

WAR AND THE MONEY MACHINE: CONCEALING THE COSTS OF WAR BENEATH THE VEIL OF INFLATION

Joseph T. Salerno

In every great war monetary calculation was disrupted by inflation.... The economic behavior of the belligerents was thereby led astray; the true consequences of the war were removed from their view. One can say without exaggeration that inflation is an indispensable means of militarism. Without it, the repercussions of war on welfare become obvious much more quickly and penetratingly; war weariness would set in much earlier. 1

[Governments] know that their young men will readily sacrifice their lives and limbs and that their old men will readily sacrifice the lives and limbs of their sons and grandsons, and that their women will readily sacrifice the lives and limbs of their husbands, their sons, and their brothers in what they believe to be a noble cause, but they have a deadly fearsometimes, but not always, well founded-that women and old men will shrink from pinching the stomachs of themselves and the young children, so that warlike enthusiasm will decay if it once gets about that the association of war with abundance to eat, drink, and wear is delusive, and that there is still truth in the old motto of "Peace and plenty". . . . True that to be pinched by high prices rather than by small money incomes and large taxes made the people rage in the first place against the persons who were supposed to profit and often did profit-most of them quite innocently-by the rise of prices instead of against Government.'

[The true costs of the war lie in the goods sphere: the used-up goods, the devastation of parts of the country, the loss of manpower, these are the real costs of war to the economies.... Like a huge conflagration the war has devoured a huge part of our national wealth, the economy has become poorer.... However, in money terms the economy has not become poorer. How is this possible? Simply. . . claims on the state and money tokens have taken the place of stocks of goods in the private economy.3 War, huh, what is it good for? Absolutely nothin'. . .

It ain't nothin'but a heartbreaker.

It's got one friend, that's the undertaker.... War can't give life, it can only take it away. 4

Ludwig von Mises, *Nation, State, and Economy: Contributions to the Politics and History of Our Time*, Leland B. Yeager, trans. (New York: New York University Press,

1983), p. 163.

2Edwin Cannan, *An Economist's Protest* (New York: Adelphi, 1928), p. 100; also idem, *Money: Its Connection with Rising and Falling Prices*, 6th ed. (Westminster: P.S. King and Son, 1929), P. 99.

3Joseph A. Schumpeter, 'The Crisis of the Tax State,' in idem, *The Economics and Sociology of Capitalism*, Richard Swedberg, ed. (Princeton, N.J.: Princeton University Press, 1991), pp. 118-19.

4N. Whitfield and B. Strong, "War," *War and Peace*, Edwin Starr (Detroit: Motown Record Corporation, 1970), audio recording.

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As the above quotations trenchantly indicate, war is enormously costly, and inflation is a means by which governments attempt, more or less successfully, to hide these costs from their citizens. For war not only destroys the lives and limbs of the soldiery, but, by progressively consuming the accumulated capital stock of the belligerent nations, eventually shortens and coarsens the lives and shrivels the limbs of the civilian population. While the enormous destruction of productive wealth that war entails would become immediately evident if governments had no recourse but to raise taxes immediately upon the advent of hostilities, their ability to inflate the money supply at will permits them to conceal such destruction behind a veil of rising prices, profits, and wages, stable interest rates, and a booming stock market.

In the following section I explain how war-completely apart from its physical destructiveness-brings about the economic destruction of capital and a consequent decline in labor productivity, real income, and living standards. The argument in this section draws on the Austrian theory of capital as expounded in the works of Ludwig von

Mises and the late Murray N. Rothbard. The middle section analyzes the reasons why different methods of war financing will have different effects on the public's perceptions of the costs attending economic mobilization for war. The analysis developed in this section owes much to the classic interwar discussion of inflationary war financing by Mises.⁵ The final section concludes the paper with a brief explanation of how inflation constitutes the first step on the road to the fascist economic planning that is typically foisted upon capitalist economies in the course of a largescale war.

THE ECONOMICS OF WAR

The conduct of war necessitates that scarce resources, previously allocated to the production of capital or consumer goods, be reallocated to the raising, equipping, and sustaining of the nation's fighting forces. While the newly enlisted or inducted military personnel must abandon their jobs in the private economy, they still require food, clothing, and shelter in addition to weapons and other accouterments of war. In practice this means that "nonspecific" resources, such as labor and "convertible" capital goods (e.g., steel, electrical power, trucks, etc.), which are not specific to a single production process, must be diverted from civilian to military production. Given the reduction in the size of the civilian labor force and

⁵Mises, *Nation, State, and Economy*, pp. 151-71.

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the conversion of substantial amounts of the remaining labor and capital to the manufacture of military hardware, the general result is a greater scarcity of consumer goods and a decline of real wages and civilian living standards.

However, the transformation of the economy to a war footing implies much more than merely a "horizontal" reallocation of factors from consumer goods to military production. It also entails a "vertical" shift of resources from the "higher" stages of production to the "lower" stages of production, that is, from the production and maintenance of capital goods temporally remote from the service of the ultimate consumers to the production of war goods for present use. For, as Mises points out, "War can be waged only with present goods." But in substituting the production of tanks, bombs, and small arms destined for immediate use for the replacement and repair of mining and oil drilling equipment intended to maintain the flow of future consumer goods, the economy is shortening its time structure of production and thus "consuming" its capital. Initially, this capital consumption is manifested in the idleness of fixed capital goods that cannot be converted to immediate war production (e.g. plants and equipment producing oil drilling machinery), and the simultaneous overutilization of fixed capital goods that can be so converted (e.g., auto assembly plants now used to produce military vehicles). In the short-run, then, the flow of present goods or "real income," in the form of war goods and consumer goods, may actually rise, even in the face of a loss of part of the labor force to military service. But as years pass, and industrial and agricultural equipment is worn out and not replaced, real income inevitably declines-possibly precipitously-below its previous peacetime level.

