

Lecture 7

Two remarkable men

Johan Gustav Knut Wicksell 1851-1926

John Maynard Keynes 1887-1946



Knut Wicksell 1851-1926



INTEREST AND PRICES

(Geldzins und Güterpreise)

A STUDY OF THE CAUSES
REGULATING THE VALUE OF MONEY

By KNUT WICKSELL

Translated by R. F. Kahn

With an Introduction by Bertil Ohlin

And the Article
The Enigma of Business Cycles
Translated by Carl G. Uhr

Original publication date: 1898

Wicksell studied with interruptions, took a degree in mathematics (1875, 1885) and later in economics (1895), followed by doctoral degree 1896 (and later also a degree in law). Professor of economics at Lund University 1901-16, retired and moved to Stockholm, but continued to write on economic issues until his death.

Five Wicksell books figure prominently in the world literature of economics

Über Wert, Kapital und Rente 1893 [*Value, Capital and Rent* 1954]

Finanztheoretische Untersuchungen 1896 [*Studies in the Theory of Public Finance*]

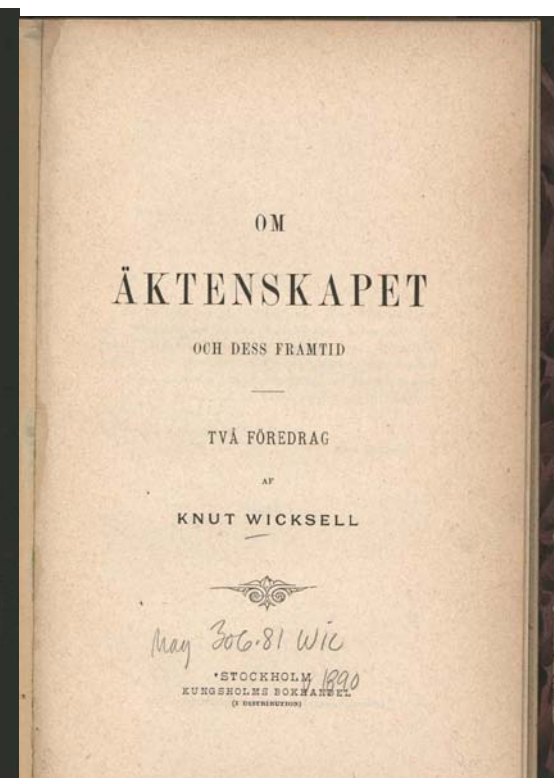
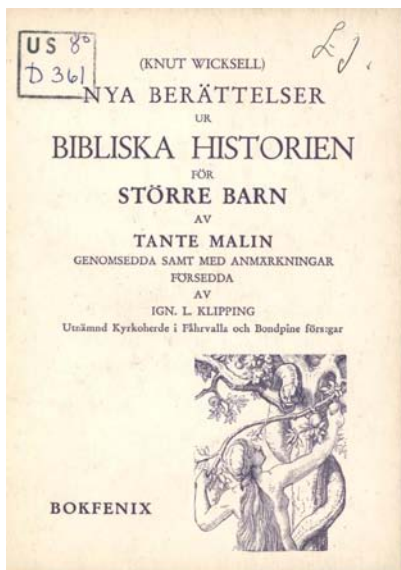
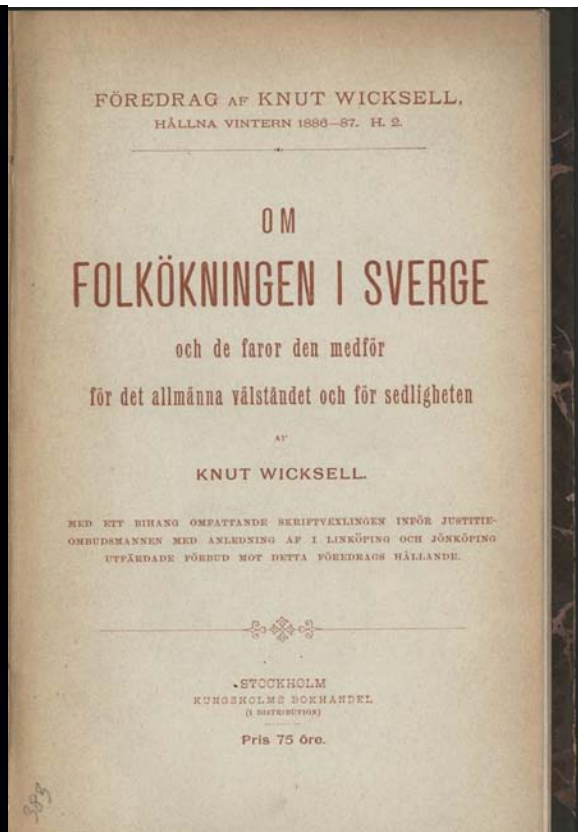
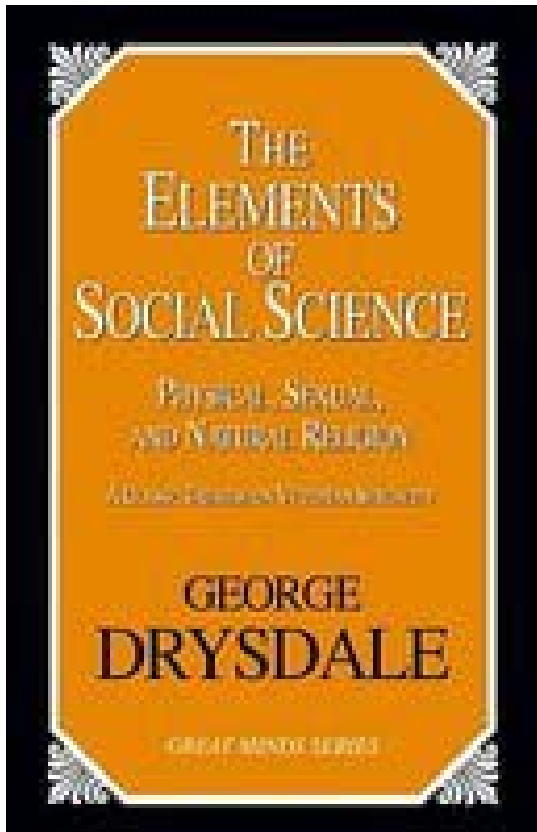
Geldzins und Güterpreise 1898 [*Interest and Prices* 1936]

