

How economic theory came to ignore the role of debt

Michael Hudson (University of Missouri at Kansas City, USA)

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Starting from David Ricardo in 1817, the historian of economic thought searches in vain through the theorizing of financial-sector spokesmen for an acknowledgement of how debt charges (1) add a non-production cost to prices, (2) deflate markets of purchasing power that otherwise would be spent on goods and services, (3) discourage capital investment and employment to supply these markets, and hence (4) put downward pressure on wages.

What needs to be explained is why government, academia, industry and labor have not taken the lead in analyzing these problems. Why have the corrosive dynamics of debt been all but ignored?

I suppose one would not expect the tobacco industry to promote studies of the unhealthy consequences of smoking, any more than the oil and automobile industries would encourage research into environmental pollution or the linkage between carbon dioxide emissions and global warming. So it should come as little surprise that the adverse effects of debt are sidestepped by advocates of the idea that financial institutions rather than government planners should manage society's development. Claiming that good public planning and effective regulation of markets is impossible, monetarists have been silent with regard to how financial interests shape the economy to favor debt proliferation.

The problem is that governments throughout the world leave monetary policy to the Central Bank and Treasury, whose administrators are drawn from the ranks of bankers and money managers. Backed by the IMF with its doctrinaire Chicago School advocacy of financial austerity, these planners oppose full-employment policies and rising living standards as being inflationary. The fear is that rising wages will increase prices, reducing the volume of labor and output that a given flow of debt service is able to command.

Inasmuch as monetary and credit policy is made by the central bank rather than by the Dept. of Labor, governments chose to squeeze out more debt service rather than to promote employment and direct investment. The public domain is sold off to pay bondholders, even as governments cut taxes that cause budget deficits financed by running up yet more debt. Most of this new debt is bought by the financial sector (including global institutions) with money from the tax cuts they receive from governments ever more beholden to them. As finance, real estate and other interest-paying sectors are un-taxed, the fiscal burden is shifted onto labor.

The more economically powerful the FIRE sector (Finance, Insurance and Real Estate) becomes, the more it is able to translate this power into political influence. The most direct way has been for its members and industry lobbies to become major campaign contributors, especially in the United States, which dominates the IMF and World Bank to set the rules of globalization and debt proliferation in today's world. Influence over the government bureaucracies provides a mantle of prestige in the world's leading business schools, which are endowed largely by FIRE-sector institutions, as are the most influential policy think tanks. This academic lobbying steers students, corporate managers and policy makers to see the world from a financial vantage point.

Finance and banking courses are taught from the perspective of how to obtain interest and asset-price gains through credit creation or by using other peoples' money, not how an economy may best steer savings and credit to achieve the best long-term development. Existing rules and practices are taken for granted as "givens" rather than asking whether economies benefit or suffer as a whole from a rising proportion of income being paid to carry the debt overhead (including mortgage debt for housing being bid up by the supply of such credit). It is not debated, for instance, whether it really is desirable to finance Social Security by holding back wages as forced savings, as opposed to the government monetizing its social-spending deficits by free credit creation.

The finance and real estate sectors have taken the lead in funding policy institutes to advocate tax laws and other public policies that benefit themselves. After an introductory rhetorical flourish about how these policies are in the public interest, most such policy studies turn to the theme of how to channel the economy's resources into the hands of their own constituencies.

One would think that the perspective from which debt and credit creation are viewed would be determined not merely by the topic itself but whether one is a creditor or a debtor, an investor, government bureaucrat or economic planner writing from the vantage point of labor or industry. But despite the variety of interest groups affected by debt and financial structures, one point of view has emerged almost uniquely, as if it were objective technocratic expertise rather than the financial sector's own self-interested spin. Increasingly, the discussion of finance and debt has been limited to monetarists with an anti-government ax to grind and vested interests to defend and indeed, promote with regard to financial deregulation.

This monetarist perspective has become more pronounced as industrial firms have been turned into essentially financial entities since the 1980s. Their objective is less and less to produce goods and services, except as a way to generate revenue that can be pledged as interest to obtain more credit from bankers and bond investors. These borrowings can be used to take over companies ("mergers and acquisitions"), or to defend against such raids by loading themselves down with debt (taking "poison pills"). Other firms indulge in "wealth creation" simply by buying back their own shares on the stock exchange rather than undertaking new direct investment, research or development. (IBM has spent about \$10 billion annually in recent years to support its stock price in this way.) As these kinds of financial maneuvering take precedence over industrial engineering, the idea of "wealth creation" has come to refer to raising the price of stocks and bonds that represent claims *on* wealth ("indirect investment") rather than investment in capital spending, research and development to increase production.

Labor for its part no longer voices an independent perspective on such issues. Early reformers shared the impression that money and finance simply mirror economic activity rather than acting as an independent and autonomous force. Even Marx believed that the financial system was evolving in a way that reflected the needs of industrial capital formation.

Today's popular press writes as if production and business conditions take the lead, not finance. It is as if stock and bond prices, and interest rates, reflect the economy rather than influencing it. There is no hint that financial interests may intrude into the "real" economy in ways that are systematically antithetical to nationwide prosperity. Yet it is well known that

central bank officials claim that full employment and new investment may be inflationary and hence bad for the stock and bond markets. This policy is why governments raise interest rates to dampen the rise in employment and wages. This holds back the advance of living standards and markets for consumer goods, reducing new investment and putting downward pressure on wages and commodity prices. As tax revenue falls, government debt increases. Businesses and consumers also are driven more deeply into debt.

The antagonism between finance and labor is globalized as workers in debtor countries are paid in currencies whose exchange rate is chronically depressed. Debt service paid to global creditors and capital flight lead more local currency to be converted into creditor-nation currency. The terms of trade shift against debtor countries, throwing their labor into competition with that in the creditor nations.

If today's economy were the first in history to be distorted by such strains, economists would have some excuse for not being prepared to analyze how the debt burden increases the cost of doing business and diverts income to pay interest to creditors. What is remarkable is how much more clearly the dynamics of debt were recognized some centuries ago, before financial special-interest lobbying gained momentum. Already in Adam Smith's day it had become a common perception that public debts had to be funded by tax levies that increased labor's living costs, impairing the economy's competitive position by raising the price of doing business. The logical inference was that private-sector debt had a similar effect.

How national debts were seen to impair economic competitiveness prior to Ricardo

An important predecessor of Adam Smith, the merchant Mathew Decker, emigrated from Holland to settle in London in 1702. In the preface to his influential *Essay on the Causes of the Decline of the Foreign Trade*, published in 1744, he attributed the deterioration in Britain's international competitiveness to the taxes levied to carry the interest charges on its public debt. These taxes threatened to price its exports out of world markets by imposing a "prodigious artificial Value . . . upon our Goods to the hindrance of their Sale abroad." Taxes on food and other essentials pushed up the subsistence wage level that employers were obliged to pay, and hence the prices they had to charge as compared to those of less debt-ridden nations.

The tax problem thus was essentially a debt problem, which in turn reflected royal military ambitions. Eight centuries of warfare with France had pushed Britain deeply into debt. Interest on the government's bonds was paid by levying excise taxes that increased prices. The cost of doing business was raised further by the high prices charged by the trading monopolies such as the East India Company (of which Decker himself had been a director) that the government created and sold to private investors for payment in its own bonds.

The system of funding wars by running into debt rather than on a pay-as-you-go basis was called Dutch Financing because, as Adam Smith explained (*The Wealth of Nations*, V, iii; Cannan ed.: 452), "the Dutch, as well as several other foreign nations, [have] a very considerable share of our public funds." In fact, they held more than half of these securities, including shares in major Crown corporations such as the East India Company and Bank of England, on which Britain paid a steady flow of interest and dividends that absorbed much of its trade surplus. "As Foreigners possess a Share of our national Funds," Smith wrote

(anticipating the complaint of global debtors ever since), “they render the Public in a Manner tributary to them, and may in Time occasion the Transport of our People, and our Industry.”