Schumpeter has provided a graphic summary of the horizontal and vertical shift of resources caused by the exigencies of a war economy and the deleterious effect of the latter on the capital stock:

First, "war economy" essentially means switching the economy from production for the needs of a peaceful life to production for the needs of warfare. This means in the first place that the available means of production are used in some part to produce different final goods, chiefly of course war materials, and in the most part to produce the same products as before but for other customers than in peacetime. This means, furthermore, that the available means of production are mainly used to produce as many goods for immediate consumption as possible to the detriment of the production of means of production-particularly machinery 61*bid.*, p. 168.

and industrial plant-so that part of production that in peacetime takes up so much room, namely the production for the maintenance and expansion of the productive apparatus, decreases more and more. The possibility to do just this, that is to use for immediate consumption goods, labor, and capital which previously had made producer's goods and thus only indirectly contributed to the production of consumer's goods (i.e., which made "future" rather than "present" goods to use the technical terminology), this possibility was our great reserve which has saved us so far and which has prevented the stream of consumer's goods from drying up completely.... Our poverty will be brought home to us to its full extent only after the war. Only then will the worn-out machines, the run-down buildings, the neglected land, the decimated livestock, the devastated forests, bear witness to the full depth of the effects of the war.'

In commenting upon the effects of World War I on the British economy, Edwin Cannan also drew attention to the crucial fact of the vertical shift of resources and the capital consumption it implies, observing that

during the war addition to material equipment at home and foreign property abroad wholly ceased. The labor thus set free was made available for war-production and for the production of immediately-consumable peace-goods. [Moreover] every one conversant with business knows that renewals, if not repairs, have been very seriously postponed in all branches of production and that stocks of everything have run down enormously. The labor which would in ordinary times have been keeping up the material equipment was diverted to war-production and the production of immediately consumable peace-goods.... It was chiefly the tapping of these resources that enabled the country as a whole to get through the war with so little privation. ⁸

It may be objected that, empirically, the vertical shift of resources is likely to be trivial, because "investment" constitutes such a small segment of real output and therefore the increase in the output of war goods must come mainly from resources diverted from the consumer goods' industries combined with a reduction of the leisure of the civilian population, i.e., through increased overtime and labor participation rates. But the fallacious consumer belt-tightening theory of war economy is based on the Keynesian national income accounting framework, according to which capital investment constitutes a small fraction of total GDP. For example, during the fourth quarter of 1994, the annual rate of real gross private investment in the U.S. totaled \$939.7 billion or slightly more

⁷Schumpeter, "The Crisis of the Tax State," p. 127.

⁸Cannan, *An Economist's Protest*, p. 183.

than 17 percent of real GDP while real personal consumption expenditures in the same quarter equaled \$3629.6 billion or almost 67 percent of real GDP.⁹

Unfortunately, in this framework, the investment in "intermediate inputs" is netted out to avoid "double counting." These intermediate inputs to a great extent comprise precisely those types of capital goods, namely, stocks of raw materials, semi-finished products, and energy inputs, that can most readily be converted for use in the production of present goods, whether for military or consumption purposes. As Nfises observes, this is one form that capital consumption took in Germany during World War I: "The German economy entered the war with an abundant stock of raw materials and semi-finished goods of all kinds. In peacetime, whatever of these stocks were devoted to use or consumption was regularly replaced. During the war the stocks were consumed without being able to be replaced. They disappeared out of the economy; the national wealth was reduced by their value." "O These future or higher-stage goods permanently "disappeared" because the resources previously invested in their reproduction had been withdrawn in order to augment the production of war materials.

In fact, in a modern, capital-using economy, at any given moment during peacetime, the aggregate value of resources devoted to the production and maintenance of capital goods in the higher stages of production far exceeds the value of resources working to directly serve consumers in the final stage of the production process. As an example, for the U.S. economy in 1982, total business expenditures on intermediate inputs plus gross private investment totaled \$3,196.7 billion while personal consumer expenditures totaled \$2,046.4 billion. Over 60 percent of

the available productive resources, outside the government sector, was therefore devoted to the production of capital or future goods as opposed to consumer or present goods."

THE FINANCING OF WAR

Governments have at their disposal three methods for financing a war: taxation, borrowing from the public, and monetary inflation or the creation of new money. Governments may also resort

9Federal Reserve Bank of St Louis, *National Economic Trends* 4 (May 1995): 18-19. 'Nises, *Nation, State, and Economy*, p. 162.

"Mark Skousen, *The Structure of Production* (New York: New York University Press, 1990), pp. 191-92. On the critical importance for analyzing the capital structure of a concept of "gross investment" that includes both investment in fixed capital and investment in intermediate inputs in all stages of production, see Murray N. Rothbard, *Man, Economy, and State: A Treatise on Economic Principles*, 2nd ed. (Auburn, Ala: Ludwig von Mises Institute, 1993), pp. 339-45.

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to coercive requisitioning, that is, confiscating the material resources and conscripting the labor services they deem necessary for the war effort without compensation or in exchange for below-market prices and wage rates. Historically, a combination of these methods has generally been used to effect the transfer of resources from civilian to military uses during a large-scale war. From the viewpoint of technical economic theory, however, the government could always realize the funds necessary to carry out its war aims exclusively from increased taxation and non-inflationary borrowing on capital markets. As Schumpeter pointed out with regard to Austria, immediately after World War I, "It is clear that strictly speaking we could have squeezed the necessary money out of the private economy just as the goods were squeezed out of it. This could have been done by taxes which would have looked stifling, but which would in fact have been no more oppressive than the devaluation of money which was their alternative."¹²

Why, then, if strictly fiscal measures are capable of yielding sufficient revenues to pay market prices for all the resources required to conduct war, have belligerent governments almost always taken recourse to the methods of monetary inflation and the direct commandeering of commodities and services? The answer lies in the fact that war is an extremely costly enterprise and the latter two methods, although in very different ways, operate to partially conceal these costs from the public's view.¹³ When the

¹²Schumpeter, "The Crisis of the Tax State," p. 121. Despite his general stance against inflationary financing of war, Schumpeter does concede that "it is everywhere impossible completely to cover the cost of war by taxation, from the point of view both of politics and fiscal technique" (P. 121). Mises and Cannan are even firmer than Schumpeter in their views that inflation is not technically necessary to finance a major war. For the latter two, whatever quantity of resources can be extracted from the private economy by inflationary finance can also be appropriated via taxation and non-inflationary borrowing. See Mises, *Nation, State, and Economy*, pp. 151-71; and Edwin Cannan, *Money: Its Connection with Rising and Falling Prices*, pp. 93-102. It should be noted however that Mises maintained that market incentives could never be rendered attractive enough in practice to attract sufficient manpower to serve in the armed forces under war conditions and that, therefore, conscription was a necessary supplement to market transactions financed by taxes and borrowing (Mises, *Nation, State, and Economy*, p. 165). Mises here not only argues that the supply curve of enlistees is inelastic but also implicitly assumes that it is fixed under all circumstances, seemingly ignoring the possibility that a spontaneous shift to the right in the supply curve will occur in the case of a war fought in defense of hearth and home or for a cause that is widely and passionately believed to be just.

