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Prices in a Financially Sophisticated Capital-Using Capitalist Economy

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Prices
in a Financially Sophisticated
Capital Using Capitalist Economy

Introduction.

Since the 1960's analytical research in monetary and macroeconomic economics has been dominated by the view that the logical foundations of micro economics are in some sense solid, whereas the logical foundations of macroeconomics are weak. It was held that scientific progress requires that macroeconomics be reconstructed so that it conforms to the presumably valid micro-economic foundations. That research strategy led to the development of an United States mainstream macroeconomic theory that reduced the monetary and financial relations of a capitalist economy to the effect that the quantity of money had upon nominal aggregate demand.

As a result American mainstream economists were ill prepared to understand the emergence of ~~first~~ inflation in the 1970's and ~~then~~ financial fragility in the 1980's. Without understanding what was happening they were unable to offer useful and meaningful advice on how to deal with an ~~financially fragil~~e economy that was not behaving as theirs theory said it should. Some of the floundering of the United States Economy in the past decade can be understood as a result of the lack of relevance of the economics that guided policy.

It is now known that the logical success of many microeconomics in the 1950's was more apparent than real. new ¶ The logical foundations require the heroic assumption of perfect foresight. ~~Furthermore it is now known that~~ The analytical results of the 1950's, which were that a competitive equilibrium existed and was in some meaningful sense a best, can not be extended to demonstrate the uniqueness and stability of competitive equilibrium. Without uniqueness the standard application of equilibrium analysis, comparative statics is not valid.

Valiant efforts have been made to eliminate the assumption of perfect foresight. Perfect foresight rules out all of the implications of contingency, perfect foresight implies either a denial that an economy is an evolving system or the assertion that [illegible] evolution is a ~~result of a~~ deterministic ~~system~~ process. These presuppositions makes even the proof that a competitive equilibrium exists an unacceptable basis for any macroeconomics which recognizes that the institutions of capitalism evolve and that the institutional structure has an impact upon system behavior.

¶ Attempts to get around the problem by assuming that imperfect foresight is reducible to risk are either denials of the evolutionary nature of economies or make evolution a determinate process with shocks

Investment and financing decisions are always made in the context that product, process and financing innovations occur and affect the outcome of investments and financing commitments. Uncertainty enters whenever it is accepted that economies are evolutionary systems.

One way to summarize the state of "microeconomics as a foundation for macroeconomics" argument is that the model of the economy which is used to demonstrate the existence of a competitive equilibrium has no place for money.[1] It follows that the orthodox microeconomics cannot throw light on the impact of investment, the financing of investment, and the inherited structure which finances positions in capital assets and financial instruments upon the functioning of the economy. The quantity theory of money and monetarism which assumes that money doesn't really matter, is the only possible monetary theory for such a way of doing economics may

~~The present dead end at which~~ Thus the General Equilibrium research program has reached a dead end. This means that economics needs to search for an alternative paradigm ~~to guide~~ if economic research is to be fruitful. The research program based on the Walras-Arrow- Debreau General Equilibrium Theory is now degenerate in the sense that it yield no insights further insights into system behavior

There is a need for a new paradigm to guide economic research. One road ~~for~~ in designing a new research to consider is that the new paradigm and the new research agenda should be the inverse of the "microfoundations of macroeconomics" research agenda. A guiding principle for the new program ~~will~~ should be to examine how macroeconomic conditions determine the framework within which the individual households and firms of the economy, operating within decentralized markets, determine ~~the~~ individual prices and outputs. ~~which are the concern of microeconomics~~.

Another guiding principle for the new paradigm is that the presupposition that economies are always equilibrium

[1] cite Frank Hahn

seeking and sustaining systems needs to be abandoned. At present the analysis of markets is set up as a game by which the equilibrium is determined and the actions of participants are part of the process which leads to the discovery of the equilibrium and the convergence to this equilibrium. In contrast to this equilibrium view of the outcome of market behavior is the view that markets lead to a variety of dynamic processes that interact ~~in that~~ The variables determined in one set of markets become parameters in other markets. These interactions among markets can lead to economic variable flying off in various directions: to the economy becoming incoherent. The results of these interactive processes can be kept within bounds by institutional constraints and government interventions. The apparent coherence of market economies is more due to the success of interventions and constraints than to any inherent and dominant equilibrium seeking and sustaining properties of economies.