Föreläsningar i nationalekonomi I 1901 [*Lectures on Political Economy I* 1934]

Föreläsningar i nationalekonomi II 1906 [*Lectures on Political Economy II* 1934]

Wicksell was also a prolific writer of articles mostly in Swedish until his death, some of his papers were later translated and exerted influence internationally.

(Normally I don't give much attention to personal details of our famous economists but make an exception for Wicksell.)



http://books.google.no/books?id=KG17KV1ezZMC&printsec=frontcover&dq=drysdale+the+elements+of+social+science&source=bl&ots=y7FN7CZUnn&sig=WcX7VdyZEPtXLC9dy-sag1pWgR0&hl=en&ei=4RZyTaXQOMj0sgb318GEDg&sa=X&oi=book_result&ct=result&resnum=1&ved=0CBkQ6AEwAA#v=onepage&q&f=false

Wicksell in 1880 addressed a temperance lodge on causes and remedies for alcoholism. Inspired by Drysdale, he found the causes in poverty and the remedies in contraception. He became from then on ostracized as a “moral nihilist” and a leader of neo-Malthusians.

Some time after this his interest in economics may have emerged. In 1885 he completed his mathematics degree and with a small inheritance from his father he spent almost a year in London studying works in economics, incl. Jevons and Walras, (and met with Drysdale’s son, Karl Kautsky and some Fabians).

Back in Sweden he continued to provoke the establishment by public lecture. In 1886-87 he gave 42 public lectures, of which on marriage (14), population control (10), socialism (6), prostitution (5), spiritualism (2), why not a free-thinker (2), religion 1), euthanasia (1), impression of Britain (1). In 1887, 1889 and 1890 he published the pamphlets above.

In between the pamphlets he studied abroad again in 1887-88 in London, Strasbourg, Vienna (attending Menger’s lectures), Berlin and Paris with a grant from newly established foundation promoting studies and research in economics and social sciences.

In 1893 he got his first book published, then passed the economic degree and the doctoral degree with his 1896 book and later published the 1898 book, all over a period of five years.

He continued to be involved in controversial issue and added the defence of demilitarization of Sweden to his other issues. When a professor chair in economics was created available at Lund University, he was by far the best qualified of four applicants. He was offered the position in 1901 on somewhat temporary and underpaid conditions under great controversy and interventions. In 1904 it was normalized as an ordinary full professor position.

Then in 1908 in another public lecture titled TRONEN, ALTARET, SVÄRDET OCH PENNINGPÅSEN [The Throne, the Altar, the Sword, and the Bag of Money] attacking four authorities, resulting in two months in prison. Wicksell had ironized over the immaculate conception, arguing that Joseph had reasons for complaint, “... att inte den heliga ande kunde låta mig få göra min lille Jesus själv” [... why couldn’t the Holy Spirit have let me make my little Jesus myself”].

