

Government Debt in Economic Thought of the Long 19th Century

Carl-Ludwig Holtfrerich

School of Business & Economics

Discussion Paper

Economics

2013/4

Government Debt in Economic Thought of the Long 19th Century

Carl-Ludwig Holtfrerich

J.F. Kennedy Institute for North American Studies, Free University of Berlin

Contributed to the symposium on “Government Debt in Democracies” in Berlin

30 November and 1 December 2012

I. Introduction

The first half of the long 19th century covers the publication of Adam Smith’s *Wealth of Nations* in 1776 through the work of subsequent representatives of classical political economy in Great Britain. The second half of that long century is marked by the contributions of German economists to public finance theory spanning the sixty years preceding the First World War. In this paper I will contrast the views of four classical British economists regarding the issue of public debt, namely those of Adam Smith, David Ricardo, Thomas Robert Malthus and John Stuart Mill, with those of three German economists, Carl Dietzel, Lorenz von Stein, and, with the internationally prominent (at least up to the First World War), Adolph Wagner.

The position of British economists of the classical school that government debt was an impediment to economic progress is relatively familiar. Maybe due to their harsh judgment they treated the issue only in passing. In contrast, considerably less well-known today are the contributions of these three German economists who published entire books devoted to the issue of public debt with a subtly differentiated analysis and who were led to significantly more favorable assessments of the use of debt finance by governments.

Before outlining the views of the classical economists in Great Britain, I begin with a brief discussion of the origins and magnitude of the British debt problem, the times when the main representatives of the British classical school shaped their views. Having the times and doctrines of English political economy before us, we move to consider each of the three German economists to see what led them to discover a more positive role for the use of debt in a system of public finance. The paper concludes by highlighting the main differences between the two traditions.

II. The origins and magnitude of the British public debt problem

For the historical setting in which the theoretical debate in Great Britain took place, a brief sketch on the unfolding of Britain’s public debt problem in practice is a useful point of departure.

The Glorious Revolution of 1688 marks the beginning of modern public finance in Britain, as Parliament took effective control of taxes and outlays. While government debt before then was essentially a private credit to the monarch, thereafter it was transformed to a public credit based on a pledge by Parliament, representing all citizens of the nation, to set aside the

revenue of particular taxes for debt service and, thus, fund these “securities.” This *Funding System* not only facilitated public borrowing on a larger scale, but also made it cheaper. For example, a state with its taxing powers and its practically infinite horizon would generate more confidence as a secure debtor than a king as a private debtor and private businesses were able to. The Bank of England was founded in 1694 to act as the government's banker and debt-manager. These developments have been dubbed the *Financial Revolution* that preceded the *Industrial Revolution* by almost a century (Dickson 1993: 12).

At first, public debt creditors were almost exclusively large chartered companies. But when broker services had developed in connection with the South Sea Bubble in 1720, a large part of the population was also involved (Churchman 2001: 133). This had the advantage that the moneyed classes as well as small savers had a vested interest in the integrity and wellbeing of the state.¹

In those days, the origin of large increases of public debt was always found in the exigencies of war-finance. Between 1688, the Glorious Revolution, and 1815, the end of the Napoleonic Wars, Britain was at war more than half the time. The terms familiar to modern readers: the British [central government only] debt-to-GNP ratio amounted to a little less than 300 percent in 1821. In that year the share of [central government] expenditure in GNP amounted to 20 percent.² Also in 1821, two years after Britain's return to gold convertibility of Pound Sterling notes, which the Bank of England had suspended in 1797 after several severe banking crises, [central] government outlays for debt service amounted to 55 percent of total [central] government expenditure, and military expenditure for another 29 percent. Until the 1840s war debt service plus military outlays never fell below 80 percent of British public expenditure. Yet debt service alone ranged between 20 and 60 percent until the end of the 19th century. Public debt in Britain had risen from 3.1 million Pounds in 1691 to a peak of 844 million in 1819.

Nominal public debt was barely reduced over the next century. In 1913 it still amounted to 711 million Pounds (All previous data calculated or taken from Mitchell/Deane 1962: 366, 396-9, 401-3). But by that time, the debt-to-GNP ratio had fallen to 26 percent (for this calculation the GNP figure is from Mitchell 1978: 416). The important point here is that hardly any of Britain's public debt was actually paid off, rather it was strong real economic growth alone (no inflationary trend for over a century) that reduced the U.K.'s public-debt-to-GNP ratio.

The data in the second-last paragraph might serve as a statistical background for the huge relative size of public debt in the UK when Great Britain's classical economists addressed the issue in their active times before the second half of the 19th century.

III. British classical political economy

¹ The first U.S. Secretary of the Treasury, Alexander Hamilton, was well aware of this point, when shortly after the founding of the U.S. he proposed to Congress that the federal government assume all the debt of the states. Congress decided accordingly.

² This equals the 2011-public-expenditure-to-GDP ratio of the U.S. central government.

Under mercantilism governments dominated economic life by regulation, public enterprises and taxation well into the 18th century. Public debt in that view had no harmful economic consequences because it would be “due from the right Hand to the left, whereby the Body will not find itself weakened, if it hath the necessary Quantity of Aliments, and they are properly distributed” (Melon 1738: 329. Quoted in German translation in Fossati 1932: 599). De Pinto (1771: 60) also held this view.

David Hume, generally considered a pre-classical, but by O’Brien (2004: 1-7) a classical economist, set the new tone when he argued in 1752:

“either the nation must destroy public credit or public credit will destroy the nation” (quoted in Churchman 2001: 137).

Public debt would have grave social and political consequences, argued Hume. He was also concerned about the power that the existence of public debt vested in public creditors, who were not immune to abuse it (Churchman 2001: 137. More on Hume’s view of public credit in Dome 2006: 1-5).

In France, Voltaire had praised and supported Melon’s positive view of public debt. However, Montesquieu in his *Esprit des Lois* of 1748 rejected it and thus paved the way for Hume’s view of the destructiveness of government debt. Montesquieu, in turn, was attacked by Isaac de Pinto (1771). Siding with Melon, de Pinto argued in favor of expansionary economic effects of a moderate use of public debt. He contended that Montesquieu could not see this point due to lack of practical experience in financial matters (For this paragraph and more on the 18th century debate on the public–debt issue see Isenmann 2013: esp. 106-111).

Adam Smith:

“The progress of the enormous debts which at present oppress, and will in the long-run probably ruin, all the great nations of Europe, has been pretty uniform.”

These words could have been written by today’s proponents of austerity not only in Europe but in the U.S. and Japan as well. Of course this is an easily recognizable quotation from Adam Smith (1776, Book Five, Chapter III entitled “Of Public Debts.” All of Smith’s following quotations are taken from that source). All the more striking is the fact that Smith wrote this before Britain’s huge debt financing of its military efforts in the War of Independence by its North American colonies and those involved in the Napoleonic Wars.

Smith demanded the “liberation of the public revenue” from debt service by reducing government debt to zero. He went into details of the then current British tax system and offered concrete proposals regarding which increased taxes would be simultaneously just and least harmful to manufacturing and commercial activity. He spoke of “the waste and extravagance of government,” “the pernicious system of funding,” i.e., redeemable bonds, and of the even “more ruinous practice of perpetual funding,” i.e., “consols” on which the government pays only interest without ever redeeming principal. .

However, Smith acknowledged that modern governments are not only “unwilling,” “for fear of offending the people who by so great and so sudden an increase of taxes would soon be disgusted with the war,” but also “unable” to do so.

“... by means of borrowing they are enabled, with a very moderate increase of taxes, to raise, from year to year, money sufficient for carrying on the war, and by the practice of perpetual funding they are enabled, with the smallest possible increase of taxes, to raise annually the largest possible sum of money.”³

Smith mainly deplored the omission of government to provide for an adequate sinking fund in order to “liberate” the budget from the interest burden of the war debt over a limited time period once peace has returned. On the one hand, he sees some advantages of debt financing war expenditure for the functioning of the private economy as long as the war lasts. He also recognizes that the oppressive taxation with its disadvantages for the private economy is only postponed until after the war when the debt should be duly reduced.

“Were the expence of war to be defrayed always by a revenue raised within the year, the taxes from which that extraordinary revenue was drawn would last no longer than the war.”

The ability of the private economy to accumulate capital and to increase the wealth of the nation would have been less during the war but much greater once peace returned. And there would be an additional advantage of financing war by taxation instead of debt:

“Wars would in general be more speedily concluded, and less wantonly undertaken. The people feeling, during the continuance of the war, the complete burden of it, would soon grow weary of it, and government, in order to humour them, would not be under the necessity of carrying it on longer than it was necessary to do so. ... The seasons during which the ability of private people to accumulate was somewhat impaired, would occur more rarely, and be of shorter continuance.”

Smith, however, admitted the following: “Great Britain seems to support with ease, a burden which, half a century ago, nobody believed her capable of supporting.”

Smith refuted the proposition that it makes a difference for the wealth of the nation whether the government is indebted to its own or to foreign citizens. He also pointed out that “the two great sources of revenue,” namely land and capital stock, will be burdened by higher taxes to defray the service on the public debt. Productive capital would be removed from the good management of every particular portion of capital stock and would be transferred to the creditors of the public debt “who have no such particular interest.” As a result, “the ruin of trade and manufacture will follow the declension of agriculture.”