The research agenda for economic theory needs to take as its premise that the macroeconomic conditions, which includes the banking and financial structure, sets the conditions within which demand and supply (microeconomic behavior) interact and the prices and outputs of particular outputs are determined. Microeconomics is about the particulars of the economy: what is produced, what is the price in the market of various outputs, and how is income distributed. In a capitalist economy with a modern banking and financial system, not only do the microeconomic variables depend upon macroeconomic conditions but that these macroeconomic conditions reflect the economy's institutional structure as well as economic policy. Policy ineffectiveness cannot be asserted for a capitalist economy with a modern complex financial structure.

Functions of prices.

We begin with an analysis of the functions of prices in our type of economy. Household decisions to budget spending, business decisions to hire labor and other production inputs, business and banker's decisions to finance investments, and financial intermediary's asset and liability decisions are all based upon information carried by prices: past, present and future. Prices tell us the terms upon which alternatives are available. Prices carry profits which enable or do not enable firms to fulfill their commitments on their liabilities. Prices in a capitalist economy need generate large enough gross profits to enable debtors to fulfill obligations and to make capital asset ownership profitable enough so that the inducement to investment is strong enough so that sufficient investment for a close approximation to full employment takes place.

The positive aspects of this chapter begin with a consideration of the functions of prices that rule, i.e.

that actually exist in the economy, once we define the economy as a capitalist economy with a sophisticated financial system. Prices under capitalism need to carry sufficient gross profits so that debtors can fulfill obligations. furthermore capital asset ownership has to be profitable enough to induce investment. THe cash flows needed to sustain private debt structures and provide investment financing affect relative prices for in an effort to assure their cash flows agents in the economy seek to attain market power. The "industrial structure" of a capitalist economy, the relative prevalence of competitive and monopolistic markets, is not independent of the financial strictures.

It turns out that both absolute and relative prices depend upon policy choices. In particular the general ruling mark up on average wage costs dep[ends upon the extent to which resources are committed to investment and the importance of state expenditures, including government transfer payments, in the economy. As the relative size of investment and the scope of government are results of the policy environment, relative prices and changes in the absolute price level, i.e. inflation, reflect fundamental decisions about how the economy is to be run. Instead of the neoclassical proposition, which is that relative prices are determined by production functions and presumably genetic preference systems, the macroeconomic view of prices makes realized profits (Keynes' quasi - rents) and thus relative prices a function of the weight of investment in the economy. In turn the weight of investment depends upon policy choices. We have to choose where we want our economy to be on a spectrum of possible capitalist economies. This spectrum may well run from high-profit high-investment relatively unstable economies to a low profit-low investment relatively stable economies.

In the course of the argument it becomes necessary to examine the notion of capital intensity. In a capitalist economy capital intensity is best measured by the mark ups on out of pocket (broadly labor) costs that are required to validate the price paid for the capital asset. If we consider that much of the economy consists of multi-product, multi-market production units which capital intensive modes of production, and if we recognize that capitalist financial practices require that the system of prices that rule must almost always validate debts, it follows that particular product prices that rule are largely the result of political and administrative decisions (decisions by corporate bureaucracies and managements are considered to be political) rather than reflections of technical productivity and genetic preferences. There are significant "degrees of freedom" in the formation of particular product prices. Assertions that the market mechanism yields results that are in some abstract sense efficient are difficult to substantiate.

Given that such degrees of freedom in price formation exist, it is evident that simplistic policy goals such as full employment or appeals "to let the market determine" what happens grossly misspecify the economic problem. Economic policy calls the tune for what happens and economic policy always has explicit and implicit for whom and what kind implications; even neglect, whether benign or malevolent, implies that for whom and what kind choices have been made.

