

# NATIONAL DEBT BURDEN AND RICARDIAN EQUIVALENCE

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## **1. Introduction. The main material research**

The problem of national debt has caused disputes in scientific circles for decades. The views of scientists on the impact of debt on the economy are the most controversial. Representatives of classical political economy believed that the debt carries only negative consequences; the Keynesians believed government loans can be used to stimulate aggregate demand, modern economic schools and individual academic economists hold very different views on this issue. But searching for the right answers has led many to the classical point of view. Classical political economy shaped mostly negative attitude for public debt issue as the reason for national investment reduction and accumulation of capital shorting. All classics agreed in general that the national debt is a burden for the state, and it is better to seek other funds to cover government spending so as not to drive the population into the bondage of debt. It was thought that accumulation of public debt leads to an increasing in tax burden that loans are taken today will lead to future tax increasing. Debt burden is expressed in terms of tax burden. David Ricardo was one of those who held such viewpoint.

Classical view on public debt issue was formed by A. Smith, D. Ricardo, T. Malthus, J.-B. Say and others. They considered government spending as an unproductive spending leading to the destruction of capital, due to the fact that these expenditures were to conduct wars. Only internal debt was in elaboration, the main creditors of government were merchants as it was considered. Keynesian point of view on this issue was expressed by J. M. Keynes, A. Lerner, S. Harris, A. Hansen. Keynesians considered both internal and external debt, they agreed the internal debt and interest shall be paid off by future generations by taxes, but at the same time they pointed out that this does not lead to capital losses, because internal debt payments are only transfers within the national economy (Ricardo held this idea as well). The criticism of Keynesian ideas and a return to the classical theory of debt are given in works of R. Barro, R. Musgrave, J. M. Buchanan. In Ukrainian economic science the issue of national debt was studied by N. V. Zrazhevskaya, V. V. Kozyuk, V. V. Lisovenko, T. G. Bondaruk, Y. V. Onishchuk, T. P. Vakhnenko and others.

Ricardo along with other representatives of classical economics held the view that excessive taxing is the inevitable result of large national debt accumulation [1, p.201]. This view requires a critical examination and verification of its applicability to modern economic reality.

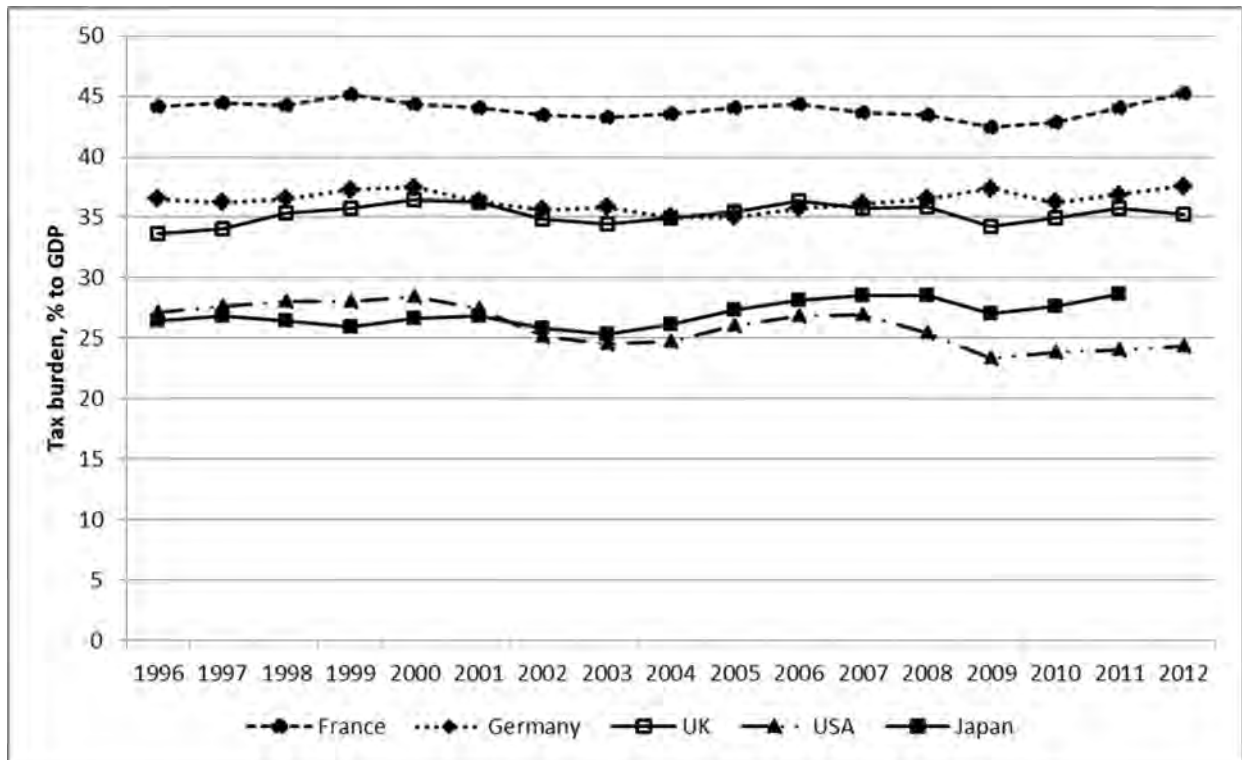
In modern conditions, when all developed countries have huge public debt, the problem is particularly actual. The purpose of this study is an analysis of Ricardian views on the public debt issue and demonstration based on statistical data that a significant debt accumulation does not necessarily increase a tax burden.

