Money and Production from *Capital* to Financial Keynesianism

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The basic abstraction for WSK

• Pure credit model
  – no Central bank, no State, closed economy
• Macro-agents and macro-foundation
• Money enters as bank loans to firms (& innovators)
  – not a commodity, nor bilateral credit, but means of final payment in a triangular credit transaction
  – initial finance to be recovered as final finance (goods market, financial markets)
  – ‘finance’ to consumers g. and investment g. PRODUCTION
  – in the aggregate, the money wage bill
• Bank activity: Money creation (vs intermediation)
• Money affects real structure and income distribution, even in (full-employment) equilibrium
• Also: money as store of value (‘crisis’, ‘involuntary’ employment)
The Circulation of Money

• Single (unique) Bank
  – no need to maintain reserves
  – same with multiple banks expanding in concert
  – ... or granting each other credit
  – risk of cumulative inflation without readjustment

• Multiple banks, different rate of credit expansion, and/or no reciprocal credit
  – Hierarchy of monies, CB = Bank of Banks ...
  – ... or deferred (bilateral credit) payment
  – ... or final payment in commodity
The Banking System

• The same as Single Bank
  – National: two tiers
  – World: three tiers, but it (may/does) not exist!

• Social accountancy
  – Loans make deposits, not vice versa
  – Money strictly endogenous
  – No technical limits to monetary creation

• Money as a claim to real resources
  – differentially distributed among classes
  – differentially distributed among firms

• Distribution in ‘normal’ (i.e., disequilibrium) situations departs from Neoclassical rules
Interest and Prices (1898)

• Standard interpretation: Patinkin
  – Gold Standard, basic model. Equilibrium as the norm
  – Bank rate => disequilibrium, exogenous M, internal & external drains = automatic readjustment mechanism in Quantity T.

• Pure credit as the basic model
  – Macro agents: Banks, Merchant capitalists, Firms, Workers
  – Investments = Wage Fund
  – Money and real wages paid before production process
  – Disequilibrium is the normal situation

• If natural (real) > money rate of interest, (extra)profit => I > S
  – Inflation is due to higher influx of money
  – The reverse if real > money rate of interest, losses => I < S
  – Money rate of interest = bank rate fixed by banks
  – Real rate of interest depends on 1000 variable causes
A ‘pure credit’ approach

- money-supply is endogenous <= bank financing of production
- capitalist process is unstable <= non-equality btw natural and money rates of interest
  - real rate of return: primum movens of disequilibrium
  - growth/ fall in credit money causally dependent on entrepreneurs' demand due to profits or losses
- in the general, i.e. pure credit, case: no automatic mechanisms of adjustment
  - if reserve requirements, equilibrium tendency to equilibrium is overcome by the instability of the real rate
- real effects of inflation
  - forced saving => acceleration of accumulation
  - real > money rate of interest => higher capitalization of returns from intermediate goods, encouraging their production at the expense of the final consumption good
- DYNAMIC instability
It is scarcely open to doubt that by means of economic co-operation the capitalists and entrepreneurs, who control the subsistence-fund of society, could diminish the share of labour and other factors of production to an almost unlimited extent (...)

It might further be asked whether we are right in suggesting that it lies in the power of the credit institutions, acting in co-operation only with the entrepreneurs, to determine the direction of production and consequently the period of investment of capital, without paying any heed to the actual capitalists, the owners of goods. Here too there can be no doubt that this is really the case.

Wicksell 1898, pp. 154-155
Mises vs Patinkin on Wicksell

• If we start with the assumption, as Wicksell does, that only fiduciary media are in circulation and that the quantity of them is not legislatively restricted, so that the banks are entirely free to extend their issues of them, then it is impossible to see why rising prices and an increasing demand for loans should induce them to raise the rate of interest they charge for loans. Even Wicksell can think of no other reason for this than that since the requirements of business for gold coins and bank-notes becomes greater as the price level rises, the banks do not receive back the whole of the sums they have lent, part of them remaining in the hands of the public; and that the banks reserves are consequently depleted while the total liabilities of the banks increase; and that this must naturally induce them to raise their rate of interest. But in this argument Wicksell contradicts the assumption that he takes as the starting-point of his investigation. Consideration of the level of its cash reserves and their relation to the liabilities arising from the issue of fiduciary media cannot concern the hypothetical bank that he describes. He seems suddenly to have forgotten his original assumption of a circulation consisting exclusively of fiduciary media, on which assumption, at first, he rightly laid great weight." [MISES 1971, p. 356; emphasis added]
Ludwig von Mises/Friedrich von Hayek
The Austrians

