Wicksell - 1898 - Interest & Prices
Foundation of the Wicksellian School.
Treatment in Interest & Prices better than in lectures in Political Economy Vol II.

Wicksell's problem was not that of business cycle. Dealt with basic general problems.

Observed that General Theory of prices only determines relative prices.

 ☆ Fundamental conditions of exchange not affected by quantity of money.

Money prices or value of money determined in exactly the same way as particular prices, e.g., by demand & supply, commodities (non mon)

$P_i$ in $P_i$ includes money

$P_i$ in $P_i$ relates

$P_i$ in $P_i$
\( p_1 = \frac{1}{11} \text{PM} \)
\( p_2 = \frac{1}{12} \text{PM} \)

etc.

The problem of monetary theory is to determine the multiple \( m \), which is the value of money.

Wicksell - \( m \) determined by \( S \) of money: e.g. demand to supply.

What is important is not the quantity of money but the flow of monetary expenditures per unit of time.

\[ E = m V \]

Until further notice, please return to 70% of normal.

Assistants:

Frederick

Lester

John
stop bothering me

V's effect

E = MV shift's problem
Have to know what to determine V.

V not a constant: Where

Quantity of money
Depends upon relative between rate of interest + rate of profit.

Can determine total stream of money expenditure by noting rate of relative between rate of interest + profit.

What you count as velocity + what as quantity of money is arbitrarily

Flow of expenditure
depends upon the relative between rate of interest + profit.
Wicksell analyses the flow of monetary expenditures— which is the aggregate demand for commodities

If aggregate demand of commodities = aggregate supply of all commodities.

Level of prices determined by equilibrium of aggregate demand & aggregate supply.

Wicksell contradicted Say's Law in his basic assumption.

Wicksell said ultimately that his analysis corresponds to Say's Law.

Wicksell took aggregate supply as a datum. e.g., full employment, e.g., labor, hard existing supply of Capital, in long run aggregate supply of commodities can be increased by means of capital accumulation stock.
Progress

With aggregate supply fixed: what determines aggregate demand. 
Wicksell - relation between rate of interest & rate of profit.

Rate of profit is the marginal product per unit of the existing stock of capital - natural rate.

Rate of interest on money owed is called the bank rate or money rate. This rate can be kept at a level distinct from natural rate & developed theory of credit creation by Banking system as a whole.

International Gold Standard only limitation to increase in £ unless there exists a strong Int. Banking
organizational

How does the discrepancy between natural rate and bank rate affect price level.

nr > br implies

Assume nr = br:
Assume br > vr, Investment is profitable, for capital goods brings a higher return than money loans. Increased demand for capital goods → rise in price of money income, producers goods, producers prices, & consumer good prices: General price level rises.

nr > br - employment rises, price cost

This rise in prices is cumulative goes on without end until money rate = natural rate.
Natural Rate < Money Rate.
Not worth while to buy borrow money + buy capital goods & demand for capital goods falls.
\[ br < mr \]
Aggregate demand for commodities > aggregate supply.
\[ br > mr \]
Aggregate demand < Aggregate supply.
Money rate = natural rate. Wicksell’s monetary equilibrium.

Money rate + natural rate
3 a < in price level.

This price level is a cumulatve process.

Monetary equilibrium is identical with a stable price level and is achieved when
Bank rate = monetary rate.

Equality of Saving + Investment + Monetary equilibrium
takes place when
Entrepreneurial investment
Equal consumer saving.

Another factor introduced.
Aggregate demand for commodities.

Demand for consumption goods depends upon the money income of the owners of the factors of production.
Demand for additional capital goods: saving of factor owners. 

Condition of equilibrium:

If saving + investment = total demand for commodities, falls.

Reverse happens if they decide to save < invest.

What determines decisions re. saving & decisions re. investing?

Habits, technology, income determine saving.

Investment decisions

Relation between monetary rate < bank rate
3 criteria of monetary equilibrium

Monetary equilibrium:
aggregate demand = aggregate supply

1. Stable price level
2. Equality of money rate and natural rate
3. Equality of saving and investment

Wicksell regarded 1, 2 + 3 are equivalent. Later shown that equivalence between 1 and 2 + 3 depends upon special assumptions.

Saving + investment are equal when the 2 rates are equal.

Wicksell did not develop a theory of business cycle but he thought that in upswing NR > br
downswing br < NR
Wicksell did not believe that banks were cause of business cycle.

Wicksell thought that fluctuations were due to in natural rate. Role of banks as passive role.

Wicksell contains many points relevant to business cycle theory.

Continuance & Development of Wicksell's Theory

Swedish economists:
- Davidson
- Stockholm
- Lindahl
- Myrdal
- Ohlin
- New Wicksellian

Continent: Followers of Wicksell

Mises

Hayek - equilibrium rate
Schumpeter

England: Robertson, Marshall + Pigou / Wickells ideas blend.
\[ MV = PT \quad - \quad \\ M = \frac{NK}{P} \quad - \quad \\ Cambridge \]

\[ K = \frac{1}{v} \]

Marshall did not connect \( V \) with interest rate

Wicksell

Swedish, Stockholm school

- Hülse
- Hayek
- Schumpeter

- Davidson
- Lindahl
- Myrdal
- Olin

Got to similar results to Keynes' General Theory

Keynes: Treatise of Money

In Wicksell's tradition

Keynes: General Theory

Terminology & approach seems to break with Wicksell.

However, it may be regarded as the culmination of Wicksell's writing
Development of Wicksteed

1. Equivalence of the 3 criteria
2. Forced Savings
3. Expectation
4. Employment

Davidsons criterion: equality of money + natural rate of interest is not equivalent to a stable price level if you have technical progress.

Assume that 3 large technical progress raises natural rate of interest and increases quality of goods. In order to maintain monetary a stable price level there must be some monetary expansion.
Davidson

Wicksell argued that the two criteria of a stable price level were not equivalent in a society with technological progress.

In the interest of justice to creditors, Davidson argued for a falling rate.

Wicksell, however, recognized this objective. The neo-Wicksellians generally adopted Davidson's objective.

**Fored Savings:**

1. **Natural Rate of R.P.**

2. **Fored Savings:**

   - Wages and Robertson thought forded Savings led to business cycles.

3. The critics of Cannell: A classic approach, cumulative method, as Wicksell outlined it. In long run, Bankers can affect not only MV but Bvales.