Before leaving the non-economic(?) side of Wicksell we need to mention his support of gender equality throughout his life and battles. In 1878 he was an elected student leader in Uppsala and in charge of a Nordic student meeting, on the occasion of which he wrote and read a poem titled *Tal till kvinnan* [**Speech for the woman**]. I quote only two of the 30+ verses here.

Men som en kvinnas matlust är så liten
Har mannen i vishet ordnat så
Att också frukterna af qvinnofliten
I rättvis proportion må vara små

Då äktenskapet, alltförofta en
Beslöjad slaftjenst eller död förstening
Får sluta i en öm men fri förening
Medborgarinnan och medborgaren

Wicksell met his life companion during his travel in 1888, a remarkable Norwegian woman, Anna Bugge (1862-1928), who became his common law wife.

Wicksell's first economic paper titled *Tomme maver – og fulde magasiner* [*Empty stomachs and full stores*] was published in 1890 in a Norwegian journal.

Wicksell's economics

Wicksell's influence on modern economic thought has been profound and far-reaching. It is noticeable in the discussion of saving and investment that preceded the Keynesian breakthrough, in Hayek's overinvestment theory of the business cycle emphasizing the notions of capital shortage and forced saving, in Schumpeter's theory of economic development, in Frisch's dynamic theory of the business cycles, and overwhelmingly in Swedish economic thought. Wicksell's use of mathematics, although often somewhat hidden by literary form of presentation, set an important precedent.

Inspired by the work of the Austrians and the Lausanne school, Wicksell developed the marginal productivity theory of distribution, integrating it with the theory of capital and interest. His claim to fame today rests much on his contribution to monetary theory, based on the notion of monetary equilibrium and the distinction between the actual rate of interest and the "natural" one. The natural rate equated in Wicksell's theory the amount of loan capital demanded and that of savings supplied.

In *Value, Capital, and Rent* (1893) Wicksell he performed a remarkable labour of synthesis. He adopted the marginal utility and marginal productivity theory of value of Jevons, Menger and Marshall, added to it the Böhm-Bawerk analysis of capital, and fused the result in a Walrasian comparative static general equilibrium framework. In this process he became a founder of the marginal productivity (product exhausting) theory of distribution shortly ahead of Wicksteed.

In *Studies in the Theory of Public Finance* (1896) Wicksell pioneered a marginal utility approach to the public sector, synthesizing the benefit and ability principles of taxation, and urging that services of public sector enterprises and natural monopolies be provided on a marginal cost pricing basis. This work had a precursor in still another pamphlet titled *Our Taxes – Who Pays and Who Ought to Pay Them?* (published under a fake name in 1894) expressing Wicksell's outrage at the regressiveness of the Swedish tax system, which he saw as a consequence of the fact that only the well-to-do could vote, as income and property qualifications for the franchise excluded almost all workers and most small farmers. In the 1896 book Wicksell urged that the major part of the

revenue burden be shifted from indirect to direct progressive taxes on income and wealth. The treatise also offered a design of an 'equitable' tax system based on applying marginal utility theory to the public sector, also in the pricing pure and less than pure public goods, the services of public utilities, and the products of market-sharing oligopolies and cartels.

In *Lectures I* (1901) Wicksell completed the restructuring, begun in *Value, Capital and Rent*, of Böhm-Bawerk's theory of capital and interest. He reduced Böhm's three 'grounds' for interest to the simpler, more realistic explanation as the marginal productivity of waiting, relaxing Böhm's quantification of capital as an average period of production by a concept of capital as the time structure of inputs invested for various terms in production. He showed that this structure was capable of change in at least two dimensions, width and height. He endeavoured with partial success (on problems still unresolved about 'Wicksell effects' and 'switching of techniques') to develop a theory of the modes of change of this time structure of production, how it changed and interacted with variations in wages, rent, and interest, in conditions both of capital accumulation and technological change. He extended the treatment of these relationships from comparative static to dynamic analysis, using clear mathematical models for this purpose.

Wicksell's contribution to monetary analysis is in *Interest and Prices* (1898) and in *Lectures on Political Economy II* (1906). The traditional quantity theory starts out with $MV=PT$, and concludes with the price level varying directly and proportionately to changes in the quantity of money. The problem with the quantity theory is its links with the real (non-monetary) economy. Wicksell's fame as a monetary theorist rests on three contributions:

First, Wicksell's concept of the hypothetical *pure credit economy*, or cashless society. In this regime all outside, money ceases to exist, the banking system consists of a single central bank with no reserves. The medium of exchange is entirely inside money, i.e. checking deposits created by the central bank when it makes loans. With no reserve constraint to anchor nominal variables in the pure credit regime, the supply of deposit money has potentially unlimited elasticity, the price level theoretically can rise (or fall) forever. The task of the central bank is to prevent this outcome by means of its rate-setting

policy. Such policy replaces the missing reserve constraint to impose determinacy on an otherwise indeterminate money stock and price level.