The economic popularizer Malachy Postlethwayt estimated that Seven Years War (1757-63) cost Britain £82 million. In the year the conflict broke out, his pamphlet on *Great-Britain’s True System* (1757:165) explained how the taxes levied to service the public debt had increased the nation’s cost structure: “the Sum-Total of these Taxes is at least 31 per Cent. of the annual Expense of the whole People of England. Now, where is the Nation with which we can enter into a Competition of Commerce on equal Terms? And what Matter is the 1 or 2 per Cent. Advantage we boast over some of our Rivals in the interest of Money, towards restoring the Equality between them and us?”

The economy’s financial problem was whether to lend its savings to the government (almost exclusively to finance wars) or invest them in industry and commerce. “The more the Nation runs into Debt,” Postlethwayt warned (*ibid.*:20f.), “the more Money will be locked up in the Funds, and the less will there be employed in Trade.” Taxing the population to pay interest to public creditors would drain money that otherwise could be used to fund private investment. “Before such Debt took Place, every body possessed their whole Gains,” he added (pp. 52f.). “If the present public Debt instead of being increased, was paid off, the Profits of the Manufacturers, Tradesmen and Merchants, &c. would be all their own,” doubling their rate of profit. “This would be equal in every Respect to a Bounty to that Amount on all our Productions and Fabricks: with that Advantage we should be able to undersell our Neighbours; Our People would of Course multiply; Our Poor would find ample Employment; even the aged and infirm might then earn enough to live upon; new Arts and new Manufactures would be introduced, and the old ones brought to greater Perfection.”

Inasmuch as paper credit was convertible into bullion, the outflow of capital and dividends reduced the monetary base for Britain’s credit superstructure. This threatened to leave the nation with no wherewithal to employ labor, and hence little domestic market for its own products. Like many of his contemporaries, Postlethwayt (p. 53) decried the remittance of debt service to Dutch investors on the ground that the outflow of bullion led to a monetary stringency, resulting in less production and higher prices. This is just what modern third world debtors have suffered for the past half-century under IMF austerity programs in order to pay their foreign-currency debts.

Even if all the debt were held at home, Postlethwayt warned (p. 21), “it would not upon that account be less pernicious.” Taxpayers would pay the bondholders, who tended to spend their revenue unproductively. Even worse: “Funding and Jobbing too often . . . introduces Combination and Fraud in all Sorts of Traffic. It hath changed honest Commerce into bubbling; our Traders into Projectors; Industry into Tricking; and Applause is earned when the Pillory is deserved.” He then described what modern analysts call the crowding-out phenomenon (p. 69):

The national Debts first drew out of private Hands, most of the Money which should, and otherwise would have been lent out to our skilful and industrious Merchants and Tradesmen: this made it difficult for such to borrow any Money upon personal Security, and this Difficulty soon made it unsafe to lend any upon such Security; which of Course destroyed all private Credit; thereby greatly injured our Commerce in general . . .

These complaints seem so modern that one may ask why Postlethwayt has been so neglected all these years. He might have been speaking of today's Latin American and Asian debtors in concluding (pp. 22f.) that Britain's wars and standing armies "hath overwhelmed the Nation with Debts and Burthens, under which it is at present almost ready to sink; and it hath not only hindered those Debts from being paid off, but will daily contribute to enhance them; for while there is more to be got by Jobbing, than by discharging our Debts, all Arts will be used to encrease the new Debts, not to redeem the Old." In a similar way the protests by Smith and Decker against the sale of public monopolies anticipated today's complaints that the monopoly profits, dividend payouts and interest charges by the public utilities that Britain sold off to cope with its national debt problems in the 1980s and '90s have increased the costs that the economy's labor and industry must pay.

The great systematizer of mercantilist principles, James Steuart, pointed to many positive results of England's credit/debt superstructure, but acknowledged that "if we suppose governments to go on increasing, every year, the sum of their debts upon perpetual annuities, and appropriating, in proportion, every branch of revenue for the payment of them; the consequence will be, in the first place, to transport, in favour of the creditors, the whole income of the state, of which government will retain the administration" (*Principles of Political Economy* [1767]:II, 349ff.).

This actually has become the aim of today's ideology of privatization, which goes hand in hand with an advocacy that planning by financial institutions is preferable to that of government – or more to the point, that interest rates, employment, price and wage targets should be set by the Federal Reserve Board. In view of what has happened to today's debt-racked economies, such warnings as those of Steuart were prescient. Britain's government was threatened with the prospect of being turned into little more than a collection agent for overseas bondholders and a rising vested financial interest at home.

If public borrowing forced up interest rates and diverted money away from productive investment, agricultural and industrial productivity could not keep pace with the growth in debt-service charges. The implication was that wars eroded rather than built British international power, for the decisive levers in Anglo-French rivalry lay beyond the military battlefield, above all in the financial sphere. Higher debts and taxes threatened to increase Britain's production costs and export prices, impairing its balance of trade regardless of the nation's military victories. Bullion would flow out and industry would stagnate, leaving Britain without the monetary sinews needed ultimately to defend itself against nations growing economically stronger.

Adam Smith's views

Smith's protest against government profligacy and taxation was essentially an argument against war debts. He saw that new wars could be financed only by running further into debt, as populations were unwilling to support them when they had to pay taxes to defray their costs directly on a pay-as-you-go basis and thus felt the full economic burden immediately. The landed gentry, whose members formed the cavalry and officer corps, supported wars out of patriotism but opposed the proliferation of public debts whose interest charges were defrayed by taxes that fell ultimately on their own property. When the barons had opposed royal taxation in medieval times, rulers avoided the tax constraint by borrowing from Italian bankers and other lenders.

By the 18th century, governments had turned to more anonymous Dutch and domestic investors. This created a vested interest of bondholders. And it was only natural for them to portray their lending in as patriotic and economically productive a light as they could, claiming to provide capital to the nation. However, Smith wrote (V, iii; Cannan ed. pp. 460ff.): “The opinion that the national debt is an additional capital is altogether erroneous.” Debt was just the opposite of an engine of development. A nation’s real wealth lay in its productive powers, not its money or the buildup of financial securities. These were only the shadowy image of real wealth. In fact, Smith explained, the policy of funding wars by bond issues diverted money that taxpayers could use more productively for direct investment. Taxes to pay debt service were “defrayed by the annual destruction of some capital which had before existed in the country; by the perversion of some portion of the annual produce which had before been destined for the maintenance of productive labour, towards that of unproductive labour.”

Smith thus joined Decker, Postlethwayt and other critics of the Funding System in observing that public debts forced up taxes to pay interest charges – money that otherwise would be “employed in maintaining productive labour.” Whereas industrial and commercial borrowers invested the proceeds to acquire capital whose earnings served to pay off the debt, governments borrowed to wage wars. A deteriorating economic spiral ensued as the taxes needed to carry these debts threatened to “diminish or destroy the landlord’s ability to improve his land, and induce the owner of capital to remove it from the country” (pp. 464f.).

By the time Smith published *The Wealth of Nations* there seemed to be little likelihood of Britain paying down her national debt. Tax revenues had become “a fund for paying, not the capital, but the interest only, of the money which had been borrowed . . .” (pp. 450f.). He warned that at some point the burden of war debts would drive the belligerent nation bankrupt, for “Bankruptcy is always the end of great accumulation of debt.”

Public bondholders felt little obligation to promote long-term investment for the nations to whose governments they lent money. Although “a creditor of the public has no doubt a general interest in the prosperity of the agriculture, manufactures, and commerce of the country, he has no interest in the good condition of any particular portion of land, or in the good management of any particular portion of capital stock.” All that creditors really cared about was the government’s power to levy taxes to raise the revenue to pay their debts. When the debt and tax burden had impoverished a country, they could remove their capital to other lands to repeat the process, as has happened again and again.