• Versus Cannan: banks as ‘cloackroom’ …
• But also vs Mises/Hayek as ‘flexible multiplier’ leading to liquidity problems forcing banks to raise the bank rate
  – Mises is ultra-Wicksellian
  – Hayek at a lower level of abstraction, but knows the point very well
• Readjustment:
  – change in relative price current vs future consump.
  – hyperinflation & collapse of the monetary system
John Maynard Keynes
‘Revolutionary’ Keynes?

• There are TWO revolutions & hence two watersheds
  – The Great Crash
  – But also the Great War!
• The Great War was a special case of the normal working of a capitalist monetary economy, where bank financing makes entrepreneurs' choices as to the level and composition of output autonomous, while workers' real consumption is dependent on those choices.
The Great War

• At such a time it is necessary to divert productive resources of all kinds from one employment to another on a large scale as rapidly as possible. It would be next door to impossible to achieve this except by invoking the assistance of the price mechanism, i.e. by placing credit facilities at the disposal of the new employments and allowing them to bid for productive resources against the old employments, thus allowing some measure of income inflation [i.e. the rise of the (wage) cost of production for unit of output].

(Keynes 1930, II, p. 154).
Keynes (1930) and Robertson (1924)

- I certainly *date all my emancipation from the discussion between us which preceded your Banking Policy and the Price Level*
  " (Keynes 1973b, p. 94)

- "The whole thing began, I think, by a consideration of what happens when a government obtains a command of purchasing power by an inflation of the volume of money. It appeared at first that the consequent rise of prices deprived the public of an amount of purchasing power equal to what government gained. This deprivation could be called 'forced' saving; and measured in terms of money (to convert it into purchasing power is more complicated) it was equal to the increase in the volume of money. Further reflection, however, showed that whilst the government gained purchasing power, it only gained it in the sense in which every borrower gains, while it was entrepreneurs who gained (in the sense of winning in the net increment of assets over liability) an amount equal to what was lost by the consumers" (Keynes 1973a, pp. 283-4)
Class divide

- [W]orkers are paid just as much when they are producing for investment as when they are producing for consumption; but having earned their wages, it is they who please themselves whether they spend or refrain from spending them on consumption. Meanwhile, the entrepreneurs have been deciding quite independently in what proportions they shall produce the two categories of output.

Keynes 1930 I, p. 123
The Monetary Circuit in ToM

• The banking sector creates credit-money in favor of the firm sector
  – it needs initial finance to pay wages and start production, both in the consumption goods sector and in the investment goods sector
• after production, firms sell consumption goods to wage-earners, and issue securities on the financial market
  – if households’ money balances are not increased, firms obtain back from the consumers' market and from the financial market an amount of money equal to their debt with banks
  – final finance comes from sales to wage-earners of both consumption goods and securities
• ‘equilibrium’ means firms, by selling commodities and by issuing securities, get back the whole of the money they have initially spent and that they now owe to the banks
  – $S = I$ is an accident, no built-in automatic readjustment
Alternative theory of distribution

- Pure credit as the basic model
  - Finance to production, Endogenous money

- Disequilibrium as the normal situation

- Two-sectors model: ‘available’/‘non available’
  - Money wages paid before, real wages paid after production
  - Two-price theory

- Distribution & Inflation
  - depends on firms deciding real output composition, workers how to spend money

- \( I > S \) does not entail an increase in bank money, just a different distribution of finance to production

- Change in price of consumption g. does not enforce change in opposite direction in price of investment g. (vs. Hayek)

- Inflation’s basic role: allowing industrial change, altering class distribution (Sraffa 1932; Kaldor 1956)
Traditional reading of Keynes 1930

• ToM within the Quantity Theory
  – just a cyclical perspective
  – equilibrium as the (long-period) norm
• GT the true break with mainstream
  – not just the case of a ‘leakage’ in the circuit
• ... but in GT the supply of money is ‘given’
  – exogenous?
• Financial markets ‘finance’ investment DEMAND
  – rather than being the place where final finance is recovered
Joseph Alois Schumpeter
A Monetary Theory of the Capitalist Process