Neo-Classical Dogma

The story that is told as a neo-classical theorist begins his/her argument is of a set of traders at a Village Fare each of whom starts with a bundle of goods - the origin of these initial endowments is unexplained - and then voluntary exchange, of one good for another, is allowed to take place. In the parables that are told these exchanges take place under circumstances which are foreign to observed trading arrangements as either recontracting is allowed or a convention of a special type of auctioneer is adopted. Either recontracting or the auctioneer uncovers the set of exchange ratios at which demand equals supply in all markets. Once these relations are found, trading, which simultaneously clears all markets, takes place. In this way regret, exaltation and income transfers that arise from actual trading in markets where prices are free to vary from transaction to transaction are ruled "out of order" by the assumptions of the neo-classical approach. The formal set up of price theory assures that all of the action takes place at market clearing i.e. equilibrium prices: in the neo-classical theory the world not only is now in equilibrium but apparently has always been in equilibrium. The fact that we act out our lives in transit and that false trading, regret and joy - broadly conceived - are inherent in real world market processes are excluded, by definition, from the neo-classical view of market processes.

The primitive village fair perspective is never wholly abandoned in neo-classical theory, even as the argument is developed to include production and distribution. The parables that are told remain that of simple production and trade: capital assets, finance, contracts, money and time - all of the elements that make uncertainty so vital to an understanding of the capitalist process - are handled - if at all - in a thoroughly artificial manner.

The fundamental neo-classical article of faith is nowhere better stated than by Milton Friedman when he asserts that

> "...despite the important role of enterprise and of money in our actual economy. and despite the numerous and complex problems they raise, the central characteristic of the market technique of achieving coordination is fully displayed in the simple exchange economy that contains neither enterprises nor money."2

Any use of neo classical theory as a guide to economic policy, or as an aid to interpreting experience, must be based upon a belief in the validity of the above statement. Inasmuch as the proposition is patently false for the economy in which we live, the acceptance of policy prescriptions and explanation of events that are based upon neo-classical theory reflects a dogmatic belief, against which logic and evidence are of no avail. Wherever

[2] MIlton Friedman: Capitalism and Freedom, University of Chicago Press, 1962 p. 14 my emphasis.

neoclassical perceptions are valid, the validity of the perception is independent of the presumed theoretical basis.

Evidence of the patent falsehood of the neo-classical dogma lies in the inexorable tendency of a capital using capitalist economies to generate business cycles that include both threats and realizations of financial instability. In the model based upon trading at a village fair, then economy is characterized by equilibrating tendencies and realized equilibrium, whereas an economy with capital intensive production processes and capitalist financial institutions disequilibrating factors are always operative. Neo classical models are not so much logically wrong as irrelevant: they are the result of asking the wrong questions.

In order to capture the essential characteristics of prices in an economy with capital intensive production techniques and capitalist finance we have to shift from a Village fair to a Wall Street perspective. This alternative analysis of prices begins with the accumulation process and with the specification that the economy is capitalist so that capital assets have to be priced. It does not start with goods on hand and trading at a village fair.[3]

[3],The critique by Von Mises et al that a Socialist economy cannot be efficient centered around the fact that a socialist economy did not have the markets in which the prices of capital assets are determined. Our identification of the flaw in the capitalist market processes centers around the implications of the mechanisms by which capital assets are priced. See Oscar Lange, On the Economic Theory of Socialism, University of Minnesota Press 1938 for the Von Mises critique and Hyman P. Minsky, John Maynard Keynes,

In a defense of general equilibrium theory F.H. Hahn[4] emphasizes that Arrow and Debreau, by asking precisely "what the world would have to look like if the claim (that a myriad of self seeking agents left to themselves will lead to a coherent and efficient disposition of economic resources) is to be true,.....,"is important because Arrow and Debreau "...provide the most potent avenue for the falsification of the claims"[5] That is, to Hahn modern neo-classical General Equilibrium Theory is a success for it has established that the conditions necessary for the equilibrating tendencies and achieved equilibrium of the theory to be relevant to the world are so stringent that in fact the theorems of General Equilibrium theory are not relevant for the solution of real world problems. But to be able to assert that a particular theory is not relevant or applicable to real world problems does not tell us what is relevant or what can be done to develop a relevant theory. That is to Hahn, neo classical theory consists of "negative results", telling us what is not true but not really shedding light on what might be true.

Inasmuch as policy actions have to be and will be taken, the irrelevance of neo-classical theory means either that policy will be guided by those charlatans who, not understanding that neo-classical theory is irrelevant,

Columbia University press, 1975 for the flaw in the capitalist pricing of capital assets.