Smith asserted that debt financing has always enfeebled states and mentions the cases of the Italian republics in general and of Genoa and Venice in particular, of Spain, of France and the United Provinces of the Netherlands. He then raised the rhetorical question: “Is it likely that in Great Britain alone a practice, which has brought either weakness or desolation into every

³ As an aside, Smith immediately goes on with the following observation: “In great empires the people who live in the capital, and in the provinces remote from the scene of action, feel, many of them, scarce any inconveniency from the war; but enjoy, at their ease, the amusement of reading in the newspapers the exploits of their own fleets and armies. To them this amusement compensates the small difference between the taxes which they pay on account of war, and those which they had been accustomed to pay in time of peace. They are commonly dissatisfied with the return of peace, which puts an end to their amusement, and to a thousand visionary hopes of conquest and national glory, from a longer continuance of the war.”

other country, should prove altogether innocent?" He continued to discuss the different forms of bankruptcy, also the hidden ones by debasement of the coinage. (For more on Smith's view of public debt see Dome 2006: 56-60.)

Finally Smith proposed how Great Britain could by taxation raise funds very rapidly

"sufficient in a few years to discharge the whole debt and thus to restore completely the at present debilitated and languishing vigour of the empire."

The principal source for the creation of the "great sinking fund" was to be the extension of the four most important British taxes - namely the land-tax, the stamp-duties, and the different duties of customs and excise - to Ireland and "our American and West Indian plantations."

His justification:

"That public debt has been contracted in the defence, not of Great Britain alone, but of all the different provinces of the empire; the immense debt contracted in the late war in particular [French and Indian Wars 1754 - 1763], and a great part of that contracted in the war before [Spanish War 1739-1742⁴], were both properly contracted in defence of America."

Smith, of course, was well aware of the difficulty of imposing new and higher taxes on its North American colonies. Perhaps this is why he ended his treatment "Of Public Debts" on a rather pessimistic note:

"The rulers of Great Britain have, for more than a century past, amused the people with the imagination that they possessed a great empire on the west side of the Atlantic. This empire, however, has hitherto existed in imagination only. It has hitherto been, not an empire, but the project of an empire; not a gold mine, but the project of a gold mine ... If the project cannot be completed, it ought to be given up. ... Great Britain should free herself from the expence of defending those provinces in time of war ... and endeavor to accommodate her future views and designs to the real mediocrity of her circumstances."

This advice of 1776 was not heeded. London fought the Americans in their War of Independence from 1776 to 1783 resulting in a further increase of the British public debt. As to government indebtedness, the worst was still to come as a result of the Napoleonic Wars and the great and prolonged depression that followed it. As stated above, the British [central government] debt-to-GNP ratio amounted to a little less than 300 percent in 1821. Instead of facing ruin during the 19th century British manufacturing, trade and finance prospered, and Britain became the leading nation of the world economy up until the First World War.

David Ricardo:

While A. Smith had derived his theoretical insights from and had underpinned them with a huge range of historical observations, Ricardo's method was quite different. J.A. Schumpeter labeled it

⁴ In 1742 the fighting no longer took place in the Western Hemisphere, but in Europe. There the *War of the Austrian Succession* had started, in which all great European powers, i.e. besides Great Britain, Spain and Austria also Holland, France and Prussia, were involved. It lasted until 1748.

“the Ricardian Vice, namely, the habit of piling a heavy load of practical conclusions upon a tenuous groundwork, which was unequal to it yet seemed in its simplicity not only attractive but also convincing” (Schumpeter 1974: 1171).

Explaining the *Ricardian Vice* in more detail, Schumpeter wrote about Ricardo, who had also been a Member of Parliament during the last four years of his life (1819-23):

“The comprehensive vision of the universal interdependence of all the elements of the economic system that haunted Thünen probably never cost Ricardo as much as an hour’s sleep. His interest was in the clear-cut result of direct, practical significance. In order to get this he cut that general system to pieces, bundled up as large parts of it as possible, and put them in cold storage – so that as many things as possible should be frozen and ‘given’. He then piled one simplifying assumption upon another until, having really settled everything by these assumptions, he was left with only a few aggregative variables between which, given these assumptions, he set up simple one-way relations so that, in the end, the desired results emerged mostly as tautologies” (Schumpeter 1974: 472-473, where in a footnote he also refers to Wassily W. Leontief, who “has called this procedure Implicit Reasoning”).

Nevertheless, Ricardo, born in 1772, was a pioneer in the development of both allocation and growth theory. His aversion to public debt was even more pronounced than that of A. Smith. He went as far as advocating war-financing exclusively by taxation and pleaded for a total redemption of the existing public debt by means of a capital levy, namely a one-time tax on the nation’s property.

To justify his extreme position in the public-debt debate, Ricardo drew his arguments from precisely his above-mentioned two theories. Taxes necessary for debt service under the *Funding System* would harm the efficient allocation of resources in the production process because the especially heavy reliance on indirect taxation or a tax on profits of only some out of all producers, would distort relative prices. This would put the British economy in an “unnatural state,” far from its “natural” equilibrium. Ricardo came to this conclusion from “his economic analysis of tax incidence in a distributional context.”

And as to economic growth, he held the view that the smallest possible government free of public debt would be most favorable for private capital accumulation and thereby for economic growth and the welfare of the population. A total redemption of the public debt would not only benefit land and capital owners but also the working class. The latter would immediately receive higher real wages resulting from the decrease in indirect taxation and from increased labor demand that would follow from higher investment as a result of tax remission on land rents and profits. He argued that otherwise the tax burden necessary for servicing high public debt would drive domestic capital abroad and would deter foreign capital imports. This would result in (1) lower domestic economic growth and (2) higher welfare of immobile production factors, land owners, and non-emigrating workers.

James Buchanan (1976) was wrong when he attributed the origin of Robert J. Barro’s idea of the equivalence of tax and debt financing to Ricardo in the latter’s seminal article *Are Government Bonds Net Wealth?* In fact, Ricardo was well aware that the public did not behave rationally under all circumstances. Its behavior, for example, would also be shaped by illusions of their private wealth from holding public debt. As to the equivalence of the tax

burden of public debt and of fully redeeming it by a capital levy, Ricardo argued:

“If an individual is called upon to pay an annual tax of 100 Pounds per Annum instead of a sum of 2000 Pounds for once only, he will not make so great an effort to save, because he is seldom sensible that a tax of a 100 per annum is equivalent in value to 2000 Pounds, - and therefore a system of loans is more destructive to the national capital than a system of heavy taxation to an equal amount.”

It is precisely this *non-equivalence* that Ricardo used to support his preference for tax-financing under all circumstances, even during wars, over debt-financing of government expenditure. Also during peace time he argued that “the produce of taxes is generally wastefully expended [and] always obtained at the expense of the people’s comforts and enjoyments.”⁵

Thomas Robert Malthus:

Malthus, born 1766 and six years Ricardo’s junior, first met David Ricardo in 1811 at a debate on the causes of Britain’s inflation. Until Ricardo’s early death from an abscess on his brain in 1823, they fought out controversies in public and in private on almost every then current theoretical or economic-policy issue, reaching at most only partial agreement. Yet, despite their disputes over the period of twelve years, they kept assuring each other of their intellectual respect for divergent positions and of their lasting friendship. (An elegant and concise introduction into their personal and intellectual relationship is Dorfman 1989.)

Malthus, whose concern focused on an adequate food supply for an exponentially growing population, partly took exception to the general opinion of his fellow classical economists on public debt. Yet he agreed in principle with Hume, Smith, and Ricardo that high public debt and the necessarily high taxation to service it were injurious to the economy in general and to food production in particular. In his early essay *An Essay on the Principle of Population* [1803] he stated:

“By absorbing the redundancy of commercial capital, and keeping up the rate of interest, it [the issue of public debt] has prevented this capital from overflowing upon the soil. And a large mortgage has thus been established on the lands of England, the interest of which is drawn from the payment of productive labour, and dedicated to the support of idle consumers” (Malthus 1989: 397-398. Quoted from Dome 2006: 101. On p. 114, note 17, Dome reports that these sentences were eliminated in the 1817 edition of the *Essay*).

A severe and long depression followed upon the end of the Napoleonic Wars in 1815. Labor that had been employed in government military service on big scale was returned to the private labor market. This lowered wages and, as Ricardo assumed, made it attractive for landlords, entrepreneurs, and merchants to employ them to their full capacity. Unlike Ricardo, Malthus learnt lessons from the experience of the *Great Depression* unfolding for years

⁵ This account of Ricardo’s view of public debt is derived from Churchman 2001: 2-42. The quotations are also taken from that source. They are from Ricardo’s *Principles of Political Economy and Taxation*, his correspondence with contemporaneous economists, parliamentary speeches and his relatively short publication *Funding System* of 1820. Ricardo various years. For Ricardo’s view of the public debt, the sinking fund, and a capital levy see also Dome 2006: 131-138.

before his eyes from 1815 on. Like John Maynard Keynes more than 100 years later, he became a disbeliever in Say's Law that supply would always create its own demand, and almost frictionless adjustment would take place speedily on labor and product markets (Keynes 1963: 116-122). In his view, the reality of the drawn-out depression – “glut”, as he and Ricardo called it - falsified Say's Law, at least in the short or medium run (Dorfman 1989: 160. On the different theoretical positions of Malthus and Ricardo in general see Rogin 1971: 110-208).

Malthus disagreed with Ricardo's plan to wipe out Britain's public debt within three years from the proceeds of a massive capital levy in order to reduce taxes to the amount of what would otherwise have been appropriated for debt service. To Malthus, this would have disastrous consequences not only for labor, but for the whole British economy. And this fundamentally changed his view on public debt and taxation.