In sum, the ability of Britain’s government to wage war rested on its power to run up debt, which in turn rested on the power to tax. The struggle to free the economy from taxes involved freeing it from public debt, and this required constraints on royal ambitions. Tax charges were not direct production costs, but were the price to be paid for military self-indulgence financed by bonds and other borrowings or the sale of the public domain and monopolies. Such taxes and sell-offs threatened to grow as military technology was becoming more capital-intensive for shipbuilding and cannon, and as the field of conflict with France stretched to America.

In this perception lay the seeds of the economic individualism of Adam Smith and many of his Whig contemporaries. If Britain were to secure a commercial advantage, it would have to reduce the taxes that had been imposed to carry its war debts. This entailed loosening the Old Colonial System so that economic competition would replace military and political coercion.

How Ricardo's value and trade theory ignored the impact of debt and interest charges

The debt discussion peaked at a time before most modern readers imagine that economic theory began. It was the bond-broker Ricardo that ended the discussion rather than moving it forward. His labor theory value focused only on the direct costs of production, measured in labor time. Credit and interest charges did not enter into his model. Workers earned the subsistence wage, and capital was valued in terms of the labor needed to produce it. The land was provided freely by nature, and its natural fertility (and hence, economic rent) was not a cost of production. As for the taxes to which Ricardo referred in his 1817 *Principles of Political Economic and Taxation*, they were the tariffs levied on agricultural products, not taxes levied to pay bondholders. Yet as the economic historian Leland Jenks has observed (1927:14ff.), Britain's government paid out some three-fourths of its tax revenue as dividends to bondholders in the typical year 1783. "Nine million pounds were paid to *rentiers* when the entire annual turnover of British foreign trade did not exceed thirty-five millions."

By 1798, in the wake of the American and French Revolutions, William Pitt's financial policy of borrowing rather than running government on a tax-as-you-go basis imposed interest charges so heavy that, in Jenks' words, "the nation was mortgaged to a new class of society, the *rentiers*, the fundholders, for an annual sum of thirty million pounds, three times the public revenue before the revolutionary wars. The bulk of this sum was being collected in customs, excise and stamp duties, and constituted an engine by which wealth was transferred from a large consuming public to the much smaller number who owned consols," that is, government bonds with no fixed maturity, paying interest only – forever.

Prices for gold and other commodities had drifted upward after the paper pound's convertibility into gold was suspended in 1798. This set the stage for postwar depression after the Napoleonic Wars ended in 1814 and the Bank of England decided to restore the convertibility of sterling currency into gold at the low prewar price level. Debtors had to repay their obligations in money that was becoming more expensive, giving bankers and bondholders a free ride. Seeking to avoid blame, they nominated Ricardo for a safe seat in Parliament to represent their interests.

He set about to convince voters (still made up mainly of property holders) that the nation's economic problems were not caused by debt deflation, but by the Corn Laws, as Britain's agricultural tariffs were called. These high tariffs supported high domestic prices for agriculture on the logic that high food prices would support rental earnings that could be invested to increase output. Over time this would enable Britain to replace imports with higher domestic production levels. But Ricardo argued that higher prices merely would give protected industries a free lunch, above all in the form of land rent, assuming no investment of this revenue to enhance productivity. Ricardian value theory provided a way to measure this unearned income, the element of price that had no counterpart in cost outlays except for the least efficient, highest cost (zero-rent) producers.

Given the subsistence conditions of the day, wages reflected food prices. These in turn reflected agricultural productivity. As Britain's population growth forced resort to poorer soils to produce the crops needed to feed it, producers on the most fertile land enjoyed a widening margin of market price in excess of their own low costs. The marginal supply price was determined by production costs on the least fertile soils, as long as protective tariffs blocked consumers from buying from lower-cost suppliers abroad.

Ricardo portrayed this agricultural cost differential – economic rent – rather than interest as the paradigmatic form of unearned income. It was an element of price that had no corresponding cost of production for well-situated producers. The best way to minimize it, he explained, was for Britain to open its markets to foreign producers, so that high-cost soils would not need to be brought into cultivation. In exchange, foreigners would be asked to open their own markets to British manufactures. Each nation would produce what it was “best” at producing.

This tradeoff became the new objective of British diplomacy, whose market-oriented strategy replaced the Old Colonial System’s coercive prohibitions against colonial manufacturing. Underlying this new policy was the perception that if Britain were to undersell its potential rivals to become the workshop of the world, it needed to minimize the money wages it paid its labor. The work force could be fed least expensively by importing grain rather than supplying it with high-cost domestic production. From 1817 through the repeal of the Corn Laws in 1846 the great political struggle in Britain therefore was between the free-trade Manchester School and the protectionist landed interest. In the United States, Germany and other countries the fight was between industrial protectionists and agricultural free traders who hoped to exchange their raw materials for relatively cheap British manufactures.

Ricardo was the first major economist to be a financier since John Law, who had managed France’s Mississippi Bubble a century earlier, in the 1710s. At first glance it seems ironic that a bond broker should have developed classical trade theory in a way that viewed exchange essentially as barter rather than analyzing of how public and private-sector debt levels influenced production costs. Of all people who should have been aware of the financial elements of costing, it would seem that a bond broker would have had a comparative advantage in incorporating such considerations into his trade theory. Yet one looks in vain for a discussion of how debts and the taxes to carry them affected prices and international pricing.

Today, global competitiveness in automotives, steel-making and other capital-intensive industries turns less on wage rates than on variations in the cost of financing investment – interest rates and debt/equity ratios, taxes, subsidies and land or rent charges. Yet such financial considerations do not appear as elements of production cost in Ricardo’s value theory, nor do they appear in today’s Chicago School monetarism that stands in line with Ricardian doctrine. By focusing on labor-time proportions, Ricardo implied that non-labor expenses such as interest did not really matter. As for taxes, they mattered to the extent that import tariffs forced up the price of labor’s food and other necessities, but there was no memory of the long analytic tradition that attributed taxes to the Funding System’s interest payments on the public debt. Hence, the policy conclusion of Ricardo’s comparative labor-time approach to international trade theory was not that nations should avoid going into debt, but that they should abolish their tariffs to lower prices.

This limited approach implicitly took bond brokers and bankers off the hook from accusations that their debt charges impaired the nation’s well being. Ricardo’s advocacy of free trade and its consequent specialization of production among countries promised to create a growing commercial loan market and an even larger bond market to finance transport infrastructure such as railroads, canals and shipbuilding.

No prior economist had claimed that public and private debt levels did not affect competitiveness. Yet this is what Ricardo’s trade and value theory implied by not

acknowledging any impact of debt service or that monetary stringency had to be imposed to stem the drain of bullion to pay foreign creditors. In these respects he was like an individual viewing the world around him, but not seeing himself (or in this case, finance) in the picture. He denied that paying foreign debts had any serious economic impact, depicting them as being self-financing by an automatic monetary adjustment process. This approach rationalized the kind of deflationary austerity imposed today on hapless debtor countries, providing the conceptual foundation for modern IMF and World Bank austerity doctrines.

Inasmuch as money and credit are forms of debt, one would think that monetarists working for central banks, finance ministries and business schools would analyze the debt burden and its interest charges, but they have followed Ricardo's shift of emphasis away from discussing its impact. Yet so powerful was his labor theory of value – powerful largely because of its abstraction, not its economic realism – that it led subsequent generations to speculate about how economies might function if debt and other non-labor costs had no effect on national competitiveness, living standards and the polarization of incomes and wealth.

Europe's 1815-1914 century of relative peace reduced the need for war financing, alleviating concerns about the public debt. The soaring productive powers of labor, capital and land enabled economies to carry higher levels of debt, financed readily by the growth of savings. The financial interests threw their weight behind industry. Opposing the landed aristocracy's Corn Laws, economic theory focused on price competitiveness as determined by labor productivity, using food prices as a proxy for wage levels. Credit was depicted as financing capital formation, headed by public spending on railroads, canals and other internal improvements in Britain and overseas.

