Bard

Bard College
Bard Digital Commons

Hyman P. Minsky Archive | Levy Economics Institute of Bard College

1980

Chapter VIII of "Financial Instability and the Current Economic Policy" -- Introduction to Policy

Hyman P. Minsky Ph.D.

Follow this and additional works at: https://digitalcommons.bard.edu/hm_archive

Part of the Macroeconomics Commons

Recommended Citation

Minsky, Hyman P. Ph.D., "Chapter VIII of "Financial Instability and the Current Economic Policy" -- Introduction to Policy" (1980). *Hyman P. Minsky Archive*. 112.
https://digitalcommons.bard.edu/hm_archive/112

This Open Access is brought to you for free and open access by the Levy Economics Institute of Bard College at Bard Digital Commons. It has been accepted for inclusion in Hyman P. Minsky Archive by an authorized administrator of Bard Digital Commons. For more information, please contact digitalcommons@bard.edu.

Bard

Chapter VIII. Prices and Profits in a Capital-Using Capitalist Economy

A.	Introduction	1
B.	Prices in a Capitalist Economy	4
C.	The Functions of Price	8
D.	Macroeconomic Price Relations: The Simplest Case	10
E.	Macroeconomic Price Relations: Allowing for Government	18
F.	Macroeconomic Price Relations: Allowing for Foreign Trade	22
G.	Macroeconomic Price Relations: Consuming Out of Profits and Saving Out of Wages	24
H.	The Meaning of Consumption Spending Out of Profits Income	27
I.	Supply Price	35
J.	Taxes and Government Spending	48
K.	The Financing of Business Spending	52
L.	Capital Intensity, Multiple Markets, and Multiple Products	56
M.	Conclusions	61

Chapter VIII

Prices and Profits in a Capital-Using Capitalist Economy

A. Introduction

The full set of relations that must be satisfied for a capital using capitalist economy with a complex financial system (i.e., our type of economy) to be coherent are not examined in neoclassical theory. Neoclassical price theory shows how relative prices of currently produced consumer goods adjust so that markets are cleared. The aggregate neoclassical synthesis shows how the economy would reach an equilibrium in which the labor market dominates in determining aggregate variables. The financial and capital asset pricing relations that must be satisfied if coherence is to rule are virtually ignored: In particular the role of prices as the carrier of profits is not central to the theory.

In a capitalist economy capital assets and financial instruments have prices. The prices of current output yield the cash flows (or profits) that enter into the determination of the prices of capital-assets and financial instruments. Furthermore these cash flows if adequate enable debtors to fulfill their commitments. For coherence to rule prices must generate cash flows that satisfy the commitments that are explicit in financial contracts and implicit in capital assets. Demand for current output must support prices that yield such cash flows. The explicit and implicit cash flows due to debts and capital-assets used by firms are "costs" that enter into the determination of normal supply prices. In our economy supply and demand are never independent of financial relations.

An economy is not coherent when debt repudiations, collapse of capital asset prices, inflations, deflations, or unemployment occur. In particular financial crises which sharply reduce the price of capital assets relative to current output are evidence of incoherence. The experiences of 1966, 1969-70 and 1974-75, as described in chapters 2, 3 and 4, show that bouts of incoherence take place.

In a capitalist economy coherence requires that the present validate the past. The past is validated when business cash flows over a relevant interval are such that "almost all" debts falling due are paid and "almost all" capital-asset owners believe that the decisions that led to the acquisition of capital assets were at least "good enough". The past is validated when profits are adequate to meet payment commitments and sustain the price of capital assets. The above is a "statistical" condition: Coherence is consistent with some debts not being paid and with the prices of some capital-assets falling below expectations.

Current prices carry cash flows that validate the past and affect the conditions that future prices must satisfy if today's decisions are to be validated. The cash flows carried by prices are determined by demand and supply conditions. It is necessary to show how demand conditions yield prices that carry cash flows that enable payments determined by financial contracts drawn up in the past to be met. It is also necessary to show how such payments due today because of "yesterday's" contracts affect supply.

In a capitalist economy with sophisticated financial institutions the macroeconomic state of the economy sets the demand conditions within which individual prices, outputs and allocations are determined. Relative prices depend upon the level and composition of aggregate demand. Prices in a capitalist

economy cannot be related solely to abstract preferences and production functions; the economy is coherent if and only if the cash flows that prices carry enable debts to be paid and encourage an apt amount of investment and new financial obligations. The size and composition of cash flows depend upon the behavior of macroeconomic variables. In the "logic" of a capitalist economy macroeconomic conditions determine the environment within which particular prices and outputs are determined. There are macroeconomic foundations to microeconomics.[1]

Prices are a way of recovering costs. In a capitalist economy the costs that need to be recovered include financial, overhead and ancillary costs as well as the technologically determined costs of labor and purchased materials and services. Firms "build" the profits they need to fulfill their outstanding financial contracts and to sustain the value of their capital assets into their supply prices. Realized prices and quantities depend upon market conditions. It is the realized markups on technologically determined costs that enables a firm to validate its debts and capital-assets. Markups also furnish the cash that covers the "business style" of the firm, i.e., validate overhead and ancillary costs. For coherence to rule, supply prices times output (i.e., the sales revenues) must generate cash flows that validate the capital asset, financial structure and business style of an economy.

The neoclassical synthesis transformed Keynes' exciting and relevant analysis into a banal exercise which ignores serious problems and gives trite answers. Nevertheless once correctly qualified the key neoclassical proposition that the market mechanism can take care of the details of production and distribution is valid: the key qualification is that the intertemporal conditions for coherence are satisfied.

---

[1]R. Weintraub

B. Prices in a Capitalist Economy

In neoclassical theory prices are timeless ratios which announce "the terms on which alternatives are offered".[1] "Absolute prices", i.e., prices in dollars, are irrelevant for the heart of the theory because debts and other contracts denominated in dollars are ignored. The theory does not accept that in a capitalist economy capital-assets used in production are analogous to money today-money tomorrow financial contracts: This means that the course of money prices over time is an essential determinant of the behavior of the economy.

Debts and the prices of capital-assets are based upon expectations of cash flows. Realized cash flows must approximate expected cash-flows if the system is to be coherent over time. Realized cash flows are the excess of product prices over unit out of pocket costs. Under capitalist financial practices prices do more than signal the terms in which alternatives are offered. In a capitalist economy prices are not determined by "technical possibilities of transformation of one commodity into another, i.e., by the production function" [Lange p. 61], in isolation of firms' need for cash and power to control their markets. Relative prices are affected by the weight of investment, consumption, and government in total demand.

All economic theory focuses on two problems: How a decentralized market mechanism can generate a coherent result and why one economy is richer than another and why richness changes. The standard explanation of comparative

---

[1] O. Lange, "On the Economic Theory of Socialism" in B. E. Lippincott, ed., On The Economic Theory of Socialism, Univ. of Minnesota Press, 1928, pp. 60-61. Lange is quoting Wicksell.

richness emphasizes differences in the stock of capital assets available for production: Richness results from accumulation. The rate at which capital assets are accumulated, i.e., investment, determines both comparative wealth and current growth.

Accumulation requires that current output exceeds current consumption, i.e., a surplus must exist. An accumulating economy needs mechanisms which make consumption smaller than output, and devices which assure that the surplus is used "well". Because of the importance of finance in investment and asset holding the analysis of accumulation and the way the surplus is generated quite naturally leads to a financial or Wall Street perspective for economic theory. The analysis of price formation needs to start with financing decisions in a Board Room.

In a capitalist economy the financing of investment and of ownership of the stock of capital-assets leads to contractual commitments to make money payments, i.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. This paper world is never a silent partner in determining how the economy functions and it is the dominant partner when financial crises threaten. Finance cannot be made an unimportant attribute of a capitalist economy by cute definitions which impose determinateness upon conjectural arrangements.[1] In an economy with debts, production is carried

---

[1]Modigliani-Miller (citation) achieved an "irrelevance of finance" theorem by assuming perfect capital markets, i.e., by assuming away the problems that follow from the existence of "borrowing and lending based upon subjective margins of safety". The "cute definition" approach to economic analysis which serves to evade problems that exist in the world is exemplified by Modigliani and Miller's work.

out to acquire money needed to fulfill promises to pay. The terms upon which money today can be obtained for promises to pay money in the future determines investment and the prices of capital assets, i.e., "real" conditions reflect financial market conditions.

The path by which money affects prices is through the financing of investment and of holdings of capital-assets. Investment and the prices of capital assets depend upon the terms on which money can be obtained in exchange for promises to make future payments.[1] Units operate to obtain money so that they can fulfill the commitments as stated in financial contracts. 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.

Keynes referred to a "money veil" that makes money a "bond" issued in the indirect financing of capital asset ownership. This Keynes veil implies that prices of real assets and the profits of enterprises have to be sustained if financial commitments to bankers and by bankers are to be fulfilled. Prices not only have static allocational and distributional effects but they also have dynamic cyclical growth effects. The absolute price level is not something that is tacked on after relative prices and allocations are determined.

---

[1]Paul Davidson in "Money and the Real World" as well as a spate of articles distinguishes between spot and future markets. The technological fact of capital-assets as well as the fact that production occurs in and takes calendar time implies that future contracts exist. However, within the class of future contracts a distinction can be made between those future contracts which reflect the time it takes to produce current output with existing capital assets and the future contracts which arise in the production (creation) and holding of capital-assets and associated financial instruments. Davidson seemingly integrates all future contracts, whereas I emphasize the distinction between capital assets and current output. Note that the holding of stocks (inventories) of goods transforms some of current output into capital-assets.

A fundamental characteristic of a capitalist economy is that the items in the stock of capital assets have market values both directly and indirectly, through stock and bond markets. The market values of capital assets and financial instruments determine the private wealth in the economy. Financing conditions affect the prices of items in the stock of capital assets. The neoclassical view of money as a social artifact which makes trading possible without a double coincidence of wants misses the point as to how money affects economic activity, how prices are determined, and the functions of prices in a capitalist economy.

In a capitalist economy there are two systems of prices--one for current output and the other for capital assets. In a capitalist economy with financial institutions that include a stock exchange share prices are continuously changing. Prices of the current output (of both consumption and investment goods) are determined by current money wage rates and markups on out-of-pocket costs. 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 output a recession--or a depression--takes place. The serious business cycles of experience are a result of the dance of these two price levels around the fixed price of a unit of money. Within a capitalist framework, a key problem of economic policy is to rig the economy so that the two price levels are such that an appropriate amount of investment takes place.

In this chapter we will discuss how consumer goods prices are determined. We will examine what determines P_C either the price of a particular consumption good or the price level of consumption goods.

C. The Functions of Price

In the neoclassical view, the functions of prices are (1) to state the terms upon which alternatives are available and (2) to determine claims upon output. [Lange, op. cit.] In this formulation the price mechanism only rations output and allocates resources.