Malthus had recognized that demand and supply were not automatically equal, as was evident by the huge unemployment, rampant poverty, depressed prices, low profits and relative stagnation of the British economy. In 1820, he argued in his *Principles of Political Economy* that the distribution of the national product between the government and the private sector had changed because high war expenditures and high public borrowing had come to an end in 1815. The release of labor in military employment and the end of demand for military equipment had diminished “effectual demand” (Churchman 2001: 59-61, also for the following quotations from Malthus' *Principles*).

“... a decided check has been given to production. ... [T]his produce, though decidedly deficient, compared with the population ..., is redundant, compared with ... the revenue which is to purchase it. Though labor is cheap, there is neither the power nor the will to employ it all; because not only has the capital of the country diminished, compared with the number of labourers, but, owing to the diminished revenues of the country, the commodities which those labourers would produce are not in such request as to ensure tolerable profits to the reduced capital.”

Because capitalists and landlords would save a large fraction of their incomes and even employed laborers would also save some of their wages, “... it is absolutely necessary that a country with great powers of production should possess a body of unproductive consumers” in order to keep the rate of profit high.

Malthus was convinced that Ricardo's plan to quickly and totally redeem the public debt would aggravate the distress of the economy. Capitalists, landlords, and “the middle class” as public creditors could not possibly increase their demand to the extent necessary to close the gap between production and consumption, which would be widened by the new distributions of the national product resulting from debt redemption. Instead of being enriched, society would be impoverished.

In more modern parlance, Malthus – by rejecting Say's Law - discovered the distinction between the capacity effect and the income effect of certain types of public and private expenditure. He was aware that the economic growth process was threatened both by overconsumption and underconsumption.

“If consumption exceeds production, the capital of the country must be diminished, and its wealth must be gradually destroyed from its want of power to produce; if production be in a great excess above consumption, the motive to accumulate and produce must cease from the want of will to consume. Two extremes are obvious; and it follows that there must be some intermediate point, though the resources of political economy may not be able to ascertain it, where, taking into consideration both the power to produce and the will to consume, the encouragement to the increase of wealth is the greatest.”⁶

In contrast to Adam Smith, Ricardo regarded government borrowing even for public infrastructure projects as public profligacy (Churchman 2001: 57-58).⁷ In his *Principles of Political Economy* of 1820, however, Malthus argued that

“the employment of the poor in roads and public works, and a tendency among landlords and persons of property to build, to improve and beautify their grounds, and to employ workmen and menial servants, are the means most within our power and most directly calculated to remedy the evils arising from that disturbance in the balance of produce and consumption, which has been occasioned by the sudden conversion of soldiers, sailors, and various other classes which the war employed, into productive labourers” (Quoted from Dome 2006: 107-108).

Malthus was well aware of the large differences in the propensity to consume between the different classes, in increasing order: capitalists, landlords, “the middle class” with creditor positions in public debt, productive labor, and finally unproductive labor, with the essential role assigned to the latter. Keeping high taxes or high public debt for these essentially unproductive purposes would protect the economy from losing more from the want of consumption than gaining by the diminution of taxation. Here is the core of his explanation for economic distress 1815-1820:

The “returned taxes, and the excess of individual gains above expenditure, which were so largely used as revenue during the war, are now in part, and probably in no inconsiderable part, saved” (Quoted from Dome 2006: 108).

Malthus made it clear, however, that he did not favor high taxes, but was only opposed to their rash reduction, which would aggravate the depression. This fact would

“give one of the strongest reasons against them; namely, that they are not only a great evil on their first imposition, but the attempt to get rid of them afterwards, is often attended with fresh suffering” (Quoted from Dome 2006: 110).

John Stuart Mill:

Born in 1806, Mill by 1848 had lived through more than two decades of real economic growth

⁶ This can be seen as the seedbed of Robert Solow’s “golden rule of accumulation” in the second half of the 20th century.

⁷ Only in one letter to Trower of 28 January 1820 did he concede that “Taxes [not public borrowing! C.-L. H.] for the benefit of trade itself such as for Docks, canals, Roads, etc. etc. are on a different footing from all other taxes, and produce very different effects, they may and generally do promote production instead of discouraging it” (Churchman 2001: 57).

in peace time. He saw the decreasing burden of an existing government debt

“because in a country increasing in wealth, the necessary expenses of government do not increase in the same ratio as capital or population; any burthen, therefore, is always less and less felt.”

John Stuart Mill’s judgment of public debt is not very different from that of Adam Smith. In a short passage of less than ten pages in his *Principles of Political Economy* (1848, Book V, Ch. VII: “Of a National Debt”. All of Mill’s quotations are from that source) he agreed with him that

“if the capital taken in [government] loans is abstracted from funds either engaged in production, or destined to be employed in it”, public debt-financing would lead to “pernicious consequences.”

Mill added that the diversion of capital from that purpose would be “equivalent to taking the amount from the wages of the labouring classes.” Open and avowed taxation of wages would burden the laboring classes to the same degree but would have the advantage – here again following Smith – that the increase in taxes would end with a war (or other emergency). In case of credit financing of such extraordinary expenditures, the state would remain charged with the debt

“and with its interest in perpetuity. The system of public loans, in such circumstances, may be pronounced the very worst which, in the present state of civilization, is still included in the catalogue of financial expedients.”

Nevertheless, Mill differed from Smith’s and even more Ricardo’s strict aversion to public-debt financing of expenditures when capital is disposable, meaning that it would not be engaged in domestic production anyway. He mentioned three cases:

1. Foreign capital, “the overflowings of the general accumulation of the world.”
2. Capital “which either would not have been saved at all unless this mode of investment had been open to it, or after being saved would have been wasted in unproductive enterprises, or sent to seek employment in foreign countries.”
3. “When the progress of accumulation has reduced profits ... to the rate, less than which would either put a stop to the increase of capital, or send the whole of the new accumulations abroad; government may annually intercept these new accumulations, without trenching on the employment or wages of the laboring classes.”

Capital available from these three sources would constitute the “limit” of public-debt financing. Whether the state exceeds this limit or not would be diagnosable from an index,

“at once a certain and an obvious one. Did the government, by its loan operations, augment the rate of interest? ... When they do raise the rate of interest, as they did in a most extraordinary degree during the French war,⁸ this is positive proof that the government is a

⁸ Mill must be talking here of the *Napoleonic Wars* (1803-1815), not of the *French and Indian War* on

competitor for capital with the ordinary channels of productive investment.”

Such loans would entail “all the evils” described above and would deserve “condemnation.” Smith’s position on debt-financing ends here. But Mill’s more differentiated view allows for some of it.

Loans within the limit defined by Mill “occasion no privation to any one at the time, except by the payment of the interest, and may even be beneficial to the labouring class” by creating employment in the military sector from funds which would otherwise have quitted the country. When there is a choice between debt-financing within the “limit” and full coverage of war (or emergency) expenditures through tax increases, Mill suggested that

“the prudence of a nation should dictate the same conduct as the prudence of an individual; to submit to as much of the privation immediately, as can easily be borne, and only when any further burthen would distress or cripple them too much, to provide for the remainder by mortgaging their future income.”

The debt-financing of extraordinary expenses of government within the above-mentioned “limit” would be “mostly beneficial beyond the existing generation, there is no injustice in making posterity pay a part of the price.” Ricardo had denied that this kind of intergenerational burden shifting was possible (Buchanan 1976).

Despite his recognition that economic growth by itself alleviated the burden of the debt, Mill, like Smith, remained affirmative on the question of redeeming the debt. He weighed the arguments speaking for or against the two modes of paying off a national debt “at once by a general contribution, or gradually by a surplus revenue.” He concluded that if the general contribution were only a property tax, the extinction of the national debt in one stroke would be possible. Beyond this “the only mode which is both just and feasible, of extinguishing or reducing a national debt, is by means of a surplus revenue.” He refuted the argument that instead of higher taxes for this purpose the money should rather be left to “fructify in the pockets of the people.” This would be a good argument “against levying taxes unnecessarily for purposes of unproductive expenditure, but not against paying of a national debt.” It would be probable that the people would save a part of the money left in their pockets, “but extremely improbable that they would save the whole: while if taken by taxation, and employed in paying off debt, the whole is saved, and made productive.”

This resembles later Keynesian thinking as to the savings part, however not as to the paying-off-debt part.

In contrast to Smith, who regarded it as the “sophistry of the mercantile system,” Mill confirms that interest payment on the public debt, “when the creditors are members of the same community, is no national loss, but a mere transfer.” Unlike Smith, he does not address the question of debt- versus taxation-financing for income distribution.

Mill even recommends that “in a country advancing in wealth,” the resulting increase of revenue “should rather be disposed of by taking off taxes, than by liquidating debt, as long as

North American territory (1754-1763).

any very objectionable imposts remain.” Even beyond that point it would be wise “to continue the same policy by experimental reductions of those taxes until the point is discovered at which a given amount of revenue can be raised with the smallest pressure on the contributors.”

(Here we see the origin of the idea of the late 1970s that was dubbed *Laffer Curve*.⁹) Only the surpluses remaining after such tax rate reductions should be applied to the redemption of debt.

Like Smith, Mill was not averse to appropriate certain types of taxes – “kept apart, and not blended with the general revenues of the state” – to the redemption of debt because this would imply more assurance that debt liquidation would be continued. He recommended the “succession duties” for this purpose, since they were paid out of capital and therefore “would be better employed in reimbursing capital than in defraying current expenditure.”