Landholders had not yet become a major market for lenders. Except for insiders, personal and mortgage debts were viewed more as emergency measures than as a catalyst to get rich quickly. For all but a few financial operators the practice of debt pyramiding – borrowing money to buy properties steadily in price – would have to await the modern era of asset-price inflation. There was little hint that financiers and real estate interests would join to form a *rentier* bloc. Nobody anticipated the degree to which urban real estate would develop into the banking system's major loan market, in which developers, speculators, absentee owners and homeowners would pay most of the land's net rental revenue to mortgage lenders.

From the critique of economic rent to the critique of property rights of rentiers

Ricardo was the first major economist to portray protectionist landlords as having interests at odds with those of society at large. However, he believed that the rent problem – economic free rides – could be solved and British industrialization put on a firm footing by embracing free trade. His doctrines supported the flowering of trade credit and international investment, which were making quantum leaps forward in his day.

The opposition of Ricardian value and rent theory to Britain's vested interests, the landed aristocracy surviving from Britain's feudal past, made his approach seem progressive. What seems surprising in retrospect is the degree to which landlord spokesmen followed the shift of attention to rent, letting themselves be distracted from the analysis of how debt financing threw the brunt of carrying public spending onto their class.

In pointing out that landlords spent their rental income on servants, coach-makers and other such labor, Thomas Malthus emphasized the role of macro-economic demand, but did not discuss how debt service was deflationary. Defending the Corn Laws, his point was that although landlords and their employees might be unproductive, at least they spent their wages on the products of industry, spurring the domestic market. Ricardo's free trade proposals aimed at supporting industry more directly, by repealing the tariffs that obliged employers to pay their workers high enough wages to cover the nation's highly protected grain prices.

Adam Smith had remarked that landlords liked to reap where they had not sown, he also described their objective as being to promote prosperity inasmuch as they were the major beneficiaries of a thriving economy and growing population. Ricardo agreed that they were its major beneficiaries, but accused them of gaining passively via a free ride – economic rent. He believed that economic rent was caused by fertility differentials inherent in nature, and that nothing could alter “the original and indestructible powers of the soil” responsible for the natural superiority of some lands to others. When Malthus argued that landowners would invest their rental income in the land to improve its yields so as to earn more revenue, Ricardo replied that even if landlords did this, it would not overcome the differentials in soil fertility responsible for causing economic rent. Overall productivity might rise if fertilizer or machinery were applied to the soil, but the yield proportions would remain unchanged! The agricultural chemistry of Justus von Liebig and Thaer soon showed that this assertion was unscientific, but Malthus did not criticize this, nor did he criticize the financial blind spot in Ricardian reasoning. Despite the fact that it was mainly the landlords that were taxed to pay interest on government borrowings, they let the debt issue simply was shelved.

As resentment against the public debt and creditors waned, hostility toward landlords peaked. Yet although Ricardo accused protectionism of increasing rents, he did not challenge the property rights of landlords to receive them. He shifted the economic policy debate away from the interest problem to that of rent, but did not question the property rights of landed *rentiers* any more than those of financial *rentiers*. It was the philosophic radical John Stuart Mill, son of the economic journalist and Ricardian popularizer James Mill, who made a more far-reaching argument against the right of landlords to receive rent that once had accrued to the public domain. For J. S. Mill such rent was the ultimate free ride. He believed that rents (most of which were on inherited lands) should be returned to the public domain as the tax base, as it had been in feudal times.

This brought into question property rights as such, an inquiry that was pursued with the greatest intensity in France, and soon would be questioned even more radically by the Marxists. It was first in France, in the wake of the French Revolution's overthrow of the monarchy and feudal aristocracy, that a more radical challenge to property would be made, including a challenge to the interest collected by the banking families that had emerged to create a new, post-feudal power.

Banking theory and industrialization

Although British banks were all in favor of the flourishing trade that pro-industrial policies promised to bring about as Britain became the workshop of the world, they played little role in developing an industrial credit market. What they had done for centuries was to provide short-term trade credit, discount bills of exchange and transfer international

payments. Such lending promised to grow as a result of the global specialization of production that Ricardo's free-trade policies aimed to promote, but that was the extent of matters. Railroads, canals and other infrastructure used the stock and bond markets rather than banks for their long-term funding. Even so, Britain's security markets did not provide its industry with long-term credit to anywhere near the degree achieved by the financial systems developed in continental Europe.

The economic dislocations in all countries after 1815 made it clear that banking and financial structures would determine which nations would ride the crest of the Industrial Revolution. Stepping back to take a broad view of what their nations needed to catch up, it was French and German policy makers that moved banking theory into the industrial age. In France, followers of the Count Claude-Henri de St. Simon (1760-1825) saw that new banking institutions were needed to finance industry, thereby replacing the traditional consumer usury, trade financing and lending to governments. Their theorizing along these lines created a veritable economic religion based on the credit system's role in planning and allocating the resources of industrial society.

In 1821, St. Simon published *Du Système Industriel*. Among the followers he attracted were Prosper Enfantin and Saint-Amand Bazard, whose ideas were summarized in *Doctrine de Saint-Simon, Exposition, Première année* (1828/29). Subsequent admirers included the social philosopher Auguste Comte, the economist Michel Chevalier, the socialist Pierre Leroux, the engineer Ferdinand Lesseps (whose plans for international canals elaborated ideas initiated by St. Simon) and the brothers Emile and Isaac Pereire who founded the *Crédit Mobilier* in 1852. Outside of France, St. Simon influenced John Stuart Mill, Marx and other socialists.

The St. Simonians were the market reformers of their day. One even might call them market evangelists, but what made them more fundamentally radical than today's libertarians was the fact that they treated the inequalities caused by inherited wealth as market imperfections to the extent that such power was not earned directly through one's own ability and merit. As an enlightened democratic aristocrat St. Simon saw hereditary privilege as a parasitic burden for society. His 1819 satire *Parabole* depicted the governing aristocracy and *nouveaux riches rentiers* as living easily off their inherited rent and interest revenues rather than playing an active role in promoting industrial development. St. Simon's objective accordingly was to replace the hereditary *rentier* class with a regime based on merit.

The basic theme was that talent was best able to show its ability in industry, but it needed credit, and this required a reformed financial system. Paramount among the St. Simonian reforms was the principle that credit should be productive, not usurious. Past lending was criticized for indebting the rest of society without putting in place new means of production. To rectify matters governments were urged to coordinate industrial planning so as to provide a productive field for the investment of savings and credit. Each city was to be headed by a mayor acting as *chef-industriel* (head of industry), who would allocate the means of production and set income levels. These banker chiefs were to be appointed by national economic "priests" who would hold ultimate power. In this doctrine lay the seeds of a centralized government *dirigisme*.

A basic issue posed by 19th century political economy was who would allocate resources best – the market or government? It was recognized that every economy is planned by someone or other. The St. Simonians, Marxists and "state socialists" of

Bismarck's Germany believed – and indeed, hoped – that financial engineers would become virtual public planners.

The St. Simonians proposed a system to operate through financial intermediaries to mobilize and mediate the use of resources. They hoped to transform debt and credit from the burdensome forms imposed by centuries of consumer usury and government war-financing into productive, self-amortizing industrial lending to finance investment in factories, technology and a broad national economic infrastructure. It was expected that as banking and finance were harnessed to serve the industrial imperatives of society, power-driven manufacturing and transport would provide a fertile field for the investment of savings.