We are concerned with a capitalist economy that invests. A financial world is intertwined with the producing and consuming processes. In such an economy prices must accomplish both the resource allocation and output rationing functions and assure that (1) a surplus is generated, (2) incomes are imputed to capital assets (i.e., profits), (3) the market prices of capital-assets are consistent with the current production costs of similar capital-assets, and (4) obligations on business debts can be fulfilled.

The price system must induce the production of outputs which are needed for future production. To do this in a capitalist framework it is necessary to validate the past. (A Stalinist economy can keep on making investments which are mistakes. Mistaken investment are made in a capitalist economy. Some lead to subsidies as with the Chrysler Corporation.) Unless the past is usually validated none but pathological optomists will invest.

For our economy to function well past investments must be justified by the income received by owners of capital-assets. Past financing leaves a legacy of current payment commitments. The income of debtors must be large enough so that these commitments can be fulfilled. The price system must generate cash flows which are needed for the smooth intertemporal functioning of the economy. The cash flows free resources for investment, yield capitalists income, generate high enough prices for capital-assets and validate debt and profits.

For a capitalist system to function well, prices must generate profits.

The capitalist functions of the price system are related to the specific institutional attributes of economies in which debts are used to finance the acquisition of long-lived capital assets. In this economy a substantial part of the total revenues from the production of output accrues to the corporate proximate owners of capital-assets. In turn the corporations have payment commitments on debts. Capital income must be large enough to assure that corporate commitments on past debt are honored and that the prices of capital assets are high enough so that investment takes place. It will be shown that investment is a determinant of gross profits. Prices contain markups on labor costs which reflect investment and financing decisions. A capitalist economy cannot be understood by first solving an allocation problem and then adding financing relations; in a capitalist economy resource allocation and price determination are integrated with the financing of outputs and positions.

---

[1]There is a remarkable essay by Dudley Dillard, "The Theory of a Monetary Economy" in Post-Keynesian Economics edited by Kenneth K. Kurihara which is most insightful about the relations between prices and profits.

D. Macroeconomic Price Relations: The Simplest Case

Any investing economy generates and allocates a surplus. The cliche "workers cannot buy back what they produce" states a "truth" that underlies the surplus, for in an investing market economy the price of a representative consumption good has to be greater than the income on the labor required to produce a unit of the output. This is so because consumption goods have to be rationed among all "workers"--those who produce consumer goods and those who produce investment goods or work for the state. In addition household income which results from transfer payments, overhead and ancillary labor, dividends and interest is used to buy consumption goods. The gross realized markup on the direct labor and material costs of consumption goods depends upon the ratio of spending on consumer goods to the technologically determined labor costs of producing consumer goods.

If output is to be produced then price must exceed the per unit costs (income) of those inputs which directly vary with production. In addition there are inputs into production whose income are determined by the excess of price times out of pocket costs. This second class of inputs includes the services of capital-assets and overhead labor. Where markets are competitive and if purchased nonlabor inputs are ignored labor costs determine the supply schedule for output. Capital and overhead labor incomes are determined by the realized excess of revenues over the cost of supply. There are different ways of rigging an economy so that a global target of profits is attained. However the way the economy is rigged affects relative prices, the price level in money, the distribution of income, and the stability of the economy. We will start with simple identities and manipulate the identities to isolate

and identify items that are determined by market processes and economic policy. These identities give us insights into how markets work in a capitalist economy. They cannot yield a theory of the behavior of a capitalist economy without equations which summarize the behavior of the various parameters and markets.

Let us write P_C as the price and Q_C as the quantity of a (representative) consumer good. P_CQ_C summed over all goods is consumption. We also write W_C as the money wage rate in the production of consumer goods and W_I as the money wage rate in the production of investment goods. Employment is N_C in consumption goods and N_I in investment goods; W_CN_C is the wage bill in consumption goods and W_IN_I in investment goods. These wage costs are of labor which is required by the physical production and distribution of commodities and services; these are the labor costs that are mandated by technology. Overhead labor is not included.

There are government employees N_G who receive wages W_G, and there are transfer payments T. At some point we will need to account for overhead labor but here we restrict variables to the generation of demand in a simplified investing economy.

Let us assume that there are only workers whose labor is directly related to production of consumer and investment goods and profit receivers. Let us heroically assume that workers spend all their income on consumption goods and profit receivers spend none of their income on consumption. The demand for consumption goods is the total wage bill and no other income yields a demand for consumption goods.

If only consumption goods were produced the total wage bill would be W_CN_C so that

(1) $P_CQ_C = W_CN_C$. Which gives us

(2) $\pi_C = P_C Q_C - W_C N_C = 0$ [π is profits].

The difference between the total spending on consumption goods and the wage bill is profits; in a world where artisans produce with "found" capital profits are zero.

$W_I N_I$ is the wage bill in the production of investment goods, then

(3) $P_C Q_C = W_C N_C + W_I N_I$, so that

(4) $\pi_C = P_C Q_C - W_C N_C = W_I N_I$.

Profits in consumer goods equals wages in investment goods.

Demand for investment goods is $P_I Q_I$ which equals the wage bill and the profits in investment goods production. As the wage bill in investment goods is the profits in consumer goods we have

(5) $I = P_I Q_I = W_I N_I + \pi_I$ but as $W_I N_I = \pi_C$ we have

(6) $I = \pi_C + \pi_I = \pi$. Simple arithmetic and extreme behavioral assumptions leads to the strong proposition that profits equal investment.

This strong proposition states a powerful truth: In an investing market economy prices and income distribution are such that resources are available for investment. The workers who produce investment goods have to be "fed" and this is achieved by "not allowing" the producers of consumer goods to "eat" all they produce. In our economy the "not allowing" is enforced by the price system.

Given the assumptions the result is obvious; realized investment equals the realized surplus and only profits are available as the surplus. Furthermore financed investment affects aggregate income, its distribution between wages and profits, and the aggregate markups that are realized. Investment that is financed forces the surplus by affecting prices.

In Stalinist economies the markup on labor costs is a turnover tax. A turnover tax is equivalent to a profit markup. Investing Stalinist and Capitalist regimes have to generate surpluses. One forces the surplus through taxation, the other through profits, and thus through its income distribution. In both prices are the medium through which the surplus is forced.

The path from financed investment to labor demanded in producing investment goods is straightforward: Investment that is financed determines output, employment and, given the wage rate, the wage bill in investment goods production. Given the wage bill in investment goods production, consumption output and prices will be such that profits in consumption goods production equals the wage bill in investment goods production. In principle there are two kinds of consumption goods outputs. For one kind a quantity is produced and thrown on the market to fetch whatever it can, the other kind is offered at a price which is a markup on out of pocket costs. Output of the second kind will vary with demand.

If there is no investment only the first kind of consumer goods will be produced; there is no source for the markup required by suppliers of the second type. Once investment takes place the wage income of investment and consumption goods workers is divided between flexible and offer price consumer goods. Consumer preferences determine the mix of the two types of commodities and their relative prices. Prices in the fixed quantity good and output in the offer price good will be such that the sum of profits in the two types of markets will equal the wage bill in investment goods.

Profits are also the income of the capitalists. In a modern capitalist economy profits originate in the cash flows of corporations. As corporate cash flows, profits are funds that are available to fulfill commitments on

debts, pay dividends, support overhead, and be retained, in the corporation. Inasmuch as debts and the outstanding equity shares embodies explicit or implicit agreements to pay interest, repay principal, and/or pay dividends, the aggregate flow of profits determine the extent to which past commitments are honored or validated. Commitments can be fulfilled only if profits are now large enough.

Capital-assets were bought (investments were made) in the expectation that they would be profitably used in production. These past expectations can be disappointed, fulfilled, or more than fulfilled. Profits that fulfill or more than fulfill past expectations validate the investments that were made. Whoever made the decision to invest is viewed in retrospect as having been wise, courageous, and a good manager: if profits are inadequate whoever made the decisions is in error.

Investment and financing activity also takes place today. Such activity involves exchanging money today for money tomorrow. In investment activity the money today becomes the wage and profit incomes of the workers and firms that produce the investment output, the money tomorrow will be the profits earned as the capital-assets now being produced are used in production. In financing activities money is paid today by the lender--a bank, financial institution, or person--to the borrower in exchange for a promise to pay in the future. For business the funds to repay debts will come from profits or from selling out positions in capital assets (the price of which are "capitalized future gross profits).

Investment and financing activity are undertaken in the expectation that profits over a run of future periods--years--will reach or exceed some level.

But profits equals investment. The following seems paradoxical, but contains an important kernel of truth: In a capitalist economy investment takes place because it is expected that investment will take place in the future.

The profits equation of our simple model leads to a view of how prices are formed. From

(7) $P_C Q_C = W_C N_C + W_I N_I$ we get by simple algebra

(8) $P_C = \frac{W_C N_C}{Q_C} \left(1 + \frac{W_I N_I}{W_C N_C} \right)$,

Furthermore $Q_C/N_C = A_C$, the output of consumption goods per unit of consumption goods labor or the average productivity of labor in the production of consumer goods. As a result we have

(9) $P_C = \frac{W_C}{A_C} \left(1 + \frac{W_I N_I}{W_C N_C}\right)$. If it is assumed that $W_C = W_I$ this becomes

(10) $P_C = \frac{W_C}{A_C} \left(1 + N_I/N_C\right)$

The price level of consumer goods is positively related to the money wage rate (W_C) and the ratio of labor employed in the production of investment goods to those employed in consumption goods $\frac{N_I}{N_C}$ and inversely related to the average productivity of labor in the production of consumer goods (A_C). If wages and employment in investment goods industries rise relative to wages and employment in consumption goods industries the price level rises, and as the average productivity of labor in the production of consumer goods increases the price level falls.

The equation $P_C = \frac{W}{A_C} (1 + N_I/N_C)$ is a transformation of the equation $P_C Q_C = W_C N_C + W_I N_I$ using the additional assumption that wages in the two outputs

be the same. Even so the equation identifies the subsystems which determine (1) wages, (2) the course of the average productivity of labor and (3) investment as determining the way the economy "runs".

These subsystems differ in their complexity. The most complicated to analyze is the process that determines investment in a capitalist economy. Capitalism is an economic system that facilitates accumulation. From time to time the institutions and relations that facilitate accumulation breaks down. We will turn our attention to the determinants of investment in the next chapter.

Another subsystem consists of the markets and institutions in which money wages are determined. The above equation shows that money wage changes do not by themselves determine prices. However money wage changes will directly and proportionately affect prices if the average productivity of labor and the proportion of employment in investment production do not change.

The average productivity of labor in the production of consumer goods is affected by the technical productivity of capital assets and the "morale" of the labor force. Inflation, by affecting labor force morale, may lead to a decreased output per man in the production of consumer goods.