Mill questioned the argument “that some amount of national debt is desirable, and almost indispensable, as an investment for the savings of the poorer or more inexperienced part of the community.” The only advantage of investment in government funds would be the national guarantee. But it would be based on compulsory taxation. He suggested instead a “national bank of deposit and discount with ramifications throughout the country.” Its expenses would be defrayed by the interest rate differential between deposits and lending on mercantile, landed, or other security. Such an establishment

“would constitute the state a great insurance company, to insure that part of the community who live on the interest of their property, against the risk of losing it by the bankruptcy of those to whom they might otherwise be under the necessity of confiding it.”¹⁰

IV. Three German economists of the second half of the 19th century

Adam Smith’s teachings had become very popular in Germany (Roscher 1874: 593-625), especially at Prussian universities, during the reform era early in the 19th century following Prussia’s defeat against Napoleon’s armies in 1806.¹¹ In the first half of that century, Prussia’s higher civil servants shaping and executing economic and fiscal policy had mostly been trained in this tradition. For decades, it included Smith’s and the other classical economists’ view that public debt was evil, pernicious, and a brake on private capital accumulation. In an article appraising Carl Dietzel’s pioneering role in refuting the classical doctrine on public debt, Walter F. Stettner (1948: 276), an Austrian émigré economist in the U.S., wrote: “... [British classical economists] proved useless as a guide to public policy. The ‘fiscal’ doctrines of the classical writers consistently lagged behind events.”

⁹ With indirect taxes, mainly customs and excise, in those days playing the dominant role in generating revenue, Mill’s idea of the *Laffer Curve* was certainly derived from observing variations in rates of indirect taxes on revenue. Arthur Laffer drew a false analogy when applying this relation to the modern direct taxation on income and wealth.

¹⁰ For Mill’s view of public debt in a nutshell see also Dome 2006: 193-195. For a summarizing treatment of the views of a broader range of classical economists than above considered see Ernst-Poerksen 1983: 22-49; and O’Brien 2004: 312-319. For an extensive treatment: Berckum 1911: 49-243.

¹¹ Prime movers of those reforms were: Stein and Hardenberg for the political and economic system and for public administration, Scharnhorst and Gneisenau in military matters, and Wilhelm von Humboldt for the school and university system.

Carl Dietzel:

Carl Dietzel, who was born 1829 in Hanau near Frankfurt/Main and who died 1884 in Marburg, was the pioneer economist in Germany for the development of a new assessment of public debt. His book *Das System der Staatsanleihen im Zusammenhang der Volkswirtschaft betrachtet* [= *The System of Government Bonds Viewed in the Context of the National Economy* or simpler and more modern: *Viewed in Macroeconomic Context*] was published in 1855 in Heidelberg where he was then *Privatdozent*. His groundbreaking book at the age of 26, taking a novel macroeconomic approach to the public-debt issue and integrating the state fully into “a (kind of) circular flow of income concept” (Glaeser 2003: 95), remained his sole innovative achievement in the advancement of public finance theory in Germany and in general. In contrast to Adolph Wagner and Lorenz von Stein who acknowledged Dietzel’s theoretical breakthrough and developed their own theories of public finance with constant reference to it (Wagner 1963: 1-49; Stein 1871), Dietzel did not become a famous economist. In Schumpeter’s *History of Economic Analysis*, Wagner plays a role on many and Lorenz von Stein on three pages, while Dietzel is not mentioned once. He held a chair at the University of Marburg from 1867 on (Meyers 1897: 1012). Heinz Haller (1959: 609) reports that during his professorship in Marburg, Dietzel did not publish anything of significance. One reason might have been that he was a member of the Prussian parliament (*Abgeordnetenhaus*) from 1868 to 1873, representing the National-Liberal Party (Glaeser 2003: 82). However, in an article on Carl Dietzel in 1948, Walter F. Stettner acknowledged Dietzel’s one great scientific breakthrough of 1855 as “the most penetrating and original theory of the public debt of his century” (Stettner 1948: 278, derived from Stettner 1944, likewise even before then Preiswerk 1942: 39). Glaeser (2003: 83) labels it “Dietzel’s Masterpiece,” highlighting his role as a precursor of fiscal-policy theory since J.M. Keynes. In his very well structured article, Glaeser (2003) succinctly contrasts Dietzel’s positions with those of the classical economists. Long before then, Fritz Neumark (1958/59: 46-47), the eminent public-finance scholar of the second half of the 20th century in Germany, had come to the same conclusion. After pointing to a few mistakes in Dietzel’s reasoning Haller (1985) extracts from the 1855 book what’s still relevant for our generation.

It is significant for the new view that Dietzel makes a semantic volte-face already in his introduction. He doesn’t speak of government or public *debt*, but of *credit* [“Staatscredit”] instead. (For a detailed assessment of Dietzel’s innovative thinking see Dettweiler 1969: 15-60.) He claims that the huge progress in material and intellectual welfare of the more advanced peoples of Europe in modern times is owed in large measure to the development of public credit ever since the last decade of 17th century England. No other sector of the economy had developed as strongly as public credit in practice, he claims, but economic theory had not yet advanced to a satisfying explanation of the nature and impact of it. As examples, Dietzel refers to David Hume and Adam Smith with quotations that I have also presented above. The *credit economy* would be the highest stage in economic development after the original stage of a *natural barter economy* succeeded by a *money economy*. While the credit economy was developing in practice, the developers of modern economic theory in England were still occupied with explaining the functioning of the former two stages and therefore did not comprehend the relatively new phenomenon of the latest stage. Dietzel thus

explains the fixation of the British classical economists on material production at the expense of services, including credit, which they viewed as being unproductive. Therefore, they had taken such a negative view of government bonds, he contends. Their perception of government economic activity as separated from the general economic activity and other prejudices had prevented their cognition of the true macroeconomic significance of public credit.

Therefore, Dietzel poses the following questions as point of departure for his study: Was England's spectacular increase in wealth since the last decade of the 17th century caused by its simultaneous increase in public credit? Or was their parallel growth caused by some other common factor? Or did England's spectacular increase in wealth come about despite the extensive usage of public credit? Answers to these questions would be the purpose of his book. Only a view of public credit and of the system of government bonds based on it as an integral part of the national economy could promise to deliver sufficient answers. (Dietzel 1855: 1-6. On Dietzel's theory of public credit see also Schueler 1961.)

Dietzel offers three explanations for the negative view of the classical school of British economists on public debt.

1. The increase of the public debt always happened in emergency situations, mostly for financing wars. Government borrowing for these unproductive purposes would draw on the pool of capital that would better have served the national economy by private investment in productive sectors of the economy.
2. The separation in economic theory of the government sector and its economic behavior from the private sector whose functioning modern theory had just learnt to explain. The government was perceived as appropriating tax revenue by force from the pool of national wealth and as almost infinitely expanding its resources through public borrowing at the expense of private capital accumulation. The great importance of economic activity of the government sector, both useful and necessary for the functioning of all parts of the national economy, e.g. for the preservation of law and order, was ignored.
 - 1.) The view of government activity and of services in general as being unproductive. Until Mill in his *Principles* began to acknowledge that government activity contributed to increasing the private sector's productivity, Smith's following view dominated the classical school's thinking:

“Thus the labour of a manufacturer adds, generally, to the value of the materials which he works upon, ... The labour of a menial servant, on the contrary, adds to the value of nothing. ... The labour of some of the most respectable orders in the society is, like that of menial servants, unproductive of any value, ... The sovereign, for example, with all the officers both of justice and war who serve under him, the whole army and navy, are unproductive labourers. They are the servants of the public, and are maintained by a part of the annual produce of the industry of other people. ... In the same class must be ranked, some of the gravest and most important, and some of the most frivolous professions: churchmen, lawyers, physicians, men of letters of all kinds; players, buffoons, musicians, opera-singers, opera-

dancers, etc. ... Like the declamation of the actor, the harangue of the orator, or the tune of the musician, the work of all of them perishes in the very instant of its production.” (Smith [1776] 1970: 430-431)

Like other representatives of the new public-finance school in Germany after him, Dietzel does not share this view at all. He regards neither services in general nor such government activities in particular as unproductive. He strongly approves the use of public credit not only in emergencies such as war, but also in financing profitable government investments and government reforms and activities that enhance the productivity of private investments. He realizes that by issuing government bonds and using these means in a productive or productivity-enhancing way idle labor is being put into employment. Thus, capital accumulation and wealth of the national economy would be furthered and not impaired as argued by Smith and the other classical British economists. Opposing the classical view, Dietzel put forward his anti-thesis as follows:

“A nation is so much the richer and its national economy so much more blossoming and progressing, the greater the ratio of interest payments on government bonds in total government outlays is. It goes without saying that this is true only in healthy and normal economic situations and especially under conditions of an appropriate management by government of the national economy as a whole” (Dietzel 1855: 200-201. As in the following with all German authors, it’s my translation.)

