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FISCAL DEFICIT, DEBT, INTEREST RATE AND EXCHANGE RATE

Summary: *The high level of public debt securities is already a complicated interplay of the budget fiscal deficit and the exchange rate, especially in the indebted countries in transition. Limited foreign borrowing and fiscal austerity, however, affect the exchange rate, as well as currency risk and massive devaluation. In the debit suffering, reducing the fiscal deficit is an absorbing instrument while devaluation is a change policy. The absorption instrument (reduction of the budget deficit) and the change policy (devaluation of national currency) are the foundations of macroeconomic stability and structural adjustment programmes, as well as the policy of establishing a credit history and finding a balance between financing and adjustment.*

Key words: *fiscal deficit, public debt, interest rate, exchange rate, budget balance*

JEL Classification: *H61, H63, H680, H690*

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1. INTERACTION BETWEEN EXCHANGE RATE AND FISCAL DEFICIT

The return of external creditworthiness in an indebted country can be achieved through a surplus trade balance for servicing of foreign debt. The ratio of debt /exports, as an indicator, can be improved, “just as long as the surplus of non-interest current account, as part of the export exceeds the difference between the current interest rates on foreign debt and the growth of export revenues” (Ristic 2014, 234). Development of the external debt, however, was more conditioned by the fiscal deficits since the conventional non-Ricardian considerations impact bonds of the financed fiscal expansion were empirically verified. However, the currencies of these countries (heavily indebted) begin to erode and massively devalue. The growing interest burden has accelerated the loss of international credit standing and increased re-transfer of foreign currencies in favor of the creditor, which impacted tax revenue, domestic public debt and savings in public expenditure. The burden of external debt narrowed the tax base and promulgated the so-called Tanzi effect (increasing losses of real tax revenues along with the acceleration of inflation). The local sale of bonds on the domestic financial market was not non-inflationary source of funding.

The real incomes from the government bonds significantly exceeded the real growth rates. Along with the non-interest budget deficit, it led to the growing participation of domestic public debt in GDP. The deficits were to be monetized once the ratio of domestic debt and the production was increased (Ristic 2014, 317). Then monetary finances play an important role in keeping the internal transfer of exports needed to service the foreign debt. High inflation leads to currency erosion, to directing savings in property and to the currency replacement (Burdekin 1992, 48). With the growth of inflation variability of interest rates and exchange rates are increasing. Now, because of the risk, investors require a real interest rate that is above the level of interest with which they would be satisfied if the price level were constant. This further leads to the allocation of deformation and a weakening of growth, since investors cannot increase their assets in the capital markets. That leads to the loss of the well-being in society along

with inflation due to the wrong money policies, which induces a devaluation (Ristic 2000, 1048).

If the exchange rate reflects the good condition of the state finances, then the so-called fiscal approach to deciding the course provides a better performance than the monetarist or the balance of payments. Countries with dominating final austerity find solution to the deviation from the equilibrium exchange rate performance only when their economies are affected by the fiscal shock. Currency rates, then, should be adapted to expectations, as the risks of non-payment of taxes are intensified. Rising interest rates become ineffective means of avoiding devaluation for the simple reason that they increase costs, debt levels and the risk of inflation tax. The fiscal response to the devaluation would be the following: "If the exchange rate initially depreciates, expectations of future appreciation can create a wedge between the gains in domestic and foreign currencies which allows decrease of servicing the domestic public debt in a local currency. This hypothesis would imply that the devaluation of the exchange rate helps promote external adjustment and fiscal stability *uno actu*, without the unpleasant choice between both objectives. However, the assumption that a devaluation improves the state budget is not confirmed by the heavily indebted developing countries, because "an increase in tax revenues in local currency and new inflows of foreign financing were too limited to make up for rising costs in local currency to service its debt in foreign currencies tracked by devaluation ". In fact, the adjustment in exchange rates may have an adverse effect on government funding. For countries that have entered into the trap of excessive debt, it is important to create a trade surplus to service the foreign debt. Then the devaluation of the real exchange rate below purchasing power parity is inevitable and permanent. The real devaluation carries a negative price effect of the state apparatus "when real interest on the net external debt plus non-interest budget trade deficit exceeds the new net foreign debt" or "real devaluation will improve the fiscal situation only when the trade deficit budget in the initial surplus or when the net foreign currency inflow (new debt minus interest) to the state is positive ". The impact of the devaluation of the real interest rate segment of the fiscal position has become almost negative for indebted countries

due to the increasing shift in net financial transfers. However, in addition to price effect, which causes devaluation of the national budget, short-term production and the effect on the tax base and real consumption are evident that, though, admittedly, difficult to measure. "Brazil and Mexico need higher depreciation than Korea to generate foreign currency worth an additional percentage of GDP". Korea's strong external orientation has created a much larger foreign trade sector. External competitiveness encourages the growth of the GDP, and therefore the tax bases, enabling greater inflow of government revenue. This in turn provides increased real spending in the budget sector. However, strong devaluation generally leads to rapid growth of the general price level. Public expenditures are now quickly adapting to inflation, while regular tax revenues are lagging behind. Fiscal brake becomes meaningless, because of the relatively modest participation of progressive taxation in total tax revenue. But, what is growing are the shifts from generation to its tax collection as well as losses due to delays in the collection of taxes, which is introduced by inflation. Inflation distorts fiscal control mechanisms and erodes the tax morale.