Typical explanations of inflation run in terms of either too much or too rapid an increase in money, a budget deficit, and wages rising too fast. In the price level equation only money wages, the productivity of labor and the ratio of investment employment to consumption employment appear as determinants of the price level. As the model is extended to include more than the skeletal relations the government budget position will appear as a determinant of prices. Money does not appear in the price level determining equation. Money appears

in the subsystems which explain realized investment and the financing of the government deficit. Money also appears wherever mechanisms which finance activity or control over capital-assets are introduced.

E. Macroeconomic Price Relations: Allowing for Government

We will now allow for a government that spends and taxes. From this extension it becomes evident that the economic relations which make a debt-deflation and a long-lasting deep depression like that of the 1930's unlikely make chronic and at times accelerating inflation likely. Inflation is the price we pay for depression proofing our economy.

The government hires workers, buys outputs, and makes transfer payments to households, such as social security, veterans benefits and aid to dependent children. The government raises revenues by taxing wages and profits. The government runs a deficit when its spending exceeds taxes, a surplus where taxes exceed spending.

Demand for consumer goods equals after tax income of wage earners and transfer payment recipients (who are assumed not to pay income taxes). In a simple formula we have

(11) $P_C Q_C = W_C N_C + W_I N_I + \overline{W_G N_G} + T_r - T_w(W_C N_C + W_I N_I + \overline{W_G N_G})$

where $\overline{W_G N_G}$ = direct and indirect wage bill of government, T_r = transfer payments and T_w is the tax rate on wage income. The budget deficit Df is

(12) $Df = \overline{W_G N_G} + \pi_G + T_R - T_w\ (W_C N_C + W_I N_I + \overline{W_G N_G}) - T_\pi(\pi)$

where T_w is the tax rate on wages, T_π is the tax rate on profits and π_G is the profits earned in producing for the government. Substituting 12 in 11 yields

(13) $P_C Q_C = W_C N_C + W_I N_I + Df - \pi_G + T_\pi(\pi)$ which yields

$\pi_C = W_I N_I + Df - \pi_G + T_\pi(\pi)$ as

$\pi_I = I - W_I N_I$ and

$\pi_G = \pi_G$ we get

(14) $\pi = \pi_C + \pi_I + \pi_G = I + Df + T_\pi(\pi)$. As after tax profits are

$\overset{*}{\pi} = \pi - T_\pi(\pi)$ we get

(14*) $\pi^* = I + Df$: After tax profits equals investment plus the government deficit.

These simple equations explain a great deal about our economy. They show that pre-tax profits equals the sum of investment, the government deficit and taxes on profits. If profits are taxed then, with investment and the deficit unchanged, pre-tax profits will rise by the amount of the taxes on profits. Furthermore they show that if the government deficit increases when investment and thus income declines then profits will not fall as they would in the absence of the government deficit.

Equation 14 and 14* indicates why our type of economy does not now have great depressions. In 1929 the Federal government's expenditures were of the order of magnitude of $1.3 billions, some 1% of the roughly $130 billion GNP. As income fell after 1929 taxes receipts fell and a deficit resulted. But the deficit was small compared to the decline in investment so that after tax profits fell sharply. In 1974-75 when income fell precipitiously the Federal budget deficit exploded: In 1975 II the Federal budget deficit was at an annual rate in excess of $100 billion. This deficit sustained and increased business profits. As a result, on the whole business was able to satisfy commitments on debts. Government deficits by sustaining business profits prevent the burden of debt from increasing during a recession. Big government rigs the economic game so that profits are sustained. The smaller government the smaller the protection against a great depression.

Equation 13 can be transformed into

$$(15) \quad P_C = \frac{W_C}{A_V}\left(1 + \frac{W_I N_I}{W_C N_C} + \frac{Df}{W_C N_C} + \frac{T_\pi \pi}{W_C N_C}\right).$$

The sum of wages in investment goods, the government deficit and taxes on profits determines the markup on unit labor costs. If the wage bill in investment production decreases, because investment decreases, transfer payments will increase and the tax take from ~~taxes on~~ wages will decrease, thus the deficit will increase. If the increase in the deficit exceeds the fall in the wage bill in investment goods production, then the unit markup on average labor costs will rise even as employment falls. Profits and prices can both rise even as employment falls; this happened in 1975.

From equation 14 and 14* we note that profits equals investment plus the deficit and that in an economy where business makes profits from selling to the government, profits on government contracts tend to decrease profits in the production of consumption and investment goods.

If the sum of private investment and the government deficit is unchanged then the more profitable production for government the less profitable the production of consumer and investment goods. Of course profits in producing for the government increases the deficit so that profits in the production of private goods may be unimpaired. However such deficits are clearly inflationary.

The deficit is the excess of government spending over tax receipts. Government spending consists of direct government employment, $W_G N_G$, transfer payments Tr and $P_G Q_G$, government purchase of goods from private business. Government purchases become wages $W'_G N'_G$ and profits π_G. Government taxes consist of income taxes and excise or sales taxes. It is usually assumed that income taxes do not but sales and excess taxes do affect supply conditions. If we write the government deficit equation in detail we get that

$$Df = \overline{W_G N_G} + \pi_G + TR - T_x(W) - T_x(\pi) - T_x(P_0 Q_0).$$

Government expenditures and transfer payments are inflationary and taxes, however raised, are deflationary.

However taxes show up in prices. The price level equations include demand and supply conditions: thus $\frac{W_c}{Av}$ is a "supply condition" once W_c is defined as labor costs rather than as a worker's wages subject to tax. Thus the employer's contribution to social security need be included in W_c/Av and in all other wages and the tax on wages will include employers as well as employees "contributions". Because employers must recapture their costs due to social security taxes, employers contributions to social security show up in prices. A rise in transfer payments, such as social security, associated with a rise in the sales tax on labor raises the demand price on consumers' goods and the supply price of all goods. A rise in prices that is independent of any rise in profits or the deficit will follow.

Although the government directly enters the determination of profits only through its deficit, taxes which have differential effects upon the supply price of different outputs affects relative prices. A sales tax on labor will raise the relative supply price of outputs that use labor intensive means of production. The decrease in labor intensive ways of doing things has been aided and abetted by social security taxes and other taxes on labor.

The effects of government on the economy depend upon how specific government taxes and spending programs affect prices. Government affects the flow of profits, the price level, relative supply price, and the choice of production techniques. The effect of government is dependent upon its size relative to the economy. If government is small, the deficit that can be attained may not have an appreciable effect in stabilizing profits or on prices. Contrariwise a large government which stabilizes profits, puts upward pressure on prices even as employment falls.

F. Macroeconomic Price Relations: Allowing for Foreign Trade

The balance of trade affects profits and prices. A deficit absorbs profits and constrains or lowers the domestic price level. Conversely a surplus increases domestic profits and raises prices. The favorable balance of trade sought by mercantilist economic policies is good for profits even as it is not good for inflation.

Once again a little algebra is necessary.[1] The result is

(16) $\pi = I + Df - BPDf + T\pi$ or

(16a) $\overset{*}{\pi} = I + Df - BPDf.$

A balance of trade deficit lowers the profits associated with any given level of investment and government deficit. Domestic profits validate debt and asset prices and are the carrot that induces investment. A structure of demand that leads to a large balance of trade deficit at full employment makes full employment difficult to realize and sustain for it lowers profits that result from investment and the government deficit.

---

[1]All symbols are as earlier with P_XQ_X = exports, P_MQ_M = imports and BTDf = balance of trade deficit

(17) $P_CQ_C = W_CN_C + W_IN_I + W_GN_G + W_XN_X + Tr - T(W_CN_C + W_IN_I + W_GN_G + W_XN_X) - P_MQ_M$

and the balance of trade deficit (BTDf) is

(18) $BTDf = P_MQ_M - W_XN_X - \pi_X$ for $P_XQ_X = W_XN_X + \pi_X$

The above equations yield

(19) $BTDf + P_CQ_C - W_CN_C + \pi_X = W_IN_I + Df + T_\pi\pi - \pi_G$. As $P_CQ_C - W_CN_C = \pi_C$, $BTDf + \pi_C = W_IN_I + Df + T_\pi\pi - \pi_G - \pi_X$. As $W_IN_I = I - \pi_I$ and $\pi = \pi_C + \pi_I + \pi_G + \pi_X$ we get that

(20) $BTDf + \pi - T(\pi) = I + Df$ or

(20a) $BTDf + \overset{*}{\pi} = I + Df.$

Because a balance of trade deficit tends to constrain profits, an economy in which imports react strongly to income--as is now true of the oil dependent United States--will experience modest increases in profits when the economy expands. This weakens the expansion and increases the investment and deficit needed to achieve and sustain full employment.

Dependence upon imported oil is relatively new for the United States and the elasticity of domestic oil production with respect to a rise in domestic demand is small. The increment of demand due to higher income needs to be imported. Because of this the deficit on oil account increases faster than output during an expansion. When the economy expands rapidly a sharp rise in the balance of trade deficit takes place which dampens the rise in profits that accompanies economic expansion. This will disappoint business men and constrain the expansion of investment: both the carrot of high profits and the stick of cash flows will be less than anticipated unless government runs an offsetting deficit.

The price level of consumer goods, once the balance of payments deficit is taken into account, is

$$(21) \quad P_C = \frac{W_C}{A_C}\left(1 + \frac{W_I N_I}{W_C N_C} + \frac{Df}{W_C N_C} - \frac{BPDf}{W_C N_C} + \frac{T_\pi \pi - \pi_G - \pi_X}{W_G N_G}\right) .$$

A balance of payments deficit tends to hold back the price level of domestically produced consumers' goods. This is an obvious result for a portion of domestic income is not available to buy domestic goods and generate domestic prices.

In the remainder of this chapter the consideration of foreign trade is dropped. Because the basic equations are linear--i.e., parts or phenomena are added one onto another--we can drop and add subsystems and not get misleading results.

G. Macroeconomic Price Relations: Consuming Out of Profits and Saving Out of Wages

"Profits equals investment" is a profound insight into how a capitalist economy works. It shows that the surplus is "forced" by the investing process, that the distribution of income between wages and profits is determined by the economic process and that the price level is determined by the way resources are allocated. However the precision of this result is due to the heroic assumption that all of wage income and none of capital income (profits) are spent on consumer goods. But it is obvious that workers may save and capital income receivers consume.

If we allow for saving out of wage income and consumption out of profits then the simple domestic economy demand for consumer goods becomes[1]

(22) $P_C Q_C = W_C N_C + W_I N_I + W_G N_G - T(W) + C\overset{*}{\pi} - S\overset{*}{W}$ which leads to

(23) $\pi = I + Df + T\pi + C\overset{*}{\pi} - S\overset{*}{W}$

(24) $\overset{*}{\pi} = I + Df + C\overset{*}{\pi} - S\overset{*}{W}$.

Profits are higher when consumption takes place out of after tax profits and lower when workers save part of after tax wages.

The proposition that capitalists get what they spend has two meanings. In one capitalist spending on investment goods leads to profits. In the other capitalist spending out of profits on consumption goods increases profits.