Among his arguments backing up this position are the following:

1. The purpose of credit financing of government expenditure is that the issue of public “bonds should be destined to accumulate fixed capital stock of the nation, to sustain and widen it, i.e. to attract in the most practicable way the existing and, for this purpose, usable disposable (in the sense of liquid, see Dettweiler 1969: 20, 43) capital of the national economy or - in case the goods required for this do not yet exist as disposable capital – to induce their production” (Dietzel 1855: 187).
2. The issuing of government bonds attracts funds from the private sector not only at the expense of private capital accumulation [*crowding-out* in modern parlance], but also at the expense of private consumption. And for whatever purpose public credit is used – for material purposes such as war materiel and infrastructure investment or for the building of “immaterial capital” like education, administrative reform, improvements in the judicial system, in property rights and personal security -, it increases the demand for labor. This leads to either more employment or longer working hours. The additional national income will generate additional savings. These can be invested in government bonds without reducing the pool of savings for private capital accumulation. In this way the annual amount of public credit raised through the bond system constitutes newly created, additional capital for the national economy (Dietzel 1855: 198).
3. The continuous growth of public credit is a way of offering an investment opportunity to capital, for which the private sector has nothing more favorable to offer. Investors

in public bonds remain liquid and are thus free to transfer their funds to a more favorable private investment opportunity when it arises. Dietzel likens government debt to a sort of insurance fund of capital owners. They transfer their capital to it, when they find no more advantageous opportunity to invest. When such opportunities open up, they withdraw from the public fund by selling bonds. Banks and joint stock companies also supply such insurance functions as private associations to a significant degree. But none of these institutions enjoys a credit standing as high as the state. Therefore, no other institution can accommodate and remunerate disposable private capital as securely as the government with its debt (Dietzel 1855: 203).

4. The most powerful argument that Dietzel advances, in my view, is the following. Before public credit played the major role in financing extraordinary expenditures, such as those in cases of war, natural catastrophes, and economic distress, the state had to make provisions for these dire straits by accumulating money for a *war chest* or reserve funds for the other purposes. This meant that goods produced and by taxation appropriated by the government would be saved instead of being devoted to capital accumulation either in the private or public sector of the economy. With the emergence of public credit, i.e. of the system of government bonds, this kind of withholding parts of the national product from flowing into capital accumulation ceased. War chests and other public savings provisions, thus, became superfluous. The formerly withheld parts of production were fully made available for the advancement of capital accumulation of the national economy, either through lower taxes via the private economy or through higher expenditures for productive purposes via the state.

“Therefore, when bond financing is used after the outbreak of a war, it is not really the war that necessitates it, but the fact that the capital which in the past would have been necessary to pile up [as a war chest] for the always foreseeable case of a war, was already used for other [productive] purposes” (Dietzel 1855: 212).

5. As to the limits of public debt, Dietzel states:

“As long as the national economy progresses and displays the elements of further development, it will have no problem to fund the taxes necessary to pay the interest. ... But should such taxes for the coverage of interest payment only be possible to raise with greatest difficulty, so that this would entail a considerable disadvantage to private capital accumulation, the productive power of capital accumulation via the public bond channel has to be considered as dead” (Dietzel 1855: 213).

The extreme distance of the new German view of public debt from that of the British economists of the classical school, especially from Ricardo’s radical view, is best expressed in Dietzel’s following statement:

“The levy of high taxes for the purpose of the redemption of public debt can never be approved of. The pleasure of being able to say we are debt-free would be all too dearly bought” (Dietzel 1855: 218).

In other words, freedom of public debt is a luxury afforded at too high a price, i.e. at the

expense of the general welfare.

Lorenz von Stein:

In contrast to Carl Dietzel, Stein was a highly reputed and recognized professor of political economy from 1855 to 1885 at the University of Vienna. Born in Eckernförde on the Baltic seaside in 1815 and mainly trained at the nearby University of Kiel, he died in Vienna in 1890. He was a pioneer in the creation of the science of public administration. He taught and published extensively in this field. (For more details on his biography see Grosseckler 1990: 20-29. Mutius 1992.) Schumpeter characterizes him as “a no doubt brilliant figure” (Schumpeter 1974: 850).

Like Dietzel, Stein devotes a whole book to government debt or rather “credit,” thus adopting Dietzel’s new terminology. However, Stein’s book is much more systematic and broader in scope. It treats the whole range of forms, institutions, and historical developments of public credit in all important European states. It is part of his textbook on public finance [*Lehrbuch der Finanzwissenschaft*], the first edition of which was published in 1860 in one volume with 565 pages. Von Stein expanded his textbook considerably with each revised edition until the fifth and last one appeared in 1885/86 with 1,935 pages, subdivided in two parts and four volumes (Grosseckler 1998: 73). The book on public credit is the third volume of Part II, entitled *Die Finanzverwaltung Europas [= Public Finance Administration in Europe]*.¹²

Like Dietzel, Stein summarizes disapprovingly the sweeping condemnation of government debt by the British economists of the classical school. He mentions explicitly the pioneering role that Dietzel had played in integrating public credit into the state economy [*Staatswirtschaft*] as an “organic” whole (Stein 1886: 42-43).

“He [Dietzel] is the first one who positively establishes the principle that legislation should produce installations and public institutions from which succeeding generations benefit, not at all from tax revenue, but from incurring government debt” (Stein 1886: 47).

He also states: “One has to judge as undeveloped every fiscal authority that does not know how to make use of its credit” (Stein 1886: 2).

Stein points out that every debt-financing of public expenditure – like debt-financing of private expenditures – was harmless and sustainable only if it led to productivity increases that would cover the debt service. He differentiates between directly and indirectly productive public debts. The former would finance government investments in state enterprises whose profits would more than cover the debt service; the latter would fund projects from which the private economy would benefit to such an extent that its productivity increase would generate the extra tax revenue necessary for the debt service (Stein 1886: 230). (One is tempted to summarize this evident sustainability requirement with a variant of Bill Clinton’s famous

¹² The version I have been using is from this edition (Stein 1886). From its first edition to its last the *Lehrbuch* was a tremendously successful and influential textbook. The higher ranks of civil service in German-speaking countries were trained with it.

sentence: “It’s the productivity, stupid!”) Stein himself rejects the notion that absolute or relative numbers about public debt such as the debt-to-national income ratio are of any significance except the relation between public debt and state revenue (Stein 1886: 215-220).

The *dictum* on public debt for which Stein is most famous first appears in his second edition: “A state without public debt either cares too little for his future or he demands too much from his present” (Stein 1871: 666).

It is significant that Stein dropped this *dictum* from the fifth and last edition of his *Lehrbuch*. More than a decade after the start of the worldwide *Great Depression* in 1873/74, which due to the ongoing economic growth is called *Great Deflation* by modern economic historians, Stein had perhaps witnessed tax revenue shortfalls and definitely deflation-typically low nominal interest rates. Therefore, he sees governments increasingly using public credit to cover ordinary instead of productivity-enhancing investment expenditures. This could have made him more aware of the danger of a misuse of debt financing for public consumption purposes. In the fifth edition of his *Lehrbuch* he even demands a constitutional safeguard against it (Grossekettler 1998: 103-104; Grossekettler 1990: 48; with reference to Stein 1886: 231, 365 respectively).

In a deeply penetrating analysis Heinz Grossekettler has viewed Stein’s contribution to the public-debt issue within the framework and terminology of modern public-finance theory. He differentiates among three functions which public debt should serve according to Stein (Grossekettler 1990:45-48):

1. Increasing productivity of the whole economy and thus of tax revenue sufficient enough to service the additional public debt fully. Not only would debt-financing of infrastructure investments serve this purpose directly, but it would also cover the cost of the creation of nation states in Central Europe, including the war costs connected with this process. This would indirectly enhance productivity developments as well as create the foundations for world peace once the nation-state building process came to an end.
2. The “integration and insurance function,” (as Grossekettler calls it) which the debt-issuing state should pursue as a secondary objective. It provides for and makes negotiable small lots of public debentures on the domestic capital market. Thus, citizens are given the chance to accumulate old-age provisions with government paper whose security grade would be second to none. Consequently, the citizens would identify themselves with the state and would have a “calculable interest in its sustainment and its good shape” (Stein 1886: 226).
3. Intergenerational burden-sharing in the modern sense of the *pay-as-you-use* principle. This is what Stein expresses in his famous *dictum* quoted above.

Like Mill had started to do, Stein differentiates between domestically and externally financed government debt. He notes that only in England and France was public debt almost exclusively domestically financed. Due to their smaller domestic capital market, the other central European states would finance their debt from beyond their borders to a large extent.

Adolph Wagner:

Adolph Wagner, who lived from 1835 to 1917, was also a highly reputed and recognized professor of political economy [*Staatswissenschaften*]. From 1870 on he taught at the University of Berlin, then the premier university in Germany and, probably, in the world. During the Bismarck era and beyond Wagner, together with his Berlin colleague Gustav von Schmoller, belonged to the intellectually and politically most influential economists not only in Germany but also abroad. From 1882 to 1885, Wagner was a member of the Prussian *Abgeordnetenhaus* (parliament) for the *Christian Social Party*. In 1910 he was appointed for lifetime tenure to the Prussian *Herrenhaus*, a sort of equivalent to the British *House of Lords*. Werner Sombart, a former student of his, became the successor of his chair at the University of Berlin in 1918.¹³

Before then, he had studied economics at the University of Goettingen, receiving a doctorate in 1857. Wagner's academic career took him first to the Merchants' Superior School in Vienna (1858–1863). He – after failing to secure a chair at the University of Vienna because of disagreements over public finance matters with Lorenz von Stein (for his critique of Stein see Wagner 1963: 16-18) - then moved to the Hamburg Higher Merchants' School (1863–1865). Both institutions are comparable to business schools today. In 1865, he took the Chair of Ethnography, Geography, and Statistics (in reality an economics professorship) at the University of Dorpat in Livonia (today Esthonia).

