

KEY QUOTES

On Technodepreciation, Fictitious Capital, and the Tendency Of The Rate of Profit to Fall

A Conceptual Montage

(A) As Perceived By Pro-Capitalist Economists:

1. The Crisis of Profitability:

"The subject of this book is not only important -- it is vital... American industry, collectively, is in trouble, and trends are continuing in the wrong direction. This is not an idle cry of alarm to attract attention. It is very real, and very frightening. The rewards of business have been declining in relation to the investment required to produce those rewards. We are fast approaching the critical point where prospective rewards will not justify the perpetuation of free enterprise as we know it today.

Chart 1-1 shows that over the past 25 years not only have profits declined in relationship to the equity of shareholders, but, much more important, the return on investment earned by durable goods manufacturers has fallen even more and now can only be classified as marginal.

The "return on investment" shown in Chart 1-1 is calculated according to the technique described in Chapter 5 of this book; it is a very real number, directly comparable with the familiar interest rate on savings accounts, bonds, and so on. But almost any way one puts together data involving profit or cash flow on one side, and some definition of investment on the other, the trend lines point the same way -- down! These are, of course, averages; some companies have done better, others not so well. But collectively the industrial bastion of our economic system is being seriously undermined.

...When returns become insufficient to attract capital, economic stagnation and decay are inevitable. There isn't much time left to change direction."

Robert A. Peters, Return On Investment, American Management Association, 1974, pp. 1-5.

2. The Causes: Technodepreciation of capital equipment in the context of high (fixed-) capital-intensity of production (reflecting a high level of the productive forces):

"The output from equipment produced to-day will have to compete, in the course of its life, with the output from equipment produced subsequently, perhaps at a lower labour cost, perhaps by an improved technique, which is content with a lower price for its output and will be increased in quantity until the price of its output has fallen to the lower figure with which it is content. Moreover, the entrepreneur's profit (in terms of money) from equipment, old or new, will be reduced, if all output comes to be produced more cheaply. In so far as such developments are foreseen as probable, or even as possible, the marginal efficiency of capital produced to-day is appropriately diminished."

John Maynard Keynes, The General Theory Of Employment, Interest, and Money, Harcourt, Brace & World (New York: 1964), p. 141.

The point under discussion is not that in the case of privately-owned undertakings, when a technical advance affects the opportunity for increasing

3. "The point under discussion is met with in the case of privately-owned undertakings when a technical discovery affords the opportunity for installing a new equipment or capital improvement which is technically superior to an equipment which is already being employed. The equipment being employed, that is to say, may be rendered obsolescent and this may occur before the equipment has earned sufficient revenue to cover its past cost. The question then arises whether the prices of the output of the equipment should be such as will bring in sufficient revenue to cover the prospective costs of producing that output or whether the revenue aimed at should cover, in addition, the uncovered part of the original cost of the old equipment. As is clear from our discussion of costs and prices it is the first alternative which is economically advantageous to the community; in other words, the "undepreciated" part of the old equipment, as it may be called in conventional accountancy language, should be written off.

A firm operating in conditions of competition may have little choice but to adopt this policy because of the likelihood that other, competing firms which have taken advantage of the technical improvement will undersell. But if the firm possesses a high degree of monopoly it can, if it is so disposed, try to recoup the loss on the old equipment out of the revenue earned by the new, in which case the benefit conferred by the technical superiority of the new equipment is not being passed on to the community."

A. M. Milne and J. C. Iaght, The Economics Of Inland Transport, Sir Isaac Pitman & Sons (London: 1965), p. 232n.

4. "In summary, the conclusion is that cash flow provides a better way to get a handle on results than does reported profit. If depreciation were only of nominal influence, this entire discussion would be a tempest in a teapot. But as business in general has become more capital-intensive, depreciation correspondingly has grown to a very large number. In heavy industry, it is quite common for book depreciation to equal or exceed reported profits."

Robert A Peters, Return On Investment, op. cit., p. 13.

5. "In the late 1940s, business depreciated its assets over an average life of about 20 years. In recent years, however, book depreciation rates for manufacturers of durable goods now average closer to 15 years. The significance of this is very great. Economic obsolescence as a result of advancing technology has a much greater impact than it used to. And the trend undoubtedly will continue, since the rate of technological progress shows no sign of levelling off. While cash flows are being stimulated by the increased depreciation, the need to modernize is also demanding reinvestment more quickly than before. Even with the stimulus given to cash flow by depreciation, total cash flow (profit and depreciation) in relation to investment has declined. As a consequence, business has been forced to take on additional debt. Much of this debt has been justified under the banner of expansion, but unfortunately it has in reality resulted from industry's inability to earn enough of a return to provide the capital needed to maintain itself in a viable state.

From the vantage point of shareholders, cash flow in relation to equity has improved slightly, and acted as a tranquilizer or mask to the aforementioned danger signals. But this is phony. The "improvement" is exclusively the result of a sharp increase in the percentage of debt as a part of capitalization. The real problem has been obscured.

If all this isn't enough, the persistent inflation of recent years has further aggravated matters. Today's profits and cash flows are being measured against yesterday's cost of assets, which of itself tends to produce an illusion of well-being that is totally unwarranted.... In a few words: Business desperately needs new tools, for the old ones are leading us down the primrose path..."

Robert A. Peters, op. cit., pp. 2-5.

6. "The cost of production of "capital goods" is steadily and progressively lowered, as counted in terms of the processes involved in their production. In a competitive market this is reflected, with greater or less promptitude, in the prices of such capital goods to all buyers. But the buyers whose purposes this lower scale of prices particularly subserves are chiefly the new investors who go into business in the way of new industrial establishments or extensions of the old. Each new venture or extension goes into the competitive traffic of producing and selling any line of staple goods with a differential advantage, as against those that have gone before it, in the way of a lower scale of costs. A successively smaller aggregate value of new equipment will turn out a given volume of vendible product. In so far as there is no collusive control of the output or the prices, this means that the newcomers will cut under the scale of prices at which their predecessors have been content to supply the goods. The run of competitive prices is lowered; which means that at the new competitive prices, and with their output remaining on its old footing as regards expenses of production, the older establishments and processes will no longer yield returns commensurate with the old accepted capitalization. From the inherent character of the machine industry itself, therefore, it follows that the earning-capacity of any industrial enterprise enters on a decline from the outset, and that its capitalization, based on its initial putative earning-capacity, grows progressively antiquated from the start. The efficiency of the machine process sets up a discrepancy between cost and capitalization. So that a progressive readjustment of capitalization to correspond with the lowered earning-capacity is required by the nature of the case. It is also, in the nature of the case, impracticable.

Insofar as the process of investment and business management involves the use of credit, in the way of interest-bearing securities or loans equivalent to such securities, this element of credit retards the readjustment by force of the fixed charges which it involves. This retardation (aided as it is by the reluctance of business men to lower their capitalization) is of sufficient effect to hinder recapitalization, on the whole, from overtaking the progressive need of it, with the result that a fair or "ordinary" rate of profits on industrial investments is not permanently attainable in the field of open competition. In order that the rate of interest further business depression in this way, therefore, it is not necessary that the rate should rise or fall, or that it should be uniform over the field, but only that there should be a rate of interest in each case, and that there should be some appreciable volume of credit involved in industrial investments. Credit is, in fact, a ubiquitous factor in modern industrial business, and its effects in the way indicated are therefore to be counted in as a constant force in the situation.