Workers not spending on consumption goods decreases profits. As profits before dividends affect investments and determine the ability of business to validate debts frugal capitalists and workers diminish investment. High living capitalists and workers are conducive to profits and investment.

---

[1] $P_C Q_C = W_C N_C + W_I N_I + W_G N_G - T(W) + C\overset{*}{\pi} - S\overset{*}{W}$, $P_C Q_C = W_C N_C + \pi_C$, $W_I N_I = I - \pi_C$, $Df = W_G N_G + \pi_G - T(W) - T(\pi)$, $\pi = \pi_C + \pi_I + \pi_G$ and $\overset{*}{\pi} + \pi - T(\pi)$. Substitution of above in 22 yields 23 and 24.

One route by which profits affect investment is by way of the prices of capital-assets. Capital-assets are owned by corporations and the common shares of corporations are traded on the exchanges. During a run of good times, the well-being of share owners improves because the income from share ownership increases and the price of shares rise. Good times lead to increased consumption by the well to do, which leads to a further rise in profits. Such dependence of profits upon consumption financed by profits makes for an upward instability to capitalism.

In our affluent economy the ratio of savings out of disposable wage income also fluctuates. During good times employment is high and layoffs are short. This leads to workers buying "big ticket" items on installment contracts; which decreases the savings ratio. When employment is slack, workers with jobs "pay off" their installment debt by not opening new contracts. This increases the savings ratio out of wages. Thus a low ratio of savings to wages characterizes expansions and a high ratio characterizes contractions and depressions. But a high savings ratio out of wages diminishes and a low ratio increases business profits: This behavior of saving out of wages amplifies the effect on profits of changes in investment. As a rise in the savings ratio out of wages occurs when investment drops then the decline in profits will be amplified, symetrically if the savings ratio falls when investment increases the rise in profits will be amplified.

Worker savings are not an unmitigated blessing. The neoclassical synthesis assumes that the economy is "fixed" at full employment and that whatever happens to savings will be offset by an opposite but equal change in investment. In the world in which we live such harmoneous reactions do not happen. Savings

by workers amplify the destabilizing effect upon profits of changes in investment.

The price equation is affected by workers savings and capitalist consumption. We have

$$(25) \quad P_C = \frac{W_C}{A}\left(1 + \frac{W_I N_I}{W_C N_C} + \frac{Df}{W_C N_C} + \frac{(T\pi - \pi_G)}{W_C N_C} + \frac{C\overset{*}{\pi}}{W_C N_C} - \frac{S\overset{*}{W}}{W_C N_C}\right)$$

The price level of consumption goods is increased by consumption out of profits and is decreased by savings out of wages increases. If consumption out of profits increase and savings out of wages decrease when investment increases then the rise in the markup that accompanies a rise in investment is amplified. Even if $C\overset{*}{\pi}$ and $S\overset{*}{W}$ were equal to zero a rise in investment would tend to raise prices.

H. The Meaning of Consumption Spending Out of Profits Income

The insight that consumption spending out of profit margins feeds back to and augments profit margins integrates the complex cost structure of a modern corporation with the generation and allocation of an economy's surplus. Costs reflect the institutional arrangements under which output is supplied. To a firm prices are a way of recovering costs; whereby the way investment and other spending force profits leads to demand prices, the cost structure of firms determines supply prices.

In our initial discussion of the surplus, it was assumed that by and large the surplus is allocated to the production of capital assets. An economy's surplus need not be allocated to the construction of capital assets that are effective, as they come on stream, in increasing the average productivity of labor (the Av of the price formulas). A surplus can be allocated to the building of a Versailles, the maintenance of a court, or to supporting a military.

That high living by the rich and affluent, financed by profits and rents, generate jobs even as it augments profits was understood by the classical economists: It was a major theme of Malthus. When a Prince has a court or when a corporation has a bureaucracy the incomes of courtiers or bureaucrats are allocations of the surplus, although the retainers of the Prince and the corporation alike receive their incomes as wages and enter the data as "gainfully employed". As this wage income is spent on consumer goods it increases the aggregate realized margin between sales proceeds and the costs that are dictated by technique: The allocation of part of the surplus to wage incomes increases the aggregate surplus.

The production function is used in neoclassical theory to generate a technological theory of relative prices and income distribution. The economic theory built upon this use of the production function is not valid for the economy in which we live. However it is valid to use production function ideas to trace out the relation between out of pocket costs and output when the capital assets (plant and equipment) are given. In this application the production function is used to trace the way output changes as labor and purchased materials and services are varied. These output-input relations yield the total variable cost of each output. This application of the production function does not lead to a technological theory of distribution. Capital income depends on scarcity of production facilities which is due to demand.

For the ruling wages and prices of purchased inputs the valid use of the production function yields the total variable cost for each level of output. From this relation the average variable and marginal costs for each output can be derived. Cost relations--total variable, average variable and marginal--are a solid basis for the analysis of supply.

In a closed economy the costs of purchased inputs can be broken into labor costs that are technically needed for production, another round of purchased goods and services, and the markup. Over the entire closed economy, final sales proceeds are divided into the direct and indirect labor costs required for production with the existing capital assets and gross profits. Gross profits are divided into gross retained earnings, taxes, dividends, interest payments, rents and wages which are an "allocation of profits".

In the gross national product accounts gross national product is broken down into wages and salaries on the one hand and gross capital income on the other. The constructs introduced here look at the same total but break them

down in another way. The wage and salary incomes of those who do not furnish labor required by the techology embodied in capital-assets are viewed as an allocation of profits. Even though overhead and management employees, who work in advertising, sales, marketing, research, etc., receive wages and salaries their incomes is considered to be an allocation of profits.

The surplus is much greater in our economy than profits or investment indicates. Not only are the tax revenues of the state a part of the surplus, but a good portion of the wage and salary payments by private units are allocations of the surplus. The institutional structure and business style which mandates that resources be used for sales, administrative, and promotion requires a large surplus which is not all used for investments.

Only a portion, and in many cases only a small portion, of the cost of doing business reflects labor and purchased inputs which are technologically necessary. The labor employed in executive offices, advertising, marketing, sales, lobbying, research, product development, corporate lawyers, etc., etc., is not required by the technology embodied in capital assets. The services supplied by this labor may be vital to the functioning and survival of the organization in a given business environment but in no sense are these costs technologically determined. Whereas one steel, oil or garment firm will be quite like another in their technical input-output relations they can differ markedly in the structure and weight of overhead and ancillary costs and services.

The difference between the sales price per unit of output and the technologically determined average cost of output is a markup per unit of output. The firm is "free" to allocate this markup to taxes, retained earnings, dividends, interest, rents, the purchase or hire of overhead services and executive compensation. The markup per unit of output times the output is profits. Various

expenses such as interest on debt, the hire of ancillary and overhead labor and the purchase of business services are best considered as allocations of profits, a use of the surplus.

In a modern economy the surplus can far exceed investment. Taxation and government deficits appropriate resources for both welfare enhancing and welfare diminishing government programs. In addition some of the surplus is allocated to the wages and salaries of overhead and ancillary labor. The largely white collar workers who receive this income are perhaps more affluent and quite likely better educated than the blue collar workers who are technically required for production, but their wage income, like that of the blue collar workers, will be mainly spent on consumption. Employees consumption, financed by profits in the extended sense, will increase profits. It will be responsible for a larger portion of the difference between the extended and the narrow profit concept than consumption financed by dividends.

Profits that are allocated to overhead and ancillary expenses are not reported as profits in a corporation's income statement or to the income tax authorities. They are, except for some research and product development costs, interpreted as costs of doing business. The wages of overhead labor are treated in the same way as the wages of the assembly line worker; advertising agency services are purchased inputs fully equivalent to the steel an automobile manufacturer buys. Reported profits of the business sector underestimate the surplus that is being generated in our economy. A national accounting scheme that emphasizes the surplus, its generation and its allocation will differentiate the costs directly and immediately related to the production of output from costs which are not so related.

The greater the ratio of "wage income" from ancillary and overhead services to wage income that is determined by technology, the higher the demand price per unit of output relative to technologically mandated production costs. If all the overhead and ancillary service costs are wage costs and all of such wages are spent on consumer goods then profits will rise by the amount of such wages.

If the ratio of overhead and ancillary wages to technologically determined wages is higher for every output, then the markup and the price of the product will be greater for every level of output. An increase in corporate advertising, executive payrolls, product research, etc., by financing consumption demand without increasing the output per unit of the labor that is technologically necessary, will tend to raise prices.

If competition among firms by means of sales, marketing, advertising, and research, leads to wage and salary income derived from these functions increasing relatively to the wage and salary income derived from labor that is technologically determined, there will be upward pressures on prices. A rapid growth of firms with market power that is due to and sustained by advertising, product development, and sales efforts produces inflationary pressures.

Even though the wages and salaries of overhead and ancillary service employees are best treated as an allocation of the surplus, to the individual firm these wages, salaries and purchased services are costs which must be recovered in prices. Furthermore in the firm's view the cash required to fulfill financial commitments on debts and validate the capital assets owned by the firm are costs. A minimum price for each output that will validate a firm's past investment decisions, its liability structures, and its way of doing

business is determined by summing the unit techologically determined ancillary, overhead, financing and capital costs. In a modern capitalist corporate economy in which the firms that produce and sell output have large bureaucracies, engage in extensive "product" development, and advertise their products, prices must not only "cover" the labor costs that are technically determined and validate the past investment decisions but must also cover the costs of these added activities.

Overhead and ancillary expenses take the form of wage income even though they are allocations of an "exceedingly gross" profit concept. As wage incomes they are mainly spent on consumption. But as we know consumption out of profits raises profits. In the aggregate, but not of course for any particular firm, what is spent out of the profit margin as defined here on consumption increases profit margins. Aggregate corporate spending on advertising, research, development, administration and other such "overheads" and "non technologically determined" business purposes returns to corporations in the form of an increase in the markup on out of pocket or technologically determined costs. In the aggregate such costs are a form of self-fulfilling prophesy.

As the wage and salary incomes of overhead and ancillary workers are typically larger than the wages and salaries of workers required by the production technology it is likely that some will be saved. Wages that are saved lower profits. Saving out of overhead and ancillary wage income makes the feedback from such expenditures to the markup a "not quite" self-fulfilling prophesy. With such savings some of the government deficit and investment spending will not show up in measured profits. The consumption of ancillary and overhead workers may raise prices but they do not absorb profits imputed to capital-assets.

Savings out of these high incomes absorb some of the profits that would result from investment and the government deficit. The greater the income of the managerial, technical and professional labor force and the greater their savings the lower the cash flows available for capitalist and rentier income.