The hypothesis of the necessary tax burden increasing due to increasing public debt is based on the assumption that there is no growth in the economy [2, p.286]. Ricardo said that the public debt growth will inevitably lead to an increase in a tax burden, but at the same time does not account for tax revenue increasing because of GDP increasing, even at a constant level of tax burden. Thus, under the condition of economic growth the tax burden may even decrease.

As for tax burden increasing, it is enough to analyze the dynamics of tax burden for developed countries to see the stability in it (Fig. 1).

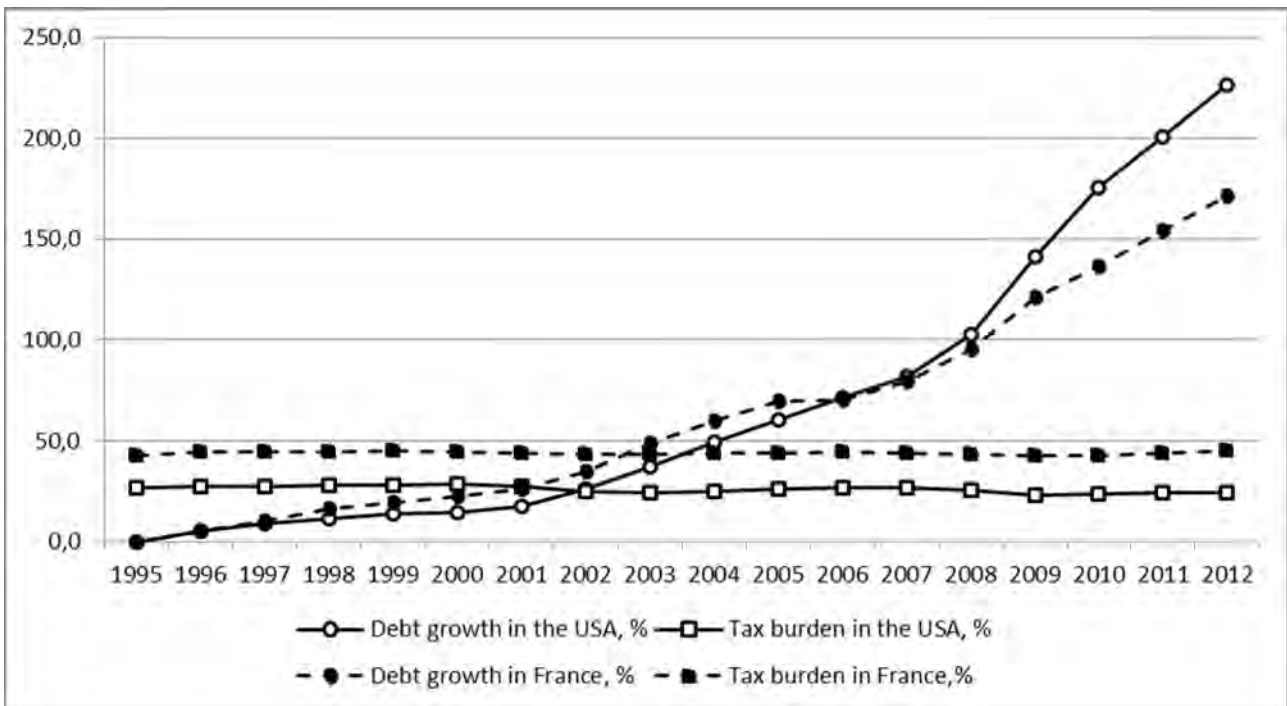
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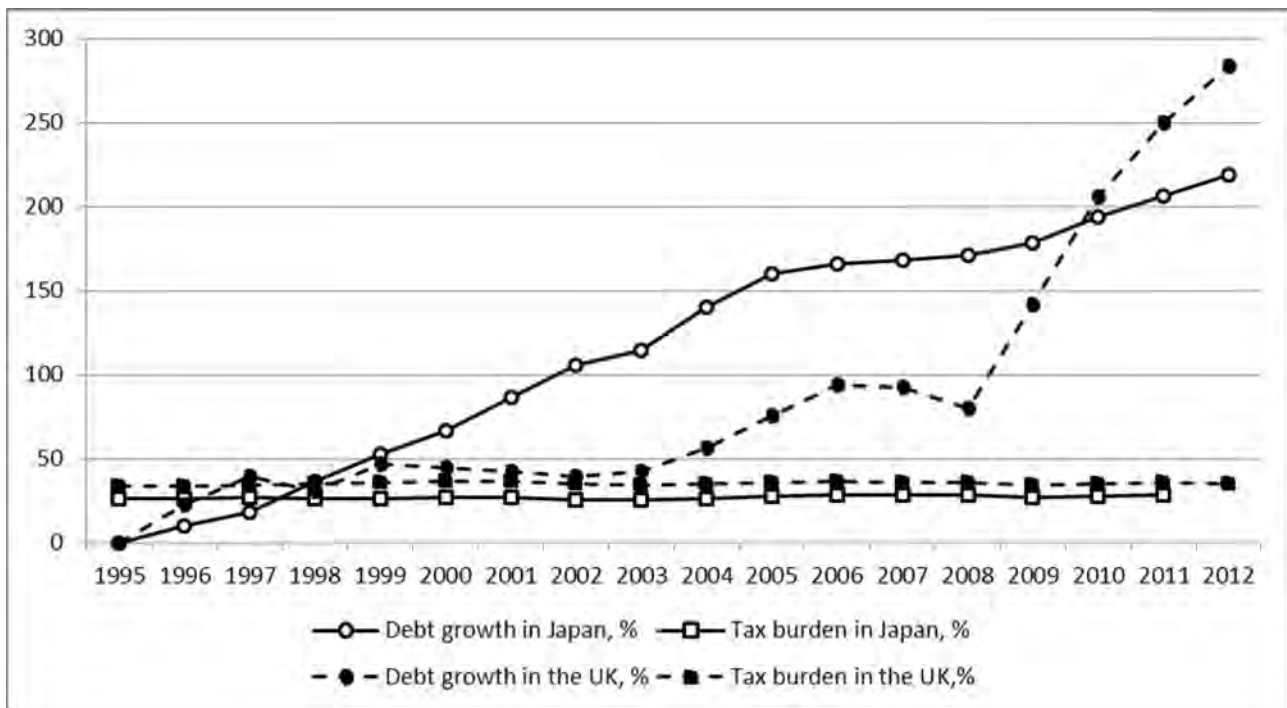
**Fig. 1. Dynamics of tax burden in some developed countries from 1996 to 2012 [3]**