Wagner, like von Stein, acknowledges and praises Dietzel's pioneering role in crossing the watershed that separated the old thinking about public debt in the Smithian tradition, in England as well as in Germany, from the new theoretical approach to public finance and the role of the state as an integral part of the national economy (For this and the following see Wagner 1867: 1-21, based mainly on the theoretical part of his great study Wagner 1863, esp. 1-54). According to Wagner, the axiomatic assumptions of the classical school and its fully understandable aversion against the omnipotent state in a system of enlightened despotism preclude an unprejudiced appraisal of the role of the state within the economic process. Wagner identifies three types of errors and biases of the old school:

1. The assumption that only such labor was productive that directly manufactured new material goods.

¹³ The biographical information is from the Wikipedia article (retrieved on 24 Nov. 2012) on Adolph Wagner, which also contains the following information on his personality: "Wagner had a very combative and harsh personality. He did not take insults lightly and never phrased things diplomatically. As was mentioned, he had difficulties with Schmoller and was an enemy of Lujo Brentano – and these two were about his closest colleagues. By all contemporary accounts, it is probably fair to say that Wagner must have been vain, easily hurt, and extremely choleric. In the 1890s, Wagner would so enrage an industrial-conservative member of the Reichstag, likewise with a defense of the *Kathedersozialist* [= academic socialist] influence within the University, that this deputy challenged him to a duel. Wagner did not categorically refuse, but it was never fought. An even more famous case was Wagner's altercation with Eugen Dühring (against whom Friedrich Engels' Anti-Dühring is directed), and which in the very end resulted in Dühring's remotion and dismissal from the University of Berlin." Wagner was a life-long friend of and closely cooperated with Adolf Stoecker, a protestant pastor at the imperial court in Berlin, on the conception of the party program of the anti-semitic Christian Social Party in 1878. In 1881, Wagner became a member and vice-president of that party himself. Wagner also became one of the leading personalities in the *Conservative Central Comitee* (CCC), constituted in 1881. The CCC soon became the spearhead of the anti-Semitic *Berliner Bewegung*.

2. A bias in public-finance theory. It occupies itself almost exclusively with the revenue side of the government budget. Outlays are in principle seen as extravagance, an evil that should be reduced to the absolute minimum. Therefore, the old school never progresses to an analysis of public expenditures in detail.
3. The old school's persistent demand that the state's power, budget, and sphere of activity shrink. The narrow and meager notion of the rule of law reduces the functions of the state essentially to the provision of legal certainty as well as domestic and international security and protection of its citizens.

The classical school fails to comprehend that, with an increase in public needs because of economic and cultural progress, public expenditure had to rise as well. This insight induced Wagner to suggest his "Law of Growing State Needs" which is still known as "Wagner's Law of Increasing Public Expenditure" in today's textbooks of public finance. Wagner also adhered to the view "that in public, in contrast to private, budgeting revenue should conform to expenditure." (Wagner 1863:1)¹⁴

Wagner admits that the old school had come as far as differentiating between ordinary and extraordinary expenditure. But he criticizes it for using the moment of incidence of the need for the outlay as the relevant criterion instead of the duration of the effects of the expenditure into the future. Only the latter would be the decisive for the classification of public expenditure into the two categories, namely those which must be covered by taxation and those which should be financed by public bonds. Wagner sees an analogy with the differentiation between fixed and circulating capital in private business. Additions to fixed capital justify credit financing to the tune of the duration of future profit increases therefrom. As an example from the sphere of government he mentions the case of reorganization, i.e. an improvement and extension of the judicial system. The increased annual need for civil servants, office expenses etc. would fall into the category of circulating capital and would need to be covered by tax revenue. But new court buildings, the reorganization of authority, and the setup cost of these new installations would be like additions to fixed capital and could be covered by public credit operations.

In contrast to the old school, which regarded public debt as a sometimes unavoidable, but always distressing emergency, Wagner emphasizes strongly that public revenue should in principle be procured from both the two sources, the "ordinary" from taxation and the "extraordinary" (for additions to fixed capital) from using public credit. However, he does not adopt Dietzel's formula that the extraordinary expenditure "*must*," but instead only "*may*" be financed by public credit operations. Up to what limit this should take place would depend on the impact that tax or debt financing would effect on the economic process. Wagner does not build on Dietzel's macroeconomic approach to the role of public credit, but rather takes a step

¹⁴ Melon (1738: 258) had already expressed this view: "Private Persons regulate their Expences according to their Income, but the King regulateth his Revenue, according to the Expences that are necessary for the Preservation of the State." In Germany Schlettwein (1779: 351, as quoted in Beigel/Eckert 2013: 18) preceded Wagner with his view to "first compose the expenditure plan of the budget" and afterwards "look for the revenue deemed necessary for covering the planned expenditures."

back to the classical view in allowing public credit only for specific expenditures (Ernst-Poerksen 1983: 68). Dettweiler (1969: 123-124) sees Wagner together with two other pre-1914 German public-finance economists, namely Albert Schäffle (1831-1903) and Georg von Schanz (1853-1931) as belonging to one group which is aiming more for a *balanced budget* than for the principle “*the budget must balance the economy,*” as Dietzel and Stein, forming the other group, did.

Wagner differentiates between three categories of public expenditures:

1. Normal expenses. These recur annually to keep the government, its administration, and institutions running.
2. Public-economy capital investment. These are nonrecurring expenses to improve public institutions and installations. Like additions to fixed capital, they pay off in future periods.
3. Extraordinary expenditures. These are caused by abnormal difficulties. The most important example is war-financing.

Normal expenses must always and totally be covered by ordinary revenue, like taxes and fees. The use of public credit would be reprehensible. Neglecting this rule would create chronic budget deficits, a path towards ruin, because the growing interest burden would throw public finance into the abyss.

Private-enterprise capital investment by the state would require the exact opposite. These outlays should *not* be financed by tax revenue. If other sources of capital, e.g. single payments made by tenants and returns on private-enterprise capital investments or the proceeds from selling these are unavailable, outlays should be financed by public credit. Fixed capital is being created here. Where the state had made such investments in big chunks, it had acted according to this rule. Financing such investment outlays by taxation would mean that the state is depriving the private sector of circulating capital. Not only for this reason it would be desirable that the state withdrew itself from private-enterprise capital investment altogether.

As classic examples of public-economy capital investment, Wagner enumerates mints, postal and telegraph services, investment in road-building and waterways. While the outlays for maintenance of these installations would fall under “normal expenses” to be financed by taxes and fees, the use of public credit for their creation or extension would be absolutely appropriate because fixed capital is being accumulated. But Wagner also introduces an innovation under this rubric. Outlays for the assumption of new public tasks as a result of the “Law of Growing State Needs” as well as extending the existing ones and making their provision more effective, like great reforms in the judicial and administrative organism, could – of course with the exception of current maintenance – be financed by public credit (with examples from Austrian financial history on this point see Wagner 1863: 44-49).

According to Wagner, extraordinary expenditure for war purposes could also be covered by public credit. But he would recommend this practice less than in the case of public-economy capital investment. In sum, he recommends that all expenditures which result in revenue

increases or saving of public expenses in future budget years as well as abnormal nonrecurring expenditures, like in cases of war or natural catastrophes, may be covered by public credit. All these expenses, however, would constitute the upper limit for credit financing and not a prescription (see Wagner 1863: 55-63 for a more detailed description).

As mentioned before, the actual use of public credit versus taxation would have to depend on the effect that these two types of capital withdrawal from the private sector would exert on capital accumulation, i.e. economic growth in modern parlance, of the national economy. Following Mill, Wagner differentiates between three types of sources for the state to attract capital for debt-financing: 1. actually disposable capital of the domestic economy, 2. foreign capital, and 3. nondisposable domestic capital which would be distracted from private productive use. He recommends credit financing up to the limit defined above only if the first and second source are rich enough to supply it. This would not lead to a rise in the interest rate for capital productively employed in the private sector; hence no *crowding-out* in modern parlance.

But one should keep in mind that only the developed, relatively capital-rich countries would have a large pool of disposable domestic capital. Foreign capital would always be the most advantageous, as it would enlarge the total volume of capital within the domestic economy. “The great cultural-history mission of public credit” would display itself most in the indebtedness of less developed poorer states to the richer ones. Wagner treats the advantages of foreign capital for public credit financing at length and rejects the notion that the foreign-capital source would be more dangerous than the domestic at payback time of debt. It sounds like he knew of the case of modern day Greece when he notes: “The evil is not due to being indebted abroad, but to prior unproductive use of credit”; in other words, the credit was used for expenditures that according to the above-mentioned criteria should have been financed by taxation. He mentions one danger of foreign capital that has today captured Greece and other Euro states with high public debts: “The drawbacks lie in an abrupt strong increase of the insurance premium which is contained in the interest rate of debentures.” But in his opinion, the advantages of tapping the foreign-capital source for public credit would always outweigh the disadvantages.

Wagner is in agreement with the classical school of political economy only with regard to domestic capital that is being distracted from private productive use. An increase in taxes would be preferable because its effect on the national economy would be less harmful than the distraction of capital from private productive use. For Wagner, as for Mill, an increase in the general interest rate is the criterion for assessing that public loan operation drain capital from this use. Capital attracted from the other two sources of public-debt financing would not have this effect.

When distracting capital from private productive use, the traditional argument to justify debt-financing, namely that the burden of high extraordinary expenditures could be shared with the future generation, was completely wrong, Wagner argues. In both cases, taxation and debt, the present generation would have to carry the same burden in terms of forfeiting consumption. Wagner criticizes the classical school in England for having underestimated the first two above-mentioned sources for public credit.