¹³ Not all pre-Keynesian economists acceded to the Mises-Schumpeter-Cannan position that inflation is not theoretically or practically necessary for financing a major war. Two of their prominent contemporaries, A.C. Pigou and Lionel Robbins, insisted that inflationary finance and direct government controls are an inescapable part of a war economy. See A.C. Pigou, *The Political Economy of War*, 2nd ed. (New York: Macmillan, 1941); also Lionel

Robbins, *The Economic Problem in Peace and War. Some Reflections on Objectives and Mechanisms* (London: Macmillan, 1950). Beginning

public is accurately apprised of its full costs, war becomes increasingly unpopular, civilian enthusiasm and labor efforts flag, and unrest and even active resistance may ensue on the homefront and spread to the frontlines. The movement for "revolutionary defeatism" successfully fomented by Russia's Bolsheviks during World War I is just one example of such mass resistance.

As Robert Higgs points out with regard to the tendency of governments to partially substitute a command-and-control economy for the regular fiscal mechanism during wartime and other so-called national emergencies:

Obviously, citizens will not react to the costs they bear if they are unaware of them. The possibility of driving a wedge between the actual and the publicly perceived costs creates a strong temptation for governments pursuing highcost policies during national emergencies. Except where lives are being sacrificed, no costs are so easily counted as pecuniary costs. Not only can each individual count them (his own tax bill); they can be easily aggregated for the whole society (the government's total tax revenue). It behooves a government wishing to sustain a policy that entails suddenly heightened costs to find ways of substituting nonpecuniary for pecuniary costs. The substitution may blunt the citizen's realization of how great their sacrifices really are and hence diminish their protests and resistances

The direct expropriation of resources works best when the resources in question are non-reproducible, as in the case of labor. By legally compelling its citizen-subjects to serve a specified term in military service at wage rates far below market levels, the government significantly reduces the budgetary costs of war and thus the amount by which it must ratchet up taxes. The cost concealment this facilitates explains the widespread use of mass conscription especially by almost all modern mass democracies beginning with

in the early post-World War II era, neo-Keynesian economists, who were, like Keynes himself, totally innocent of capital theory, turned the older approach to war economics on its head, arguing that war spending, like any other kind of spending, operates through the multiplier process, automatically generating full employment and, therefore, economic prosperity, and is likely to create an "inflationary gap" in

the macro economy. They therefore concluded that the conduct of war is inherently inflationary and necessitates extensive government controls over prices, production, and labor markets to repress inflation and prevent it from undermining the war economy. For examples of the neo-Keynesian approach to "defense" economics, see Albert G. Hart, *Defense without Inflation* (New York: Twentieth Century Fund, 1951); see also Donald H. Wallace, *Economic Controls and Defense* (New York: Twentieth Century Fund, 1953). For a long overdue and superb demolition of the Keynesian claim that World War II brought prosperity to the U.S. economy, see Robert Higgs, "Wartime Prosperity? A Reassessment of the U.S. Economy in the 1940's," *The Journal of Economic History* 52 (March 1992): 41-60. 14 Robert Higgs, *Crisis and Leviathan: Critical Episodes in the Growth of American Government* (New York: Oxford University Press, 1987), p. 65.

revolutionary France. But uncompensated confiscation of reproducible resources confronts an insuperable difficulty: while it does yield access to existing stocks of resources, it destroys the incentive

on the part of private individuals and firms to reproduce these resources.

Continuation of industrial production processes requires pecuniary compensation to the producers as determined by the market, unless the government is willing to completely abolish exchange and implement a totally moneyless (and particularly chaotic) form of socialism, in which resources are allocated and the products distributed by bureaucratic ukase. This was attempted by the Bolsheviks during the period known as War Communism in the U.S.S.R. from 1918 to 1920 and proved a miserable failure. While governments of mass democracies admittedly went a long way toward replacing market incentives and processes with substantial elements of the centrally planned or command-and-control economy during the two great wars of the 20th century, at least at the inception of hostilities, they still required a cost-concealing device that would yield them the money revenues with which to purchase real resources from their still operative money-exchange

economics. For this purpose, they consolidated the power to issue money in the hands of their central banks. Thus it was, for example, that within days of the outbreak of World War I each and every one of the belligerent governments suspended the operation of the gold standard, effectively arrogating to itself the monopoly of the supply of money in its own national territory.

To grasp how the issuing of new money obscures and distorts the true costs of war, we first must analyze the case of financing a war exclusively through the imposition of increased taxes supplemented with borrowing from the public. Prior to the increase of taxes and issue of government securities to raise war revenues, the national economy is operating with an aggregate capital structure whose size is determined by the "time preferences" or intertemporal consumption choices of the consumer-savers. The lower the public's time preferences, and therefore the more willing its members are to postpone consumption from the immediate to the more remote future, the greater is the proportion of current income that is saved and invested in building up an integrated structure of capital goods. The greater the stock of capital goods, in turn, the greater the productivity of labor and the higher the real wage rate earned by all classes of workers."