However, even apart from the presence of this ubiquitous credit element, a similar effect would probably result from the progressive enhancement of industrial efficiency when this enhancement proceeds at such a rate as has been the case for some time past. As has been shown in an earlier chapter, business men keep account of their wealth, their outgo and their income, in terms of money value, not in terms of mechanical serviceability or of consumptive effect. Business traffic and business outcome are standardized in terms of the money unit, while the industrial process and its output are standardized in terms of physical measurements (mechanical efficiency). In the current habits and conventions of the business community, the unit of money is accepted and dealt with as a standard measure. The stability of the standard unit cannot be effectually questioned within the scope of business traffic. According to the practical metaphysics of the business community, the money unit is an invariable magnitude, whatever may be true of it in fact. A man imbued with these business metaphysics and not given to fine-spun reflection, as business men commonly are not, is richer or poorer in his own apprehension, according as his balance sheet shows a greater or less number of these standard units of value. Investment, expenses, vendible output, earnings, fixed charges, and capitalization run in terms of this value unit. A reduction of earnings or of capitalization,

as rated in terms of the value unit, is felt as an impoverishment. The reduction of capitalization in these terms, is, therefore, a hardship, which is only reluctantly and tardily submitted to, even if it carries no hardship in the way of a reduced command over the material means of production, of life, or of comfort. A business man's rating in the business community likewise rests on the pecuniary magnitude of his holdings and his transactions, not on the mechanical serviceability of his establishment or his output; and this business rating is a large part of the business man's everyday ambition. An enhancement of it is a source of secure gratification and self-respect, and a reduction of it has a very substantial contrary effect. A reduction of the pecuniary showing is submitted to only reluctantly and tardily, after it has become unavoidable, and only to the least feasible extent. But under conditions, such as now prevail, which involve the requirement of a progressive rerating of this kind, this reluctant concession never overtakes the need of readjustment, -- and the discrepancy between capitalization and earning-capacity is therefore chronic so long as no extraneous circumstances come in temporarily to set aside the trend of business affairs in this respect. It may, therefore, be said, on the basis of this view, that chronic depression, more or less pronounced, is normal to business under the fully developed regime of the machine industry."

Thorstein Veblen, The Theory Of Business Enterprise, Charles Scribner's Sons, (New York: 1904), pp. 229-234.

7. "In all calculations involving the replacement or discarding of existing plant assets a distinction should be made between costs which are the result of the proposed future expenditures and those which are the result of past expenditures which cannot be recovered -- or, as Grant puts it in his book,* between "increment costs" and "sunk costs". This principle is frequently violated in one or both of two ways: (a) by adding to the investment required for a proposal the undepreciated book value of the old assets which are to be replaced or (b) by calculating depreciation on the old assets, for the purpose of cost comparisons and savings calculations, by applying regular depreciation rates to their original cost, or by spreading their undepreciated book value over their estimated remaining life. While this error is obvious to those who have thought the matter through, it merits specific attention both as a caution to relative newcomers and because in more complicated situations it may be so disguised as to be missed by the more informed unless care is applied to every analysis. The basic error in these rather common fallacies is the failure to recognize that future profits can be affected only by changes in future income or future expenditures and that the money invested in old assets is a "sunk cost", except for the amount that can be realized by selling the assets or turning them in on new assets. The investment required for any given proposal is the difference between the total expenditures required for the purchase and installation of the new assets and the amounts that can be salvaged by disposing of the assets replaced; to increase this "investment" by adding the book value of old assets will make the proposal appear less profitable than it actually is. On the other hand, if, as is usually the case, depreciation based on the original cost or on the remaining book value of the assets is greater than depreciation based on their current realizeable value, the future costs of continuing to use the old assets are overstated by using the higher figure, and the savings resulting from the proposed investment are thus made to look more attractive than is justified. As these two fallacies are surprisingly prevalent, it will be useful to understand the viewpoint of those who hold to them and sometimes defend them with almost emotional fervor. The loading of a proposed investment by adding to it the undepreciated book value of assets to be replaced is often justified on the grounds of conservatism, on the theory that the business cannot afford to make reckless investments and must recover somehow the money it spends on plant assets; this argument is particularly likely to be advanced if the business has had some unfortunate

experiences with rapid obsolescence of equipment. In answer to this, it can be pointed out that the proper way to reflect conservatism is in the making of the actual decision rather than to distort the calculations by injecting estimates known to be too high or too low or by injecting quantities such as past expenditures which have no causal connection with the problem at issue. Actually, it is more truly conservative to acknowledge a loss that has been incurred as a loss than to attempt a decision on calculations that regard the old value as still significant as an asset. The strongest objection to cost comparisons in which the depreciation and interest on old assets are based on their current realizeable value, rather than on original cost or net book value, comes from production men, who naturally are interested in having the most modern equipment and who frequently feel that comparisons on this basis make it difficult to justify any improvements, however desirable. The answer to this comes back to the question of what is meant by "desireable", and here it must be recognized that other considerations besides the calculated savings and profits enter into the picture... But these intangible factors, however important they may be, should be considered separately, on their own merits, and should not be allowed to influence the method of calculating comparative costs and savings."

David R. Anderson and Leo A. Schmidt, Practical Controllershship, Irwin, Inc., 1961 revised, pp. 488-489.

*(Eugene L. Grant, Principles Of Engineering Economy, Ronald Press (New York: 1950).)

8. Anderson and Schmidt, Practical Controllershship, pp. 352-353:

"Estimating the life and residual values of assets is a necessity in the calculation of depreciation... In the past, it has been common to assume that physical factors could be estimated more certainly than the economic factors. This assumption was usually carried to the point of setting up the life estimate of the asset on the basis of the physical factors only, with obsolescence treated as a special situation when it actually caused the discarding of the asset. A variant of this attitude was to set up a general reserve for obsolescence not related to particular assets and intended to smooth out the impact of the actual charges for obsolescence as they became necessary. The concept of depreciation based on only the physical factors is still the formal, acknowledged, basis of most depreciation accounting today. Actually, the pressure for shorter, "more realistic", life estimates of a great many units is an implicit recognition of the fact that relatively few assets live out their full physical lives under modern conditions. What this amounts to is an acknowledgement that, in a much broader sense than originally assumed, the impact of obsolescence can be estimated and therefore the depreciation should be set up on the basis of the probable life of the unit, whatever the expected cause for its termination. If the specific assets must be scrapped before even these conservative life estimates have run, there will be the familiar adjustment of "Loss on Retirement of Plant Assets", which, when it becomes more than nominal, is actually the loss caused by unforeseen obsolescence."

9. Horace H. Robbins, Fictive Capital and Fictive Profit: The Welfare-Military State, A Political Economy Based on Economic Fictions, Philosophical Library, (New York: 1974), p. 415:

"The basic cause of the ultimate failure of this political economy is the resumption of the process that exists in all capitalist relationships, i.e. the steady advance in technological development that reduces the unit value of goods (although this is concealed by the depreciation of paper money) and reduces the

(although this is concealed by the depreciation of paper money) and reduces the rate of Aggregate Profit and entrepreneurial profit. A point can be reached where the Aggregate Profit itself must always decline, and the Aggregate Capital itself must always shrink, and there can be no market whatsoever for any new additional capital goods... It was this tendency that produced the relative economic critical point in the Independent Capitalist Economy, wherein constant expansion could no longer take place in sufficient volume to maintain the economy, and a variable, episodic, expansion could no longer fill the gap. But the fictive processes introduced and maintained by the Welfare-Military State, and the creation of a pseudo Profit B made it possible for the relationship of individuals in capital units to continue. Yet the same tendency still continues, to the point where any real capital expansion becomes impossible. This is the absolute economic critical point of any capitalist relationship, even if maintained by a pseudo Profit B."