The cash flow to capitalists and rentiers is a determinant of expectations of future profits and thus provides the carrot that induces investment. As long as the receivers of "profit" flows as wage income spend their income, the existence of such allocations of profits is benign insofar as the flow of profits that induce investment. However once savings out of these high level wage incomes take place, then the cash flow which is recognized as profits in the conventional analysis will decline. For every level of investment and for every size of the government deficit the profits available for meeting commitments in debts, dividends and retained earnings will be lower the larger the aggregate spending by business on overhead and ancillary services. The low and apparently declining rate of profit of American industry may not be mainly due to a declining technological productivity of capital. It may be due largely to the increase in the "socially" determined allocation of "profits" to overhead and ancillary functions and the "workers savings" that arise out of these on the whole larger wage incomes.

A modern corporation, with its bureaucracy and expenditures on services such as advertising, requires a large markup on its technologically determined labor costs in order to cover costs and leave an adequate amount for capital-income. Furthermore a large corporation is likely to use a goodly amount of capital-asset "services" per unit of output. As a result the cash flow required to validate past investment decisions is a large part of the total cash flow.

This capital intensity and ancillary cost characteristic of large corporations opens up a large amount of "cost space" for simpler organizations.

Adam Smith remarked that the "division of labor is determined by the extent of the market" and that the division of labor increases output per technologically determined worker. These propositions of Smith have been the basis of the optimistic belief that investment and ingenuity will lead to ever improving standards of life. What was not taken into account is that the organization and style of industry may frustrate these tendencies towards increasing well-being by imposing costs that overpower the progressive influence of accumulation and ingenuity.

If we combine the above with the differential between the wage rates paid by the large capital intensive high overhead firms and the statutory minimum wage at which alternative labor intensive capital saving organizations can staff, there is a substantial potential for increasing output, employment and well-being by encouraging the development of alternatives to giant corporations.

I. Supply Price

Supply price reflects the cost structure and market power of supplying units.

There are two ideal types of supplying units. One produces outputs and takes whatever price the market allows. Competitive, price taking, or flexible price are some labels used for these markets. Agriculture, prior to the days of government intervention, was characterized by this type of behavior, as are some of the basic minerals. In the second type of market a firm sets a price and varies output produced according to its demand. Such price making, market power, or fixed price firms dominate in utilities and manufacturing, although such firms differ greatly in their ability to maintain their price when demand varies.[1]

The prices of firms with market power are set so that at some standard or expected output revenues will exceed costs by some margin. Offer price firms are not forced by market conditions to take prices as parameters; these firms have some power to control the prices and the qualitative characteristics of their outputs.

The sources, extent and robustness of market power are critical in the determination of prices. Market power is due to a private or shared monopoly of some output. Market power results from control of either production process or the way buyers view the output. Control over production is often due to the scale of capital assets required. Capital intensive production techniques are a barrier to competition because such techniques typically require a large

---

[1]Hicks in recent writings has made much of this two way classification of units. See John Hicks, Economic Perspectives, Clarendon Press, Oxford, 1972.

output to spread the costs of capital-assets and the financial resources necessary to replicate existing capital assets are large and difficult to accumulate. Financial resources are a source of market power. The "power" of financial resources is shown by the disparate operations that are often found under a corporate umbrella. Control over how buyers view products is the reason for much of advertising. Advertising, overhead, the debt structure, and the inherited stock of capital asset lead to "offer price" pricing only as there are demand curves which are specialized to the output of a particular firm.

Technologically determined costs for both fixed and variable price outputs are determined in the same way. Taking capital-assets as given the variation of output with labor (and other purchased) inputs is transformed into total, marginal and average cost relations as a function of output.

For the price taker output is such that price equals marginal cost. The difference between price and average technologically determined costs determines the per unit profit. This profit depends upon the level of prices that are determined by the way preferences are translated into demand and technologically determined costs into supply. Profits in such price taking markets are determined by demand and can change greatly from year to year. If capital-assets are to be attracted to these productions the returns must be large enough, on the average, to validate the debts used to finance ownership of the capital assets and to lure investment in such capital assets.[1] However if profits are demand determined and demand varies greatly then borrowers and lenders risk will constrain the use of expensive capital assets and debt financing.

---

[1]In the United States in the winter of 1977-78 a farmer's "strike" saw parades and demonstrations by farmers with expensive equipment. The farm prices of 1977 were not high enough to validate the capital assets--air conditioned tractors, etc.--that farmers acquired in 1975 and 1976.

Agricultural price supports, which became effective in the Roosevelt era and which now seem to be a permanent feature, set a floor to the cash that a farmer will receive from a "normal" crop. This means that financial commitments undertaken to purchase farm machinery will usually be met. It is no accident that the mechanization of agriculture, the increased size of farms and the rise in labor productivity in agriculture date from the middle 1930's. Price supports and other demand management devices decrease the risk in owning capital equipment and in debt financing. Demand management, by making farmers' paper "bankable", made agricultural "progress" of the past forty years possible.

Where sellers control price by varying output, the offer price will include a large enough markup on average unit costs of production so that at a conservative output the commitments on debts can be satisfied as well as the payments due to various overhead and ancillary costs.

Costs can be classified as those which are due to the (1) technology, (2) overhead and ancillary functions, (3) business style, (4) liability structure and (5) the price that was paid for capital-assets.

Technologically determined costs vary with output. It is conventional to assume that marginal and average costs decline for an initial range of outputs and that beyond some point marginal cost will either remain constant or increase. Technologically determined average costs decline if marginal costs fall or are constant. However, if marginal costs rise, eventually marginal costs will equal and exceed average costs; when this happens average costs rise. The geometry of cost relations is such that the minimum of average costs is at that output at which marginal cost equals average cost; average variable costs rise whenever marginal costs exceed average costs.

For fixed-price, output-variable firms the offer price is determined by combining various explicit cash payments due to labor and material costs and financial commitments with an implicit need for cash due to the profits required to validate the price paid for capital assets. The explicit and implicit need for cash yields an average cost curve which defines the combinations of price and quantity that fully validate the production technique, financial structure and business style of the firm. If a segment of the demand curve for the firm falls is "inside" the set of prices and quantities that fully validates costs, then the firm has "freedom" to choose the price it will set. Shifts in the demand curve due to aggregate economic and product market forces will change the quantity sold at any fixed price.

The costs used to determine the target price are the technologically determined costs that reflect the relation between outputs and inputs with given capital assets and various fixed costs that reflect explicit overhead and financial commitments. If realized, the target price leads to cash flows that will make investors in the equity shares of the firm happy enough with the operations of the firm. The cost curves that are constructed by combining out of pocket and various fixed costs determine a set of outputs and prices which validate the capital assets, financial obligations and business style of the corporation.

Therefore there are two types of revenue-cost relations. In the fixed price-variable output case the individual firm has some market power which enables the firm to build a complex "cost" structure upon the base of of the technologically determined costs. The firm offers to supply that which the market is willing to take at a price that for a significant range of outputs

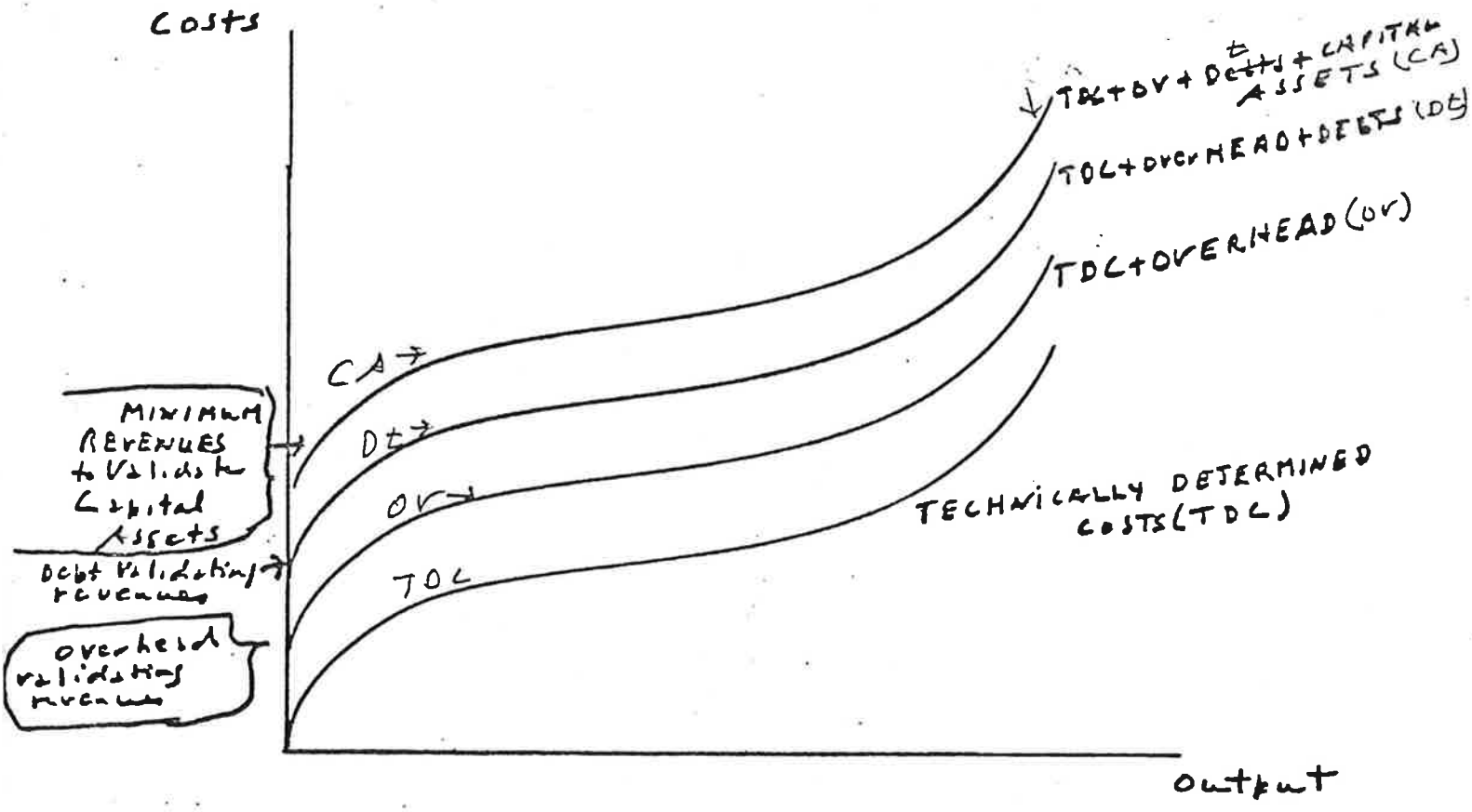
covers the full per unit costs and leaves a margin for safety. Price taking firms use the technologically determined costs to determine their output taking an impersonal price which their own action cannot affect as a given. The margin between price and the average technologically determined price yields the cash flow that is available to cover other costs--including financial charges.