¹⁵For detailed explications of the time-preference theory of interest, see Rothbard, *Man, Economy, and State*, pp. 313-86; and Ludwig von Mises, *Human Action: A Treatise on Economics*, 3rd ed. (Chicago: Henry Regnery, 1966), pp. 479-536. A recent

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From the point of view of individual investors in the capital structure-business proprietors, stockholders, bondholders, insurance policyholders-the value of their titles and claims to capital goods are revealed by monetary calculation, specifically, capital accounting, and are therefore conceived as sums of monetary wealth." Thus, the accumulation or consumption of capital, *ceteris paribus*-in particular, assuming the purchasing power of money is roughly stable-will always be readily evident in the changing monetary wealth positions of at least some individuals. This will especially be manifested in movements in the stock and real-estate markets, which are devoted largely to the exchange of titles to aggregates of capital goods. ¹⁷In addition, enlargements or diminutions of the capital stock will be manifested in fluctuations in current incomes-in aggregate pecuniary profits in the economy and in the general levels of salaries and wages.

As pointed out above, large-scale war involves a marked increase in preferences for present goods and necessitates a thoroughgoing reorientation of society's productive apparatus away from future and toward present goods. To effectuate this temporal restructuring of production in a money-exchange economy, there must occur a radical alteration in the flows of money expenditure, with consumption and military spending rising relative to saving-investment. Regardless of what technique is utilized to accomplish this shift in relative expenditure, it must give rise to a "retrogressing economy" during the transition to the war economy. The retrogressing economy is one characterized by a declining capital stock. Its onset is marked by a "crisis" involving aggregate business losses, rising interest rates, plunging stock, bond, and real-estate markets, and a deflation of financial asset values.¹⁸

defense and clarification of the theory is found in Israel M. Kirzner, "The Pure Time-Preference Theory of Interest: An Attempt at Clarification," in *The Meaning of Ludwig von Mises: Contributions in Economics, Sociology, Epistemology, and Political Philosophy*, Jeffrey M. Herbener, ed. (Norwell, Mass.: Kluwer Academic Publishers, 1993), pp. 166-92. An illuminating and concise overview can be found in Roger W. Garrison, "Professor Rothbard and the Theory of Interest," in *Man, Economy, and Liberty: Essays in Honor of Murray N. Rothbard*, Walter Block and Llewellyn H. Rockwell, Jr., eds. (Auburn, Ala.: Ludwig von Mises Institute, 1988), pp. 44-55.

¹⁶As Mises explains: "Monetary calculation reaches its full perfection in capital accounting. It establishes the money prices of the available means and confronts this total with changes brought about by action and by the operation of other factors. This confrontation shows what changes occurred in the state of the acting men's affairs and the magnitude of those changes; it makes success and failure, profit and loss ascertainable," *Human Action*, p. 230.

17Thus, as Rothbard points out, "Stocks ... are *units of title to masses of capital goods*," and "real estate [conveys] units of title of capital in land," Murray N. Rothbard, *America's Great Depression* (Kansas City: Sheed and Ward, 1975), p. 316 n. 29.

18For an explanation of the concept of a retrogressing economy and the accompanying crisis, see Rothbard, *Man, Economy, and State*, pp. 483-86; and Mises, *Human*

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When taxes are raised to finance the war, the crisis is in-unediately evident. In order to pay their increased tax liabilities, citizens retrench on their saving as well as their consumption. In fact, they reduce their saving proportionally more than their consumption, for two reasons. First, assuming an increase in the income tax, the net interest return on investment is lowered, meaning that the investor can now expect less future consumption in exchange for a given amount of saving or abstinence from present consumption. If his time preference remains unchanged, the worsened terms of trade between present and future goods encourages the taxpayer to escape the tax by increasing spending on present consumption and reducing saving and, thereby, his prospects for future consumption. With all saver-investors responding in this manner, the aggregate supply of savings will decrease and the interest rate will be driven up to reflect the increased tax on investment income.

Second, moreover, because the incidence of the increased tax always falls on his *present* income and monetary assets, it leaves the taxpayer less well provided with present goods. As his supply of present goods diminishes toward the bare subsistence level-at which point the premium he attaches to present over future consumption becomes approximately infinite-the individual experiences a progressive rise in his time preference, and the prevailing (after-tax) interest rate no longer suffices as adequate compensation for sustaining his current level of saving-investment. He accordingly further reduces the proportion of his income allocated to saving-investment.¹⁹

Finally, as a means of quickly generating the enormous revenues typically required at the outset of a large-scale war, the government might seek to tap, in addition to current income, accumulated capital. This most likely would involve a wealth tax that is levied on each household in some proportion to the market value of the property it owns, including and especially its cash balances. The tax, if it were uniformly enforced on all categories of wealth, would force capitalist-entrepreneurs to liquidate or issue debt against their real assets in order to discharge their tax liability. By its very nature, then, a wealth tax results directly in the consumption of capital. Moreover, even though such a tax is levied on net wealth accumulated in the past, it operates to powerfully increase time preferences and reduce savings even further, because it must

Action, pp. 250-51, 294-400; and F.A. Hayek, "Capital Consumption," in idem, *Money, Capital and Fluctuations: Early Essays*, Roy McCloughary, ed. (Chicago: University of Chicago Press, 1984), pp. 136-58.

¹⁹On these two effects of the income tax, see Rothbard, *Man, Economy, and State*, pp. 797-99.

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be paid out of present income and monetary assets and the prospect of its recurrence can easily be precluded by completely consuming income as it is received and by consuming whatever privately-owned capital remains.²⁰

While the incidence of war taxes falls disproportionately on private saving-investment and wealth, the tax revenues thus appropriated are expended by the belligerent government mainly on present goods in the form of military services and equipment for immediate use. As in the case of an increase in the consumption-saving ratio that would follow from an autonomous increase in the social time-preference rate, the "pure" or "real" interest rate that underlies the structure of risk-adjusted loan rates of return on investment is driven up. The higher loan rates and the attendant fall in the market appraisals of debt and

equity securities operate to discourage business borrowing and dampen investment in maintaining and reproducing the existing capital structure. The result is a contraction of the demand for capital goods and the sudden onset of "crisis" conditions.