Second, Wicksell pioneered an aggregate demand–supply approach for the relation between investment (I) and saving (S) to explain variations in the value of money (price level) and also fluctuations in prices. Investment and savings are in equilibrium at the *natural* rate of interest (which must be equal to the expected rate of return on newly produced capital goods). Price level movements are due to a persistent divergence between the market (bank) rate of interest and the natural rate. This is Wicksell's famous analysis of the *cumulative process* according to which price level movements stem from this interest differential. The rate differential generates a gap between new capital investment and household saving, a gap that manifests itself in the form of an excess aggregate demand for goods that bids up prices cumulatively until the differential vanishes. Thus Wicksell's analysis was, contrary to that of the simple quantity theory, that the quantity of money adapted itself to the movement of the price level, and in doing so affected the distribution of income and the dispositions to invest and save in the process. In his analysis monetary equilibrium and stability of prices required the simultaneous fulfilment of the conditions that: (i) the money rate of interest correspond to the real or natural rate; (ii) at that money rate demand for loans for investment and for cash for real balances equal the supply of savings by individuals and business enterprises; and (iii) that interest rate must be neutral in its effect on prices.

Wicksell's third contribution is his celebrated *feedback policy rule*, under which the central bank stabilizes the price level by adjusting its interest rate in response to price level deviations from target, stopping only when prices converge to target. A precursor of the modern Taylor rule, Wicksell's rule is the prototype of all feedback policy rules discussed in the monetary literature today.

Some Wicksellian ideas in monetary analysis turned up, more or less independently worked out, three decades later in Keynes' *Treatise on Money* (1930).

Quantity Theory vs. Anti-Quantity Theory Interpretation of Wicksell

The natural rate-market rate divergence activates the cumulative process. The relationships below treat causality as running unidirectionally from the independent variables on the right side of each equation to the dependent variables on the left. (The modern theorist thinking in terms of a system of equations simultaneously satisfied by a set of variables, would argue that it makes no sense to think of one variable adjusting first and thus causing another to adjust, and so on.)

Quantity Theory Interpretation

$$\begin{aligned}I - S &= a(r - i) \\dM/dt &= I - S \\X &= dM/dt \\E &= X \\dP/dt &= bE\end{aligned}$$

Lower market interest rates i encourage capital formation and discourage thrift. Planned investment I exceeds planned voluntary saving S when the natural rate of interest r exceeds the lagging market rate i set by the banking system. The investment-saving gap equals the additional money dM/dt created. At prevailing prices P and real output Q , the new money dM/dt created by loan constitutes an excess supply of money. Cashholders attempt to rid themselves of the excess money X by spending it on goods and services. The surplus money spills over into the commodity market to underwrite the excess aggregate demand for goods E implied by the gap between investment and saving.

Anti-Quantity Theory Interpretation

$$\begin{aligned}I - S &= a(r - i) \\E &= I - S \\dP/dt &= bE\end{aligned}$$

In the passive-money interpretation, money-stock changes submissively adapt to support the price changes already produced by excess aggregate demand. M adjusts passively to changes in the P , there can be no excess M to spill over into the commodity market to bid up prices. On the contrary, money supply equals money demand and causality runs from prices to money in the passive money view.

Wicksell's influence

The Cambridge circuit

In his own lifetime Wicksell did not receive much recognition for his creative work, not even in Scandinavia. It was not until the 1930s, when at the initiative of R.F. Kahn and J.M. Keynes, *Geldzins as Interest and Prices* and *Vorlesungen as Lectures on Political Economy I and II* were translated, that economists generally heard of Wicksell. Yet it is clear that his stature in the annals of economics grew steadily after his death.

Sweden and the Stockholm school

The consistency and compatibility of Wicksell's criteria for monetary equilibrium were given a thorough exegesis and analysis in the later 1920s and early 1930s by Erik Lindahl (1891-1960), Gunnar Myrdal (1898-1987) and Bertil Ohlin (1899-1979). Their work combined with the efforts of younger colleagues such as Erik Lundberg (1907-1987), Dag Hammarskjöld (1905-1961) and Ingvar Svennilson (1908-1972) greatly expanded the heritage of Wicksellian economic theory and gave rise to the doctrines associated with the Stockholm School of economics.