[4] F.H. Hahn "The Winter of our Discontent" Economica, August 1973 pp322-323

[5] ibid p324

parade as "scientific economists" and assert that theory has proven that decentralized markets lead to coherence and efficiency, or that policy will be left to the vagaries of transitory fashion and the prejudices and intuitions of politicians. Not until economic theory begins to generate meaningful theorems about disequilibrating phenomena and the fundamental ways in which policy (and thus power) affect economic activity will economic theory once again become relevant. The approach to an understanding of how financial interrelations and cash flows affect price formation that is taken in this paper directs attention both to the degrees of freedom and the constraints upon the pricing process in a capitalist economy.

Functions of Price

Economic theory focuses on two big problems: one identified with microeconomics and price theory, the other with macroeconomics and monetary theory. The problem that standard price theory confronts is to explain why - or how - a decentralized market mechanism can generate a coherent result. The problem that aggregate economics focuses on has two aspects: why is one country richer than another and why the richness of one economy varies over time. The explanation of comparative richness among economies, and of the trend of richness in an economy, that has gained credence among economists imputes the differences, whether among an economy or within an economy, to differences in the stock of capital assets available for uses in production. That is comparative richness, as well as the trend in richness, are the results of accumulation. The rate at which capital assets were and are being accumulated i.e. investment is in this standard view the key to an understanding of both comparative wealth and current growth.

In order for accumulation to take place there must be a surplus, i.e. an excess of current output over current consumption. Therefor each economy that accumulates needs to have social techniques which constrains consumption to be smaller than output and in addition aims at assuring that the surplus is utilized to increase well being as this is understood by the society. Because of the importance of financial relations in financing investment and asset holdings in a capitalist institutional framework, the analysis of the process of accumulation and the way the surplus is generated quite naturally leads to a Wall Street perspective for economic theory. Rather than start theorizing about price formation with a tale of trading in a village fair, the story of price formation in a capitalist economy needs to start with financing decisions in the Board room of a Wall Street banking institution.

In a capitalist economy, investment decisions and the ownership of the stock of capital assets are private, In such an economic structure the financing of ownership of the stock of capital assets leads to various contractual commitments to make money payments over time.e. to contractual cash flows. There is a "paper world" of interrelated cash flows that stands side by side with the "real world" of production, consumption and investment. In neo-classical theory this paper world is either a silent or an ignored partner to production functions and preference systems over commodities and services in determining how the economy functions. In our complex sophisticated capitalist economy the paper world is an equal, if not the dominant partner determining how the economy functions. Finance cannot be made an unimportant attribute of a capitalist economy by some cute definition which imposes determinateness upon essentially speculative arrangements. In a capitalist economy investment and the ownership of the stock of capital assets are associated with promises to make future payments. Production, and much of trading in assets is carried out to acquire money for such promised payments. Furthermore, the terms upon which money today can be obtained in exchange for promises to pay money in the future, i.e. financial market conditions, determines investment and the prices of the items in the stock of capital assets: i.e. real market conditions cannot be separated from financial market conditions.

The essential way in which money enters into the pricing process in a capitalist economy is through the financing of investment and of holdings of capital assets. The amount of investment and the price of capital assets depend upon the terms on which money can be obtained today in exchange for promises (expectations) of to make future payments. In addition money enters into the determination of prices as units operate to obtain money so that the commitments to make payments on financial contracts will be fulfilled. As money is created, destroyed and recreated in the financing process, money in a capitalist economy is transformed into a type of bond which reflects the, albeit indirect, financing of activity. The creation, destruction and re-creation of money in the banking process finances expenditures and helps determine asset prices.

This role of money in the capitalist financial structure was well stated by Keynes:

> "There is a multitude of real assets in the world which constitutes our capital wealth - buildings, stocks of commodities, goods in the course of manufacture and of transport, and so forth. The nominal owners of these assets, however, have not infrequently borrowed money (Keynes' emphasis) in order to become possessed of them. To a corresponding extent the actual owners of wealth have claims, not on real assets, but on money. A considerable part of this financing takes place through the banking system, which interposes its guarantee between its depositors who lend it money, and its borrowing customers to whom it loans money wherewith to finance the purchase of real assets. The interposition of this veil of money between the real asset and the wealth owner is an especially marked characteristic of the modern world.[6]

The essay in which this citation appears is "The Consequences to the Banks of the Collapse in Money Values"

[6] J.M. Keynes, Essays in Persuasion,The Collected Writings of John Maynard Keynes, Volume IX MacMillan, St. Martins Press, for the Royal Economic Society, London and Basingstoke, 1972, p 151

which Keynes wrote in late 1931 as the banking crisis in the United States was gaining momentum. This essay reflected observations Keynes had made while in the United States to deliver a lecture at the University of Chicago.