Inasmuch as overhead, ancillary, and capital "costs" are fixed sums during an output scheduling period, the total costs, inclusive of these fixed costs can be represented by an upward shift of a fixed wages technologically determined total cost curve. The set of total cost curves that result are shown in Diagram VIII-J-I. The revenues that would validate the firm's organization, financial structure and capital-asset position lie above the line CA; this line reflects the "full costs" of output for the given technique, organizational structure and capital assets. If revenues are at or above the CA line the firm's management and equity owners have no reason to regret past decisions.

The total cost curves as sketched in Diagram VIII-J-II transform into one marginal cost curve and the series of nested average cost curves. The marginal cost curve reflects the technology of production as does the average cost curve that is derived from the lowest of the total cost curve. The other average cost curves are the sum of the unit technologically determined costs and various items of overhead, ancillary and capital costs. Each of these average cost curves has its minimum point on the unique marginal cost curve. These average and marginal cost curves are sketched in Diagram VIII-J-II.

Any price and output combination within the cup AvTDC + ... + CAP will satisfy the revenue requirements of the firm. If price is P_o and output is greater than O_1 and less than O_2, there will be a margin of safety, i.e.,

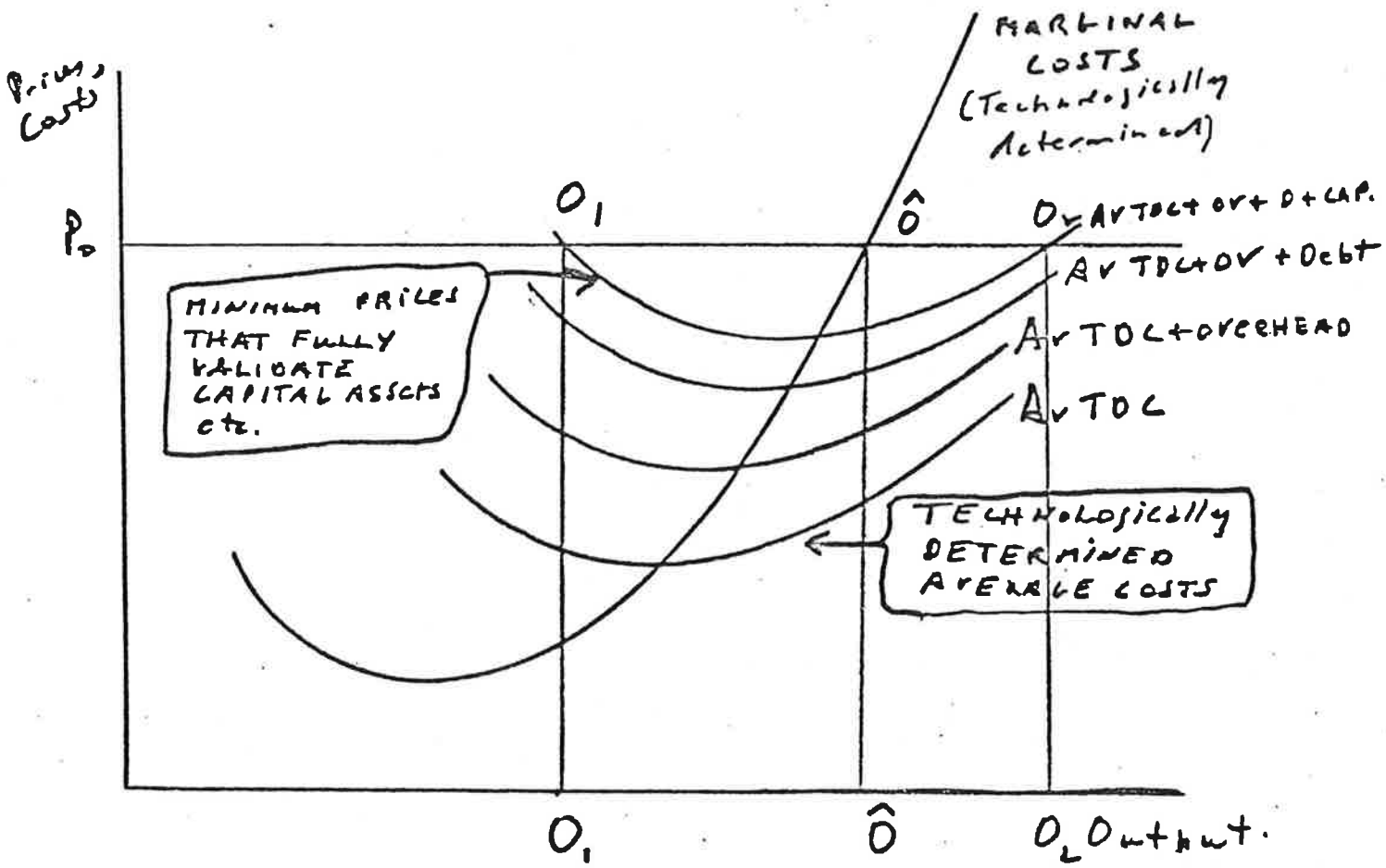
Diagram VIII-J-I



I

Diagram VIII-J-II

Price Setting



revenue requirements will be more than satisfied. For a regulated industry such as utilities and much of transportation the cup Av + ... + CAP is determined in rate setting cases before a variety of boards and P_o is determined by bargaining about anticipated output. For an industry which is "oligopolistic" in structure because it is capital intensive, the bankers and financiers "implicitly" insist that "price competition" is constrained when there is a shortfall of demand. If price reacts to changes in demand along the marginal cost line the bankers fear that slight variations in demand will compromise the market values of equities and debts. To a banker a situation such as is sketched in Diagram VIII-~~I~~-II provides a much to be desired margin of safety. As drawn 0_1 is approximately 60% of $\hat{0}$ and 50% of 0_2. If $\hat{0}$ the profit maximizing output with $P = P_o$ is considered as capacity, [at outputs above $\hat{0}$ both "measured" and "extended" profits fall as output is increased], then a sizeable fall in market demand will not compromise the financial viability of the organization.

Certain aspects of our economy are explained by the cost-price situation of Diagram VIII-~~I~~-II. If demand falls from say $\hat{0}$ towards 0_1 "layoffs" will occur in the technologically determined labor force. Overhead, advertising, research, and development expenditures and staffs will be protected until output approaches and even falls below 0_1. In fact sales, marketing, product development and advertising expenditures might even increase as the firm struggles to improve demand and protect its market power. This reaction raises both AVC + CAP and the minimum output at which costs can be covered at P_o. The conventional reaction by firms with market power to a fall in demand can lead to exacerbated difficulties if the initial shortfall of demand is not transitory and is increased.

If output is sustained close to or above $\hat{0}$ cash flows exceed the amount required by costs and financial obligations by a good margin. These cash flows and the pressure of sales upon capacity make the firm willing to invest. Furthermore the cash flows enable the firm to both internally finance investment and sell debt. The cost and revenue situations which make a firm willing to invest do not operate smoothly and continuously with variations in output: The inducement to invest is likely to operate in a discontinuous way.

The relative amount of debt and equity financing used by firms varies with the cyclical past of the economy. In Diagram VIII-~~I~~-II the cup Av + Ov + debt gives the minimum price/output combinations that enable a firm to fulfill commitments on outstanding debt--including whatever requirements the debt instrument may have for extinguishing the debt.[1] If the firm's debt rolls over from period to period or has a floating interest rate, then a change in financial market conditions will affect cost curves. An increase in interest rates will raise Av + debt and AV + CAP It will shift 0_1 to the right and 0_2 to the left. If the "capacity" markup on Av + CAP is to be maintained price must rise. If sales commitments at price P_o have been made, profits as conventionally measured may erode. If Av + debt rises above P_o the firm will not be able to meet its financial commitments.

Price taking firms react to changes in demand by adjusting output along their MC curve. Even though such firms own and operate capital-assets and have debts, they do not have the power to set their price according to what they

---

[1]If there are purchased inputs, such as cloth to a garment manufacturer, the Av + debt curve includes the flow of cash needed to pay the principal and the interest of the debt used to finance the purchase of the cloth. If durable capital assets include a use component (user costs) then the user cost component of total revenues will be in the marginal and Av + debt curves.

need to satisfy such costs but they are forced to accept what they can get. They take price as a parameter and set output along their marginal cost curve.

In Diagram VIII-I-III the profits in the sense that we use the term here for a price taking firm will be $P_2O_2A_2A_2'$ with price P_2. A deterioration in demand can lead to profits of $P_1O_1A_1A_1'$ for such a firm. As sketched P_2 is not too much greater than P_1 but as the dotted AvC + 0 + debt curve illustrates a modest decline in demand may make the cash flow too small to enable the firm to fulfill debt. If Diagrams VIII-I-II and VIII-I-III reflect some truths of our economy, price taking firms will tend to have smaller overhead and capital asset financing and validating costs per unit of output than price determining firms. Market power, which allows a firm to constrain price movements when demand falls may be a prerequisite for the use of expensive and highly specialized capital-assets and large scale debt financing.

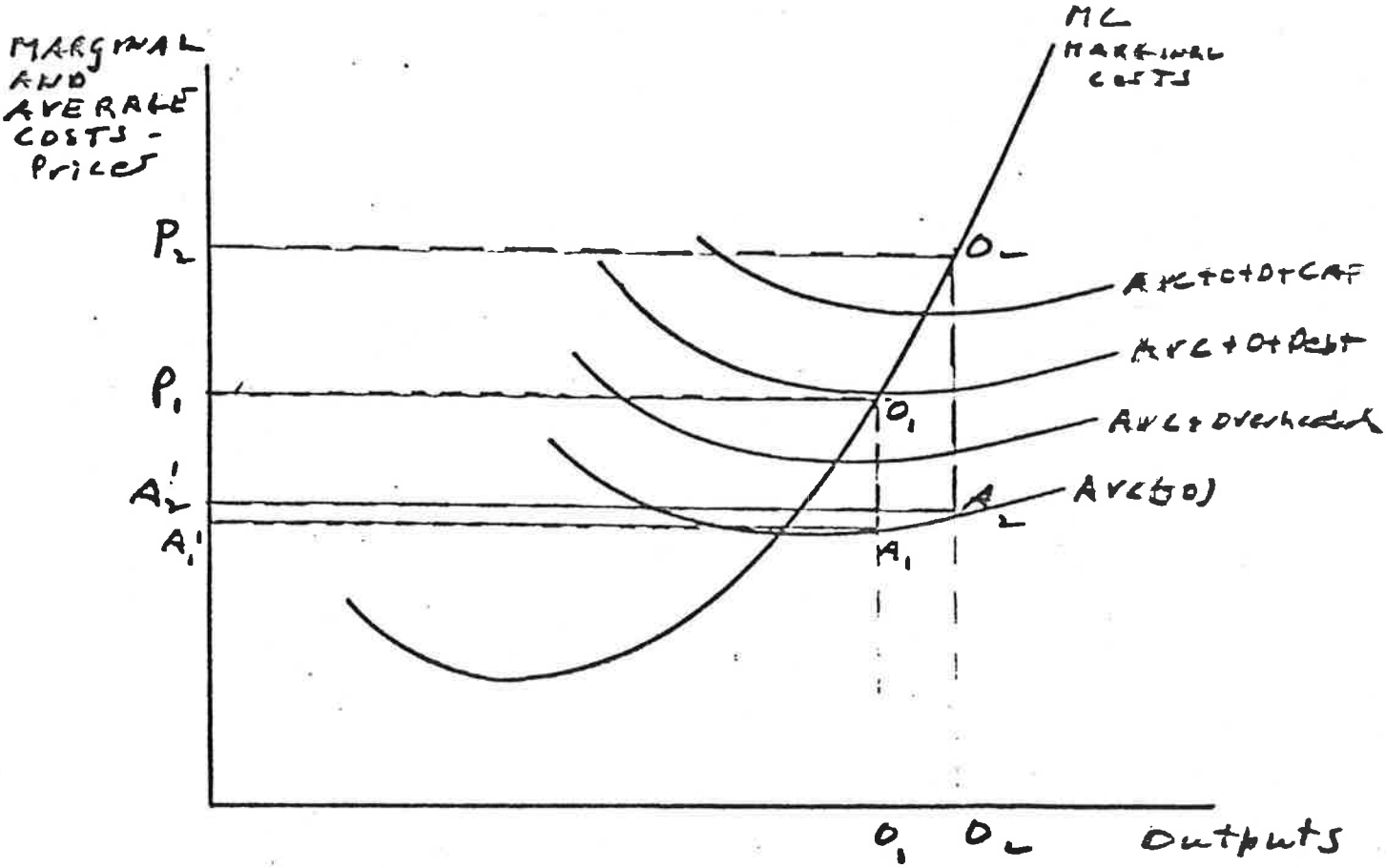
In the aggregate, profits are determined by Investment, the government deficit, the balance of payments deficit, and the consumption out of profits, savings out of wage relations. Consumer preferences and the nature of investment "distribute" demand among various outputs. Given the state of demand due to spending flows that must be offset by profits, employment will be determined by the condition that