Today's world has fulfilled their expectations in the sense that resources are allocated by planners working for commercial banks, investment banks and other institutional investors, while the chief executive officers of major corporations are concerned more with financial strategy than with industrial engineering. Rather than operating as part of government, however, these financial institutions have become vested creditor interests in a way almost the opposite from that hoped for by St. Simon. The bankers he envisioned were to be elevated as industry's organizers and promoters. In contrast to the industrial innovators of the sort envisioned by Joseph Schumpeter, the St. Simonians industrial capitalist ("*travailleur*") was a financial engineer, seeing where credit best could be applied to promote physical investment and new technology. According to the compilation *Religion saint-simonienne, Economie politique et Politique* (Paris: 1831:98), "the banks perform the role of capitalists in their transactions with those *travailleurs*, to whom they loan money," enabling these "industrious people" to obtain financing (*ibid.*:45; Marx quotes with approval a series of such passages in *Capital* III [Chicago 1909]:714).

Today's financial management certainly is not unfolding in the way these industrial optimists expected. The planning they endorsed had a long-term time frame based on tangible capital investment, technological innovation, rising productivity and employment. But for today's financial planners the short run effectively has become the only aim. Running a corporation has become mainly a financial task whose objective is to raise the company's stock price by mergers and acquisitions, using earnings to buy one's own equity, arranging debt leveraging and orchestrating global intra-corporate "book" pricing so as to take profits in tax havens. Financial managers are more likely to downsize operations and scale back research and development than to expand employment and production so as to leave more income to pay dividends and interest. The economy's debt burden is made heavier by deflationary policies that keep expansion on a short-term leash, and to encourage rather than tax *rentier* income and debt financing.

This line of development was not foreseen either by the St. Simonians or their contemporaries. Had they anticipated it, they would have depicted it as a financial dystopia.

Emile Pereire took the first steps to put his ideas of an equity-funding system in place in the 1830s, building France's first railway line (running from Paris to St. Germain), followed by other routes. Like Friedrich List in Germany, he recognized the key role of transport in integrating and developing national economies. Such infrastructure needed large financial institutions to provide credit, and in 1852 Pereire formed the *Société Générale du Crédit Mobilier* as a joint-stock bank designed to direct savings into the stocks of large undertakings. He was joined by his younger brother Isaac, who explained the institution's financial philosophy in *Le Rôle de la Banque de France et l'Organisation du Crédit en France* (1864)

and *La Politique Financière* (1879). The aim was to expand industrial production by providing long-term credit at a lower cost than was charged by banking families such as the Rothschilds who monopolized French finance at the time.

To give industry freedom from the constraints imposed by mercantile banking practice, the *Crédit Mobilier* provided equity capital and bond financing. But this freer supply of long-term credit proved to be its undoing as the bank turned into a pyramid scheme. It borrowed at a low rate of interest and invested in the securities of its customers. When France's economy was thriving this strategy worked, but over the course of every business cycle a downturn comes when stock prices crash. It was at this point that the *Crédit Mobilier* suffered both as stockholder and as banker, for it had borrowed short and lent long-term. Its deposit liabilities remained fixed in the face of the economic crash that occurred in 1866.

The *Crédit Mobilier's* close connections with Louis Napoleon's government prompted it to indulge in insider speculation that drove it bankrupt in 1867 and into liquidation in 1871. Rather than making loans the bank invested in the stocks and bonds issued by its customers. "The institution was in effect a gigantic holding company engaged in financing and managing industrial enterprises," notes George W. Edwards (*The Evolution of Finance Capitalism* [1938]:51). "The securities of the controlled companies were used as assets on which the *Crédit Mobilier* issued its own securities, to be sold to the public. For a number of years the Bank was highly successful, and performed notable service in promoting railroads and public utilities."

Financial scandals plagued the 19th century's largest international investments, headed by the Suez and Panama Canal schemes (both of which had been early St. Simonian ideas), and by America's railway land grants to robber barons whose subsequent stock and bond waterings helped give high finance a bad name. As aggregations of finance capital grow larger and more closely linked to government, banking systems become ingrown and prone to "crony capitalist" insider dealing. There is a reason for this. Savings grow so rapidly at compound interest that savers and investors look for new types of outlet. Inevitably they must lower their standards and lend in an increasingly risky environment, as the risk is aggravated by the volume of debt itself.

By the 1980s, for example, so large a supply of savings had mounted up in the United States that Drexel Burnham's crew of corporate raiders seemed a godsend when they financed their takeovers by high-interest junk bonds. When the dust settled they had left debt-burdened companies in their wake and bankrupted many savings-and-loan associations and cost the Federal S&L Deposit Insurance Corp. (FSLIC) some \$300 billion. Japanese insider deals financed a real estate bubble by funneling bank loans to speculators and schemers. The bursting of the Asian Bubble in 1988 showed the extent to which modern financial systems lack the checks and balances needed to direct savings along more productive lines.

Today's market orthodoxy has inverted the 19th-century reformers' spirit by endorsing financial gains indiscriminately. While credit is channeled to create an asset-price inflation, free riders gain wealth not so much by inherited privilege as by their insider contacts with banks. They borrow money to buy real estate and stocks when asset prices are rising, and stick the government's taxpayers with losses when asset prices turn down.

The St. Simonian contribution was to emphasize the need for an efficient banking system to provide industry with long-term financing. The school's influence ranged from

socialists to German industrialists. As it was not anticipated that finance would overload industrial economies with debt, no one sought to develop a theory to quantify just how much debt economies could afford. No doubt the 19th century's industrial optimists would have been surprised to learn the extent to which today's financial institutions aim not to fund industry but rather to load it down with debt and extract interest. And rather than funding public investment, financial institutions have set about privatizing and dismantling it, stripping away the moral authority with which the St. Simonian reformers, socialists, German bank theorists and other early advocates of industrial progress imbued public planning and enterprise.

Marx's optimistic view of industrial finance capitalism

Engels (*Capital* III:710, fn 116) attributed Marx's ideas of how banking and finance were destined to be transformed by the economic imperatives of industrial technology to St. Simon, pointing out that Marx spoke "only with admiration" of his "genius and encyclopedic brain." To be sure, Marx criticized St. Simon's followers for being utopian in hoping to reconcile capital and labor. Yet although he spoke sarcastically of St. Simon's "world-redeeming credit-phantasies," he shared his financial optimism, most explicitly in asserting that the banking and credit system "signifies no more and no less than the subordination of interest-bearing capital to the conditions and requirements of the capitalist mode of production" (*Capital* III:704f.). What made industrial credit different "from usurer's capital" was "the totally changed character of the borrower . . . He receives credit in his capacity as a potential capitalist." Industrial credit would free society from the need to rely on the usurers' hoards of the past, and indeed from the short-term financial leash imposed by Anglo-Dutch mercantile banking.

In his 1861-63 drafts for what would become the later volumes of *Capital*, Marx called the banking system "the most artificial and the most developed product turned out by the capitalist mode of production" (*Capital* III:712). Like the St. Simonians, he expected it to become society's means of planning the future, and believed as optimistically as they did that the needs of industry would transform the shape of lending and investment to finance capital formation on a global scale.

Underlying this view was the perception that there are two ways for a loan to be repaid. If the proceeds are invested to produce a profit, borrowers can pay out of the revenue they earn; otherwise they must reduce their consumption or sell off their assets. Marx believed that productive lending would become the normal state of affairs, although he was one of the first "business cycle analysts" to describe how financial crises occurred periodically when gluts of unsold output led to collapsing prices and bankruptcies that transferred property from debtors to creditors. "Usury centralises money wealth, where the means of production are disjointed," Marx concluded (*ibid.*:700.). And as the means of production became more centralized, he added (*ibid.*:712), "it must be kept in mind that the credit system has for its premise the monopoly of the social means of production in the hands of private people (in the form of capital and landed property)."

Loan balances doubled and redoubled by usury's own laws – the mathematics of compound interest – which were not rooted inherently in the economy's ability to pay and hence were independent of the mode of production. Interest-bearing debt "does not alter the mode of production, but attaches itself as a parasite and makes it miserable," Marx warned.

“It sucks its blood, kills its nerve, and compels reproduction to proceed under even more disheartening conditions.”