A special case is, however, Gustav Cassel (1866-1944). He was Wicksell's rival in Sweden and is said to have been the world's most famous economist in the 1920s. Cassel's main work is his *Theoretische Sozialökonomie* (1918). Cassel never cared much about paying homage to his predecessors, from whom he sometimes took over fruitful ideas, while at the same time being unjustifiably critical towards other theorists. His expositions are not seldom marred by contradictions and a vagueness in expression, only scantily veiled by his mastery in round and polished sentences. At the same time Cassel took a keen interest in very many fields of economic theory and practice, had a firm grip on empirical economics and his gifts in tracking down the relevant and essential aspects of economic problems were unusual.

In Cassel's memoranda to the League of Nations Cassel first and foremost advocated stability of monetary affairs by means of control of the quantity of money, increased interest rates and cut-downs of state expenditures. Together with Keynes he criticized the unwillingness of the claimants to the German war

debt to receive German goods as payment. When confronted by the permanent unemployment of the 1920s, Cassel concentrated his attacks on trade unions and the level of wages and untiringly explained the gospel contained in Say's Law. During the course of the 1930s it became all too clear that Gustav Cassel had been left behind by the march of events and of economic theory. It was his tragedy that he himself, who once waved his magic wand over international economic affairs, could not bear the truth. Cassel wrote up a voluminous autobiography characteristically entitled 'In the Service of Reason' (*I förnuftets tjänst*, 1940–41).

Frisch and Haavelmo

'When I started my study of Wicksell, I found that his works were not easy reading. Often it was only at the third or fourth reading that I grasped his ideas. Invariably, each new reading made me more and more enthusiastic. Sometimes it happened that I thought I had finally caught him in an inconsistency or in unclear thinking. Every time this happened, it turned out, however, that the error was mine. After a number of such experiences, I reached the conclusion that whenever a person thinks that he has found an inconsistency or a piece of unclear thinking in Wicksell's works, and wants to "correct it," that is only a sure criterion that the person in question has not yet penetrated to the bottom of Wicksell's ideas. The discovery of the fact that Wicksell is, after all, right, will always be a matter only of patience and intelligence on the part of the reader.'

Ludwig von Mises and Friedrich August von Hayek

Mises and Hayek both relied very much on Wicksell's interpretation of Austrian ideas. Paradoxically, their use of Wicksell was very contrary to Keynes and the Stockholm School in policy conclusions.

A note on Wicksell's political position

One would naturally think of Wicksell being close to the Social Democrats. In 1905 he *Socialiststaten och nutidssamhället* [The socialist state and contemporary society], restating more systematically his perspective on socialism which he had lectured on in the 1880s. Wicksell considered a limited achievement of a socialist economy to be inevitable in the future. Under universal adult suffrage the workers would be the political majority. As such, they would not for long tolerate the great inequalities of income and wealth

and the economic instability (of employment and economic insecurity and dependence in old age) of laissez-faire capitalism without seeking and taking remedial measures.

He warned against drastic measures of income redistribution taken by a workers' government suddenly come to power. That would only yield a temporary gain followed by loss as private capital accumulation would all but cease before the workers' regime would have developed the means to replace it by public accumulation. A socialist economy is best built gradually by peaceful means and under democratic governance. Nationalization initially of natural monopolies and cartels might suffice if followed by substantial expansion of tax supported social security and social insurance schemes. For the sake of efficiency, he held it best to leave farming and most varieties of genuinely competitive enterprises in private and/or cooperative ownership. Consequently he argued for a form of market socialism with a well developed welfare state. It is surprising to recognize the great extent to which his social vision has become a reality in Sweden (and in Scandinavia as a whole) after more than half a century of Social Democratic rule.

Wicksell's last years in Stockholm

1916-1926. This was a very active period for Wicksell and gave him the chance to exert great influence on economist and politicians in Sweden. Wicksell died working on a contribution to a festschrift for Friedrich von Wieser.