The money veil that Keynes identifies implies that the relevant profit flows to enterprises and the prices of real assets have to be sustained if the financial commitments to bankers and of bankers are to be fulfilled. In a capitalist economy prices have not only static allocational and distributional effects but also dynamic cyclical and growth effects. Both the absolute price level and relative prices affect system performance. The absolute price level cannot be considered as something that is tacked on after relative prices and allocations are determined.

A fundamental characteristic of a capitalist economy, and one that differentiates it from a Socialist economy is that the items in the stock of capital assets have explicit market values both individually and directly and as collected into firms and indirectly through stock and bond markets. The values of capital assets and financial intermediaries determine private wealth. Furthermore in a capitalist economy private wealth results in private incomes from wealth ownership. In addition in a capitalist economy the market values that are placed upon items in the stock of capital assets are determinants, along with the supply price of investment output and the conditions that rule by which money today can be obtained in exchange for expectations of money tomorrow, of the pace of investment. Financing conditions also affect the prices in of items in the stock of capital assets and thus the wealth of the owners of capital assets. In a capitalist economy, the view of money as a social artifact which makes trading possible without a double coincidence of wants - I want what you have and you want what I have - fundamentally misses the point as to how money affects economic activity, how prices are determined and the function of prices.

Thus a special attribute of a capitalist economy is that there are two sets of prices - one for current output and the other for capital assets, and in an economy with a stock exchange, capital assets are continually being priced. Current prices of items in the stock of capital assets and of financial instruments are keyed by the current subjectively determined implicit yields of the asset money (this implicit yield is due to the power of money to insure the holder against uncertainty i.e. what Keynes called Liquidity preference) and current expectations with regard to future quasi-rents i.e. gross profits after taxes, that capital assets will yield. As the proximate determinants of the two price levels are quite different, these two price levels can and historically quite regularly did, get out of alignment,

When the price level of capital assets is high relative to the price level of current output an investment boom results, when the price level of capital assets is low relative to the price level of current out put a recession, or a depression - takes place. The serious business cycles of experience can be interpreted as a result of the relative positions of the two price levels as they dance around the fixed price of a unit of money. Within a capitalist framework, the problem of aggregate economic policy is to rig the game the economy is playing so that the two price levels are such that an appropriate amount of investment takes place.

Neo-classical and Financial Views of the Functions of Price.

IN the neoclassical view, the functions of the system of prices that rule are

1) to state the terms upon which alternatives are available

2) to determine the claims upon output of different units.[7]

As a result momentarily fixed supplies of output are rationed and currently allocatable resources are distributed to various production processed by the pricing mechanism. The

1) "a priori" allocation of endowments to individual consuming and producing units

2) preference system among commodities and for the supply of personal services,

3) production possibilities inherent in place techniques and

[7] O Lange`

4) assumption that trading can take place are all that is needed to show that a decentralized market economy can carry out the limited recognized set of functions in a coherent fashion.

Within a capitalist /wall street framework that look as at the paper world that exists side by side with and dominates insofar as the stability (business cycle) and growth properties of the economy are concerned, the real production process, the set of prices that rule must not only accomplish the allocation and rationing functions but must also be such that

1) a surplus is generated in that current output exceeds current consumption

2) some of current income shows up as incomes imputed to capital assets, (i.e. profits) and is distributed to the owners of these capital assets.

Furthermore these distributed and undistributed capital incomes are high enough and seemingly sufficiently assured so that the market prices of capital assets are greater by some margin than the current production coasts of capital assets (investment output) with similar production characteristics. that is prices have to be such as to induce both investment and the financing of investment in money and financial markets.

3) income from capital asset ownership must be such that the obligations on the debts entered upon to finance ownership

of these capital assets can be fulfilled. That is the system of prices must be such that almost always and as a usual matter, contractual commitments can be met out of funds that accrue to debtors from their ownership of the underlying capital or financial assets. The prices that rule in markets must be such that debts are validated.