The consequent decline in the prices of capital goods relative to consumer-military goods reflects the greater discount on future *vis-a-vis* present goods that is revealed in the higher interest rate, and it results in losses for firms in higher stages of the production structure. In the aggregate, the losses of firms producing capital goods exceed the profits gained by the firms favored by the enhanced military expenditures. The appearance of aggregate losses in the capital-consuming or retrogressing economy is ultimately attributable to the fact that the productivity of labor and real income

20An analysis of taxes on accumulated capital or wealth can be found in Murray N. Rothbard, *Power and Market: Government and the Economy* (Menlo Park, Calif.: Institute for Humane Studies, 1970), pp. @, 87-88. As an important measure of war finance, Pigou advocates a progressive tax on personal wealth, defined broadly to include durable consumer goods and 'the capitalized value of a man's mental and manual powers,' Pigou, *The Political Economy of War*, p. 84. Mises views short-term government borrowing as a preferable alternative to a tax on personal wealth. Mises, *Nation, State, and Economy*, pp. 166-67. Pigou also considers borrowing as economically substitutable for a wealth tax, but prefers the latter on grounds of equity, viz., it compels 'the rich' to bear a greater proportion of the burdens of war. By the way, Pigou misses the point when he claims that "the costs of a war can [not] be paid out of capital.... The source of the funds raised must be the real income of the country." Pigou, *The Political Economy of War*, p. 84 n. 1. The result of capital consumption induced by the wealth tax is precisely an increase in present real income at the expense of future real income as convertible capital goods and labor are shifted toward the production of present goods. As Hayek pertinently remarks concerning taxes levied on capital: "Even though the production facilities which correspond to these sums of capital do not disappear from the face of the earth, the diversion of these sums for the purpose of consumption (or war) still cannot fail to bring about a corresponding reduction in the stock of capital equipment in the final analysis." Hayek, "Capital Consumption," p. 153.

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are declining as resources are bid away from capital goods production by the increased military expenditures. These transitional, though highly visible, losses suffered by business firms are the first step in the process of imputing the decline of marginal productivities attendant upon the dissipation of the capital stock back to the incomes of labor and natural resources.²¹

The capital-decumulation crisis is also manifested in a crash of the stock market because, as noted above, stocks represent titles to *pro rata* shares of ownership in existing complements of capital goods known as "business firms." It is precisely the values of the prospective future outputs of a firm's productive assets, particularly its fixed capital goods, that are suddenly more heavily discounted in appraising the capital value of the firm. This is especially true of firms that are themselves producing durable capital goods or inputs into these goods. The overall decline in the market's estimation of the capitalized value of various business assets that is indicated by the fall in value of equity and debt securities, of course, reflects not only current business losses but is precisely how monetary calculation reveals the fact of capital decumulation. A drop in real-estate markets would also occur at the inception of a tax-financed transition to a war economy, because industrial and commercial construction and land represent particularly durable resources whose capital values are therefore extremely sensitive to a higher rate of discount on future goods. Even if such capital goods may be converted to current military production, their values would still have to be lowered to reflect the waste of capital involved in their construction. Thus, if the exigencies of war had been anticipated, labor and other nonspecific resources would not have been "locked up" in them for such lengthy periods of time.²²

Similar to business-cycle crises, war-mobilization crises will also feature certain secondary, although highly visible, financial and monetary aspects. Many highly leveraged firms in higher-stage industries, confronted by

slumping output prices, will attempt to fend off the prospect of defaulting on their debts by undertaking a "scramble for liquidity," which drives up short-term interest rates, raises the demand for money, and sharply lowers the prices of commodities that are dumped on the market for quick

²¹ On this process of imputation, see Rothbard, *Man, Economy, and State*, pp. 483-84; and Mises, *Human Action*, pp. 294-300.

22 According to Mises, some capital goods "can be employed for the new process without any alteration; but if it had been known at the time they were produced that they would be used in the new way, it would have been possible to manufacture at smaller cost other goods which could render the same service," *Human Action*, p. 503.

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cash. This will precipitate a general fall in prices, which will then intensify and extend the liquidity scramble. Actual and threatened defaults on bank loans and other securities also will begin to erode confidence in the soundness of the financial system. Even if the fractional-reserve banking system bears up under the strain, sparing the economy a collapse of the money supply and a "secondary depression," the conspicuous bankruptcies of banks and business firms, reinforced by the sharp decline in private-financial wealth and after-tax incomes, will quickly disabuse the populace of any notion that war breeds prosperity.

The government will be unable to avoid, and may even exacerbate, the mobilization crisis by substituting borrowing for higher tax levies. The reason is that, in contrast to taxes, which must be paid out of present income and monetary assets and therefore reduce both private consumption and saving (in accordance with taxpayers' time preferences), government borrowing directly taps saving. When selling securities, the government competes with business for the public's saved funds, and, because it is capable of bidding up the interest rate it is willing to pay practically without limit, it is in the position to obtain all the funds it needs. As Rothbard concludes, "Public borrowing strikes at individual *savings* more effectively even than taxation, for it specifically lures away *savings* rather than taxing income in general."²³

With a qualification to be mentioned shortly, by thus "crowding out" private investment to acquire the funds for war financing, government borrowing insures that the entire burden of adjustment to a war economy is borne solely by the capital goods industries. The adjustment is now exclusively vertical, because consumption is not diminished, obviating any horizontal reallocation of resources. Mises thus compares government borrowing to a kind of tax on accumulated capital in its devastating effect on the capital structure: "If current expenditure, however beneficial it may be considered, is financed by taking away by inheritance taxes those parts of higher incomes which would have been employed for investment, or by borrowing, the government becomes a factor making for capital consumption."²⁴

Because it brings about capital consumption beyond that of tax financing, government borrowing promotes a more severe crisis. Thus, for example, on the eve of the outbreak of World War I between July 23 and July 31, and before the would-be belligerent

²³Rothbard, *Man, Economy, and State*, p. 881.

²⁴Mises, *Human Action*, p. 850. For an analysis of the inheritance tax as a pure tax on capital, see Rothbard, *Power and Market*, pp. 84-85.

States had "gone off" the gold standard and began inflating their respective national money supplies, panic selling forced the closing of all major stock exchanges from St. Petersburg and Vienna to Toronto and New York. Certainly, the broad decline in the market value of stocks was partially attributable to general uncertainty of the future and an increased demand for liquidity.²¹ But it also represented a response to expectations of heavy government borrowing to finance war mobilization under the non-inflationary conditions of the gold standard.