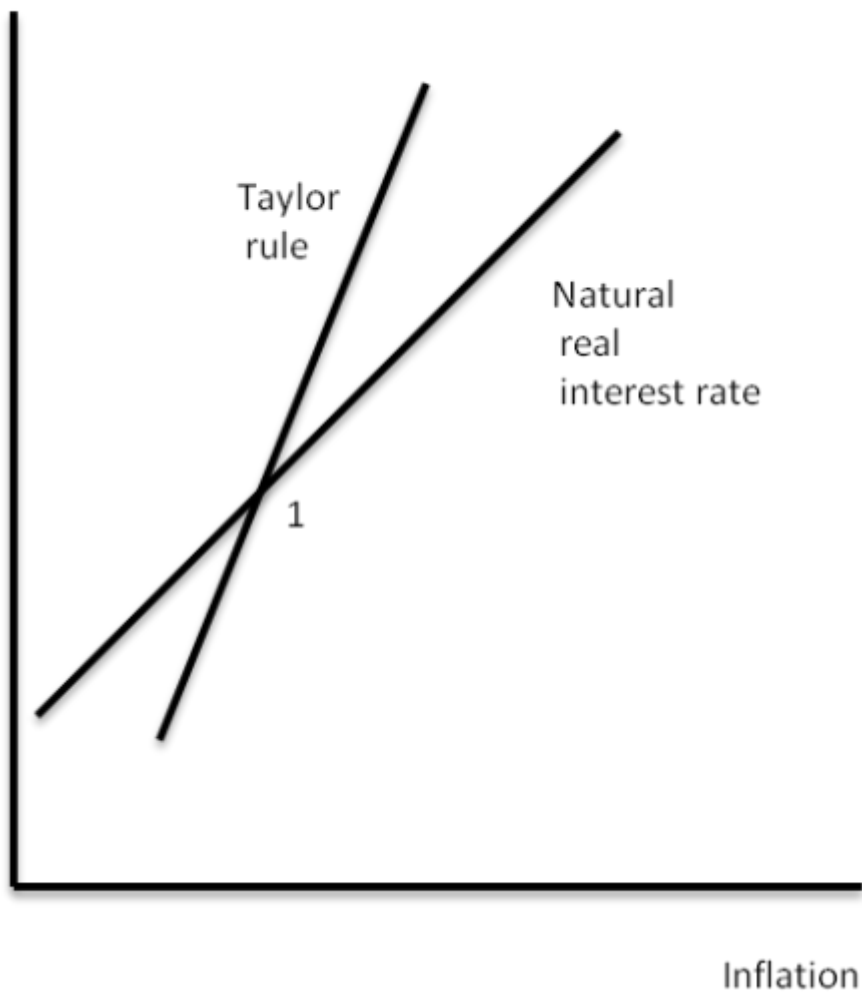
from Paul Krugman's blog, August 30, 2010

<http://krugman.blogs.nytimes.com/2010/08/30/interest-and-inflation-wonkery/>

So here's how I think about it: combine a Wicksell-type notion of a natural rate of interest — but it has to be a natural *real* rate of interest — with a Taylor-type description of monetary policy. In the figure below, the flatter line (with a 45-degree slope) shows combinations of inflation and nominal interest rates at which the economy is at the natural rate of unemployment. Inflation will accelerate if the economy is below that line, decelerate if it's above.

Meanwhile, the steeper line is a Taylor rule describing the central bank's behavior: it raise rates if inflation rises, lowers them if inflation falls. The line has to be steeper than 45 degrees, or the thing is unstable.

Interest rate



John Maynard Keynes 1883-1946



(Who is Keynes talking about, where, and with whom?)

The greatest political economist in the first half of the 20th century(?)

Keynes took a degree in mathematics at Cambridge 1905 and spent another year studying economics with Alfred Marshall and Arthur Pigou. Thus fairly limited formal background. Taught economics as a lecturer at Cambridge 1908/09.

Indian Currency and Finance 1913

Economic Consequences of the Peace 1919

A Treatise on Probability 1921 (1909)

Tract on Monetary Reform 1923

A Treatise on Money (TM), Two Vols. 1930

The General Theory of Employment, Interest and Money (GT) 1936

How to Pay for the War 1940

“The relation between this book and my *TM* ... is probably clearer to myself than it will be to others. ...When I began to write *TM* I was still moving along the traditional lines of regarding the influence of money as something so to speak separate from the general theory of supply and demand. When I finished it, I had made some progress pushing monetary theory back to becoming a theory of output as a whole. But my lack of emancipation from preconceived ideas showed itself in what now seems to me to be the outstanding fault of the theoretical parts of the work, that I failed to deal with the effects of *changes* in the level of output. ... This book on the other hand, has evolved into what is primarily a study of the forces which determine changes in the scale of output and employment as a whole. ... We are thus led to a more general theory, which includes the classical theory with which we are familiar, as a special case.” (*GT*, Preface, pp.vi-vii)

In the autumn of 1935 Frisch lectured on monetary theory. Early in the term he had the following brief letter exchange with Keynes:

