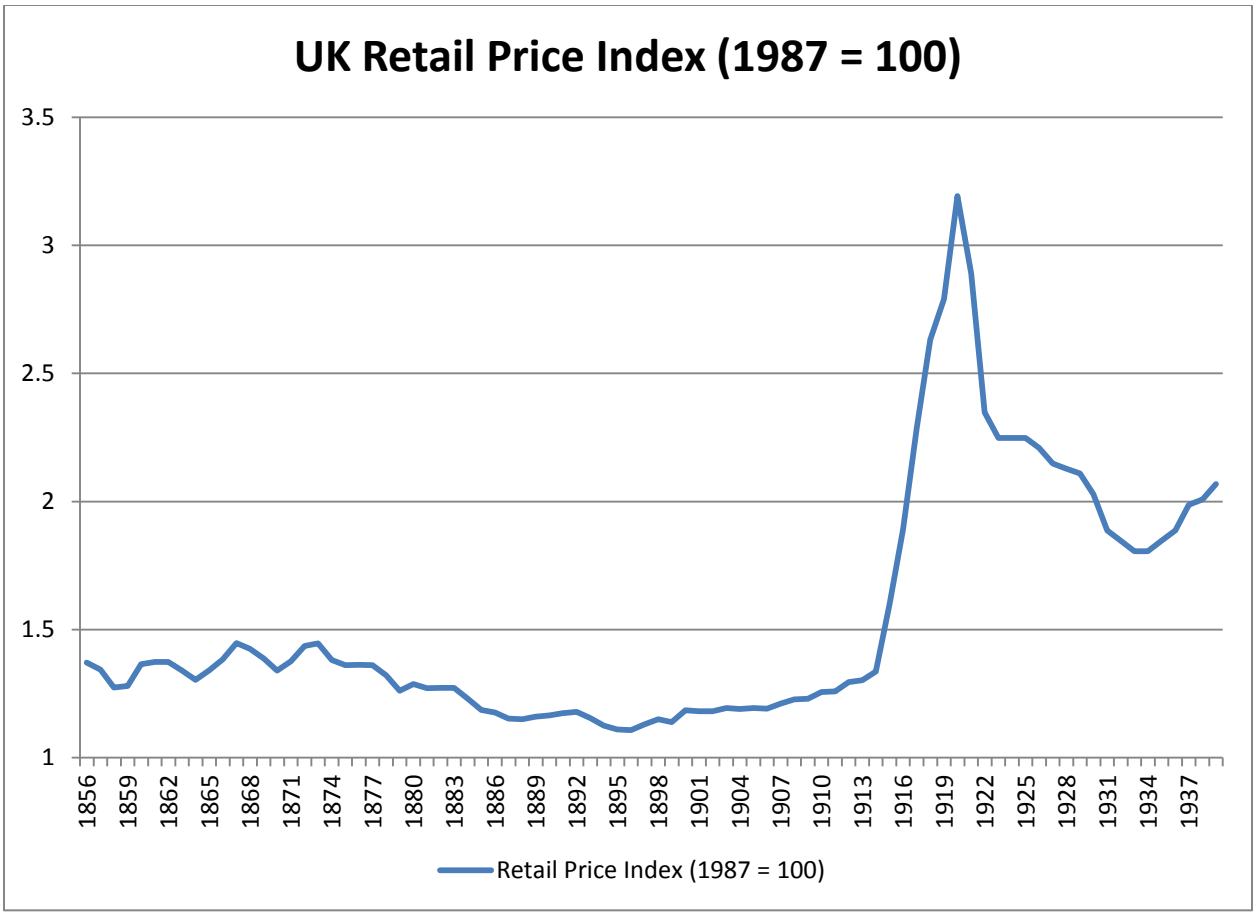


Figure 1: British Unemployment, 1856-1939

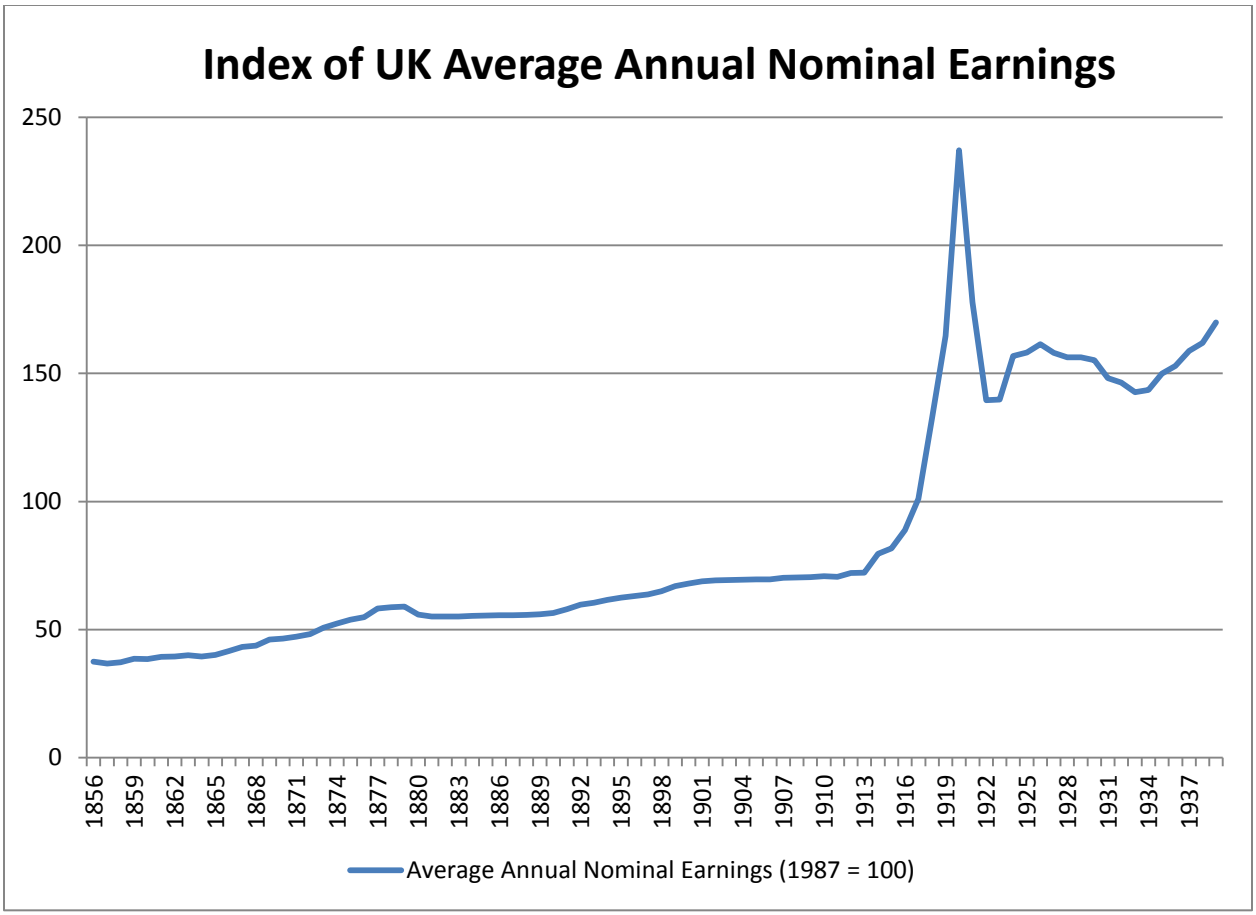
From: "The UK recession in context — what do three centuries of data tell us?" Sally Hills, Ryland Thomas and Nicholas Dimsdale. Bank of England Quarterly Bulletin, 2010 Q4.