- Monetary theory of technological change.
- Purchasing power provided by bank money is the vehicle of an essential process.
- Circular flow: logical starting point/moment in the cycle.
- Credit-supply depends upon entrepreneurial activity leading to an endogenous and necessarily non-uniform increase in bank loans.
- The ensuing inflation is the lever of a redistribution of income and productive resources, which affects the dynamic path of the economy.
- The redistribution is not only from workers to capitalists (forced savings is secondary) but also within the capitalist class (a kind of inflation tax).
Money: claim ticket vs receipt voucher

• Money may be, and in practice mostly is - at least historically - linked to some commodity. But it never is a commodity (...) The fact that money is not a commodity explains what otherwise would be inexplicable, namely that claims or titles to money (however defined) may serve the same purposes as money itself. This is the fundamental explanation of the possibility of 'credit creation' (Schumpeter 1939 II, pp. 544-545).

• [i]t cannot be argued that the effect is temporary and as such negligible. Temporary or not, it is certainly very important (...) A monetary process, the creation of money which is only a ‘claim ticket’ and not also a ‘receipt voucher’, and the rise in prices to which it leads, become a powerful lever of economic (Schumpeter 1917-8, pp. 205-6)
No monetary theory of the trade cycle

• As in Knut Wicksell
  – “No encouragement from banks is necessary to start the prosperity phase” (Schumpeter 1939 II, p. 642), because the causal role is played by innovation.
  – “No discouragement from banks is necessary in order to stop a prosperity phase” (ibidem)
• Forced saving
  – "Without wishing to save, people are forced to do so by the reduction of their real income through the rise in prices. This releases means of production and the stock of goods at the disposal of the economy for productive purposes is increased" (Schumpeter 1917-8, p. 205).
• Main point is NOT forced savings but squeeze of the purchasing power of ‘old’ firms in favour of ‘new’ ones
  – Banks allow to overcome the constraints to development coming from private property and the market
• Banking system: screening device, but through individual banks bets on individual entrepreneurs
• No consumer sovereignty! The same new circular flow is dependent on the disequilibrium path
• STRUCTURAL instability
Keynes on Finance (1937-39)

- **Treatise on Money,**
  - Finance: banks advance credit to firms to pay the wage bill and start production, whether for consumption goods or investment good
  - Money supply fully endogenous.
  - Thanks to their privilege in their access to money as purchasing power, entrepreneurs define the output composition, irrespective of consumers’ sovereignty.

- **General Theory**
  - Finance: through securities on the stock markets
  - Money supply taken as given
  - Demand for money balances as a store of wealth => alternative to securities in the financial market
  - Liquidity preference may lead to involuntary unemployment equilibrium, whatever the price and wage flexibility

- **1937-39 articles on ‘finance’**
  - Keynes integrates the two views - money as a flow of finance, money as a stock of wealth - building a complete picture of the capitalist economy as a circular process of money creation.
  - together with the transaction, precautionary and speculative motives, there is primarily the entrepreneurial ‘finance motive’
  - it is the demand for money to be spent to cover the interval between planning and execution of expenditure, and thus to begin the activity of production
  - in the basic abstraction, the finance motive is present also in stationary reproduction: in this case, prior finance is constant as a ‘revolving fund’.
  - As Keynes insists, ‘finance’ as an advance provision of funds is necessary for production goods as well as for capital goods.
Monetary Theories of Production

• Wicksell
  – Banking system finance to start production.
    • Macro-agents, non-commodity money, non-equilibrium perspective, dynamic instability without readjustment mechanism
    • Mises: ultra-wicksellian on money, no readjustment; but readjustment on the real side (consumer sovr.)

• Schumpeter
  • Structural instability, but with individual banks betting on individual entrepreneurs: Marxian competition
  • not only receipt voucher, also claim ticket
  • No consumer sovr. Circular flow depends on path.