These three additional functions of the price system are not independent. They are related to the specific attributes of a capitalist economy in which debts are entered into to finance the acquisition of long lived capital assets, and in which a substantial - if not a predominant - part of the revenues that accrue from the production of output accrue to the owners of these capital assets. The generation of a surplus in a capitalist framework is associated with the freeing of resources for capital asset production, the generation of capitalist income and the validation of business debts. capital income must be large enough to assure that commitments on past debts are validated and that the price of items in the stock of capital assets are high enough so that currently investment does in fact take place. However investment in turn is a determinant of gross profits, and gross profits are a major component of the surplus. The system of prices that rules and the allocations that reign are largely based upon current investment and current financing decisions.

Macroeconomic Price Relations

A basic relation behind the generation of the surplus is embodied in the cliche: workers cannot buy back what they produce" i.e. market prices of consumption goods have to be greater than the labor income per unit of output that is earned in the production of these goods. This is so because consumption goods have to be rationed not only among the workers who earn their living producing consumer goods but also to those who earn their living producing investment goods or by working for the state. Furthermore those households whose disposable income is the result of receiving transfer payments or collecting dividends and interest buy consumption goods in the market. Thus the gross mark up on labor costs of consumption goods is related to the ratios of disposable incomes received from other than the production of consumer goods and the propensities to consume out of these different income types.

The approach to aggregate demand by way of the workers not buying back what they produce differentiates incomes by source. This approach allows us to distinguish between those inputs whose incomes determine product prices (labor) and those inputs whose incomes are determined by product prices (capital services) and thus by the performance characteristics of the system. As a result this approach reveals how different ways of working the economy affects both relative prices and the course of absolute prices that the standard treatment, which takes the consumption demand as being a homogeneous "glob" of income is incapable of analyzing.[8]

If we write PcQc as the price and quantity of consumer goods sold (PcQc is of course the consumption of the standard consumption function formulations) if Cw is the consumption coefficient for wages, Ct the consumption coefficient for transfer payments and Cpr is the consumption coefficient for gross profits and Wcnc is the wage rate and number of employees in consumption goods production, WiNi the wage rate and number of workers in investment goods production and WsNs is the wage rate and number of workers for the state, then we have

$$1)\quad PcQc = Cw\,\{WcNc + WiNi + WsNs\} + CtT + CprPR$$

$$2)\quad Pc = WcNc/Qc\,\{Cw\,[1 + WiNi/WcNc + WsNs/WcNc] + CtT/WcNc + CprPR/WcNc\}.$$

Writing Qc/Nc as Ac(N), the average productivity of labor in the production of consumers goods, we get

[8] The approach to price level formation and the dependence of relative and absolute prices that follows is derived from the work of Kalecki, J.Robinson, Kaldor Weintraub, davidson and Kregel. REferences to the literature on this approach and it's history can be found in J. Kregel The reconstruction of Political Economy: an Introduction to post keynesian Economics, MacMillan Press ltd., London and Blasingstone and P. Davidson Money and the Real World, J. Wiley & Sons New York and Toronto. Jerome Levy working outside academic economics developed a similar view of price formation as early a$_s$ ______ See S.J. and David Levy

Note once the aggregate of profits is determined then the issue becomes the distribution of these profits among the capitals. The competition that matters in capitalist economies is among capitals for profits, what markets truly determine is the distribution of profits. Prices are carriers of profits.

$$3)\quad Pc = Wc/Ac(N)\ \{Cw\ [1 + WiNi/WcNc + WsNs/WcNc] + CtT/WcNc + CprPR/WcNc\}$$

Efficiency wages in consumption goods production, Wef , are the unit cost of labor in consumption goods production divided by the average productivity of labor, Wc/Ac(N). We now have:..

$$4))\quad Pc = Wef\{\ \{\ \} + + \}$$

The price level of consumer goods equals the efficiency wage in the production of consumer goods times a factor which depends upon the way the economy is run. The higher the ratio of labor income from producing investment goods and from state employment to labor income from producing consumer goods the greater the ratio of transfer payments to labor income in producing consumer goods and the higher profits are relative to labor income from consumer goods production the higher the price level of consumer goods for any given money wage.