The graph shows the level of tax burden in each country varies slightly. At the same time the amount of tax revenue is growing with the growth of the GDP. This allows to pay a larger interest on the debt that accumulates. The following graph (Fig. 2) allows you to compare the rates of public debt growth to tax burden change in France and the United States. For convenience and clarity, growth rate of public debt was calculated since 1995.



**Fig. 2. The rates of public debt growth and tax burden change in France and the United States from 1995 to 2012 [3; 4; 5]**

The following graph (Fig. 3) shows a similar analysis for Japan and the UK.



**Fig. 3. The rates of public debt growth and tax burden change in Japan and the United Kingdom from 1995 to 2012 [3; 4; 5]**

Provided statistical data show tax burden remains approximately at the same level, and its fluctuations is in no way comparable with the change in the growth of public debt.

In some sources you can find theorem, which states that “national debt does not affect savings and capital accumulation, because consumer future taxes are equivalent to the current taxes” [6, p.41]. This theorem is called “Ricardian equivalence theorem”. However, it should be noted that Ricardo himself had not formulated this theorem; it was written by the American economist Robert Barro. Barro suggested that public debt does not cause change in the welfare of the society. This “equivalence theorem” is contrasted with the traditional understanding of the effects caused by national debt. According to the traditional point of view national debt covers public expenditure that is usually covered via taxes. Tax cuts lead to an increasing in consumer spending, to an increasing in demand for goods and services, which would entail a rise in prices, the growth of production and employment. Another consequence of the tax cuts is a reduction in national savings and capital accumulation. As a result a large load of public debt lies on the shoulders of future generations.

R. Barro considers economic agents are rational and they will not spend the money from tax cuts, because they know that in the future state loan will lead to an increasing in taxes, so they will save money reducing current spending and increasing future spending accordingly. Thus personal consumer’s savings are increasing, and the amount of personal and government – national savings – remain unchanged.