• Keynes: Treatise on Money
  • Macro-monetary distribution, very similar to Marx
  • Sraffa vs. Hayek: forced savings, fixed by banks & firms
Augusto Graziani
Alain Parguez
Circuit Theory of Money

• Capitalism is a sequence of concatenated phases opened by the creation of purchasing power by banks.
• Monetary payments for inputs are made prior to production and to the selling of output on the commodity market.
• Differential access to money as purchasing power sets up asymmetries of power among social agents and is the principal factor determining the real structure of the economy.
Graziani/Parguez Circuit

The diagram depicts a financial model with the following components:

- **Banks**
- **Firms**
- **Households**
- **Financial Capital Market**
- **S**

The arrows indicate the flow of money and economic transactions:

- Money ($M$) flows from Banks to Firms.
- Financial Capital Market (Solid and dashed lines)
- $\delta M + \delta Y$
- $Y_{a}$ flows from Firms to Households.
- $(1+\gamma)M$ flows in the opposite direction.
- $(1-\delta)Y_{b}$ flows from Households to Firms.
Money begetting money

• Extension of Keynes putting together an investment theory of the business cycle with a financial theory of investment

• Capitalism as a *complex* financial structure is a production of money by means of money

• Each economic unit is a money in-money out device: it must estimate the monetary receipts from its assets, deduct the financial commitments of holding positions, and assess their liquidity

• All units, like banks, finance with short-term liabilities the ownership and control of longer-term, illiquid and risky, assets

• Availability and terms of financial agreements govern investment, investment brings about gross profits, gross profits feed back into the financial structure
Finance and investment

- Finance is needed (not only) to produce current output, to (also) buy new capital goods, and, more generally, to own capital assets.
- Finance to production, including the production of investments goods, is short-term and provided by banks selecting borrowers and financing deals.
- Production of investment goods, however, is special in this sense, that their construction time spans across many periods and their returns flow from an uncertain future.
- The short-term debt of investment goods producers is ‘funded’ - i.e. the short-term bank finance initially needed to produce investment goods - is turned into the longer term external finance needed to buy the new capital goods - by the financing arrangement of investment goods purchasers.
Finance and financial intermediaries

• Consumption demand is immediately financed by wage income, while investment demand in excess of the money recovered on the financial markets is immediately financed either by banks or by financial intermediaries.

• Positions in capital assets, however, require long-term finance, which is a combination of internal and external funds.
  – These positions may be financed by intermediaries other than banks, or directly by savers, through instruments whose liquidity is subject to their convertibility into bank money.

• Financial intermediaries are profit-seeking agents, which constantly try to extend credits, financing new positions.
  – Thus, a given amount of reserves may support more bank loans and demand deposits …
  – … and a given amount of bank loans and demand deposits may also support a higher volume of finance (near-money).
  – Moreover, in prosperity economic units lower their margins of safety, and their liability structures embody a higher degree of risk
Structural horizontalism

- Money (and finance) supply becomes in fact infinitely elastic (though individual supply interest elasticity is positive)
- In a complex financial system, investment may also be financed through portfolios adjustment, reducing balance sheets’ liquidity and causing a rise in the price of capital assets
- If a restrictive monetary policy actually wants to constrain the larger, effective, quantity of money, the Central Bank must determine a dramatic compression in reserves
- This usually happens when the boom is already well under way
- The late Minsky, however, rejected the idea that Central Bank is able to control reserves.
Financial Instability Hypothesis

• ‘Tranquil’ growth & ‘robust’ finance: liability structures lean toward fragility
• Economy is financially robust: agents are in hedge-financing positions
  – prospective income cash flows from positions in assets are greater than contractual cash payment commitments on debts for every period
• Validation of outstanding debts and risky projects fosters euphoric growth, developing into boom, and then a bubble
• A rising debt-equity ratio is associated with higher short-term financing of fixed capital and long-term financial assets
• This will materialize with speculative positions
  – income cash inflows are higher than interest charges on external finance, so that the repayment of the principal is met through refinancing
• Degenerating into Ponzi positions
  – income part of cash inflows is lower than the payments of all the contractual cash-commitments to debt holders, except for a ‘bonanza’
  – as a consequence, additional debt is needed even to pay interest
• Demand for finances suddenly becomes inflexible
• When ‘something happens’ - and the supply of finance is constrained by more prudent bank attitudes or by tougher restrictive actions from the Central Bank, with a sudden, severe and unexpected increase in the cost of financing - the crisis breaks out.
Debt Deflation

- A recursive negative spiral gets going
- Some firms get into financial trouble, others fail
- Missing validation of cash payment commitments on outstanding debts leads to the revaluation of borrower’s and lender’s risks, and to the reassessment of liability structures
- Rising rates of interest endangers the liquidity and solvency of banks and financial intermediaries
- Liquidity preference goes up, demand deposits contract, financial instruments may not be ‘accepted’ by the banking system
- The struggle to ‘make position by selling positions’ turns out to be ruinous because of the immediate fall in asset prices
- Investments completely stop and gross profits plummet
- Even hedge-financing units become speculative or Ponzi
- Debt-deflation and financial turbulence strike the real economy curbing income growth and bringing about mass unemployment.
Critique of Keynesianism: A New Deal Perspective