The British economist Ralph G. Hawtrey aptly described the initial stages of this mobilization crisis and the frantic attempts of government to suppress it by swift resort to legal-debt moratoria and bank-credit inflation:

The prospect of forced borrowing by the Government on a large scale will stifle the demand for existing stock exchange securities, and stock exchange operators and underwriters will find themselves loaded up with securities which are saleable, if at all, only at a great sacrifice. The disorganization of business may be so great that an almost universal bankruptcy can only be staved off by special measures for suspending the obligations of debtors, like the crop of moratorium statutes with which Europe blossomed out in 1914.

A Government, indeed, faced with a great war, cannot afford to let half the business of the country slip into bankruptcy, and ... the embarrassed traders are propped up, either by lavish advances granted them by arrangement, or by a special statutory moratoriums

As noted, there is an important Qualification to our conclusion that the substitution of government borrowing for taxation will exacerbate the mobilization crisis. Even if the monetary costs of war are paid for entirely by borrowing, the resulting adjustment of the real economy will not be entirely vertical, because the supply of savings is more or less "elastic" or sensitive with respect to changes in the interest rate. Consequently, as the government's fiscal agent bids up interest rates, some members of the public will be induced to voluntarily reduce their present consumption, to a greater or lesser extent, in order to take advantage of the increased premium in terms of the enhanced future consumption per dollar of foregone present consumption promised by the higher-yielding securities. In fact, if, the public's structure of time preferences makes

²⁵Benjamin M. Anderson, *Economics and the Public Welfare. A Financial and Economic History of the United States, 1914-1946* (Indianapolis, Ind.: Liberty Press, [1949] 1979), pp. 28-29.

²⁶Ralph G. Hawtrey, *Currency and Credit* (New York: Amo Press, [1919] 1979), pp. 210-11.

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them sufficiently sensitive to rising interest rates in dete their own consumption-saving ratio, the consumer-good industries may even come to bear a larger burden of adjustment than they would under tax financing.

En any case, we conclude that, when undistorted by monetary inflation, regardless of the fiscal technique or combination of techniques employed, economic calculation clearly and immediately reveals to market participants, individually and in the aggregate, the enormous destruction of real wealth and decline in real income entailed in mobilizing for a large-scale war. What insures this result is monetary calculation based on genuine market prices. Indeed, as Mises points out, 'The market economy is real because it can calculate.... Among the main tasks of economic calculation are those of establishing the magnitudes of income, saving, and capital consumption.'²⁷

Individual capital goods, even so-called fixed capital equipment wear out in production and, in a world of unceasing change, must be replaced by physically different goods. The capital structure is thus undergoing a physical transformation at every instant of time. This means that capitalist-entrepreneurs, who must continually adjust the production processes under their control to changing consumer preferences, technical innovations, and resource availabilities must have recourse to a common denominator in order to determine the outcome of their past production decisions and to assess the resulting quantity of productive resources they currently can dispose of as a starting point for future decisions.

In other words, only the market's pricing process provides the meaningful cardinal numbers needed by entrepreneurs to calculate their costs, revenues, profits, and quantity of capital. Given the continual change in market conditions that impels constant adjustment of the real capital structure and given the vast physical heterogeneity of the complementary capital goods that constitute this structure, in the absence of monetary calculation utilizing genuine market prices, it becomes impossible for a producer not only to quantitatively appraise his capital and income, but to meaningfully conceive a distinction between them. Thus, without the

guidance of capital accounting, there would be no telling how much of the gross receipts from his business the entrepreneur could allocate to his present consumption without dissipating his capital and therefore his ability to provide for future wants.²⁸ Mises, *Human Action*, p. 261.

²⁸Mises writes, "Economic calculation is either an estimate of the expected outcome of future action or the establishment of the outcome of past action. But the latter

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As we have learned from the socialist-calculation debate, in the absence of monetary calculation using genuine market prices, rational allocation of resources is impossible. By proscribing private property in the so-called "means of production," socialist central planning effectively eradicates markets and prices for capital goods, thereby bringing about the abolition of monetary calculation and the inevitable destruction of the existing capital structure.²⁹ While the effects of monetary inflation on economic calculation are not as manifestly devastating as outright socialization, at least initially, it nonetheless operates insidiously to falsify profit and capital calculations. One of the main reasons why inflation distorts monetary calculation is because accounting must assume a stability of the value of money which does not exist in reality. Nonetheless, where fluctuations in the purchasing power of money are minor, as is the case with market-based commodity moneys represented historically especially by the gold standard, this assumption does not practically affect the monetary calculations and appraisements of entrepreneurs. A mighty and complex structure of capital goods was built up under the 19th-century gold standard using precisely such methods of calculation.

However, when government operating through a central bank deliberately orchestrates a significant fiat money inflation to pay for a war or for any other purpose, matters are much different. The resulting large decrease in the purchasing power of money, to the extent that it is not recognized and immediately adapted to in accounting procedures, will inescapably falsify business calculations. Moreover, prices in general do not adjust instantaneously upward in response to the increase in the money supply; rather, the fall in the overall purchasing power of money is the final outcome of a time-consuming, sequential adjustment process involving a distortion of relative prices, including the interest rate or the price ratio

does not serve merely historical and didactic aims. Its practical meaning is to show how much one is free to consume without impairing the future capacity to produce. It is with regard to this problem that the fundamental notions of economic calculation—capital and income, profit and loss, spending and saving, cost and yield—are developed," *Human Action*, pp. 210-11. See also pp. 230, 260-62, 491, and 514-15.

²⁹For recent views of the socialist-calculation debate that emphasize Mises's original thesis that socialism is 'impossible' precisely because it lacks the means of economic calculation, see Joseph T. Salerno, 'Ludwig von Mises as Social Rationalist,' *Review of Austrian Economics* 4 (1990): 36-49; also idem, "Why a Socialist Economy Is 'Impossible,'" Postscript to Ludwig von Mises, *Economic Calculation in the SociWist Commonwealth*, S. Adler, trans. (Auburn, Ala.: Praxeology Press, 1990); idem, Reply to Leland B. Yeager on "Mises and Hayek on Calculation and Knowledge," *Review of Austrian Economics* 7, no. 2 (1994): 111-25; and Murray N. Rothbard, "The End of Socialism and the Calculation Debate Revisited," *Review of Austrian Economics* 5, no. 2 (1991): 51-76.