Frisch to Keynes, September 18, 1935

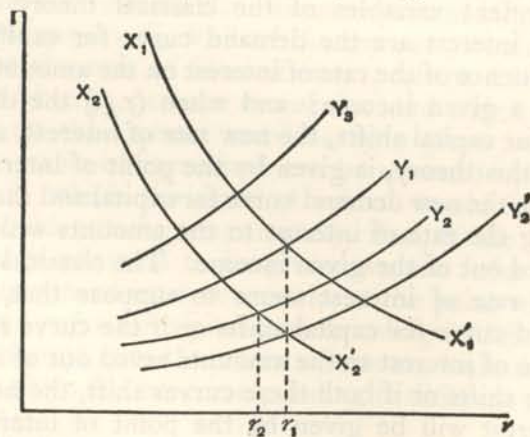
“This semester I am lecturing on your monetary theory to the students in Oslo. I know of course your *Treatise on Money* ... I also know that you have been working on a new book on the subject ... If you would care to suggest in a few words what you think are the essential features that I ought particularly to stress, I should appreciate it very much. I frequently find that a few words directly from the author may be more helpful in a matter like this than many days of careful scrutiny of printed material.”

Keynes to Frisch, October 1, 1935

“My new book ... has not yet been published. I would very much rather, if it is possible, that you should wait until my new book is out before you inflict my opinions on your students. The new book makes a considerable difference, and I think they might lose their time if they were to go in any great detail into my previously published theory.”

complicated assumption providing for an automatic change in the wage-unit of an amount just sufficient in its effect on liquidity-preference to establish a rate of interest which would just offset the supposed shift, so as to leave output at the same level as before. In fact, there is no hint to be found in the above writers as to the necessity for any such assumption; at the best it would be plausible only in relation to long-period equilibrium and could not form the basis of a short-period theory; and there is no ground for supposing it to hold even in the long-period. In truth, the classical theory has not been alive to the relevance of changes in the level of income or to the possibility of the level of income being actually a function of the rate of the investment.

The above can be illustrated by a diagram¹ as follows:



In this diagram the amount of investment (or saving) I is measured vertically, and the rate of interest r horizontally. X_1X_1' is the first position of the investment demand-schedule, and X_2X_2' is a second position of this curve. The curve Y_1 relates the

¹ This diagram was suggested to me by Mr. R. F. Harrod. Cf. also a partly similar schematism by Mr. D. H. Robertson, *Economic Journal*, December 1934, p. 652.

amounts saved out of an income Y_1 to various levels of the rate of interest, the curves Y_2, Y_3 , etc., being the corresponding curves for levels of income Y_2, Y_3 , etc. Let us suppose that the curve Y_1 is the Y -curve consistent with an investment demand-schedule X_1X_1' and a rate of interest r_1 . Now if the investment demand-schedule shifts from X_1X_1' to X_2X_2' , income will, in general, shift also. But the above diagram does not contain enough *data* to tell us what its new value will be; and, therefore, not knowing which is the appropriate Y -curve, we do not know at what point the new investment demand-schedule will cut it. If, however, we introduce the state of liquidity-preference and the quantity of money and these between them tell us that the rate of interest is r_2 , then the whole position becomes determinate. For the Y -curve which intersects X_2X_2' at the point vertically above r_2 , namely, the curve Y_2 , will be the appropriate curve. Thus the X -curve and the Y -curves tell us nothing about the rate of interest. They only tell us what income will be, if from some other source we can say what the rate of interest is. If nothing has happened to the state of liquidity-preference and the quantity of money, so that the rate of interest is unchanged, then the curve Y_2' which intersects the new investment demand-schedule vertically below the point where the curve Y_1 intersected the old investment demand-schedule will be the appropriate Y -curve, and Y_2' will be the new level of income.

Thus the functions used by the classical theory, namely, the response of investment and the response of the amount saved out of a given income to change in the rate of interest, do not furnish material for a theory of the rate of interest; but they could be used to tell us what the level of income will be, given (from some other source) the rate of interest; and, alternatively, what the rate of interest will have to be, if the level of income is to be maintained at a given figure (e.g. the

The *TM* was written for a professional audience concerned with the latest developments in monetary theory, and surely meant to give Keynes an academic reputation matching the public reputation he had already achieved. The two volumes were titled *Pure Theory of Money* and *Applied Theory of Money*. The *TM* is not easy to read today, unusual notation and method of analysis. The aim was in general terms to explain fluctuations in employment and output and very ambitious: “My object has been ... to discover the dynamical laws governing the passage of a monetary system from one position of equilibrium to another. ... I have endeavoured to combine the quantitative method with the qualitative” (*TM*, Preface)

A key element both in *TM* and later in *GT* was the relation between savings and investment. But in *TM* the relation served primarily to analyse changes in prices, not changes in output as in *GT*. Keynes’ equations in *TM* were largely identities, he didn’t really have model. The thinking was causal and recursive rather than in terms of simultaneous relationships. The rate of interest played a crucial role in the theory. Following (and acknowledging) Wicksell Keynes used ‘the natural rate of interest’ for the rate of interest equating savings and investment while the ‘the market rate’ was the rate which actually prevails. Starting from a position of equilibrium, a decrease in this rate would cause investment to increase and savings to decrease, generating an excess of investment over savings, generating profits, and causing prices to rise. According to Keynes, a decrease in the rate of interest would ‘in itself’ cause a price rise – and not only (as in the traditional quantity theory) as the result of first generating an increase in the quantity of money. Conversely, for an increase in the rate of interest.