10. Technodepreciation, Fictitious Capital, and Debt: technodepreciation turns debt-capital into demand (for value) without supply (of value) --

"We should perhaps at this point note that a firm whose capital is obtained mainly or wholly on a loan basis is in a much more vulnerable position financially than a firm which is financed largely or wholly by risk-capital. Suppose a firm has purchased out of finance provided on a risk basis an equipment costing £10,000 and that, in the event, it is found that the results of the investment have fallen short of expectation. The response of the public to the output produced with the aid of the equipment may have proved disappointing. Suppose that, taking this lower response into account, the firm estimates that an equipment of lower capacity costing £ 8,000 would have been a better proposition and that, when the original resource wears out, it should be replaced by this lower-capacity resource. In accordance with our earlier arguments, it will be the cost of replacing the original resource which will have to be recovered from the revenue earned from the sale of the output produced by the original resource. But on the original investment a loss will have been sustained, and this will fall to be borne by the providers of the risk-capital. But, retaining the same illustration, now suppose that the finance were provided on a loan basis. The loss will be the same but the loan out of which the original equipment was purchased will remain to the full amount a liability of the firm and the interest payments as fixed in the loan contract will still have to be met. These interest payments, arising as they do from a past investment, while not representing costs in the economic sense, will be of the nature of financial charges which, if not met, may lead to the firm being received into bankruptcy. It is evident that given the differing characteristics of loan- and risk- capital a firm financed by loan-capital will be financially the more vulnerable in a situation where expectations fail to be fulfilled."

A. M. Milne and J. C. Iaight, The Economics Of Inland Transport,
op. cit., pp. 191-192.

11. Fictitious Capital and State Capital: state capital as the form of last resort for the conservation of fictitious capital:

"So far in this section we have made no reference to a publicly-owned or nationalized undertaking of the type exemplified by the British Railways Board. The broad distinction between a privately-owned and a publicly-owned undertaking is that the former operates for profit while the latter does not. The effect of nationalizing a privately-owned undertaking, or of bringing such an undertaking into public ownership, is to change the status of the proprietors of the undertaking, who, prior to nationalization, received a profit, into that of creditors, who are then entitled to a fixed rate of interest. The

consequence of this change is to remove from the providers of the capital of the undertaking all responsibility for the conduct of the undertaking. The significant result of nationalization is to transfer the ultimate control of the undertaking from the shareholders to some other agency. But because there is no occasion for a publicly-owned undertaking to make a financial profit does not mean that a nationalized undertaking has no capital costs... that a privately-owned undertaking may actually remunerate its capital in the form of profit payments and a publicly-owned undertaking² by interest payments does not affect the issue that the cost of "new" capital² has to be included in the prospective "balance sheet" relating to the production of future output."

"²By "new" capital is meant uncommitted finance. Included in "new" capital is, of course, the capital required to replace durable resources. The greater part of "new" capital employed by any undertaking is likely to consist of replacement capital. As we have noted... one source, usually the main source, of replacement capital is the depreciation fund accumulated during the life of the resource which is to be replaced." (see #12. for continuation of Stat-Capital theme.)

Milne and Laight, Economics Of Inland Transport, pp. 191-192.

12. Technodepreciation, Fictitious Capital, and INFLATION: Inflation of prices above actual costs to cover losses due to technodepreciation on fixed capital financed via debt --

"First we shall consider, from the standpoint of pricing policy, the consequences which may follow from the fact that a publicly-owned undertaking is financed by fixed interest-bearing funds... Throughout this section we shall have primarily in mind a nationalized undertaking as exemplified by British Railways.

As we mentioned at the end of the previous chapter, the effect of nationalizing any privately-owned firm or firms is to convert the proprietors or profit-receivers of the privately-owned firms into creditors who are entitled to receive a fixed rate of interest out of the revenue earned by the nationalized undertaking. These interest payments, arising as they do out of past investments in the industry, do not represent costs in the economic sense. If, however, it is economic for all the resources employed -- i.e. all the durable resources which have been inherited from the past -- to be fully replaced when they fall due to be renewed, the replacement finance required will at least equal the past finance employed and a policy of fixing prices to yield a revenue which will just cover future costs will, if expectations are fulfilled, enable the interest payments arising from the financing of past capital employed to be met out of this revenue. But if, on the other hand, the development of alternative facilities or a change in the demand for the output in question has the effect of making it uneconomic to replace fully some of the durable resources employed, the replacement finance required will fall short of the original finance and a loss may be sustained on the original investment. This was, roughly, the experience of railway shareholders after the first world war. Owing to changes in external circumstances -- the development of road transport was one of such changes -- the revenue earned from rail traffics was insufficient to enable profits to be paid to all shareholders. In the case of nationalized undertakings, however, the finance-providers occupy the position of creditors and losses cannot be absorbed in this way. If a nationalized undertaking finds that, as a result of changed economic circumstances, some of its capital resources lose value, the resultant loss cannot be written off at the expense of the creditors. In these circumstances a nationalized undertaking may find it necessary to aim at earning a revenue which will not only cover its costs (including the interest costs of the capital which it is still economic to employ) but also

the dead-weight burden of interest charges on past investments which are no longer economic in the light of present and estimated future conditions. In other words prices may have to be charged in excess of costs.

"The charging of higher-than-cost prices will raise the cost of transport to transport users, a situation which will conflict with the economic object of transport. Further, if these higher-than-cost prices are charged, encouragement will be given to alternative transport facilities and these alternative facilities may then be developed to a greater extent than is economically justifiable on the economic cost criterion. To enable these higher-than-cost prices to bring in the revenue required to cover the burden of interest charges on redundant capital -- i.e. to prevent traffic being diverted to other means of transport as a result of these higher prices being charged -- it may be necessary to invest the nationalized undertaking with an increased degree of monopoly by placing artificial restrictions on other competing transport facilities. A policy which maintains prices in excess of costs for the purpose of preventing a financial loss on past investments is indistinguishable in effect from a policy which maintains prices in excess of costs for the purpose of making "inappropriately high" profits. The possible adverse consequences which we have mentioned result from prices being charged in excess of costs. Such a charging policy may be adopted either because of a desire to avoid financial losses on past investments or because of a desire to make "inappropriately high" profits on future investments.

"The requirement of a nationalized undertaking to meet interest payments on its financial capital is imposed by legislation. We do not question that the shareholders of private concerns who are required compulsorily to surrender their property have to be compensated on a full and equitable basis. Any other policy would amount to expropriation. The point at issue is what should happen, after nationalization has been effected and compensation paid out, in the event that the demand for some of the nationalized facilities falls off. It is not to be expected that this demand will remain static. While the nature of future charges in transport demands -- and techniques -- are difficult to prophesy it can be safely conjectured that some changes, involving substitution of "new" for "old" facilities in a manner which we described in Chapter II, will occur. In these circumstances the question arises whether the interest payments on the financial capital which is thereby rendered "redundant" should remain a financial liability of the nationalized undertaking, having to be met out of current revenue by the charging of higher-than-cost prices; or whether they should be met directly by the State out of Exchequer revenues. The latter proposal is attractive in that it avoids the economic disadvantages associated with the charging of higher-than-cost prices. It would require the assets of British Railways to be periodically reviewed and revalued and for any reduction in value to be accompanied by a corresponding reduction of liability for interest payments. Such a capital revision has now been made in the 1962 Transport Act. (see above, p. 75)."