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between present and future goods.³⁰ Both of these effects operate to conceal the process of capital consumption during its early stages.

Under modern conditions, inflationary finance of war involves a government "monetizing" its debt by selling securities, directly or indirectly, to the central bank. The funds thus obtained are then spent on the items necessary to equip and sustain the armed forces of the nation. The result is a sudden expansion of demand for the products of the military and consumer-good industries, with no reduction in the monetary demand for the products of the capital-good industries. A boom is consequently precipitated, featuring rising prices, profits, and stock values in the former industries. The boom is particularly intense and dazzling in these industries because,

during an inflation, prices rise in temporal sequence. Thus, prices and nominal incomes initially increase only for those sellers who receive the new money in the first round of spending and, therefore, before the prices of the productive inputs and consumer goods they themselves regularly purchase have had a chance to rise. As Mises concludes, 'The war suppliers ... have therefore gained not only from enjoying good business in the ordinary sense of the word but also from the fact that the additional quantity of money flowed first to them. The price rise of the goods and services that they brought to market was a double one, it was caused first by the increased demand for their labor, but then too by the increased supply of money.'"

Because the increase in the demand for credit represented by the Treasury's issuance of securities is met by newly-created bank credit, on the one hand, market interest rates do not initially rise. On the other hand, the higher prices for consumer and war goods eventually spread up the ladder of the structure of production and result in higher prices for the capital-good inputs produced by the higher-stage firms. With their higher prospective earnings discounted by an unchanged interest rate, equity values increase for these firms also. War appears to breed universal prosperity.

Nonetheless, capital consumption is proceeding apace, with aggregate real losses being suffered especially by higher-order **firms**. The reason why these **firms** do not discern their losses and progressive decapitalization is because of their accounting practices, which served them so well during the prewar period of roughly stable prices. Thus, despite the depreciating monetary

³⁰⁰ⁿ **the long-run non-neutrality of the monetary-adjustment process, see Ludwig von Mises, *The Theory of Money and Credit*, H.E. Batson, trans., 3rd ed. (Indianapolis, Ind.: Liberty Classics, 1981), pp. 160-68; also Joseph Salerno, 'Ludwig von Mises on Inflation and Expectation,' *Advances in Austrian Economics* 2b (1995): 297-325.**
³¹ Mises, *Nation, State, and Economy*, p. 158.

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unit, they continue to carry their fixed capital equipment on their books at historical cost, calculating their depreciation quotas accordingly. Even though some of their costs, especially wage rates, are continually driven up by the inflation-fueled bidding of the producers of military and selected consumer goods, capital-good firms, nevertheless, appear to be earning profits as their output prices continue ever upward with a lag. It is only when it comes to replacing their plant and machinery-possibly years down the road-at the much higher "replacement cost" reflecting monetary depreciation that their decline in capital will at last become evident. Moreover, in many cases, the entrepreneurs will then discover that they themselves inadvertently exacerbated this capital consumption by spending their illusory pecuniary profits, which were actually part of their depreciation quotas, on high living and other forms of present consumption.

The Austrian economist, Fritz Machlup, illustrates this process of consumption of working capital with a striking example drawn from the Austrian inflation initiated during World War I:

A dealer bought a thousand tons of copper. He sold them, as prices rose, with considerable profit. He consumed only half of the profit and saved the other half. He invested again in copper and got several hundred tons. Prices rose and rose. The dealer's profit was enormous; he could afford to travel and to buy cars, country houses, and what not. He also saved and invested again in copper. His money capital was now a high multiple of his initial one. After repeated transactions-he always could afford to live a luxurious life-he invested his whole capital, grown to an astronomical amount, in a few pounds of copper. While he and the public considered him a profiteer of the highest income, he had in reality eaten up his capital.³²

WAR INFLATION AND THE ROAD TO ECONOMIC FASCISM

Even after the monetary inflation manifests itself in a general rise in prices, the public can still be misled into believing that these price increases are the result of temporary shortages of essential materials or the machinations of unscrupulous war profiteers and price-gougers. It is only a matter of time, however ' before workers and investors 'Outside the military-industrial complex come to recognize that a depreciating monetary unit is a

permanent feature of the war economy and their eroding real wages and illusory profits are brought clearly and painfully into focus. To postpone the day of accurate reckoning of the costs of war yet again, the
³² **Fritz Machlup**, "The Consumption of Capital in Austria," *Review of Economic Statistics* 17 (January 1935): 16.

government implements price controls. As a **result of** the inevitable shortages and inefficiencies generated by **price** controls, **the** government frantically institutes and then rapidly expands controls over production, distribution, and labor, until very little **is** left of the **market** economy and **its** capital structure. The final outcome **of** this process is an economy in which, although productive **resources are** still nominally privately owned, the State has effectively arrogated to itself the power to make all crucial production decisions. The all-encompassing **war** economy is, ultimately and inescapably, a fascist economy.³³

Guenter Reiman has fittingly entitled his book on the fascist economic system **of** Nazi Germany, *The Vampire Economy*, because, as a permanent war economy, it systematically and madly consumes the capital, **the** very lifeblood, of the host capitalist economy. And to **enforce** the compliance of its citizens in this painfully self-destructive course, an all-powerful state is indispensable. As **Reiman puts it**: "[I]t is impossible to foretell when a military system will collapse as a result of a deficiency in foodstuffs, raw materials or other economic factors. As long as the state machine is in order, it has **the** power to cut down the consumption of the general public and to reduce-almost to eliminate expenditures for the renewal of the industrial machine.... It is possible to increase production of arms and ammunition even with reduced supplies of raw materials. This can be done by drastically limiting production of consumption goods, by putting the population on starvation rations, and by letting vast sectors **of** the economy decay."¹⁴ In Germany, for example, despite the fact that total production had increased **from** prewar levels as a result of the plundering of the