Keynes hoped he had really done it with *TM*. In a lecture in 1931 he said: “That is my secret, the clue to scientific explanation of booms and slumps (and of much else, as I should claim) which I offer you.”. Soon after severe criticism arose and Keynes realized –perhaps painfully – that Wicksell had anticipated much more of his theoretical reasoning than he had realized, causing Myrdal to make the the scathing remark about “the attractive Anglo-Saxon kind of unnecessary originality, which has its roots in certain systematic gaps in the knowledge of the German language on the part of the majority of English economists.” Another criticism *TM* that affected Keynes deeply was that while *TM* explained the forces that caused output to expand or contract, it did not

explained what determined its actual level. Hence, soon after *TM* appeared Keynes started to work on a new book which ultimately became *GT*, involving in discussion much younger colleagues, known as 'Cambridge Circus' (Richard Kahn, James Meade, Austin Robinson, Joan Robinson and Piero Sraffa).

Like *TM*, the *GT* was addressed to fellow economists but almost exclusively concerned with theory. Although *GT* is generally acknowledged as having initiated a revolution in fiscal policy, it contained very little explicit discussion of policy implications. An important policy conclusion in *GT* was, however, that monetary policy directed at lowering the interest rate, though an essential component of a full-employment policy, might not be enough even in the absence of 'international complications' to achieve this goal. This suggested that an effective policy for this purpose would require direct government spending but this conclusion was not really elaborated properly in *GT*.

Similarly, the problem of the relation between internal price levels and exchange rates and the whole problem of the international monetary system and its relation to domestic policies, which had been a major concern in *TM*, and for which he became famous for his role at Bretton Woods toward the end of World War II, were not discussed in *GT*. Why? We can understand this on the background of the situation prevailing in the West when *GT* was conceived. After England abandoned the gold standard the problem lost much of its relevance in a situation with flexible exchange rates and/or severe restrictions on the flow of international trade. Thus the analysis of *GT* was carried out almost entirely on the implicit assumption of a closed economy.

The Bank for International Settlements controversy

At the 1944 Bretton Woods Conference, the Bank for International Settlements became the crux of a fight that broke out when the Norwegian delegation put forth evidence that the BIS was guilty of war crimes and put forth a motion to dissolve the bank; the Americans, specifically President Franklin D. Roosevelt and Henry Morgenthau, supported this motion. This resulted in a fight between, on one side, several European nations, the American and the Norwegian delegation, led by Henry Morgenthau and Harry Dexter White; and on the other side, the British delegation, headed by John M. Keynes and Chase Bank representative Dean Acheson, who tried to veto the dissolution of the bank.

BIS was formed in 1930 with as main proponents then Governor of the Bank of England, Montagu Norman, and Hjalmar Schacht, later Adolf Hitler's finance minister. The Bank was originally primarily intended to facilitate money transfers arising from settling an obligation from the peace treaty after WWI. After World War I, the need for the bank was suggested in 1929 by the Young Committee, as a means of transfer for German reparations payments. The plan was agreed in August of that year at a conference at the Hague, and a charter for the bank was drafted at the International Bankers Conference at Baden Baden in November. The charter was adopted at a second Hague Conference on January 20, 1930. The Original board of directors of the BIS included two appointees of Hitler, Walter Funk and Emil Puhl, as well as Herman Schmitz the director of IG Farben and Baron von Schroeder the owner of the J.H. Stein Bank, the bank that held the deposits of the Gestapo.

As a result of allegations that the BIS had helped the Germans loot assets from occupied countries during World War II, the United Nations Monetary and Financial Conference recommended the "liquidation of the Bank for International Settlements at the earliest possible moment." This task, which was originally proposed by Norway and supported by other European delegates, as well as the United States and Morgenthau and Harry Dexter White, was never undertaken.

In July 1944 Dean Acheson interrupted Keynes in a meeting fearing that the BIS would be dissolved by President Franklin Delano Roosevelt. Keynes went to Henry Morgenthau to prevent the dissolution of the BIS, or have it postponed, but the next day the dissolution of the BIS was approved. The British delegation did not give up and the dissolution of the bank was held up just long enough until after Roosevelt had died, in April of 1945 the British and Harry S. Truman stopped the process.