Milne and Lait, *ibid.*

- NOTE:** While such a proposal might be deemed a subsidy, it would nevertheless be a subsidy which differs in nature.
13. Thus, after World War I, when the advent of the new technology of internal combustion engines ("road transport" -- trucks; also perhaps to some extent aeroplanes) rendered a considerable portion of railroad fixed capital obsolete, "redundant" -- no longer demanded at prices at which it could profitably offer its services due to the competition of the auto, etc. -- the British railroads were transformed into state capital in order to save, to keep "alive", the capital-value thus rendered "fictitious". In order to preserve this fictitious capital, the British working-class was looted, first by higher-than-cost prices and second, by taxation, in order to derive the funds necessary to pay a fixed rate of interest, in perpetuity, and on the pre-obsolescence value of the fixed capital, to the private holders of the techno-devalued capital-stock of the British Railways. Note that Milne's proposal for periodic capital revaluation does not address the

looting question, or the question of the inflationary consequences of bourgeois nationalization, as the last resort to preserve fictitious capital. There is no suggestion that the interest payments to the former owners should be curtailed in proportion to the growth of the productive forces in the transport and related industries, that is, in proportion to the fall in the value of the old fixed capital which is caused by obsolescence. Milne proposes only a transfer of this undiminished indebtedness from the specific nationalized enterprise to the State Treasury as a whole, i.e. to the general State Debt. The fictitious value still has to be paid off, but now out of the general taxation revenues of the government, rather than out of the prices charged by the specific nationalized industry. Thus the fictitious value of the "dead capital" is kept on the books of the capitalist society, as capital which demands a continual return of (surplus) value to its owners, without it producing any matching supply of value to society. The inflationary effect of the fictitious capital is merely transferred, moved around, not abolished. The cost of living for the working-class -- hence also the level of necessary wages -- is raised still, but in the form of costs of income-taxes instead of costs of transportation.

14. The Explosion Of The Contradictions: DEPRESSION, DECADENCE and Fictitious Capital --

"We have seen that ROIs for business in total have atrophied over the years to the point of threatening the economic viability of the free enterprise system. If business, collectively, cannot generate a satisfactory return on its investment, our way of life is in deep trouble. And we are getting close to that point... the deteriorating trend of performance in U.S. industry is unmistakable. Of perhaps more significance, the absolute numbers are now becoming alarming. Who wants to put his money out to risk in U.S. ~~industry~~ durable goods manufacturers with returns like these?"

Robert A Peters, Return On Investment, AMACOM, 1974, pp. 35; 44.

15. NOTE: The following was written by Thorstein Veblen around 1904, before the outbreak of the First World War:

"Chronic depression, however, does not seem to belong, as a consistent feature of the course of things, in this nineteenth-century period, prior to the eighties or the middle of the seventies. The usual course, it is commonly held, was rather: inflation, crisis, transient depression, gradual advance to inflation, and so on over again.

"On the view of these phenomena here spoken for, an attempt at explaining this circuit may be made as follows: A crisis, under this early nineteenth century situation, was an abrupt collapse of capitalized values, in which the capitalization was not only brought to the level of the earning-capacity which the investments would have shown in quiet times, but appreciably below that level. The efficiency and the reach of the machine industry in the production of productive goods was not then so great as to lower the cost of their production rapidly enough to overtake the shrinkage in capitalization and so prevent the latter from rising again in response to the stimulus of a relatively high earning capacity. The shock-effect of the liquidation passed off before the cheapening of the means of production had time to catch up with the shrinkage of capitalization due to the crisis, so that after the shock-effect had passed there still remained an appreciable undercapitalization as a sequel of the period of liquidation. Therefore there did not result a persistent unfavorable discrepancy between capitalization and earning capacity, with a consequent chronic depression. On the other hand, the earning-capacity of investments was high relatively to their reduced capitalization after the crisis. Actual earning capacity exceeded

earning-capacity exceeded nominal earning-capacity of industrial plants by so appreciable a margin as to encourage a bold competitive advance and a sanguine financiering on the part of the various business men, so soon as the shock of liquidation had passed and business had again fallen into settled channels...

"Since the ((eighteen --)) seventies, as an approximate date and as applying particularly to America and in a less degree to Great Britain, the course of affairs in business has apparently taken a permanent change as regards crises and depressions. During this recent period, and with increasing persistency, chronic depression has been the rule rather than the exception in business. Seasons of easy times, "ordinary prosperity", during this period are pretty uniformly traceable to specific causes extraneous to the process of industrial business proper. In one case, the early nineties, it seems to have been a peculiar crop situation, and in the most notable case of a speculative inflation, the one now (1904) apparently drawing to a close, it was the Spanish-American War, coupled with the expenditures for stores, munitions, and services incident to placing the country on a war footing, that lifted the depression and brought prosperity to the business community. If the outside stimulus from which the present prosperity takes its impulse be continued at an adequate pitch, the season of prosperity may be prolonged; otherwise there seems little reason to expect any other outcome than a more or less abrupt and searching liquidation.

"...It was said above that since the seventies the ordinary course of affairs in business, when undisturbed by transient circumstances extraneous to the industrial system proper, has been chronic depression. The fact of such prevalent depression will probably not be denied by any student of the situation during this period, so far as regards America and, in a degree, England...

"The explanation of this persistent business depression, in those countries where it has prevailed, is, on the view here spoken for, quite simple. By an uncertain date toward the close of the seventies the advancing efficiency and articulation of the processes of the machine industry reached such a pitch that the cost of production of productive goods has since then persistently outstripped such readjustment of capitalization as has from time to time been made. The persistent decline of profits, due to this relative overproduction of industrial apparatus, has not permitted a consistent speculative expansion, of the kind which abounds in the earlier half of the nineteenth century, to get under way. When a speculative movement has been set up by extraneous stimuli, during this late period, the inherent and relatively rapid decline of earning-capacity on the part of older investments has brought the speculative inflation to book before it has reached such dimensions as would bring on a violent crisis. And when a crisis of some appreciable severity has come and has lowered the capitalization, the persistent efficiency and facile balance of processes in the modern machine industry has overtaken the decline in capitalization without allowing time for recovery and subsequent boom. The cheapening of capital goods has overtaken the lowered capitalization of investments before the shock effect of the liquidation has worn off. Hence depression is normal to the industrial situation under the consummate regime of the machine, so long as competition is unchecked and no deus ex machina interposes."

Thorstein Veblen, The Theory Of Business Enterprise, op. cit., pp. 250-255.

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16. Horace Robbins on the historical transition from "competitive" or "laissez-faire" capitalism to "monopoly" and "state" capitalism:

"The (capitalist) organism has a definite span of life; when the organism dies, its parts (units) cannot survive. The organism can live and function only while its dynamic can operate. The organism came into being as an economy (the Independent Capitalist Economy), because of the immense power of its dynamic, the expansion of capital, which was self-creating and self-sustaining."