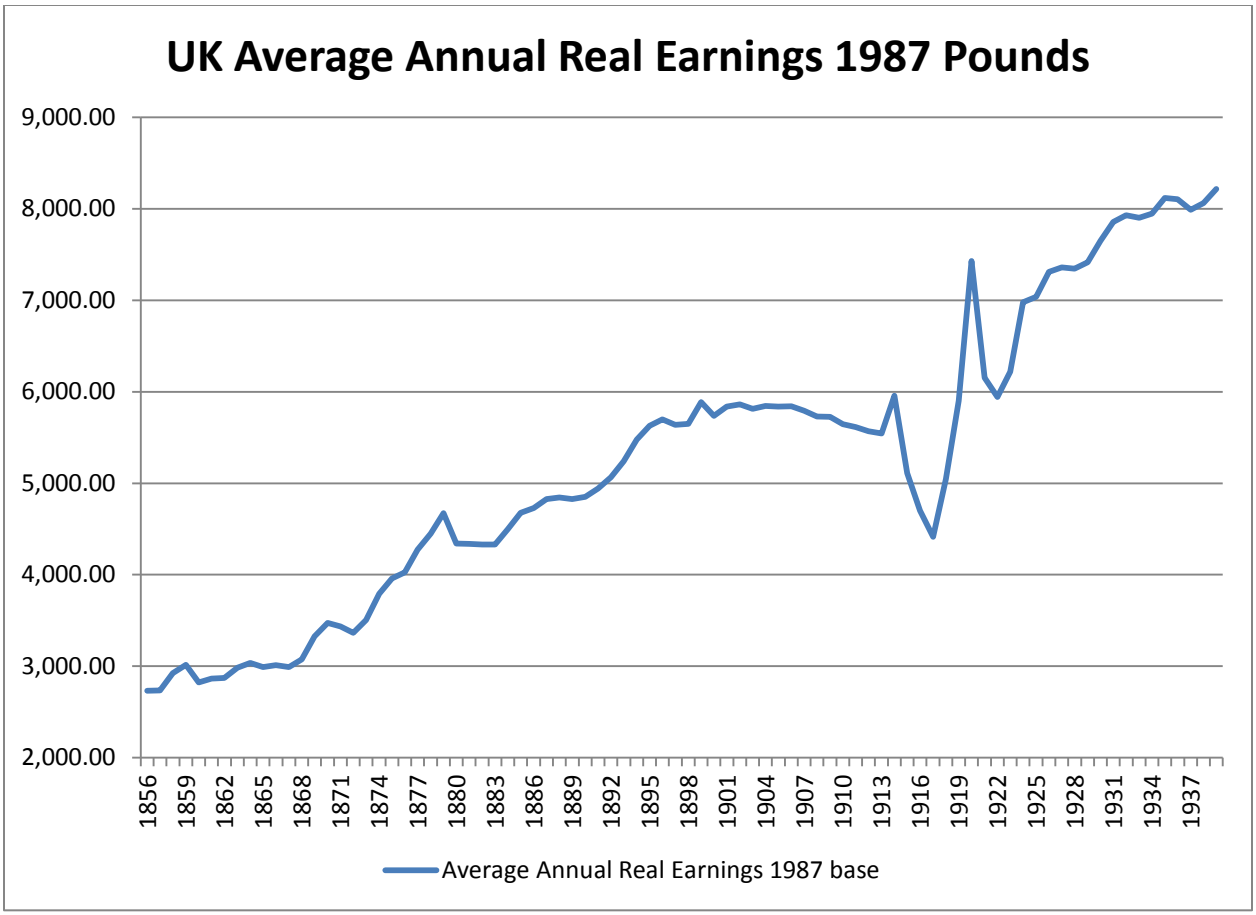
From: Lawrence H. Officer and Samuel H. Williamson, 'What Was the U.K. GDP Then?' MeasuringWorth, 2012. http://www.measuringworth.com/index.php



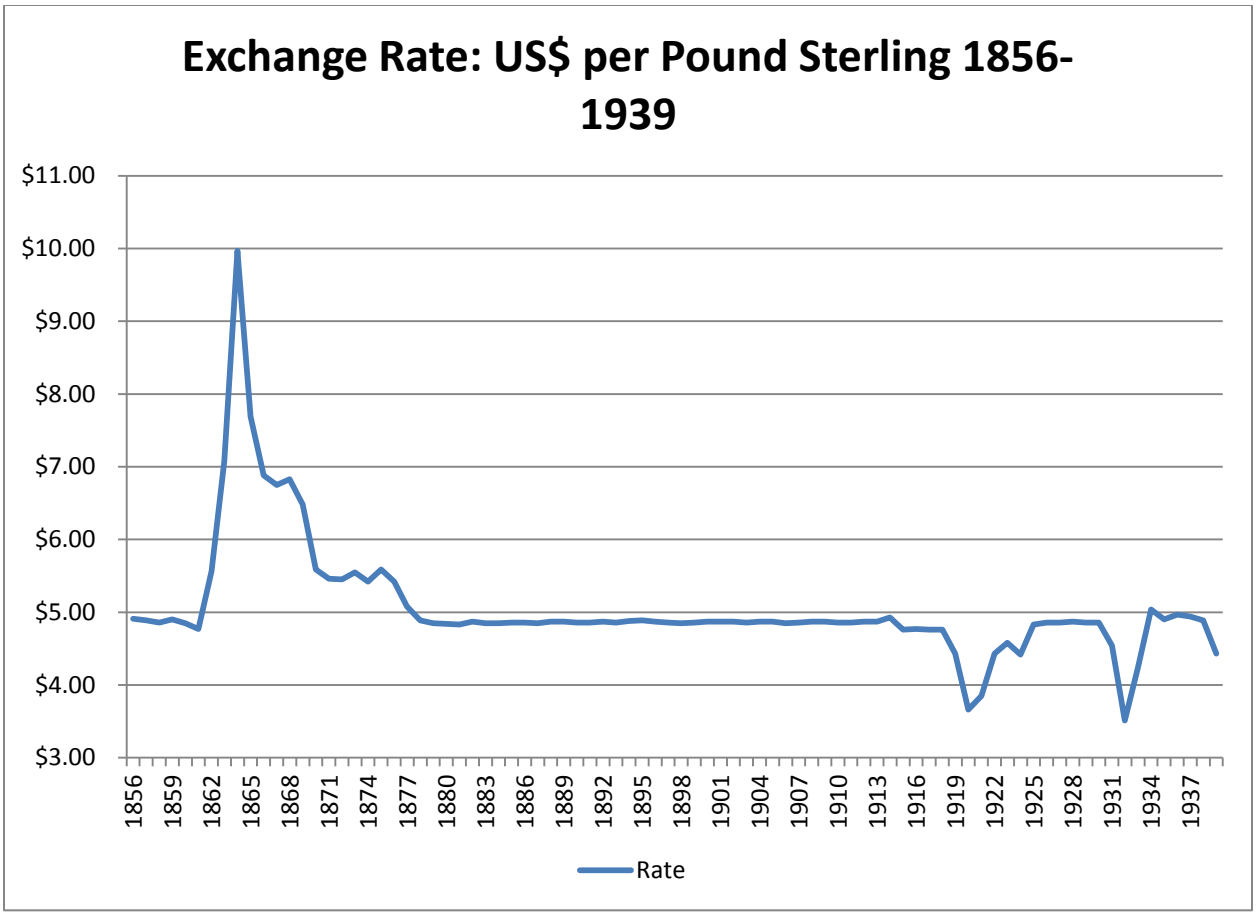
From: Lawrence H. Officer, 'What Were the