$$I + Def + \ldots = \sum_{i}^{i} \pi_i P_i x Q_i \qquad [\pi_i \text{ is the profit coefficient of price}]$$

where in some cases $\pi_i P_i$ is fixed and Q_i varies and in other cases πP_i varies and Q_i is essentially fixed. Investment, government deficits and overhead costs show up in prices. If overhead costs increase supply prices will be adjusted where firms have market power; in price taking markets the initial effect will adversely affect profits. Since World War II social and economic

Diagram VIII-~~V~~-III

Price Taking



policy may have "tilted" or "biased" the economy in favor of the market power segment by mandating overhead costs and favoring capital intensive production techniques.

Any increase in the margin of safety by raising price so that "costs" (including the return on capital-assets) are covered at smaller outputs will lower the employment resulting from any given investment, deficit, etc. The recession of 1937-38 was imputed by a number of economists to price increases that took place as steel and other industries raised prices in an endeavor to improve profit margins[1] so as to lower the output at which "full costs" were recovered. Standard economics of the postwar era has neglected the price level and employment effects of market power. If the firms with market power are an appreciable part of the economy then the division between output expansion and higher profit margins of a rise in investment, government deficits, etc., depends upon the behavior of such firms; the efficacy of fiscal and monetary policies are conditioned by the reaction of profit margins to increased demand.

Prices reflect market structures and the way in which demand is generated ~~and market structures.~~ A high investment-large government economy will have a different set of relative prices than an economy in which investment and government are small. Relative prices also reflect differential market power and the business style of the economy. Advertising, administration, research expenditures and the executive compensation show up in the supply prices of firms with market power. Firms must recover these "costs" in prices: Gross profit margins--as we have defined

---

[1]Gardner Means is associated with this thesis.

them--are equivalent to taxes and like taxes often finance an inefficient use of resources.

Cost curves were built up as if the firm only produced one output. In truth most firms produce a variety of outputs and most firms have "common costs" which cannot properly be allocated to any particular output. The markup over the technologically determined variable costs for any particular product is largely a question of relative market power and firm discretion in using such power. For a firm the anticipated sum of the markups times quantities over all outputs must exceed by some margin of safety the total of ancillary costs and the income "required" by the debt structure and capital-assets. The telephone network in place produces a number of different services. The telephone company collects cash mainly to service its bonds and validate its capital asset structures. It cares little whether this cash is collected from household, business, day, night, etc. use of its facilities. The company and the regulators have degrees of freedom or flexibility in pricing the different services. A total revenue in excess of out of pocket costs over all product lines determines the constraint that must be satisfied in setting particular prices.

Cost conditions determine supply prices, however the costs that determine supply differ as the organization of industry differs. The sum of profit margins that will be realized depend upon investment, etc., expenditures. How profit margins are distributed among firms and enter particular prices is not determined by technology in combination with consumer preferences. Supply conditions include market power, and relative prices are the result of how power over prices is exercised.

J. Taxes and Government Spending

The government deficit (or surplus) affects profits and prices. Taxes, like profits, are a mechanism for generating the surplus. Government spending is an allocation of the surplus. The building of factories, medieval cathedrals and military hardware are all allocations of the surplus.

After tax profits equals investment plus the government deficit. If the sum of investment and the government deficit is unchanged then pre-tax profits will rise by the increase in taxes on profits. An equal rise in government expenditures and profit taxes will lead to a rise in pre-tax profit flows. The offer prices of products whose producers have market power will rise to account for the increase in taxes. Price takers cannot adjust their offer price to reflect an increase in profit taxes, but the price of output will rise as the "profits" due to the increased government spending show up as an increase in the realized pre-tax markup.

Excise taxes enter supply prices. Employer contribution to social security affect the technologically determined costs of output. The marginal and average technologically determined costs of output rise whenever social security taxes rise. The "fixed" overhead and ancillary costs are also raised by such taxes for these costs are largely labor costs. The rise in these costs imply that the fully validating supply price of output rises for both price takers and price makers.

In our economy there are costs which are mandated by business practices and labor market usages that are equivalent to taxes. Health and welfare packages of labor are important examples. Health and welfare costs of a worker whose services are mandated by the technology of production enter the technologically

determined cost curves: the health and welfare costs of the overhead and ancillary workers enter into the determination of the supply price of firms with market power and the realized markup for other firms as health and welfare benefits show up in demand.

Health and welfare costs enter into the supply price of output and finance demand for particular services. Our health insurance technique has a double effect upon prices for and the special tax exempt treatment of benefits means that demand for the exempt services is higher than they would be if such services were paid for out of fully taxable income. As a result the price of medical care is higher than if such expenditures did not receive a tax subsidy. Our way of financing medical care means that both the prices of products that use the labor of beneficiaries and the price of medical care tend to rise.

Our system of sales and excise taxes weights heavily on labor costs: The social security tax is surpassed only by the personal income tax in the Federal Government's tax structure. The tax affects different parts of cost in differential ways: Labor costs are raised even as the cash required to validate capital asset prices and debts are not raised. However profits taxes raise the pre-tax cash flow necessary to generate the post-tax cash flow that validates business style, financial structure and capital assets of the firms. Both the sales tax on labor services and the tax on profits show up in product prices, but in different amounts in different products depending upon the way in which the product is produced and the structure of market power.

The markup on technologically determined costs is a gross profit margin which is allocated to various uses. Given that sales taxes on labor and profit taxes affect supply prices and the choice of techniques it seems best to integrate

the two into a tax that has a minimal impact on the choice of technique. Over the years taxes on profits at the corporate level have decreased even as sales taxes on labor have increased. These tax changes reflected an anti-employment and pro-investment bias. The substitution of a value added tax for the existing corporate profits tax and the sales taxes (public and private) on labor will minimize the impact of the tax system on the choice of technique.

In addition to profits and excise taxes, income at the household level is taxed. These taxes only affect the supply price of outputs as they affect the supply of labor or the flow of savings. The personal income tax assumes that the after tax income of technologically determined labor is not sufficient to buy back the output they produce at prices mandated by technologically determined costs.

Taxes operate to generate a surplus in two ways. In the first taxes assure that the disposable income per unit of output of the workers who are technologically required is less than the supply price determined by the technology; in the second taxes raise the supply price of output above the per unit technologically determined costs. But profits enter supply prices by means of a "markup" on technologically determined costs. Production related taxes (social security, excise, value added, corporate profits) and profits are equivalent: they are ways of forcing a surplus. However taxes give command over the surplus to government whereas profit margins give command over the surplus to capital-asset owners.

Government spending, regardless of how useful the output, is an allocation of the surplus, except if outputs are "sold" at prices that cover technically mandated costs. In a closed economy the sum of government spending and investment is offset by tax receipts and profits. The tax schedules and profits, together

with the preference of income receivers, determine employment and the composition of outputs at which the sum of taxes and profits equates the sum of investment and government spending. Investment and government spending call the tune for our economy because they are not determined by how the economy is now working. They are determined either from outside by policy (government spending) or by today's views about the future (private investment). Although accounting relations assure that taxes plus profits equal government spending plus investment, they do not by themselves prove the direction of causality. Our theory of the economic and political process yields the proposition that causality runs from investment and government spending to taxes and profits.

K. The Financing of Business Spending

"Costs" that are not mandated by technology are allocations of the surplus. The validation of these costs depends upon aggregate profits being large enough. As has been shown, aggregate profits depend upon investment, government deficits, balance of trade position, consumption financed by profits and savings out of wage income. Investment, government deficits, the balance of trade and the ratio of consumption to income for high income households are volatile. Thus aggregate profits are volatile, although in our big government economy the movement of investment and the government deficit tend to be offsetting.

For most firms overhead and ancillary costs of any period are independent of the period's output. For all firms, each current period's payments on account of outstanding financial commitments are predetermined (aside from the problems introduced by contingent and call contracts). For each firm the costs that reflect prior commitments to pay can be added to the technologically determined costs, and marginal and average costs can be derived. Interest payments, advertising expenditures, executive salaries, and principal due on debts are largely determined by prior commitments for any short period.

The cash to fulfill these prior commitments will be forthcoming if the economy generates large enough profits. Whether prices (for the fluctuating price firms) and outputs (for the fixed price firms) are large enough to finance these expenditures depends upon the behavior of gross profits. However the cash payments because of prior commitments fall due regardless of current cash flows. When a shortfall occurs the source of the funds is either cash on hand or borrowing.

It is the banking systems which mainly enables commitments to make payments out of profits to be fulfilled in the absence of profits. Cash on hand and the ability to borrow on the basis of previously established lines of credit allow payments to be contracted for before validating cash flows are realized.

Commitments to pay are made on the basis of anticipated revenues. If revenues are not forthcoming, then short term bank debt increases. This increases the commitment to make payments in subsequent periods. Such increases raise cost curves which define the prices and outputs that enable a firm to meet payment commitments. The financial effect of a shortfall in profits will raise the prices and outputs that validate the firm's capital assets liability structure and business style. This makes the future achievement of validating cash flows more difficult. Instead of a disappointment of expectations setting up forces that correct the disappointment, the financial effects of a shortfall of profits makes the achievement of results that validate the cost structure more difficult.