³³As **Charlotte Twight perceptively argues**, "Fascism is unique among collectivist systems in selecting capitalism as its nominal economic mate, but capitalism is turned inside out in this unlikely union.... [F]ascism tolerates the for?n of private ownership at the government's pleasure, but it eliminates any meaningful right of private property.... Fascist capitalism is 'regulated' capitalism; it is government intervention in the economy on a massive scale," **Charlotte Twight**, *America's Emerging Fascist Economy* (New Rochelle, N.Y.: Arlington House Publishers, 1975), pp. 1617. **Avraham Barkai** characterizes the Nazi economy in similar terms: "The market still existed but was not a free market, and most decisions taken by the owners of enterprise were not free, either. The term 'organized capitalism' suits this economic method, subject only to the reservation that organization was imposed from above by extraeconomic, that is, political factors; it was these factors that were responsible for directing the economy in accordance with basically noneconomic considerations. It was therefore a capitalist economy in which capitalists, like all other citizens, were not free even though they enjoyed a privileged status, had a limited measure of freedom in their activities, and were able to accumulate huge profits as long as they accepted the primacy of politics," **Avraham Barkai**, *Nazi Economics: Ideology, Theory, and Policy*, **Ruth H@dass-Vashitz**, trans. (New Haven, Conn.: Yale University

Press, 1990), p. 248.

³⁴**Guenter Reiman**, *The Vampire Economy: Doing Business under Fascism* (New York: Vanguard Press, 1939), p. xi.

productive wealth of conquered nations and the relocation and forced labor of conquered peoples, by 1944 the output of the vital construction industries had shrunk to 25 percent of its prewar level while consumer goods output had declined by only 15 percent.³⁵ The capital consumption that inflation brings about surreptitiously in the beginning, a repressive fascist State is required to sustain over the long run in the service of the war effort.

The American journalist John T. Flynn wrote that "A bad fascism is a fascist regime which is against us in the war. A good fascist regime is one that is on our side."³⁶ But, to repeat, all war economies are and must be in the end fascist economies. Higgs vividly characterizes the process by which, in an effort to conceal the costs of World

War II from its citizens, the U.S. government was driven by the iron logic of economic theory to blunder into draconian fascist economic planning:

Huge military and naval forces required correspondingly large amounts of equipment, supplies, subsistence, and transportation. When the government's procurement officers, their pockets bulging with newly created purchasing power, set in motion a bidding war that could have driven prices up to spectacular levels -thereby revealing the full costs of the government's program and provoking political reaction and resistance-the government moved to conceal the costs by price controls.... But price controls on goods and services could not be effectively enforced while wages remained free to rise. Hence controls of labor compensation followed in due course. The market economy, a vast and delicately interdependent system of transactions, invariably surprised and confounded the administrators of partial controls. In response the government progressively expanded and tightened the command system until, during the final two years of the war, a thoroughgoing garrison economy had been brought into operation. Fundamentally the authorities, not the market, determined what, how, and for whom the economy would produce under this regime.³⁷

It is clear, then, that monetary inflation is the crucial first step in the process by which government seeks to conceal from its citizen-subjects the enormous costs associated with war, particularly the progressive destruction of the nation's productive wealth. Specifically, the inflationary process is indispensable for masking the capital decumulation crisis precipitated by war mobilization, which would otherwise be swiftly revealed to one and all by monetary calculation. In the absence of the veil cast over real economic ³⁵Barkai, *Nazi Economics*, p. 238.

³⁶John T. Flynn, *As We Go Marching* (Garden City, N.Y.: Doubleday, Doran, 1944), p. 165.

³⁷Higgs, *Crisis and Leviathan*, pp. 234-35.

processes by inflation, skyrocketing interest rates, plummeting stock and bond markets, and pandemic business bankruptcies and bank runs-not to mention the levying of confiscatory kinds and levels of taxation-would serve to rapidly and significantly dampen the public's enthusiasm for the alleged glories of war. Ironically it is not money itself that is a "veil"-as classical economists used to claim and many contemporary quantity theorists still affirm because it is precisely monetary calculation that permits market participants to meaningfully assess their wealth and income and appraise the outcomes of alternative allocations of resources. Rather it is central bank manipulation of the money supply that falsifies the calculation of economic quantities and distorts the insight of capitalists and entrepreneurs into market processes.

Finally, it is worth emphasizing that the characterization of monetary inflation as a means for obscuring the real costs of war is an inference from strictly value-free economic theory and, as such, does not logically imply the value judgment that war ought to be financed by non-inflationary fiscal methods. How a war should be financed and whether it should even be waged are questions that can only be resolved in light of a politico-ethical theory. Of course, this is not to deny that such a theory should be "consequentialist" in a broad sense and take into account in its formulation the positive conclusions of relevant sciences regarding the economics as well as of all other outcomes of various government policies. Indeed, given the conclusions of Austrian economic theory that the very concept of a "public good" is untenable and that national defense can and will be supplied most efficiently by the market, like any other desired good, the road has been cleared for the construction of a politico-ethical argument that defense of person and property from local criminals as well as from foreign invaders should be left to the free market.³⁸

³⁸For Austrian critiques of the concept of public good, see, for example, Rothbard, *Man, Economy, and State*, pp. 883-890; see also Hans-Hermann Hoppe, *A Theory of Socialism and Capitalism: Economics, Politics, and Ethics* (Boston: Kluwer Academic Publishers, 1989), pp. 187-210. For the classic article defending the competitive production of defense services by private enterprise, originally penned in 1848 by a leading economist of the French liberal school, see Gustave de Molinari, *The Production of Security*, J. Huston McCulloch, trans. (New

York: Center for Libertarian Studies, 1977). For more recent expositions of how the free market would work to provide defense and other public goods, see Morris and Linda Tannehill, *The Market for Liberty* (Lansing, Mich.: Morris and Linda Tannehill, 1970); Murray N. Rothbard, *For a New Liberty: The Libertarian Manifesto*, 2nd ed. (New York: Collier Books, 1978), pp. 215-41; Rothbard, *Power and Market*, pp. 1-7; Jeffrey Rogers Hummel, 'National Goods Versus Public Goods: Defense, Disarmament, and Free Riders,' *Review of Austrian Economics* 4 (1990): 88-122; and Jeffrey Rogers Hummel and Don Lavoie, 'National Defense and the Public-Goods Problem,' *journal des Economistes at des Etudes Humaines* (June/September 1994): 353-77.