UK Earnings and Prices Then?' MeasuringWorth, 2012. http://www.measuringworth.com/index.php



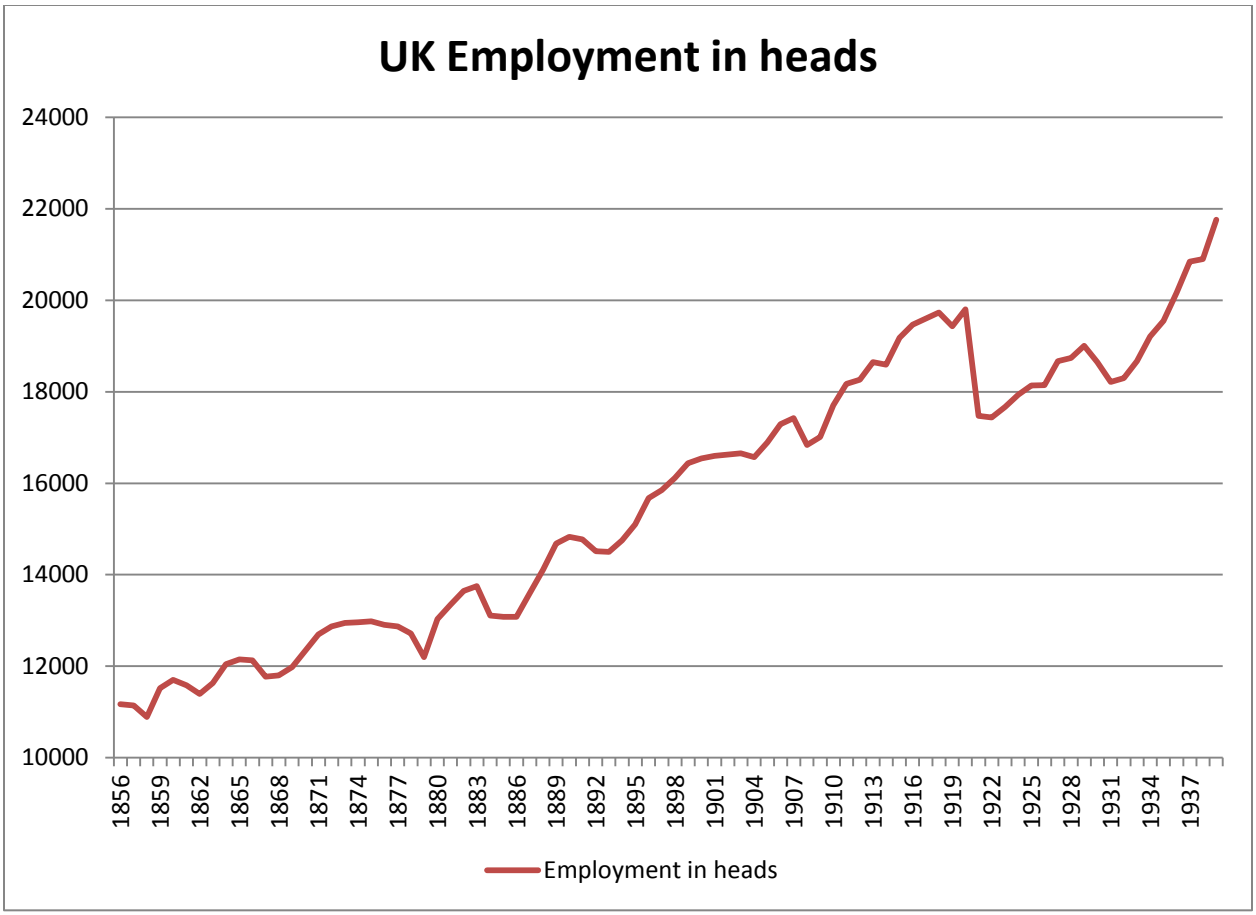
From: Lawrence H. Officer, 'What Were the UK Earnings and Prices Then?' MeasuringWorth, 2012. http://www.measuringworth.com/index.php



