

Chapter Sixteen: The Monetarists (pg 301 - 320)

Historic Background

The early marginalists did not really “do macro”, they were micro oriented
This had distinct advantages, but it neglected other things
There was now a consensus opinion that a business cycle existed
And a realization it was not due solely to bad harvests or “sun spots”
Finance had something to do with it – though causality was not clear
Marshall talked about it a little
The Cambridge equation; $M=kPT$; $k = 1/V$;
k is the fraction of money people wish to hold as a cash balance
The monetarists used the marginalist/neoclassical analysis/tools in Macro
Specifically, used the tools of supply and demand to analyze money
And now began to use them to analyze aggregate variables

These monetarists explored the impact of nominal variables
It is important to note that a synthesis was still years away

John Gustav Knut Wicksell

(1851-1926, Swedish) Took advanced degrees in Math and Physics
But a student activist, was drawn to social activism, and economics
Concerned with marriage, prostitution, alcoholism, progressive taxes, etc.
From 1885-1890 studied Economics
in England, Germany, France and Austria (Bohn-Bawerk)
His thesis (1896) was on ethics/Government, and taxation/representation
Influenced the study of public finance throughout Europe
Rediscovered in America in the 1950s, became a basis of Public Choice
Wicksellian Unanimity (5/6), majority rule, supermajorities
Recognized that firms had increasing, constant, and declining returns to scale
anticipated monopolistic completion
But most recognized for his contributions to business cycle theory
Analyzed interest rates and their role in price stability
Analyzed how the government could positively promote price stability
An early statement of the savings/investment approach to macro equ.
Keynes credited him as being a strong influence on him

Price Level Changes

Question: why do prices rise or fall in tandem?
Answer: it has something to do with interest rates
– which are effecting the money supply
The Normal, or Natural, interest rate, depends on supply and demand
Supply and demand for real capital that isn't yet invested
Supply: will holders of capital be willing to postpone consumption?
Demand: How profitable (marginally productive), is capital?
Note: the basic tool of supply and demand is being used in macro now...

The bank rate of Interest
Banks are different; they can create credit, lend out at lower rates...

Or they can sit on their deposits, and lend out at higher rates...
But doing either of these things will change the price level

If the bank rate of interest is below the natural rate...

Savings will be discouraged, people will consume more goods
Demand for consumption goods/services rises
And entrepreneurs use the cheap money to buy more capital
As investment (and consumption) increases, more money to workers/owners
The price of consumption goods begins rising
Even as the supply begins to contract/grow slowly
(low real savings/diminishing returns to new capital)
Prices rise, and anticipation of price rises accelerates the process
This continues, until the bank rate and natural rate converge

If the bank rate of interest is above the natural rate...

Savings will increase, but investment will decline
National income will decline as investment falls, so fewer goods
The same stock of money pursuing fewer goods means lower prices
And again, future expectations will aggravate this tendency
Until the system comes back into equilibrium

Interest and Price, 1898

Wicksell emphasized the role that interest rates played in prices and cycles
Cycles caused by technological stagnation coupled with rising demand
As demand rises, people seek to meet it with more investment
But the investment takes time to impact the economy
Converting all the liquid capital into fixed capital causes a boom
Absent technical improvement – marginal productivity falls
The boom is followed by a depression
Wicksell did not really pursue these real causes of depressions in depth
Concentrated on the monetary causes
Advocated a bank rate of interest that kept commodity prices stable
This is where the natural rate and the bank rate are equal
BUT – the natural rate fluctuates

So the bank rate and the natural rate will only accidentally coincide absent human intervention

Since they can't directly target the natural interest rate, target commodity prices

An early form of “intermediate variable targeting”

Public Policy Implications

Central banks, with the discount rate, could/should influence this process
Stop the free coinage of gold, it was causing inflation
(normally we think of the gold standard as a protection from inflation)
Adopt a paper standard, an international one...
Local currencies, but at fixed exchange rates
Note: his theories call for contradictory policies.....

Forced Savings

Taxes and inflation – Bentham had anticipated these arguments

Siegnorage, the printing of money as a form of tax
A tax on holders of money, and on those with fixed incomes
It could be used as a means of forced savings – to increase investments
If a bank created pure credit, and loaned it to a firm
The firm would invest, raising the stock of capital
Since the total goods in the economy was fixed, this raised prices
An indirect tax on consumers
And now some goods were being transferred from consumption to investment

Wicksell on imperfect competition

A spacial theory of retail firms, they have a fixed circle of customers

The example of two stores at opposite ends of the street
And a new one opens up between them
His theories were undeveloped, and didn't really get upgraded until the 1920s

Irving Fisher

(1867 – 1947, Yale, American)
A great mathematician, but went into economics, Yale's first Ph.D. in econ
Wrote math textbooks, diet books, was a ecumenist, inventor (rolodex..)
Was America's first "celebrity" economist,
But was recognized as a first rate economist by Europeans
Born poor, became rich, lost it all in 1929

The Rate of Interest (1906), and The Theory of Interest (1930)

A very detailed, and sophisticated, analysis of interest rates
The Impatience Rate, and the Investment Opportunity Rate

Impatience Rate, how much future consumption will we give up
To increase today's consumption?
Interest represents valuation of both present and future consumption
Since it marks the rate we trade them off against each other
Both present and future consumption subject to diminishing marginal utility...
Subjective valuations, different for different people

Investment opportunity rate;

how much we increase production through investment
Again, diminishing returns – more capital means lower marginal
increases or returns

“the more we invest and postpone gratification, the lower the investment opportunity rate becomes, but the greater the impatience rate: the more we spend and hasten our gratification, the lower the impatience rate becomes but the higher the opportunity rate”

So at the margin, each additional unit of savings diminishes the investment rate, and increases the impatience rate

Thus, savings depends both on society's technological ability to do so, and its willingness to do so.