He also disagrees with their views – Malthus being the only exception - on fast and total redemption of state debt. In this context, it would be apposite to make a distinction between public credit raised for private-enterprise capital investment, on the one hand, and for genuine government purposes, on the other. The former, e.g. public credit for railroad investments, should be handled according to the rules for private credit. They should be redeemed from the yield of the investment, especially since fixed capital would depreciate itself over time. Yet, Wagner argues that government debt for public-economy capital investment and extraordinary expenditure, e.g. war, does not necessarily need redemption. Fixed amortization schedules would even be definitely objectionable. In these cases, the state should only retain the right to redeem his debt, and it should exercise this right only after careful consideration of the circumstances. Redemption would often be less beneficial than the continuance of debt for economic and financial reasons. This would be the case when those who would provide the necessary tax revenue for redemption would be able to use their capital more productively than the creditors of the state who would receive those funds. Redemption would then be contrary to the national economic interest and thus to the fiscal interest of the state. In contrast to private enterprise and persons, the state was calculated to be of eternal life. Therefore, it would continuously be able to pay interest.

Where public debt was so firmly conjoined at the national economy - as e.g. in England, where rentier capitalists were largely its creditors – it would certainly be more advantageous to leave capital in the dexterous hands of the producing population and tax away from the yield of production only such amounts that interest on public debt would require. Thus, Wagner judges Ricardo's suggestion to redeem British public debt in one stroke from the revenue of a one-time huge extra-tax as "extravagant": "This would be a means to ruin a thriving national economy." Wagner sides with Malthus who had debated this issue with Ricardo.

Long before Schumpeter expounds the *Ricardian Vice* in 1954, Wagner had in essence already detected it:

"The English economists with all their conceptually sharp mathematical deduction often formulated, like their great master David Ricardo, the problem too abstractly and dealt with concrete circumstances of life, as with various other questions, not casuistically enough. A reaction [to this defect, C.-L.H.] has occurred in continental Europe, namely on the part of the younger generation of German economists, as in the theory of population, of land rent, of money and paper money (quantity theory) etc." (Wagner 1867: 17).

But the scientific core of the earlier theses must nonetheless persist, Wagner continues. One would only have to formulate the conditions of the case more precisely. One must not forget, what often happens, that especially the Ricardian school intends to mean a development "trend" under such and such premises, while the explicit wording often suggest the presupposition of a necessary development under all circumstances. Wagner mentions two examples where the old school – by its typical reduction of reality to the bare bones - has shielded its conclusions against the influence of actually important circumstances 1. Public credit would lead to additional employment in the public sector. This would mean less suffering of the working class than the Ricardian school had concluded. 2. Drawing on

disposable and *foreign* capital sources would further alleviate such suffering.

There were, of course, many other German public-finance scholars that I have not covered, such as Albert Schaeffle (for a short exposition of his contribution to public-debt theory see Ernst-Poerksen 1983: 69-70). A very good and detailed coverage of the development of public-finance theory in Germany since 1800 and far beyond the three economists that I have dealt with is Beckerath 1952.

V. Conclusion

We can summarize and contrast briefly the origins of the overwhelmingly negative views that British classical economists held regarding public debt with the origins of the more positive views of the three German economists from 1855 to 1914.

British economists essentially considered public debt as always the result of an emergency situation like war, which they viewed as a waste of economic resources. But even in peace times British economists saw government as a source of extravagant expenditures. Perhaps, with the exception of Malthus, they had not understood the roles that taxation versus debt financing of government expenditure played within a nation's economy. German economists were pioneers in recognizing the positive role that government and public debt could play in promoting productivity growth and capital accumulation.

The British classical school regarded all public debt as exclusively or mainly a diversion of capital from productive uses in the private economy that impaired capital accumulation and economic development. German public finance economists, in contrast, assigned a much larger role to *disposable* domestic and to foreign capital that gave the public sector leverage to promote economic development.

Classical British economists regarded primarily the revenue side of public budgets and feared the danger that public debt might pose for capital accumulation in the private sector. With the exception of Malthus, they considered high debt as a greater burden on the domestic economic process than the implementation of rich redemption funds or a one-off tax increase to eliminate public debt in one stroke. It was interestingly enough German economists who held in high regard such "eternal" debt, i.e. British consols, with no sinking fund and no repayment date. In assessing public credit, German economists looked to the expenditure side of public budgets, namely the question: Would funds thus raised be used for productive purposes, including not only fixed-capital investments in private or public enterprise and in infrastructure, but also basic administrative or judicial reforms.

There is one last item to report. In contrast to Germany, there was hardly any teaching of economics at American colleges and universities well into the 1870s. It is true that British classical political economy was read and taught in the United States. But the doctrine of *laissez-faire* was not what U.S. industries in their infancy and their fostering governments regarded as a useful guide for framing (foreign) economic policy. Infant-industry protection against British competition shaped foreign economic policies of the overwhelmingly

Republican Administrations between the Civil War and World War I and even beyond. The outcome of the Civil War had begun the secular trend of a shift of power from the states to the federal government. A similar process almost simultaneously took place in Germany with the foundation of the *North German Federation* in 1867 and of the German *Reich* in 1871 (Farnam 1908: 7). The central government of each of these two countries faced new economic-policy challenges, especially as rapid industrial growth characterized that period, and *creative destruction* as described by Schumpeter constantly changed the structure of both economy and society. Both countries were latecomers in industrialization and strove to rival Britain's leading role on world markets.

Thus it was hardly a coincidence that following John Bates Clark in 1873 young American scholars looking for proper training in economics in Europe would choose to receive advanced training in Germany over Britain. The (then) modern German school of historical and institutional economics displayed a much more pronounced concern with social problems and their possible solutions together with a positive view of government activity in the economy. The British classical school, in contrast, remained based on the *laissez-faire* presumption and its implication that minimal government is always best.

Many of the leaders in American economics at the end of this long century- from John Bates Clark through equally eminent scholars as Richard Ely, Edmund J. James, Simon N. Patten, Henry C. Adams, Richmond Mayo-Smith, Edwin R. A. Seligman, Arthur T. Hadley, Frank W. Taussig and Francis A. Walker, names that include the founders of the American Economic Association in 1885, had studied under German economists, prominent among them Adolph Wagner and Gustav Schmoller in Berlin, Karl Knies in Heidelberg and Johannes Conrad in Halle (Schmalz 1998: 202-203. Farnam 1908: 25-26, identifies many other first-rate American economists who had studied at German universities before 1914).

References

- Barro, Robert J. 1974. "Are Government Bonds Net Wealth?" In *Journal of Political Economy* 82, pp. 1095-1117.
- Beckerath, Erwin von. 1952. "Die neuere Geschichte der deutschen Finanzwissenschaft (seit 1800)", in Wilhelm Gerloff/Fritz Neumark, Eds., *Handbuch der Finanzwissenschaft*, 2nd ed., vol. 1, Tuebingen: Mohr-Siebeck, pp. 416-468.
- Beigel, Thorsten/Georg Eckert. 2013. „Zum Wandel der Staatsverschuldung: Eine Einführung“, in: Thorsten Beigel/Georg Eckert, Eds., *Vom Wohl und Wehe der Staatsverschuldung. Erscheinungsformen und Sichtweisen von der Antike bis zur Gegenwart*, Münster: Aschendorf, pp. 1-28.
- Berckum, Johann J. 1911. *Das Staatsschuldenproblem im Lichte der klassischen Nationaloekonomie*, Leipzig: Deichert.
- Buchanan, James M. 1976. „Barro on the Ricardian Equivalence Theorem“, in *Journal of Political Economy* 84, pp. 337-342.
- Churchman, Nancy. 2001. *David Ricardo on Public Debt*, Houndsmill/New York: Palgrave.
- Dettweiler, Eberhard. 1969. *Beiträge der deutschen Finanzwissenschaft zur Verschuldungstheorie im neunzehnten Jahrhundert*, doctoral dissertation, economics department, University of Tübingen: Diss. Printing.
- Dickson, Peter G. 1993. *The Financial Revolution in England. A Study in the Development of Public Credit, 1688-1756*, Aldershot: Gregg Revivals [original ed. 1967].
- Dietzel, Carl. 1855. *Das System der Staatsanleihen im Zusammenhang der Volkswirtschaft betrachtet*, Heidelberg: Akademische Verlagshandlung Mohr. [Excerpts are also published under the same title in Diehl, Karl/Mombert, Paul, Eds., (1980), *Das Staatsschuldenproblem. Ausgewählte Lesestücke zum Studium der politischen Oekonomie*, Frankfurt am Main: Ullstein, pp. 211-252.
- Dome, Takuo. 2006. *The Political Economy of Public Finance in Britain 1767-1873*, London/New York: Routledge.
- Dorfman, Robert. 1989. "Thomas Robert Malthus and David Ricardo", in *Journal of Economic Perspectives* 3, pp. 153-164.
- Ernst-Poerksen, Michael. 1983. *Staatsschuldtheorien. Vom Merkantilismus bis zur gegenwaertigen Kontroverse um Funktion und Wirkungsweise der Staatsverschuldung*, Berlin: Ernst-Poerksen.
- Farnam, Henry W. 1908. „Deutsch-amerikanische Beziehungen in der Volkswirtschaftslehre“, in: *Die Entwicklung der deutschen Volkswirtschaftslehre im 19. Jahrhundert. Festschrift für Gustav Schmoller*, vol. 1, article XVIII, Leipzig: Duncker &

Humblot, pp. 1-31.