"But such a capitalist organism must reach a critical point when this capital expansion cannot by itself take place. (The capital expansion referred to is the normal and inherent expansion of capital, not the gross overexpansion of capital that is induced by war, inflation, etc., an overexpansion of capital that is itself periodically destructive to the economy). When this critical point is reached, and even the gross overexpansion is no longer possible, the organism (Independent Capitalist Economy) must enter into a final, and ever widening spiral decline, to its ultimate collapse. (Topic 4, Syllabus -- 1914-1929 the period of the critical point.) This organism (Independent Capitalist Economy) came to its end in 1930; it cannot be resurrected. The Democratic State, the political structure characteristic of the period of the Independent Capitalist Economy, then also failed. The fact that in the political economy of fictitious capital and profit the same relationship seems to exist in the units, as stated at the outset, does not mean that the same economy exists....

"The political economy based on the fictive expansion of capital is created by the establishment of the Welfare-Military State, of which it is an integral part... This political economy is a simulacrum of a capitalist economy; the fictions are simulacra, although they have an absolute adequacy and reality for units and individuals. But the political economy created, is plainly not the capitalist economy that existed (in the Independent Capitalist Economy up to 1930). By the creation of a simulacrum, a new economy is in actuality created. The "capital units" themselves become creatures of the State....

"The Political Economy Based on Fictive Forms, and the Welfare-Military State, must come to an end.

"This political economy, this State, are mortal, as were the Independent Capitalist Economy and the Democratic State. The political economy must reach a point (called the absolute economic critical point) where there can be no real capital expansion, but rather a contraction of the Aggregate capital sets in, and the pseudo-Profit B ((profits ~~and~~ fictitious capital papers --)) must begin to steadily decline, the fictive forms losing their value and utility, finally becoming inadequate to create the pseudo Profit B....

"In the fifty years before the Great War of 1914-1918, the full development of the Independent Capitalist Economy took place... The half century period was a troubled one. There were recurrent serious depressions and financial crises that resulted in widespread distress and in the ruin of many. There was labor conflict and a degradation of large parts of the laboring class. The units in nonconcentrated sectors of the economy found increasing difficulty in surviving. The accumulation of immense fortunes((ex; Rockefeller --)), and political corruption seriously weakened the ideology of the Democratic State, "Socialist" movements caused much concern. However, they were not in themselves significant.

"In 1914, the relative economic critical point was clearly recognizable. The size and productivity of all the capitals in the developed capitalist nations had reached such level that new investment for constant expansion was grossly insufficient to maintain an equilibrium except at a low level of Production, including investment in existing undeveloped areas. The course of the national economies for several years had been erratic, and in most there was a great degree of dependence on production for war purposes, to maintain normality.

"The relative economic critical point must be viewed in the actual political and international situation at this time, i.e. several fiercely competing national economies, rather than abstractly, as though there were one single great capitalist economy, highly advanced, and unable to maintain an equilibrium. In the actual situation, the relative economic critical point could not really take the course of a decline into low level stagnation...

"The war was effective in delaying the effect of the relative economic critical point... The war itself was a popular war in all the warring countries, and it relieved the economic, social, and political stresses of the relative economic critical point...

"There were two major unforeseen consequences of this war. First the Russian economy reached a socially critical point and the Communists seized power. The second was that the period of prosperity that was to come after the war for the successful warring powers, was achieved only by the United States, which entered the war later. The other victors, as well as the defeated nations had to turn to the United States to save themselves from the socially critical point that their economy was entering, something which the war itself could not do.

"The period of prosperity in the United States, the second great period of variable expansion in the relative economic critical point, indeed not only postponed the depression of the relative economic critical point but was able to postpone the socially critical point of the European economies.

"The remarkable variable expansion that took place in the U.S. after WWI, was, first, the result of war, and of the loans to rebuild or sustain the European economies. But the real basis of the boom was the extraordinary development of the financial system, and a related private monetary inflation through the banking system, to a degree that had never been reached before...new capitals were formed, and old ones expanded because the new capital papers themselves became things of value; capitals could be created because their paper forms would constantly sell for a higher price. And capital papers were then created upon the basis of these papers, their values increasing in the booming stock market.... the results...were the basis of the belief that a new economic system had been devised, unhampered by the limitations of ordinary capital expansion and the business cycle. It was thought that a permanent high plateau of prosperity had been reached. This belief was held by high Government officials and professional economists, as well as the business men, financiers, and bankers. That this new era was based on the full development of the private fictive paper and bank credit money inflation and a variable capital expansion based on a pseudo Profit B -- all of which had to be temporary and all of which were in fact only the ultimate stage of the relative economic critical point -- was not recognized...

"The collapse of the stock market in 1929-1930 was the critical factor terminating the boom and the great capital overexpansion, real and fictive. The financial system and the inflation had been the main forces behind the real capital expansion, and when these could no longer function, the great structure of paper capitals collapsed, and with this collapse the whole economy failed. The Level of Production and Income at once entered into a precipitous decline...

"Extensive as the depression and collapse were, if they had proceeded further in 1933 the result would have been the destruction of the economic and political organization of the society. But the socially critical point had been reached, and the Independent Capitalist Economy came to an end and the political economy of fictive capital and profit had its inception... The final depression and collapse of the capitalist economy (Independent Capitalist Economy) in the relative economic critical point is qualitatively and quantitatively unlike the cyclic depression of the Independent Capitalist Economy. Even if the relative economic critical point had resulted only in profound depression, it would have been a non-cyclic depression, without recovery."

Horace Robbins, Fictive Capital and Fictive Profit, op. cit., pp. 18; 28-9; 44; 172-175.

17. Horace Robbins on the approaching final explosion of capitalism (of "fictitious-capitalism"):

"what then occurs, stated generally, is the beginning of the failure of the fictive Profit form (Welfare-Military State tax), the return declining, and the rate reduced in an effort to maintain entrepreneurial profit. Inflation must then increase. A rapid depreciation of the paper money and all fictive forms sets in. The pseudo Profit B becomes more difficult to maintain, and it declines, and then the declining spiral in the pseudo Profit B, induces a declining spiral in the level of production; value begins to decline faster than volume. The level will decline to the point of a possible socially critical point, with collapse

of State and Economy.

"That is to say the fictive forms (fictive capital, fictive profit, inflated money as capital money, the private fictive capital forms) ((ex: NY city paper --)) can no longer maintain an equilibrium at any reasonably acceptable level of production (acceptable for labor class, welfare class, military, capitalists themselves), and, as a corollary, the fictive forms themselves lose all acceptability. The actual, approximate sequence is:

I. The real expansion of capital, whether involving technological advance or not, comes to an end, including any possible "reactive" expansion of capital for Government demand. (Note, however, that this does not mean that technological advance terminates.) There is, of course, an end to the creation of new private fictive capital forms and private inflation.

II. Parallel: The continuous fall in the fictive profit form -- Welfare Military tax-in amount of return and usually in the overall tax rate. The steady increase in the issuance of fictive capital public forms ((ex: "Big Mac" NY city bonds --)). The steady increase in the public inflation of the paper money.

III. The beginning and continuance of the spirally increasing decline in the level of Production, as the pseudo Profit B begins to decline.

IV. The spirally increasing fall in the Welfare Military tax return. The continuing increase in the issuance of fictive capital forms and inflated money.

V. Loss of acceptability of new and existing fictive capital forms, almost final loss of value of the paper money. Level of production insufficient to maintain Government distribution -- welfare-military systems. (Note: if gold reaches private possession in sufficient amount, the fictive capital forms and the paper money are the sooner destroyed.)

VI. Final spiral. (Note: before final spiral, it is likely that the final Great War intervenes. This will appear as an attempt to maintain an "ideology". In view of the needs of the Government, which cannot be met thru the dependent capitalist organism, it is possible that a Military Government system of production -- production directly undertaken by the Government for military purposes, something like existing so called "communist" States, comes into being.)