Since different people have different (subjective) impatience rates, they are willing to forgo current consumption for future consumption at different rates

And the credit market allows them to trade current and future consumption with others, rather than just with themselves.

The REAL interest rate will be different from the observed, or money interest rate

Savers and investors are concerned with inflation, and will adjust for it

The Fisher effect; the effect of inflation on the nominal interest rate

More money may initially reduce interest rates, but it will raise prices

This is inflation, and both it and expected inflation raise interest rates

The Quantity theory of Money

Based on the above, Fisher restated the quantity theory of money

And asserted that if it was an exact science, it could be formulated, demonstrated, and verified

Five determinants of the purchasing power of money

- Volume of currency in circulation
- The velocity of its circulation
- The volume of bank deposits subject to check
- Their velocity
- The volume of trade

Thus, Fisher was now distinguishing between money and banked money

Fisher's equation of exchange was now $MV + M'V' = PT$

Where $M'V'$ is the volume of bank deposits and the velocity of circulation

Prices vary directly with M , M' , V , and V' , and inversely with T

M and M' hold a fixed relationship, as M goes up, desired M' rises proportionately, because....

Bank reserves are a fixed proportion of bank deposits

Individuals/firms maintain a stable ratio between currency and deposits

If the ratio of M to M' changed, people would deposit/withdraw money

To bring it back into equilibrium

Thus, the banking sector can magnify the effects of money, but not distort it...

Injections of money into the system will be distributed between M and M'

On V and V' , again it tends towards equilibrium, though it fluctuates over the cycle

T is constant in a full employment economy, though it can rise

In a below full-employment economy

How does an increase in money effect T ? Directly, in Fisher's view, they take a percentage of any new money, and spend it, bidding up the price of goods....

Different from Wicksell's indirect process

Monetary Policy

Thought price changes caused recessions

So the way to end the business cycle was to end price instability

And this could be done by controlling the amount of currency in circulation

One solution was a fiat paper currency, not linked to gold (per wicksell)

Fisher did not like that plan, thought it would lead to seignorage

Advocated a link, but not to a set weight of gold

But rather to a set amount of gold purchasing power

You could redeem your paper money for enough gold

To buy a pre-set basket of goods

In practice this meant that

First, you retire gold coins, replace with redeemable paper notes

Redeem the notes at a variable rate

Now, as gold comes in, the govt. can adjust exchange rates to it

Basically, a bi-metal standard, that fluctuates

On the cycle

Didn't believe the cycle was "cyclical"

Absent outside shocks (changes in the money supply) it would dampen

That it didn't, but continued fluctuating, meant there were new shocks

Thus the economy was randomly deviating from its steady state

On Price Fluctuations

The cause of, not the result of, the cycle

Fisher after 1929

He was wiped out in the crash

Came to believe that debts caused the deflation

And this was because of changes in demand deposits

Stopped believing in a constant ratio between M and M' , or V and V'

Since bank deposits were huge compared to gold reserves

Early criticisms that small variations in gold prices didn't matter

Were implicitly true

Debt caused recessions: because the attempt to liquidate debt

Caused goods to be dumped on the market, which caused prices to fall

Falling prices on goods, increased the need to liquidate debts

And the economy spirals down as money is destroyed

Believed in 100% reserve requirements

Which meant that banks were no longer able to "create money"

The govt. should purchase liquid assets from banks,

Or loan money to the banks for outstanding assets

And then should require 100% reserves, "deposit box" banking

Ending runs on the bank, failures, (most profits), etc.

Banks would now live on charges and fees

The govt. would in turn maintain prices by buying securities

Open market purchases

Ralph George Hawtrey

1879-1975, British

Official with the British Treasury

Wrote from the perspective of a central banker, not an academic

Monetary theory of the Cycle

Moved the focus from producers to retailers

Producers are not that sensitive to interest rates, retailers are

Short run changes in interest rates effect inventory decisions

GM vs. a Car Dealership

The Mismatch between the time-horizon of producers and retailers

Causes instability in the economy, as credit works through the system

Discretionary Monetary Policy

Central Banks can regulate credit and thus mitigate cycles

Once a cycle gets going, it has a momentum of its own

To timely intervention a must

Introduced the concept of lags

Advocated three things to regulate credit

Open market purchases/sales of assets

Changing interest rates (discount rate)

Changes to reserve requirements

Believed inflation could always be checked

But deflation could become permanent (a liquidity trap)

He called it a “credit deadlock”, avoiding it meant

Dealing with the inflation in the previous boom