Marx granted that the old reliance on usurers' credit would survive for “such persons or classes . . . as do not borrow in the sense corresponding to the capitalist mode of production” (*ibid.*:705). The usurious practice that survived from antiquity “does not confront the laborer as industrial capital” but “merely impoverishes this mode of production, [and] paralyzes the productive forces instead of developing them” (*ibid.*:699f.). As long as this form of capital exerted control over governments, industrialization would be thwarted and public revenue would be diverted to parasitic forms of finance, limiting the growth of markets by siphoning off labor's wages to pay interest on consumer purchases or other pressing needs. Distress borrowers would pledge (and in due course, forfeit) their collateral.

Anticipating the arguments of Keynes in the 1930s, Marx criticized the Ricardian bullionists for demanding that governments protect the value of loans by imposing monetary deflation. This would stifle the market needed to call forth new investment. “The value of commodities is therefore sacrificed, for the purpose of safeguarding the phantastic and independent existence of this value in money,” he warned (*ibid.*:607). “As money-value it is secured only so long as money itself is secure. For the sake of a few millions of money many millions of commodities must therefore be sacrificed,” along with new investment and hiring.

Nonetheless, he believed, the jockeying for position between financial and industrial capital would be settled in industry's favor in the end. “This violent fight against usury, this demand for the subordination of the interest-bearing under the industrial capital,” Marx promised (*ibid.*:707), “is but the herald of the organic creations that establish these prerequisites of capitalist production in the modern banking system. The hard-money age of usury no longer would deter society from achieving its technological potential.” The financial achievement of industrial capitalism would be to mobilize banking and finance as the tool of industry, creating new institutions to supply industrial credit on the basis of calculations of the borrower's ability to invest the loan proceeds profitably enough to pay the loan with its interest charges. By providing productive credit, the new industrial banking system “robs usurer's capital of its monopoly by concentrating all fallow money reserves and throwing them on the money-market, and on the other hand limits the monopoly of the precious metals themselves by creating credit-money.”

If economies were to avoid systemic crisis, they would have to carry the burden of financial claims accruing at compound interest, but Marx believed that industry's productive forces would be up to the task. So did most observers. Captains of industry were expected to steer the ship of state while industrial engineers would do the planning. Rather than watering stocks to load down enterprises with “fictitious capital” and ruining the world's colonial regions as they had done in Egypt and Persia, financiers would coordinate global industrialization. In the end, finance would adjust itself to the underlying “real” economy, becoming a subordinate and derivative layer. Future wealth creation would take the form of building up society's means of production and employment, not merely inflating stock market prices (“paper wealth”).

The post-classical reaction analyzes interest without examining money, credit or debt

Classical economics was inherently political by virtue of dealing with society's most basic dynamics. The labor theory of value isolated economic rent as constituting unearned income, an element of pricing that represented a free lunch rather than a cost element remunerating productive effort. To the extent that rent and interest could not be a bona fide production costs, they were brought under fire as appropriate sources of taxation or outright nationalization of the *rentier* claims and property rights that produced them. These policy conclusions made it inevitable that an individualistic and anti-government reaction would arise against the reformist spirit of J. S. Mill as a halfway house to the revolutionary conclusions of Marx.

The first major shots were fired in 1871, by Anton Menger in Austria and Stanley Jevons in Britain. Looking at the economy from a psychological vantage point that placed consumers rather than employers and businesses at the center, the Austrian individualists and British utilitarians based their essentially microeconomic perspective on consumers choosing what products to buy and whether to consume them in the present or defer their gratification to the future in exchange for interest.

The logical method was that of *ceteris paribus*, "all other things remaining equal." This created a world in which consumer utility, saving and interest were discussed as if all other elements of the economic system remained unchanged. By ignoring the economy-wide feedback of given actions, this approach made it possible to avoid thinking about the financial dynamics that shaped the 19th and early 20th century.

The psychological theory, for instance, discussed interest rates as reflecting the degree of impatience to consume goods in the present rather than in the future, without reference to the interaction between interest rates, exchange rates, prices and the magnitude of debt. William Nassau Senior's "abstinence" theory represented interest as payment for a sacrifice on the part of savers, a "factor return" to reward them for the "disutility" or "service" of not consuming their income on the spot but deferring their gratification. Everything appeared to be a matter of choice, not contractual necessity or economic need. The implication was that money was something concrete to be lent out. No reference was made to how credit was created or to the forfeiture of property that ensued when things went wrong. Yet the world's economies were being shaped by "things going wrong," that is, not according to the neat textbook models.

If credit could be created at will, there would be no need for abstinence. Banks were corporate institutions, and had no psychology to consume, but a legal charge to accumulate profits without any diminishing psychic utility. A financially based theory would have focused on the banking system's credit creation and on the fact that governments were their major borrowers and Treasury bonds dominated financial markets and formed the banking system's reserves. It was for purely political reasons that they borrowed from domestic *rentiers* – owing most to the wealthiest ranks of the population – rather than taxing wealth more heavily or simply monetizing public debts.

No gunboats appeared in this theorizing to enforce a creditor-oriented international diplomacy, nor were railway stock and bond waterings recognized. There was no coercion of debtors or no unearned free lunch for *rentiers* and stock jobbers. Such considerations went

beyond the measuring rod of utilitarian psychology, having disappeared into the miasma of *ceteris paribus*.

Adam Smith estimated that businessmen operating with borrowed funds would pay half their profits to their backers as interest. The interest rate thus would be half the rate of gross profit prior to interest charges. A century later the Austrian economist Eugen von Böhm-Bawerk reversed the causality and made profit rates depend on the rate of interest. He pointed out that businessmen would not tie up their money in a venture unless they could make more by investing in time-taking “roundabout” production techniques than they could make simply by lending out their money. On this basis the primary return to industrial and finance capital alike was interest. Profit reflected the time needed to plan and put in place complex capital investments, factoring in the time process by discounting investments at the rate of interest.

In the 1930s the Chicago economist Frank Knight explained that interest yields for business represented the risk premium over and above the basic interest rate offered by risk-free bonds. Interest thus was made primary, profit secondary rather than the system’s key dynamic as had been the case in classical political economy.

These theories of consumer preference for current over future consumption and other psychological or profit-rate considerations did not require a discussion of the financial system, its volume of debt and the impact of its carrying charges on economic activity. To avoid taking into account the phenomena of inflation and deflation, the evolution and polarization of wealth, and the ways in which debt service affects market demand and commodity prices, neoclassical economists discussed production and consumption as if people lived in a debt-free barter economy. Absolute values were lost sight of, as everything became a matter of ratios and proportions. As Keynes described the new orthodoxy: “Most treatises on the principles of economies are concerned mainly, if not entirely, with a real-exchange economy; and – which is more peculiar – the same thing is largely true of most treatises on the theory of money.”¹

Money was treated not as a political institution (e.g. to enable governments to pay their debts) but as a commodity whose value (and hence, the economy-wide measure of prices) was determined by supply and demand. This assumed that money was a fixed volume that could easily be defined. Credit made little appearance. However, Keynes warned, it would be a dangerous mistake for economists “to adapt the hypothetical conclusions of a real wage economics to the real world of monetary economics.” The kind of thinking that underlay “real-exchange economics . . . has led in practice to many erroneous conclusions and

¹ “A Monetary Theory of Production” [1933], in *The Collected Writings of John Maynard Keynes* 13: *The General Theory and After* (London 1973):409f. Along these lines Keynes criticized Alfred Marshall for stating explicitly in his 1890 *Principles of Economics* (pp. 61f.) “that he is dealing with *relative* exchange values. The proposition that the prices of a ton of lead and a ton of tin are £15 and £90 means no more to him in this context than that the value of a ton of tin in terms of lead is six tons . . . ‘We may throughout this volume,’ he explains, ‘neglect possible changes in the general purchasing power of money. Thus the price of anything will be taken as representative of its exchange value relative to *things* in general’ [Keynes’s italics]. . . . In short, though money is present and is made use of for convenience, it may be considered to cancel out for the purposes of most of the general conclusions of the *Principles*.”