In the short period, if revenues do not validate the firm's costs, the firm's only option is to reduce output. This reduces only the technologically determined costs. In the short period overhead, ancillary and financial payments are not readily controlled by firms: spending on advertising cannot be modified as readily as spending on current output. Once a firm is in debt, payment on debts are chargeable only by renegotiations that may involve overt or covert bankruptcy.

The greater the cash payments due to the liability structure, overhead costs and ancillary costs relative to the technologically determined costs the smaller the proportion of costs that can be quickly adjusted to shortfalls

of demand. Fixed payment commitments increase the likelihood that a shortfall in demand will lead to gross profits falling below payment commitments. When this happens a firm will be stripped of its liquidity and subject to a rapid escalation of debt. Situations conducive to financial stringency become more likely as financial and business style costs increase relative to the technologically determined costs. Conditions conducive to failure can readily arise because capital intensive techniques, debt financing of positions and a business style that leads to overhead and ancillary expenses.

Cash flows that validate capital assets, debt structure and business style result from investment, government deficit, a balance of trade surplus and consumption out of incomes that are allocations of profits; these cash flows are diminished by savings out of the technologically determined wage bill. A decline in the sum of investment, government deficit, balance of trade surplus and consumption out of wages and profits will decrease the validating cash flows. But investment spending, the balance of trade surplus and consumption (savings) ratios of households are sensitive to economic developments and can set off a cumulative downward process. However in the economy as it is now constituted a sharp decline in investment, the balance of trade surplus or consumption out of wage and profit incomes will lead to a reduction in tax receipts and a rise in government transfer payments. The shift towards a government deficit sustains gross profits. Hence the stripping of liquidity from the escalation of debt by capital intensive, high overhead and ancillary cost firms does not take place. The "big government" we have stabilizes income and profits and decreases the risks inherent in capital intensive/high overhead/ large ancillary costs/and highly levered (indebted) business practices.

Household debts and savings can amplify instability. A rise in the savings ratio from wages and salaries tends to diminish gross profits. Such a rise can be expected when unemployment threatens and following financial stringency. In particular one reaction to financial stringency and unemployment is a decrease in new consumer credit. In the accounts, repayments without extensions of consumer debt translates into a rise in the household savings ratio. An economy with business and consumer debt, capital intensive modes of production, and ancillary and overhead costs that are large relative to the technologically determined costs is one in which financial stringency and forced increases in debt are likely to occur. Debt, capital intensity and the "style" of modern corporations increase instability. Big government with all its inefficiencies is a necessary stabilizer for an economy with the technological structure and business style of our economy.

L. Capital Intensity, Multiple Markets, and Multiple Products

To the fundamental condition for the normal functioning of a capitalist economy that have been examined an "empirical" characterization of the production process needs to be added: Firms use capital intensive production processes, produce a number of products and sell in different markets.

The relative capital intensity of a production process is measured by the ratio of after tax profits required to validate the cost of the capital-assets that are used in this production process to the technologically determined wage bill. The greater this ratio the greater the markup on average technologically determined wage costs that is required to validate capital assets. In a world with uncertainty, the current validation of past financial commitments and equity values is evidence to a rational man that current commitments will be validated. If the economy is running well current profits will, on the whole, validate past commitments.

Capital intense production processes imply that a substantial part of a representative firm's total revenues has to be allocated to servicing debt and to sustaining the price of capital assets; the average out of pocket costs per unit of output is a relatively small ratio of the required price. This means that sharp price competition in the face of excess capacity and inelastic demand will quite easily lead to disasterously small profits.

A large gap between the price required to validate debt and sustain asset prices and out of pocket costs mean that price competition can extract a large penalty first from firms and then from their bankers. Risk adverse investors and financiers require the protection of oligopolistic or "monopolistic competition" arrangements before they will hazard resources on the specific capital assets required for capital-intensive processes. Before bankers finance firms that

use capital intense production processes they require assurances that strong price competition will not occur. Oligopoly and monopolistic competition are natural market structures in these circumstances. When external finance and capital-intensity simultaneously exist (and capital-intensity, by requiring large blocks of investment and finance, virtually guarantees the existence of external finance) bankers require some guarantee that price competition will not quickly and readily erode the required quasi-rents. The paper world of Wall Street anathematizes price competition among producers who utilize capital intensive techniques.

The purpose of production is to collect the difference between total revenues and out of pocket costs (both technologically determined and ancillary); production is for profit and not for use. If a firm's capital-assets yield multiple products which are sold in multiple markets the organization, the firm and its bankers, are not mainly concerned with which market and which product generates the required quasi-rents. Their primary concern is that the sum of the quasi-rents from the various markets be large enough to validate debts and sustain asset values. The maximum quasi-rents that a firm can earn is given by the full exploitation of negatively sloped demand curves in each market it serves. The minimum required quasi-rents is given by the debt structure and the cash flows required to sustain capital-asset values. If the maximum is greater than the minimum, then the firm can enjoy the luxury of not fully exploiting the profit potential of its market position. Political considerations rather than economic relations determine the extent to which a firm will in fact maximize quasi-rents.

Once financing techniques require that a substantial part of the gross revenues are allocated to validating debt and sustaining capital-asset values

and that firms which use such techniques typically produce multiple products and sell in many markets then indeterminancy is introduced into the pricing of products. The firm really cares little about the proportions in which the required quasi-rents are collected from the various markets. A range of markups on out of pocket costs for various outputs in various markets can yield acceptable total quasi-rents. In these circumstances cross subsidization by way of the pricing process can arise. Firms vary the markup on out of pocket costs among markets and products. Conventions, such as markup pricing, and regulations, such as setting a target rate of return on some value of capital-assets, can and do guide price formation. Arbitrary elements affect particular prices in a capital intensive world.

Where price includes a substantial markup on wage costs, fees paid for one commodity often pays for quite another commodity or service. Our system of "free television" is paid for by an allocation of part of the gross markup on technologically determined costs. The ability to so allocate quasi-rents is additional evidence of the arbitrary nature of prices. In our economy fees paid for one set of commodities (laundry soaps and underarm deodorants) are used to supply another set (entertainment). The markup on technologically required costs not only validates debts, capital asset prices and pays for Madison Avenue but it also finances an array of transfer payments (Social Security, Medicare). Madison Avenue, corporate bureaucracies, and government expenditures are particular allocations of a gross surplus.

Advertising creates and positions a negatively sloped demand curve for the product. The security of this negatively sloped demand curve allows investment to be financed at more advantageous terms than would be true without the advertising.

The markup that is required to sustain the values of the capital-assets used in production is related to the capital intensity of the production process. Thus for a capital intensive process the ratio of expected price to technologically determined costs will be greater than for a less capital intensive process. The industries and firms in existence at any time differ in the markup on technologically determined costs that is required to validate the prices they paid for the capital assets they use in production. Those with the more capital intensive processes require a larger markup. If the aggregate investment ratio--or government employment or transfer payments for that matter--rises then aggregate profits increase. The distribution of these profits among the various productions depends upon the ratios of prices to labor costs as well as the distribution of demand among products.

If relative prices of the capital-assets used in the various productions are to remain unchanged, the relative profits which are capitalized cannot change, which requires that profits in the various outputs rise in the same proportion. The greater the capital intensity of output, the greater the percentage rise in product prices that is needed to sustain relative asset values. In order to sustain an increased ratio of investment (and government and transfer payments) the prices of products produced by capital-intensive techniques need to rise relative to the prices of products which use less capital-intensive techniques. But the pattern of demand curves that rule may make such required product prices unobtainable. Furthermore the principle of substitution will operate to shift demand towards outputs whose price has increased less rapidly: i.e., those outputs that are produced by less capital-intensive production techniques. In order to sustain a high investment economy,

various interventions, designed to increase the cash flow or profits in capital-intensive lines of production, have to be intruded into the pricing system. Subsidies and taxes favor capital-intensive production techniques. Accelerated depreciation and investment tax credits induce capital intensive modes of production in the face of market developments that are unfavorable to such investments.

As the gross surplus is sustained by investment and state expenditures and taxes are an instrument to divide the gross surplus between profits and government revenue, then a bigger deficit implies a greater mass of profits for the business sector. A large state which runs a contracyclical or a permanent deficit sustains the size of the gross surplus and assures that the business profits do not fall at the same rate as business investment. By increasing transfer payments and government spending while reducing taxes, government policy can assure that the markup on labor costs not only does not fall but even increases during a recession.

Even as large government deficits sustain and even increase profits, chronic government surpluses cut the profit share in the value of output and thus lead to a decline in the price of capital assets.

M. Conclusion

Once the conditions that prices must satisfy include the generation of cash flows from operations that (1) validate liability structures, (2) induce desires to invest and (3) draw forth financing for investment, the equilibrium and equilibrating story of neoclassical theory loses its relevance. Furthermore the greater the cash flows needed to validate inherited debt and capital-asset structures the less valid the claim that market capitalism is "efficient". In a world of large scale capital intensive production, a major function of the pricing mechanism is to generate gross profits that are large enough to keep investment on track. In a modern capitalist society investment ~~or its equivalent,~~ or its equivalent in government deficits is necessary to sustain profits so that the inherited debt structure and historical capital-asset prices are validated. The possible impact of investment on productivity is of secondary importance.

In an economy with an elaborate financial structure and complex expensive capital assets a regime of "private" negatively sloped demand curves confronting the capital intensive production processes are necessary to attenuate the likelihood that competition will force prices down to "marginal" costs. Forcing prices down to the "labor costs" of production is disasterous for normal functioning of the financial markets of a capitalist economy. Strong, unregulated competition in the markets of products produced by capital-intensive processes is incompatible with the "uncertainty" attenuation required by financiers and bankers before they hazard substantial funds in the financing of such processes. For firms with debts and expensive capital-assets it is necessary that the mass of profits reach some target. However such a firm is quite indifferent

as to how gross profits are generated in the various markets in which it sells. Policy and political choices enter into determining particular prices.

Because of constraint imposed by demand curves, there is a "monopoly maximum" which sets a ceiling to profits. A capital using capitalist economy runs into problems when profit maximizing behavior does not generate sufficient cash for the servicing of debt and the sustaining of asset values. Inflation can be a policy instrument to validate debt in these circumstances.

For capital-intensive multiple product production processes price determination is a political matter; the politics can be within the firm, with other firms, between the firm and regulatory agencies, or between the firm and the taxing authorities.

In the world in which we live impersonal "genetic" preferences and technologically determined production relations do not determine output, prices, and incomes. Economic policy cannot be based on an assumption that the details of the economy are determined independent of policy. How, what, and for whom are questions that have to be faced when policy decisions are made. Within limits we are free to choose the how, what, and for whom characteristics of economic life.