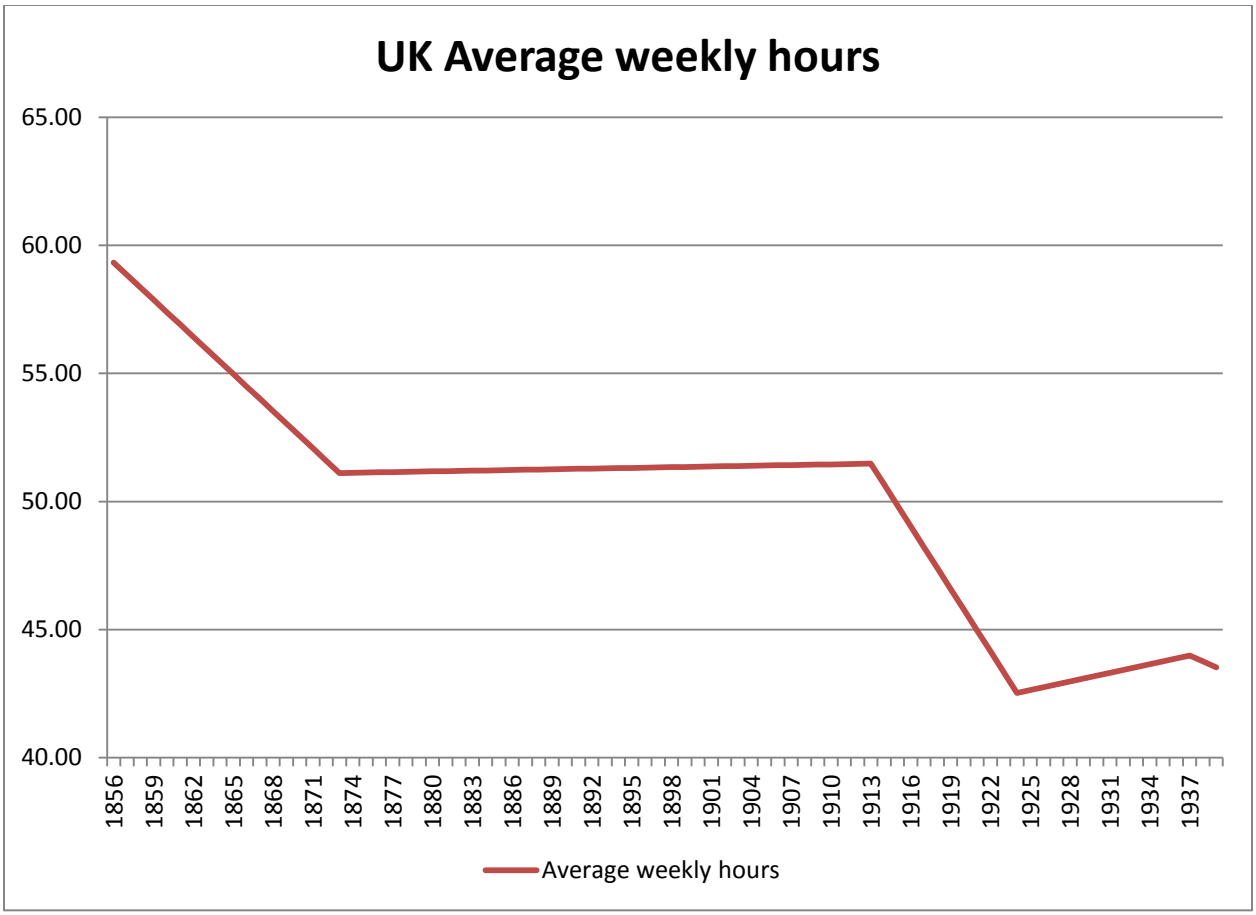
From: Lawrence H. Officer, 'What Were the UK Earnings and Prices Then?' MeasuringWorth, 2012. http://www.measuringworth.com/index.php



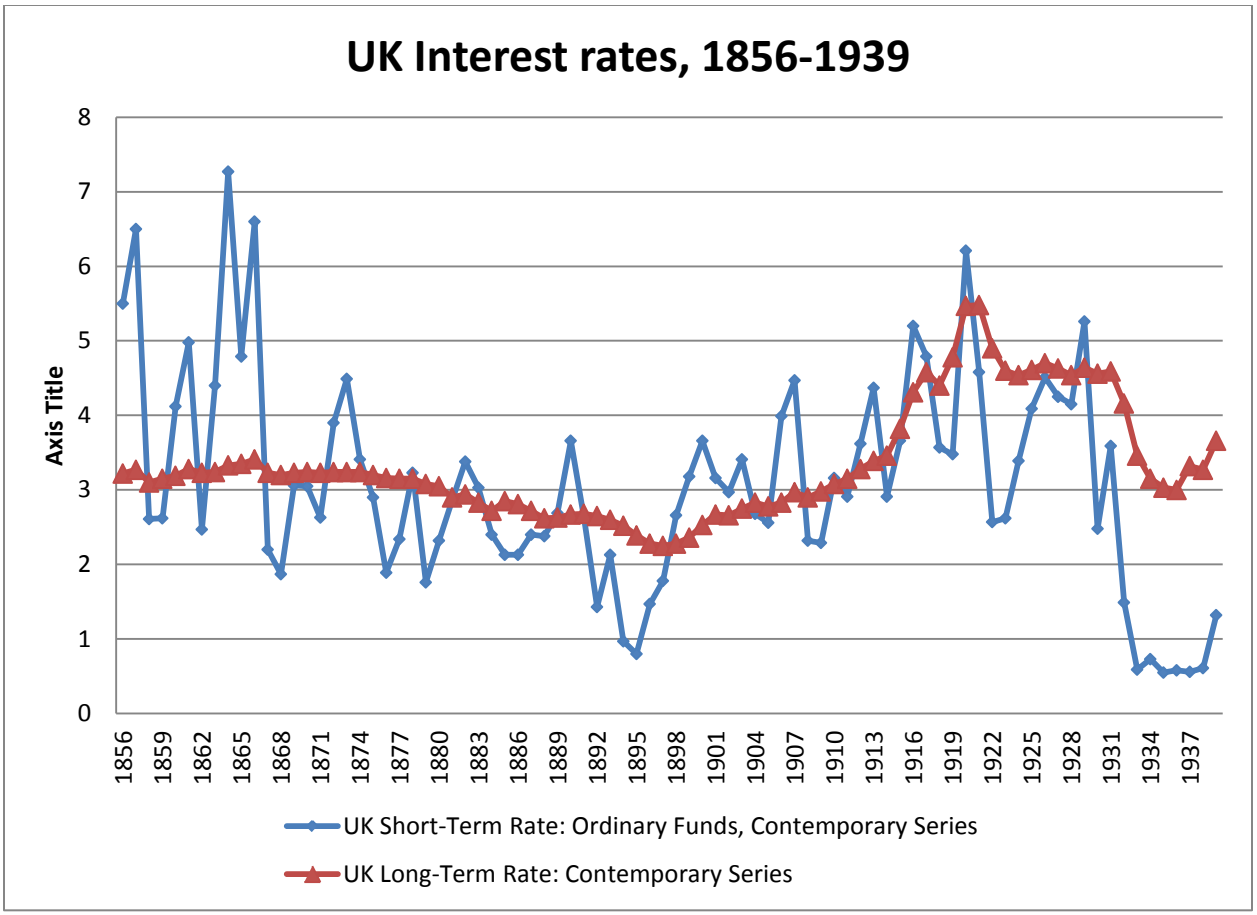
From: Lawrence H. Officer, 'Dollar-Pound Exchange Rate From 1791,' MeasuringWorth, 2012. http://www.measuringworth.com/index.php



From: "The UK recession in context — what do three centuries of data tell us?" Sally Hills, Ryland Thomas and Nicholas Dimsdale. Bank of England Quarterly Bulletin, 2010 Q4.



From: "The UK recession in context — what do three centuries of data tell us?" Sally Hills, Ryland Thomas and Nicholas Dimsdale. Bank of England Quarterly Bulletin, 2010 Q4.



Lawrence H. Officer, 'What Was the Interest Rate Then?' MeasuringWorth, 2012.
http://www.measuringworth.com/index.php