If money is ignored, then so are savings, debts and their carrying charges. The role of money as a medium in which to pay debts is missed entirely, as is the monetization of debt in the form of free credit creation.

policies” as a result of “the simplifications introduced. . . . We are not told what conditions have to be fulfilled if money is to be neutral.”

If money were not neutral, neither was the debt burden. Yet Milton Friedman theorized that:

Holders of foreign currencies [such as U.S. dollars] *want* to exchange them for the currency of a particular country in order to purchase commodities produced in that country, or to purchase securities or other capital assets in that country, *or to pay interest on or repay debt to that country*, or to make gifts to citizens of that country, or simply to hold for one of these uses or for sale . . . Other things the same, the more expensive a given currency, that is, the higher the exchange rate, the less of that currency will in general be demanded for each of these purposes.² (italics added)

The implication is that countries will elect to pay less on their foreign debts as the dollars in which these debts are denominated become more expensive. But in reality they have no choice. It is much the same when debtors have to pay their debts as domestic prices and incomes fall. The debt burden becomes heavier. Countries that try to pay less as the debt burden becomes more expensive to service are held in default and confronted with international sanctions, trade barriers and a loss of foreign markets. Price and income deflation thus not only shifts the proportions around, the basic structure is altered as a result of inexorable debt obligations

Few economists bothered to specify the highly unrealistic conditions that would have to be met in order for monetary and credit disturbances, debt service and asset prices to be neutral. With sardonic humor Keynes observed that “The conditions required for the ‘neutrality’ of money, in the sense in which this is assumed in . . . Marshall’s *Principles of Economics*, are, I suspect, precisely the same as those which will insure that crises *do not occur*. If this is true, the real-exchange economics, on which most of us have been brought up and with the conclusions of which our minds are deeply impregnated . . . is a singularly blunt weapon for dealing with the problem of booms and depressions. For it has assumed away the very matter under investigation.” As John H. Williams, Harvard professor and advisor to the New York Federal Reserve Bank on the balance of payments observed: “About the practical usefulness of theory, I have often felt like the man who stammered and finally learned to say, ‘Peter Piper picked a peck of pickled peppers,’ but found it hard to work into conversation.”³ Such criticisms could be levied with even greater force against economists who ignore the role of debt and the revenue that needs to be diverted to pay debt service.

Economists who recognized that payment of debt service was not a part of the “real” economy but a subtrahend proposed that it be excluded from national income and product accounts altogether. Alfred C. Pigou reasoned in *The Economics of Welfare* (1920) that these accounts should exclude income “received by native creditors of the State in interest on loans that have been employed ‘unproductively,’ *i.e.*, in such a way that they do not, as loans to buy railways would do, themselves ‘produce’ money with which to pay the interest on them. This means that the income received as interest on War loan – or the income paid to the State to provide this interest – ought to be excluded.” One wonders what Pigou might have said about

² Milton Friedman, “The Case for Flexible Exchange Rates,” *Essays in Political Economics* (Chicago 1953), repr. in Caves and Johnson, eds., *Readings in International Economics* (Homewood, Ill. 1968):415.

³ John H. Williams, “The Theory of International Trade Reconsidered” (1929), repr. in *Postwar Monetary Plans and Other Essays*, 3rd ed. (New York: 1947):134f.

the American practice of railroad directors issuing bonds to themselves gratuitously with no real quid pro quo. “Watering the stock,” it was called.

Excluding debt service from the statistics meant that its deflationary impact on incomes and prices – that is, the diversion of revenue from the production and consumption processes to pay debt service – could not be measured. The degree to which this debt service interfered with Say’s law got lost.

The limited scope of analysis suggested by Pigou’s definition of economic welfare would be logical if the aim of economic accounts were just to trace the growth of output and consumption. But measuring debt deflation – the degree to which debt service absorbed the economy’s revenue – requires a calculation of all interest payments. To the extent that *rentiers* spend their interest receipts on consumer goods and capital investment rather than plowing them back into new lending, such spending would appear in the national production and consumption statistics. But this is a relatively small phenomenon, although it is the narrow point on which neoclassical utilitarian theories of interest base themselves. To understand the dynamics of booms and depressions, debt pyramiding and economic polarization between creditors and debtors, it is necessary to take the financial system into account.

Yet his is not what Keynes himself did. He discussed the rate of interest, saving and investment without integrating debt service into his income theory.

How Keynes discussed saving and investment without citing the role played by debt deflation

Keynes distinguished himself in the 1920s by defining the limits that existed to debt-servicing capacity,⁴ above all with regard to the Inter-Ally debts and German reparations stemming from World War I. By 1931 he was pointing out that “the burden of monetary indebtedness in the world is already so heavy that any material addition would render it intolerable. . . . In my own country it is the national debt raised for the purposes of the war which bulks largest. In Germany it is the weight of reparation payments fixed in terms of money. . . . In the United States the main problem would be, I suppose, the mortgages of the farmer and loans on real estate generally.” He criticized deflationary monetary proposals as threatening to derange the financial superstructure of “national debts, war debts, obligations between the creditor and debtor nations, farm mortgages [and] real estate mortgages,” throwing the banking system into jeopardy and causing “widespread bankruptcy, default, and repudiation of bonds.”

But by 1936, Keynes was concerned mainly with the shortfall in consumption resulting from people’s propensity to save. Pointing out that new investment and hiring would not occur without stronger markets, his *General Theory of Employment, Interest and Money* described the solution to lie in getting people to spend more. The countercyclical government hiring that he advocated would lead to budget deficits, which would have to be financed by debt. Yet Keynesian macroeconomics ignored the role of debt and its carrying charges. This was its major loose end, and the blind spot that has led to the most confusion.

⁴ “An Economic Analysis of Unemployment” (1931, repr. 1973:343-373).

Already in 1902, John Hobson's *Imperialism* warned that growing debt levels would lead to underconsumption. Creditors would collect money at home and search abroad for new fields to lend it out at relatively high rates, to less debt-ridden (hence, "younger") economies most in need of public infrastructure and other capital investment. This dynamic, Hobson believed, was the taproot of a new form of imperialism, one that had become financial rather than military in character.

Keynes took exception to Hobson's underconsumptionist views. As late as 1931 he viewed the problem of recovery as one of lowering interest rates to make direct investment more remunerative than buying bonds (1973:356f.). Writing to Hobson, he expressed the hope that lower interest rates also would solve the problem of debt deflation, but admitted that public spending might be needed to fill the gap created by the diversion of revenue to service debts. Hobson's point "that 'money savings may continue to grow faster than they can be profitably invested' would only be the case in the event of the rate of interest failing to fall fast enough," Keynes believed. But if it fell to zero (as happened in Japan in the late 1990s), the only solution would be "more spending and less saving." Hobson reiterated that the rate of interest was only of limited efficacy. "In certain situations of boom or slump its action seems very slight and unreliable."⁵

Keynes came to accept this position five years later, by the time he published the *General Theory*. His description of the liquidity trap helped swing the political pendulum back toward government activism. The new public aim was to use deficit financing to pump enough income power into the economy to replace the purchasing power that debt service and other saving was removing from the private sector's spending stream. In time, Keynesian-type liberalism would call for government spending to employ labor that would spend its income on goods, whose sale would provide profits for industrial investors. "The system is not self-adjusting," he wrote in 1933 (repr. 1973:491), "and, without purposive direction, it is incapable of translating our actual poverty into our potential plenty." Expenditures that pushed the U.S. Government budget \$1 billion into deficit in 1931, he told an American audience (1973:356ff.), "are just as good in their immediate effects . . . as would be an equal expenditure on capital works; the only difference – and an important one enough – is that in the former case we have nothing to show for it afterwards." The same was true of war spending, of course.