It should be said Ricardo describes the problem in the context of war and war-taxes. He says that there are three options for covering war expenses. Firstly, it is possible to levy an annual war-tax till war ends. Secondly, the money might be annually borrowed and funded, in which case, a perpetual charge of taxes would be incurred for the first year’s expense, from which there would be no relief during peace, or in any future war. The third mode of providing for the expenses of the war would be to borrow annually, but to provide by taxes a fund, in addition to the interest, which, accumulating at compound interest should finally be equal to the debt [2, p.285–286].

Ricardo prefers the first method. It is especially important that we are talking about war time, and it was out of Barro’s attention. War leads to big additional government spending and this may provoke a person to save a significant amount of income, but not just presence of the public debt. “Of these three modes we are decidedly of opinion that the preference should be given to the first.

The burdens of the war are undoubtedly great during its continuance, but at its termination they cease altogether. When the pressure of the war is felt at once, without mitigation, we shall be less disposed wantonly to engage in an expensive contest, and if engaged in it, we shall be sooner disposed to get out of it, unless it be a contest for some great national interest” [2, p.286]. Here Ricardo says if the war-tax sharply falls upon the people they would be forced to think twice before engaging in war. Though war is not usually started by those on whom main burden of taxes lies, but by the government. At the same time it is important that population feel as little economic oppression as possible, as it may affect the power of active political leaders. That is why a government is inclined to choose the mode to provide its expenditure that is the least harsh and painful for the consumer wallet. Such mode is government borrowing, because burden of debt is considerably less painful for the public than the burden of sharply increased taxes.

Talking about mode of providing extraordinary expenditures Ricardo does not consider it as an economic law, as it does Barro, but only offers it as a possible solution to the problem. According to him, man will not necessarily prefer to pay the full amount of taxes now: “It would be difficult to convince a man that a perpetual payment of 50*l.* per annum was equally burdensome with a single tax of 1000*l.* He would have some vague notion that the 50*l.* per annum would be paid by posterity, and would not be paid by him” [2, p.286]. But government can oblige him to pay the whole amount at once, and he knows that the country is in a state of war, and will not oppose. Consumers will seek to save money for the future taxes only in case of war. But even in this case, it is unlikely that everyone can find the means to pay significantly bigger tax.

In times of Ricardo war-tax would not affect a class of workers, because their wages were only the minimum of means of subsistence, but today's reality is different, and it cannot be ignored. There is far less wealth in worker's possession than in the possession of landowner or industrial capitalist, and such a tax may seriously undermine worker's well-being if not throw him out on the street.

What Ricardo did say, is that the existence of the internal public debt does not cause change in the total national income. Interest paid on the public debt, it is payment “from the right hand to the left”, and there is no difference whether it is paid or it is not paid. Will this interest be paid or not, the country will not become any richer or poorer [1, p.203].

Either way, debt and interest remain a burden for the part of society, which should make these payments. It seems clear that in case of large debt accumulation, the minority, those individuals who lend money to the state, possess a considerable amount of money. On the contrary, the majority from which government collects taxes to pay off debt possess much less amount of money (per each person). As a result, the debt burden is for the bigger part of public with fewer resources, and it is valid to say that it is a burden for the country. What is a country if not its people? Ricardo is abstracted from the class structure of the society in his analysis, but this factor is very significant on a more concrete level of analysis.

## **2. Conclusions**

Study leads to the conclusion that the existence and growth of public debt does not necessarily cause a tax burden increasing, as it was considered in classical economics. On the contrary, the provided statistic data show that tax burden remains approximately at the same level, while national debt grows continuously for many developed countries. Economic growth is not taken into account at this point. In fact, tax revenues may increase even when tax burden as percentage to GDP is stable. Confirmation to this is the current economic situation in Ukraine. Despite a very significant increasing of public debt in recent years, the tax burden varies around the same level at 41–43% of GDP.

“Equivalence theorem” formulated by American economist Robert Barro and stating that future taxes for the consumer are equal to the current taxes is a simplification of the provisions made by David Ricardo and does not reflect the real economic laws.

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## Summary

The paper deals with the views of Ricardo on the national debt issue. Ricardo, as well as other representatives of classical economics held the view that exorbitant taxation is the inevitable result of a large accumulation of national debt. Although an increase in the value of the annual produce leads to increased tax revenue received by the state, even at a constant level of the tax burden (the ratio of tax revenue to GDP). Provided statistical data on taxation and national debt growth show that tax burden remains around the same level, and fluctuations of that level by no means commensurate with the changes in the growth of public debt. Considerable attention to the problem of so-called “Ricardian equivalence theorem” is paid. According to “equivalence theorem”, formulated by American economist Robert Barro, future taxes for consumer are equal to the current taxes. But this does not reflect the real economic laws and is a simplification of the provisions made by Ricardo.

**Keywords:** public debt; taxes; internal debt; war-tax; economic growth; the equivalence theorem.

**JEL classification:** B120, H630

**UDK classification:** 330.8:336.2

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