"If the end is not in the devastation of war and collapse, the point of the declining spiral will be such that the economy is socially unacceptable to any class. Note that welfare distribution would have to increase as the Level of Production declines.

"The inability to expand real capital, and expand the pseudo Profit B, is really made critical by the lower tax return, (and the fall of the tax and of the whole Aggregate Profit will be precipitous because of spiral effects). Thereafter, the Government bond will not be privately purchased; the Government must rely on inflation to obtain money, and this will destroy the political economy. The Government will not be able to arrest the spiral."

Horace Robbins, Fictive Capital and Fictive Profit, op. cit., pp. 415-417.

18. Fictitious Exchange-Value and Fictitious Use-Value: (waste-production as a means of delaying the explosion of the contradiction of Capital:

"...The laws that govern the distribution and use of goods that constitute the pseudo Profit B can be stated as logically necessary principles flowing from the nature of a political economy based upon the fictive expansion of capital...The goods, and the money, may not be used as capital to produce other goods (in a capitalist relationship). Nor may they be used to produce goods in any other economic relationship, as for example by Government production of goods for sale... The goods must be used in a way socially accepted as desire-

able or necessary. Corollary: No programs of direct, physical destruction of the goods is permissible....

"....The Welfare system of distribution and use cannot be used alone; if an adequate Military Program is not in existence, the Welfare Program must be supplemented by a "public works" system of expenditure. But the latter will not permit a high level economy or a high level welfare system; the Military system of expenditure is essential to secure both a high level economy and a high level welfare system. ^(because) Actually the greater part of the purchases must directly, or indirectly be made from the capital goods industries...

"Even at a low level political economy based on fictive capital and profit -- as in the early U.S. pefcp ((Roosevelt's pre-WWII New Deal --)) -- when welfare expenditure was the only major system of expenditure, the pefcp could not be sustained by the welfare system alone. In the absence of a military program of adequate size, a public works program is essential to furnish a market for heavy industry. Early public works programs often included the construction of power generating facilities, etc., which is inconsistent with the laws of use and distribution. However, this was necessary as an emergency measure to maintain the pefcp, in the absence of military expenditure on a sufficient scale....

"The defense requirements of the Welfare Military State (in which an immense, technologically advanced military establishment and armament is constantly maintained) constitutes a distribution and use of goods that can always be at a high level, always consistent with the laws of distribution and use."

Horace Robbins, Fictive Capital and Fictive Profit, op. cit., pp. 299-300; 304-305; 329.

19. NOTE: The following was written by Veblen in around 1904, before the outbreak of World War I:

"What would be an adequate pitch of the stimulus making for prosperity is, of course, not easy to say, but it is probably safe to say that in order to keep up the season of prosperity for a considerable number of years the stimulus would have to be gradually increased. That is to say in other words, the absorption of goods and services by extra-industrial expenditures, expenditures which as seen from the standpoint of industry are pure waste, would have to go on in an increasing volume. If the wasteful expenditure slackens, the logical outcome should be a considerable perturbation of business and industry, followed by depression; if the waste on war, colonization, provincial investment and the like, comes to an abrupt stop, the logical consequence, in the absence of other counteracting factors, should be a crisis of some severity.

"These extra-industrial expenditures that have brought prosperity are here spoken of as wasteful, not thereby implying that they may not be beneficial to the community even in respect to their effect upon aggregate income or the aggregate accumulation of wealth in the community. They are called wasteful simply because these expenditure directly, in their first instance, merely withdraw and dissipate wealth and work from the industrial process, and unproductively consume the products of industry. Indirectly they have a beneficial aggregate effect upon industry by inducing an employment of the full productive efficiency of the industrial apparatus; so that in a very short time, it is at least conceivable, the aggregate net output of the industrial process may be as large and serviceable as before the wasteful expenditures were entered upon, even with the destruction of the portion of the product which goes to maintain the wasteful expenditures. At the same time, the effect upon business must be held to be patently favorable. The wasteful expenditures enhance demand and so increase the vendibility of the output, -- they increase profits and raise capitalization. They therefore act unequivocally to advance the values of the business men's holdings and increase their gains, as counted in business terms. It is only in the eventual liquidation that a disadvantageous business consequence comes in view.

"...Wasteful expenditure on a scale adequate to offset the surplus productivity of modern industry is nearly out of the question. Private initiative cannot carry the waste of goods and services to nearly the point required by the business situation. Private waste is no doubt large, but business principles, leading to saving and shrewd investment, are too ingrained in the habits of modern men to admit an effective retardation of the rate of saving. Something more to the point can be done, and indeed is being done, by the civilized governments in the way of effectual waste. Armaments, public edifices, courtly and diplomatic establishments, and the like, are almost altogether wasteful, so far as bears on the present question. They have the additional advantage that the public securities which represent this waste serve as attractive investment securities for private savings, at the same time that, taken in the aggregate, the savings so invested are purely fictitious savings and therefore do not act to lower profits or prices. Expenditures met by taxation are less expedient for this purpose; although indirect taxes have the peculiar advantage of keeping up the prices of the goods on which they are imposed, and thereby act directly toward the desired end. The waste of time and effort that goes into military service, as well as the employment of courtly, diplomatic, and ecclesiastical personnel, counts effectually in the same direction. But however extraordinary this public waste of substance latterly has been, it is apparently altogether inadequate to offset the surplus productivity of the machine industry, particularly when this productivity is seconded by the great facility which the modern business organization affords for the accumulation of savings in relatively few hands."

Thorstein Veblen, The Theory Of Business Enterprise, pp. 251-252; 255-257.

20. NOTE: By "fictitious use-values" we mean entities which do have exchange-value, i.e. which can be sold for instance, to the State as market, such as is the case with ~~weapons~~^{mess} weapons-commodities, or the various kinds of chemically adulterated, including carcinogenic, "foods," and "junk" consumer products ("spectacles"), which, though they fetch a price, have zero or negative social-reproductive use-value, i.e. which contribute nothing, or which actually contribute subtractively, to the maintenance of social organization, and which therefore represent "entropy", not "negentropy", from the point of view of continuity of social 'order', or of social reproduction. Such entities represent "unproductive" disposal of social wealth from this point of view, i.e. actual "unproduction" or "disproduction" of the resources -- labor, materials, machinery, etc. -- which went into their production.

21. Waste-Production and The Self-Cannibalization Of Capital: { A Report On The Looting
Of The Productive Forces In
The U.S. in the '50s and '60s }--
 Seymour Melman, Our Depleted Society, Dell (New York: 1965), pp. 3-4; 7-9; 11; 48-51;
 54-55; 64-66; 68-69; 152; 153; 157; 167-168; 172; 174; 181.

"Once upon a time the United States was the standout performer, world-wide as a vigorous, productive society, exceptionally strong in basic industries and in mass-producing consumer goods. American design and production methods set world standards in many fields... A process of technical, industrial, and human deterioration has been set in motion within American society. The competence of the industrial system is being eroded at its base. Entire industries are falling into technical disrepair, and there is massive loss of productive employment because of inability to hold even domestic markets against foreign competition. Such depletion in economic life produces wide-ranging human deterioration at home. The wealthiest nation on earth has been unable to rally the resources necessary to raise one fifth of its own people from poverty... This deterioration is the result of an unprecedented concentration of America's technical talent and fresh capital on military production. While United States

research programs for civilian purposes are grossly understaffed, and many industries do virtually no research at all, more than two thirds of America's technical researchers now work for the military. We have constructed the most awesome military organizations in human history, with the actual power to destroy what we call civilization on this earth, a power which rational men dare not use. Military extravagance has been undermining the world value of the dollar and with it the world-banking position of the United States...