Fossati, Eraldo. 1932. „Der Beitrag des Jean François Melon zur Finanzlehre“, in: *Finanzarchiv*, New Series, vol 1, pp. 589-603.

Glaeser, Rolf. 2003. „Carl Dietzel (1829-1884): a pioneering and unorthodox thinker on public debt and fiscal policy“, in Warren J. Samuels, Ed., *European Economists of the Early 20th Century*, vol. 2: *Studies of Neglected Continental Thinkers of Germany and Italy*, Cheltenham: Elgar, pp. 81-103.

Grossekettler, Heinz. 1990. „Die Staatsverschuldung aus der Sicht Lorenz von Steins“, in: Harald Scherf, Ed., *Studien zur Entwicklung der ökonomischen Theorie*, Berlin: Duncker & Humblot, pp. 19-55.

Grossekettler, Heinz. 1998. „Lorenz von Stein und die moderne Staatswirtschaftslehre. Ein Führer durch die Steinsche ‚Finanzwissenschaft‘ aus heutiger Sicht“, in: Herbert Hax, Ed., *Vademecum zu einem Klassiker der Staatswissenschaft. Kommentarband zu Lorenz von Stein, Lehrbuch der Finanzwissenschaft*, Düsseldorf: Wirtschaft und Finanzen, pp. 73-110.

Haller, Heinz. 1959. „Dietzel, Carl“, in Erwin von Beckerath et al., Eds., *Handwoerterbuch der Sozialwissenschaften*, vol. 2, Stuttgart: Fischer, pp. 609-610.

Haller, Heinz. 1985. „Carl Dietzels Staatsanleihenkonzept aus heutiger Sicht“, in: Dieter Cansier/Dietmar Kath, Eds., *Öffentliche Finanzen, Kredit und Kapital. Festschrift für Werner Ehrlicher zur Vollendung des 65. Lebensjahres*, Berlin: Duncker & Humblot, pp. 125-144.

Isenmann, Moritz. 2013. „Wachstum durch Schulden? Staatsverschuldung und die Diskussion über den öffentlichen Kredit im Frankreich des Ancien Régime“, in: Thorsten Beigel/Georg Eckert, Eds., *Vom Wohl und Wehe der Staatsverschuldung. Erscheinungsformen und Sichtweisen von der Antike bis zur Gegenwart*, Münster: Aschendorf, pp. 97-111.

Keynes, John M. 1963. „Robert Malthus 1766-1835. The First Cambridge Economist“, in J. M. Keynes, *Essays in Biography*, Geoffrey Keynes ed., New York: Norton [original ed. 1933], pp. 81-124.

Malthus, Thomas Robert. 1989. *An Essay on the Principle of Population*, 2nd ed., 2 vols., ed. by P. James, vol. 1, Cambridge UP [original ed.1803].

Melon, Jean François. 1738. *A Political Essay upon Commerce*, Dublin: Philip Crampton.

Meyers Konversations-Lexikon. 1897. 5th ed., vol. 4, Leipzig/Wien: Bibliographisches Institut.

Mill, John Stuart. 1848. *Principles of Political Economy*, Book V, Chapter VII: „Of a National Debt“. Online Library of Liberty. Access: http://oll.libertyfund.org/?option=com_staticxt&staticfile=show.php%3Ftitle=243&chapter=7243&layout=html&Itemid=27. Retrieved 5 Nov. 2012.

Mitchell, Brian R. 1978. *European Historical Statistics 1750-1970*, abridged ed., London: Macmillan.

Mitchell, Brian R. and Phyllis Deane. 1962. *Abstract of British Historical Statistics*, Cambridge: University Press.

Montesquieu, Charles-Louis de Secondat. 1748. *De l'Esprit des Loix*, Genf: Barrillot & Fils.

Mutius, Albert von, Ed. 1992. *Lorenz von Stein 1890-1990. Akademischer Festakt zum 100. Todestag*, Heidelberg: v. Decker.

Neumark, Fritz. 1958/59. „Wo steht die ‚Fiscal Policy‘ heute?“ In *Finanzarchiv* NF 19, pp. 46-71.

O'Brien, Denis Patrick. 2004. *The Classical Economists Revisited*, Princeton: University Press.

Pinto, Isaac de. 1771. *Traité de la Circulation et du Crédit*, Amsterdam: Rey.

Preiswerk, Susanne. 1942. *Geschichtlicher Ueberblick ueber die Theorien der Staatsverschuldung mit besonderer Beruecksichtigung der volkswirtschaftlichen Zusammenhaenge*, doctoral dissertation, economics department, University of Basel: mimeographed.

Ricardo, David (various), *Principles of Political Economy and Taxation*, his correspondence with contemporaneous economists, parliamentary speeches and his relatively short publication *Funding System* of 1820. All available in *The Works and Correspondence of David Ricardo*, ed. by Piero Sraffa, 11 vols., 1951. Vol. 1, for instance, is Ricardo's *Principles*, while the *Funding System* is contained in vol. 4. Online Library of Liberty. Access:

http://oll.libertyfund.org/index.php?option=com_staticxt&staticfile=show.php%3Fperson=45&Itemid=28. Retrieved 5 Nov. 2012.

Rogin, Leo. 1971. *The Meaning and Validity of Economic Theory. A Historical Approach*, Freeport, NY: Books for Libraries Press [original ed. 1956].

Roscher, Wilhelm. 1874. *Geschichte der National-Oekonomik in Deutschland*, Munich: Oldenbourg.

Schlettwein, Johann August. 1779. In: Johannes Burkhardt/Birger Priddat, Eds., *Geschichte der Ökonomie*, Frankfurt am Main 2009, pp. 325-353.

Schmalz, Gisela. 1998. *Der Richtungsstreit in der frühen amerikanischen Wirtschaftslehre und der Einfluss der Deutschen Historischen Schule*, Marburg: Metropolis.

Schueler, Manfred. 1961. "Carl Dietzel und die Theorie des Staatskredits in der zweiten Hälfte des 19. Jahrhunderts", doctoral dissertation, economics department, University of Cologne: mimeographed.

Schumpeter, Joseph A. 1974. *History of Economic Analysis*, New York: Oxford UP, eighth printing [original ed. 1954].

Smith, Adam. 1970. *The Wealth of Nations*, With an Introduction by Andrew Skinner, Books

I-III, Harmondsworth: Penguin Books [original ed. 1776: *An Inquiry Into the Nature and Causes of the Wealth of Nations*, Book II, Chapter III: “Of the Accumulation of Capital, or of Productive and Unproductive Labour”, the first two paragraphs, in: R. H. Campbell and A. S. Skinner, Eds., Glasgow Edition of the *Works and Correspondence of Adam Smith*, vol. I, Indianapolis: Liberty Fund, 1981. Online Library of Liberty. Access: http://oll.libertyfund.org/index.php?option=com_staticxt&staticfile=show.php%3Ftitle=220&layout=html#chapter_217437. Retrieved 10 Febr. 2013.

Smith, Adam. 1776. *An Inquiry Into the Nature and Causes of the Wealth of Nations*, Book V, Chapter III: “Of Public Debt”, in: R. H. Campbell and A. S. Skinner, Eds., Glasgow Edition of the *Works and Correspondence of Adam Smith*, vol. II, Indianapolis: Liberty Fund, 1981. Online Library of Liberty. Access: http://oll.libertyfund.org/?option=com_staticxt&staticfile=show.php%3Ftitle=200&chapter=217530&layout=html&Itemid=27. Retrieved 4 Nov. 2012.

Stein, Lorenz von. 1871. *Lehrbuch der Finanzwissenschaft als Grundlage für Vorlesungen und Selbststudium*, Zweite, durchaus umgearbeitete und sehr vermehrte Auflage, Leipzig: Brockhaus [original ed. 1860].

Stein, Lorenz von. 1886. *Lehrbuch der Finanzwissenschaft*, Zweiter Teil: *Die Finanzverwaltung Europas*, Dritte Abtheilung: *Das Staatsschuldenwesen*, Fünfte, neubearbeitete Auflage, Leipzig : Brockhaus.

Stettner, Walter F. 1944. *Nineteenth-Century Public Debt Theories in Great Britain and Germany, and Their Relevance for Modern Analysis*, Ph.D. diss. Harvard University (unpublished).

Stettner, Walter F. 1948. „Carl Dietzel, Public Expenditures and the Public Debt“, in Lloyd A. Metzler, Ed., *Income, Employment and Public Policy. Essays in Honor of Alvin H. Hansen*, New York: Norton, pp. 276-299.

Wagner, Adolph. 1863, *Die Ordnung des österreichischen Staatshaushaltes mit besonderer Rücksicht auf den Ausgabe-Etat und die Staatsschuld*, Wien: Carl Gerold's Sohn.

Wagner, Adolph. 1867. “Staatsschulden”, in: Johann C. Bluntschli/Karl Brater (eds.), *Deutsches Staats-Wörterbuch*, vol. 10, Stuttgart/Leipzig: Expedition des Staats-Wörterbuchs.

**Diskussionsbeiträge
des Fachbereichs Wirtschaftswissenschaft
der Freien Universität Berlin**

2013

- 2013/1 MASSARRAT-MASHHADI, Nima
The mutual impact of deferral labour taxation and capital income taxation
on risk-taking behaviour : an experimental analysis
FACTS
- 2013/2 ENGLER, Philipp und Simon VOIGTS
A Transfer Mechanism for a Monetary Union
Economics
- 2013/3 CHADI, Adrian und Clemens HETSCHKO
Flexibilisation without Hesitation? : temporary contracts and workers' satisfaction
Economics