Keynes understood the financial sector as clearly as any economist of his day, yet he wrote in a way that diverted attention from the deflationary character of debt. Blaming high interest rates for inducing savers to buy financial securities that not find a counterpart in new direct investment, he went so far as to call for "euthanasia of the *rentier*." He criticized Say's Law (that production creates its own demand), but did not make clear what proportion of saving resulted from debt service; that is, he did not distinguish loan repayments from fresh discretionary saving. National income statistics count paying off a debt as "saving," because it is a negation of a negation (debt).

Having spent years emphasizing that debt payments are not a matter of discretion but reflect contractual obligations, Keynes dropped this idea in his *General Theory*. He confused matters by defining "saving" as tangible direct investment in factories, machinery, construction and other means of production. (His use of the word "hoarding" had connotations of money kept in a mattress, but its more prevalent forms were "indirect" investment in securities and debt pay-downs.) The role of debt and debt-service remained the missing link in his

⁵ Letters to Hobson dated Oct. 2 and 14, 1931, in Keynes, *Collected Writings* 13 (1973:330-336).

theoretical exposition, and it was not noted clearly by his followers in Britain, the United States or other countries.

In a 1934 article Keynes noted that anyone who did not accept the idea that economies adjusted automatically to any external disturbance – in particular to debt problems – was labeled a crank. He placed himself in their ranks, and his *General Theory* acknowledged the writings of the Swiss-German economist Silvio Gesell as representative of this approach. On the other hand, he noted: “The strength of the self-adjusting school depends on its having behind it almost the whole body of organised economic thinking and doctrine of the last hundred years. This is a formidable power. . . . It has vast prestige and a more far-reaching influence than is obvious. For it lies behind the education and the habitual modes of thought, not only of economists, but of bankers and businessmen and civil servants and politicians of all parties.”⁶

Keynes acknowledged that he still had one foot in the orthodox tradition. In the end, all he could do was blame economists for not having developed “a satisfactory theory of the rate of interest” to serve as the regulator of saving, investment and employment. But how could this be done, without tracing the effect of interest rates on the doubling times of debts, the economy’s ability to pay, and the structural consequences of forfeiture under distress conditions?

How debt and interest rates are autonomous from the “real” economy

Keynes was not the first economist pointing to savings as not being an unalloyed benefit. Marx had described how the “new aristocracy of finance, a new sort of parasites in the shape of promoters, speculators and merely nominal directors . . . demands . . . precisely that others shall save for him” (*Capital* III:519f.). The saving in this case take the form of debt repayment with interest, much as British money lenders advertise that buying a home helps buyers save by building up equity via their mortgage payments each month. The liquid savings of course accrue to the lenders, not the debtors. But it was mainly fringe groups that warned of the collision course between the debt overhead and the “real” economy’s production and consumption trends.

From the Austrians through Fisher and Keynes, economists sought to deduce the rate of interest on the basis of consumer utility and capital productivity. Their dream of integrating the determination of interest rates into price and value theory was something like trying to untangle the Book of Revelation. Their search to discover a neat mathematical solution, determinable in advance, culminated in Keynes’s attempts to formulate a “monetary theory of production” incorporating interest rates and money. Unfortunately, he was mixing apples and oranges. The source of confusion lay in the notion that money and credit have a tangible, real cost of production that can be factored into a general, integrated theory of production, investment and employment.

In reality no such unified field theory is possible. At first glance it might seem that a “real” cost of interest might be imputed by calculating and pro-rating the administrative and overhead costs incurred by banks and other creditors, taking into account their loss ratios to assign appropriate risk premiums. But an analysis of their income and expense accounts

⁶ “Poverty in Plenty: Is the Economic System Self-Adjusting?” *The Listener*, Nov. 21, 1934 (repr. 1973:488).

shows how tautological such a measure would be. Salaries and bonuses, dividends and reserve funds or new projects (including mergers and acquisitions) reflect whatever revenue creditors obtain. Such pseudo-costs are after-the-fact, not foreseeable in advance in the sense that labor, materials and capital-goods costs are foreseeable.

The reality is that credit has no cost of production beyond a modest administrative overhead. Interest rates have no determinate foundation in the “real” economy’s production and consumption functions, although they intrude into that system’s circular flow. Such charges therefore cannot be assigned to labor or other “real” costs of production, but the administered prices for interest and underwriting fees are akin to economic rent, out of which the financial sector’s bloated salaries and bonuses are paid.

The credit system’s dynamics are based on the flow of funds and terms of debt repayment that form a system no more intrinsically linked to the economics of production and consumption than is the weather. When the financial and “real” spheres intersect, they do so in the way that comets intersect with the planetary system, sometimes with devastating collisions that abruptly alter trajectories. To extend the analogy to include compound interest, one should imagine the havoc that would be wreaked by comets whose mass was growing by x% in real terms each year, relative to the constant mass of the planets. The chance of crashes increases exponentially under such conditions, and their consequences become larger.

Mathematical sophistication is of little help when applied to what is assumed to be a debt-free economy. Without analyzing the degree to which wages, profits, rents and taxes are burdened by interest payments to creditors, economic theory will be unable to provide meaningful forecasts or policy recommendations. It was on this ground that Keynes chided economists for reasoning as if the world operated on a barter basis. They used *ceteris paribus* methodology to prevent monetary “distortions” from interfering with their analysis of wages, profits and rents, neglecting to add financial reality back into the picture they were drawing. The study of banking and credit was shunted aside into a sub-discipline, to be analyzed in isolation from “real exchange” problems. This missed the point that finance ultimately is more real than barter exchange, as money is the objective of businesses and consumers alike.

Finance and interest cannot be derived from production and consumption functions, but their impact on these functions can be traced, just as the impact of weather can be traced after the fact, but not explained as a product of economic conditions. A credit-based theory of pricing would start with the perception that debt service represents a rising share of the cost of producing and distributing goods and services. Today, the major factors determining international cost differentials are variations in the costing of capital – not only the rate of interest but also debt/equity ratios, loan maturities, depreciation and tax schedules. These are not production costs but are imposed from outside the real-cost system.

Matters are aggravated by the fact that goods and services are sold in markets where debt service absorbs a rising share of the revenue of labor, business, real estate and government. This causes a debt deflation that reduces the economy’s ability to buy products, even while rising debt service adds to production costs. No meaningful analysis of demand – or of the degree to which Say’s Law applies – can be drawn up without taking the volume of debt service into account.

Ignoring the role of debt leaves it free to devastate the economic system. Beaudelaire famously remarked that the devil would defeat humanity at the point where he was able to convince it that he did not really exist. Financial interests have promoted the idea that money and credit are merely a veil, passively reflecting economic life as “counters” rather than actively steering and planning economies. The study of debt and its effects have all but disappeared from the curriculum. In an academic version of Gresham’s Law, the financial sector’s approach to the debt problem has driven other perspectives out of the intellectual marketplace. Policy-makers take the financial and banking system for granted rather than discussing what kind of a system best would serve society’s long-term development and best cope with debts that grow too large to be paid without fatally polarizing economies between creditors and debtors.

Posing the debt-repayment problem leads naturally into the analysis of what public responses are most appropriate. This line of analysis is anathema to the vested financial interests, and finds little support in academic economic department dependent increasingly on FIRE-sector subsidy.

It trivializes the debt problem to treat it merely as one of finding an appropriately low rate of interest to equilibrate financial supply and demand, consumer preference and profit opportunities so that the loan can be paid out of the productive investment of its proceeds. Most loans are not invested in tangible capital formation that increase the borrower’s revenue and hence debt-paying capacity. And even if they were, the problem lies in the inexorable mathematics of compound interest. What needs to be examined is how to cope with the inherent tendency of debts to multiply in excess of the economy’s ability to pay.

SUGGESTED CITATION: Michael Hudson, “How economic theory came to ignore the role of debt”, *real-world economics review*, issue no. 57, 6 September 2011, pp. 2-24, <http://www.paecon.net/PAERreview/issue57/Hudson57.pdf>

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