"Economic growth has been widely trusted as the yardstick of well-being with too little attention given to the quality of the growth, to economic health. Growth can include parasitic and malignant processes, as well as those that are healthy and productive. Depletion in America, like the increasing inability of many industries to hold their own in competitive markets, is mainly the result of parasitic growth. Replacing this with productive growth is the essential process of reconstruction for America....

"Whatever worth may be attached to the defense and space programs, this much is clear: The work of these men, when completed, does not, by its very nature, contribute to economic health, or to further production. From an economic standpoint defense work only expends manpower and materials. That is why the growth of defense work is parasitic growth, regardless of the fact that the workers buy groceries and services with their salaries. Since we use about two-thirds of our prime technical research talent for military-oriented work, the result is a short supply of comparable talent to serve civilian industry and civilian activities of every sort....

"There is little doubt about other effects from the incessant and costly pile-up of overkill in America's armed forces. By draining the finite stock of technical talent, the overkill program has depleted our education and health services. The rationing of talent plus capital has resulted in the depletion of entire basic industries in the United States -- reducing employment of every sort for Americans, making the United States incompetent in important industrial areas, compelling reliance on foreign sources of supply, and contributing to decay in the quality of our lives by closing off many possible opportunities for productive employment for our young people.

"Americans must begin to face the bitter fact that, in many areas of industrial technology, the United States has already become second-rate and that this condition promises to be epidemic if the present concentration of talent and capital on piling up overkill is continued...

Merchant Marine -- "The merchant fleet of every major maritime country in the world -- except our own -- has been expanding during the last twenty years. In the United States, and in the United States alone, there has been a persistent decline in the size of the merchant fleet and a failure to replace aging vessels.

"Merchant vessels are important, complex industrial products. They are required in large numbers by a major industrial society that exports \$25 billion worth of goods, as does the United States. In other major maritime countries, between 30% and 50% of the foreign trade is carried by ships under the nation's flag. But of the goods flowing from the United States, only 9% is now carried in American flag ships. This means a decline in jobs for American seamen and declining employment in shipbuilding; it also feeds back into many other industries. Ships require engines, turbines, generators, instruments of many sorts, steel plates, cargo-handling equipment, navigation devices and communications equipment -- all, in turn, the product of diverse industries. The decline of shipbuilding therefore means a decline in production and employment in all of these different industries...

"Many are quick to say that this uncompetitiveness is due to the high wages paid to American workers. The dramatic fact, however, is that the automobile industry in the United States pays the highest automobile wages in the world, and has also been producing in its low-price lines the cheapest cars in the world measured in price per pound of fabricated vehicle. This was made possible in the auto industry by sustained application of modern production engineering,

but it has not been done in the shipbuilding field. This means that the shipbuilding industry has not been introducing in the design of the product and the method of manufacture the technology that would enable it to offset the wages to American workers by high productivity of wages and capital...

"Americans have grown up believing in the technological superiority of American industry. We are due for a rude awakening, for the depletion that is visible in the shipbuilding field is also visible in an array of other American industries, notably those that produce basic industrial goods of many sorts...

"National concentration on the production of overkill, which gives priority to talent and capital for the military sphere, has produced in many industries a deterioration so severe that they are virtually at a terminal condition in terms of economic and technical competence. The point of no return for an industry is reached when it becomes difficult to estimate how long it would take to restore it to economic health...

typewriter industry

"The United States typewriter industry is an example of what can happen when the depletion of metal-working production equipment and technique continues over a long period of time. There are a number of important typewriter factories in the New England area, which once supplied virtually all the typewriter requirements of the United States. However, by 1963, about 60% of the typewriters sold in America were being imported... The management

"One of the major typewriter-producing factories in the United States is housed in a graceful, old, multistory factory that is a fine specimen of late nineteenth-century New England textile-mill architecture. While a beginning was recently made toward modernizing this plant, the manufacturing continued with machinery that will soon qualify for museum status; while painting was done with ultramodern automatic equipment, the factory continued making small parts on lathes turned by overhead belts just like those in illustrations of the early Industrial Revolution. The management of this firm, over a long period, withdrew profits and did not reinvest in new production equipment. Research and development were substantially neglected and newer developments in production were not introduced. The firm relied on the stockpile of "Yankee know-how" and mechanical ingenuity that was available among its foreman and skilled workers...

"Among depleted industries the pattern varies: profits from U.S. sales while production is done abroad by foreign firms buying into American companies; American firms maintaining a production base in the United States, but putting fresh capital abroad; profitability maintained for a few firms that service a government market -- as in shipbuilding -- while the whole level of activity of the industry declines; general decline in an industry owing to long-standing management failure to invest enough in new technology -- as in fishery industries, railroads. The common feature of all the depleted industries is less work in the United States.

machine-tools

"The one industry which may be said to be most basic to a society utilizing metal and machines is the machine-tool industry. Machine tools are usually understood to include all those machines that remove metal in the form of chips, or that shape metal by pressing it between dies. The products of this industry, the lathes, milling machines, drills and the like, are the machines which are used to manufacture all other machines.

"In 1963, the United States reached the position of operating the oldest stock of metal-working machinery of any industrial country in the world. In that year 64% of American machine tools were ten years old, or older. The figure for West Germany was 55%, for the Soviet Union about 50% (a declining percentage), while the American stock continues to age...

"The growing age of the machine tools in use in American factories means that 2.2 million basic manufacturing machines are not being replaced by newer equipment that could incorporate many technical improvements. The replacement is not made because the firms using the existing machine tools are unable to justify investment in new machines except when the savings from their introduction

will pay off

will pay off the initial cost of the machine within a period of perhaps four to five years, or even sooner. This means that it is not enough for new machines to have a higher output per hour of use, that is, greater productivity. It means that it is also necessary for the new machine's price to be low enough to permit higher physical productivity to be registered in the form of a lower production cost -- almost immediately. Owing to relatively high production costs, the prices of machine tools during the last decade have been too high to be attractive to machine tool users on a large scale. The result is that the demand for American built machine tools has been so low that the metal-working machinery stock of the United States industry has been aging. The net effect of this stagnation, relatively speaking, is that the metal-working industries of the United States have a less efficient set of basic production machines available to them than would be the case if machine tools produced here were lower in price.

"The high cost of producing machine tools in the United States can be traced to the market for machine tools which has been classically unstable. This instability has made it difficult for the machine-tool makers to introduce high efficiency operations into their factories. Therefore, the instruments of mass production are being fabricated in factories that do not themselves use mass-production techniques...

railroads — "An examination of journals that report on railroad developments around the world shows that in Western Europe, the Soviet Union, and in the Far East, the railroads, far from being abandoned, are being intensively developed with respect to the speed and quality of both freight and passenger service. The Italian State Railway expects to raise the maximum of its top electric train to 112 miles per hour in the near future. In West Germany 1,988 miles of main rail line are being converted to standards necessary for high-speed operations, 124 miles per hour, for passenger travel. The investment for rebuilding the lines is estimated at about \$416,000 per mile. In 1965 British Railways is going to institute 75-mile-per-hour fast freight flyers between principal cities of the British Isles. British Railways is stimulating vacation and tourist travel by "car-sleeper" trains. You drive your automobile onto a flat car, and then you ride in the sleeper. In Australia, the rail system is being unified and rebuilt and the two principal cities, Melbourne and Sydney, are linked by high-speed train systems. In France, railroad timetables show 38 point-to-point runs timed at better than 75 miles per hour. The total mileage of these fast rail runs adds up to 5,597 -- more than double the United States total.