• With small public sector and with a Central Bank not lender of last resort, lower turning point only after monetary contraction and bankruptcies restoring ‘robust’ finance

• Because of endogenous money the collapse of goods and asset-prices results in a decrease in cash inflows and perhaps a rise in cash outflows

• Fall of endogenous money slows down or block the Pigou-Patinkin effect

• Big Government and Central Bank as lender of last resort may sustain gross profits and support the liability structure ...

• ... but traditional ‘Keynesian’ economic policies are unable to abolish the fundamental instability: what they can/must, do is act so that ‘IT does not happen again’

• A better solution would be a policy socialisation’
  – of investments (through public ‘productive’ expenditure)
  – employment (the State as ‘employer of last resort’)
  – banking and finance (promotions of small and medium firms)
Limits and challenges

• Internal theoretical difficulties: theoretical/practical
• Kalecki that with investments are self-financed through non-distributed profits
• Same effect with household saving decrease (Steindl), investment comes to ‘finance itself’ through
• In the last decades more and more credit creation has been fuelled not so much by firms indebtedness but rather by consumers’ indebtedness
• Disappearance of Schumpeterian or Keynesian banking in favour of a new form of banking and financial intermediation fostering speculative rentier behaviour
• The same industrial conglomerates are more and more into financial actors
• Managers are sucked into this process through stock-options
Financial explosion

The graph illustrates the increase in debt across different sectors: non-financial business debt, household debt, and financial sector debt, measured as a percentage of GDP. The data spans from 1960 to 2005, showing a significant rise in financial sector debt, with peaks around 1985 and 2005.
Triad at work
Privatized Keynesianism

- After 1987-1995 constitution of a ‘new’ capitalism
- From ‘originate to hold’ to ‘originate to distribute’: banks maximize fees by issuing/managing assets in off-balance-sheet affiliate structures
- Banks has no interest in credit evaluation, provided by rating agencies.
- In Anglo-Saxon capitalism, the public deficits were curtailed: household sector as net borrower, non-financial business sector as net lender
- Household saving collapse helps to overcome the stagnationist tendency
- Financial innovation reduced risk individually, but increased it globally
- Workers were ‘traumatized’: Phillips curve flattened, price inflation in goods market not anymore a problem
- Pension and institutional funds => ‘capital asset inflation’ => ex-post hedged corporations’ balance sheets
- Savers entered into a ‘manic’ phase: semblance of wealth appreciation leading to a fall of the propensity to save on income => ‘indebted consumers’
- This process provided outlets to Neomercantilisms
Non fictitious effects of fictitious capital

- This ‘financialisation’ is better seen as:
  - Money manager capitalism (Minsky)
  - ‘real subsumption’ of labour to finance and debt
- Workers’ and lower income households’ dependance from stock exchange and banks had non-fictitious effects
  - on demand
  - on firms’ corporate governance
  - on real production.
- The increase in working time went along with a ‘centralization of capital without concentration’
- This dynamics favoured firms’ ‘overcapitalisation’ and households’ collateralised lending (Toporowski)
- Integral to this was a new ‘horizontalism’ of the Central Banks as ‘lenders of first resort’ to support the ‘irrational euphoria’ on asset markets.
- ‘New’ capitalism as an asset-bubble driven ‘privatized Keynesianism’ (Bellofiore-Halevi, Colin Crouch).
- This latter is indeed another meaning of the term ‘Financial Keynesianism’
- This new phase of capitalism proved unsustainable, and savers entered, after the ‘manic’, a ‘depressive’ phase.
New Monetary Circuit

\[ (1 - s)(Y_{y1} + iM + Y_r) + M_o \]

\[ Y_x \]

\[ \text{Firms} \rightarrow S_o \rightarrow \text{Financial Capital Market} \]

\[ \text{Households} \]

\[ \text{Banks} \]

\[ (1 + r)M \]

\[ M_i \]

\[ M_o + iM + Y_o \]

\[ (1 + r)M_o \]

\[ \theta (\text{Bank Deposits}) \]