"The decay of the railroad system in the United States has imposed high costs for freight and passenger travel because people and freight can be carried much more cheaply by rail than by private motor vehicle.

"There is no development in the United States that parallels the new Japanese express. It is perfectly obvious that this would be a superior transportation service between major American cities. But American railroads, and their equipment suppliers, Westinghouse, General Electric, General Motors, et. al., have become technologically inert. Innovations have been few and far between. And so deterioration of the railroads has continued; the public is serviced with more expensive transportation, while the number of railroad employees has dropped from 1,200,000 in 1950, to 700,000 in 1962.

→ "What is the cause of this inertia? After all, alternative technical ideas are readily available. Why are they not applied?...

fishing industry — "The United States fishing industry, with 3,000 aging and relatively inefficient fishing vessels, is closely linked to the depletion process in the ship-building industry. Modern, large capacity trawlers operating in fleets around ocean-going fish-processing vessels are unknown to America. Elsewhere in the world, trawler fleets of modern design operate with high efficiency to produce an increasing stock of fish food from the world's oceans. In the past ten years the United States has dropped behind Peru, Communist China, and Soviet Russia and now ranks fifth among the fishing nations. The tendency is for the American fishing fleet to decrease in size while the total market for fish grows. As a result, the value of U.S. fishery imports during the period 1953-63 has exceeded

exports

by more than \$3 billion. A hopelessly inefficient fishing fleet cannot hold the world market, or even serve the domestic American market. But there is no American center, or institute, or set of firms now practicing design for, or construction of, modern fishing vessels. The technological talent that might be applied to this function has been substantially pre-empted by naval design and naval ship construction. Therefore, American fisheries which provided employment for 263,000 men in 1950 could employ only 217,000 by 1962....

"The industrial depletion process is characterized by declining ((share of)) markets, stationary or declining employment and failure to apply modern technology to the relevant industry, either in design or manufacture. Other industries, such as printing ((since reversed partially -- BHC)) machinery, water turbines, ceramics, and textile machinery, also disclose a pattern of depletion... The characteristic combination of depletion of production, coupled with the maintenance of good profit levels, is found in ~~many~~ of the machinery and allied industries of the United States ((government-based profit-on-contraction: cannibalistic profit or looting profit; parasitic profit; "Fascist profit" -- ?)). This is crucially important since, in an industrial society, the competence of these industries reflects the production competence of the society as a whole."

"Our economists have tended to view the decline of a firm or an industry as part of an ordinary and recurring process of the decay and growth of the enterprise. The assumption has been that if a given management is not competent to meet the market demand for a product, another management will in due course recognize the opportunity, move into the field, and serve the market anew. This natural process of economic correction has been substantially checkmated by the development of government-controlled industries and markets dominated by the military sphere of society. By offering superior salaries that could be absorbed by selling to Federal defense agencies, the military contractors, and their non-profit adjuncts, have absorbed a massive proportion of the available technological talent. At the same time, capital has been attracted to the new rapid growth of defense and space industries. The result is that the normal process of correction of economic depletion has been rendered inoperative. ((Melman here ignores the effect of the accumulation of capital itself -- the rising fixed-capital and technical compositions of capital, and the increased concentration of industry it necessarily brings -- in forcing a break with this correction cycle, and requiring State intervention if the capital-relation is to be preserved and severe, recoveryless depression to be avoided. Beyond a certain value of the fixed-to-circulating capital ratio -- that is, beyond a certain level of the productive forces -- competition, and technological upgrading keeping pace with "the state of the art," becomes intolerable with respect to profitability --)).....

imperialist
export of social
entropy

"Military exports constitute only one of the means by which a depletion process can be transferred abroad. In a way that is not immediately apparent, the existence of major sectors of depletion within the economy of the United States serves to transfer this weakness abroad...

construction
industry

"The construction industry, especially in the area of building apartment dwellings on a large scale, is one of the technologically depleted industries of the United States. Our major construction companies do not operate research and development departments. Neither the industry associations nor various governmental bodies operate research institutes on the materials, techniques, and economics of construction. Apartment buildings in the United States are constructed by methods technologically analogous to the handicraft techniques used for the manufacture of automobiles in 1905....

the psycho-
destruction of
labor-power
(decentration
of youth)

"Unlike the economic depletion of industries and people as a result of long concentration on overkill, there are costs of depletion that defy measurement. These are the costs of the deterioration in the quality of public and private life...

"On the individual level, too, the Cold War has generated a suffocating purposelessness. The nuclear arms race has created a condition without precedent in human experience. For the first time, the human race has had to face

the prospect of extinction. Owing to the destructive capability of nuclear weapons, a few men in a few governments now hold the power of "no future" over all of us. The knowledge of this possibility erodes the foundation of purposeful living, which surely must include a plausible expectation of the future, opportunities for personal development and enough self-esteem to make use of opportunities. The assurance of these basic conditions for purposeful living has been seriously threatened. One result of this is the feeling of individual powerlessness and hopelessness, especially among the youth of our country. ((While deeply discerning here, Melman also reflects the specific emotionality of the self-employed, or petty-bourgeois, stratum of our population, who in the past maintained an individualist ideology, an illusory sense of individual self-determination based upon their economic ownership and direction of their own means of livelihood. Though this illusion infects the working class-in this country especially-as well, industrial workers have a far greater awareness of the historical prelude and root of today's unprecedented degree of "powerlessness", etc. -- in the wage-labor relationship itself. --))

"I am not implying that there is uniformity either in the perception of the threat or in the intensity of response to it. There is, of course, a variety of ways of experiencing and responding to the "no future" condition. The range of personal response extends from indifference and neutrality to concern and involvement. Nevertheless, these variations in experience and response are all reactions to the frustration of a common want, the desire for human solidarity in a common constructive purpose, in a definable future...

"Narcotic addiction among teen-agers has reached epidemic proportions in numbers of upper-middle-class neighborhoods, to the surprise and distress of parents who have not understood the strength of the feelings of alienation produced among their children by the sense of having no future...

"During December, 1964, Americans read with amazement of the student rebellion at the Berkeley campus of the University of California. Adult amazement stemmed from ignorance of the depth of resentment among students against many features of Cold War society. The sensational newspaper accounts of mass student rebellion at Berkeley did not report that, underlying the issue of free speech that was publicly debated, there was long-standing resentment, especially among graduate students and teaching assistants, of the changed character of the University. "Scholarship has become secondary to the interests of the military-industrial complex," said a student spokesman. "Does this type of University serve society?" But rebellion has been the choice of a limited minority of Americans....

"...I believe that as a nation we have been more aware of a depletion process than we have conceded to ourselves. There is a growing sense, however unformulated, that there is something fundamentally wrong..."

ENFETTERMENT of the productive forces by decadent Capital:

22. If this report on the state of the looting of the productive forces in America just rendered recalls to your mind Marx's famous statement regarding how the social relations of production, -- here Capital -- beginning as vehicles of the growth of the social forces of production, at length, and inherently, turn into the opposite of this, into fetters on that growth, then I can only say you're right on the beam. "Then begins an era of social revolution."