The last channel through which the exchange rate adjustment can exacerbate fiscal imbalance is associated with the widespread existence of multiple exchange rates, which devaluation tends to unify and to reduce the difference between the official and market rates on the black foreign exchange market. Multiple exchange rates have a structure "of tax money to support part of the government's budget. With multiple exchange rates imports may be burdened by expensive foreign currency, as well as exports with a low rate at which the earnings in foreign currency have to give way. On the other hand, a system of multiple exchange rates can also be used by the government to subsidize the import or export through the preferential rate. Net fiscal revenues resulting from the structure of multiple rates depend on the extra income from the sale of foreign currency in excess of revenues from the purchase. " However, it depends on the currency in which the nominal external debt is. In the proportion in which one part of the foreign debt is denominated in currencies that appreciate against the dollar, depreciation of the dollar leads to higher dollar value of foreign debt. But the increase in dollar debt and its servicing may be offset by improved fiscal

position of debt countries. If the impact of the dollar appreciation on the interest rates the US is put aside, the fiscal impact of shifts among the key currencies on the debt countries is largely dependent on their impact on the market price and volume of consumption. "In the proportion in which the demand for raw materials tends to price inelasticity in which industrial products from countries whose currencies appreciate against the dollar, the dollar depreciation leads to a decrease in the relative price of raw materials and products. These reasons may explain why most of the recent depreciation of the dollar weighed heavily on the state budget in countries such as Indonesia, while it improved the fiscal position in, say, Korea. Indonesia is very indebted in yens and German marks and it is a net exporter of the raw material, while Korea is a net exporter of the product, and its foreign debt is mostly in dollars. Latin American debt countries are mostly situated between these extremes. Its foreign debt is mainly in dollars, but their trade prices have not followed the dollar depreciation, because they still depend significantly on the export of raw materials. "But, the negative fiscal impact of devaluation cannot be avoided simply because the currencies of heavily indebted countries were overpriced for all the time the foreign capital was available. It is clear that devaluation is not a way out of fiscal crisis although governments suffer from capital losses on foreign debt due to the devaluation. Devaluation only shows that the need to reduce the fiscal imbalance, which converses the existence of public debt in foreign currency. "Where the current objectives (lost creditworthiness) prevent foreign financing of the budget deficit of the public sector, they must comply with the excess of savings over investment of the private sector. Therefore, the public sectors in most of the debt problem countries have become net beneficiaries of savings of households and the economy, as reflected in their relative high national savings and investment. Money and inflation are always increased with budget deficits financed at home, except when private credit demand is not proportionally contained. So that the problem indebted countries could save, invest and grow, they must close the gap between the real and the fiscal impact of the situation, where their public finances are in line with these objectives. How will this gap be closed - fiscal adjustment, release of debt with foreign funding - is also a function of its size "(Ortiz 1987, 322).

In the system of so-called flexible courses each country, as a rule, allows fluctuations in foreign exchange rates, because then the money supply is fixed to deftly control inflation. But the fixed amount of money in circulation with the anticipated anti-inflation targeting (goals) provokes fluctuations in foreign exchange rates and undermines stabilization program of the government, and therefore the budget borrowing.

2. PUBLIC DEBT AND INTEREST RATES

The budget deficit generally involves an increase in public debt, which causes an increase in interest rates. Thus, there is a consensus in the scientific observation of effects of fiscal deficit and public debt on real interest rates. However, the globalization of financial markets and the internationalization of financial policies have enabled the fiscal deficit of an OECD country to be funded by savings of other countries (inside the circle of OECD or outside its area). This leads to an increase in interest rates on world capital markets under the influence of budget deficits. It can already be considered as the internationalization of financing the fiscal deficit. That is why (Tanzi 1991, 911), in a case of an attractive problem there is (1) the link between the increase coefficient (relationship) of government debt towards the domestic product and an increase in real interest rates, (2) the connection between the growth in pay interest and reduction of capital expenditures, and (3) the relationship between the increase in interest payments and an increase in tax rates. "Financing debt is a substitute for taxation. This allows the countries to maintain or increase, at least temporarily, public spending without making a law to increase taxes. "(Tanzi 1992, 187.) In the process of providing immediate benefits without the current cost, i.e. the current public spending without immediately increasing taxes, this, might look like an advantage in the eyes of the public. From the point of short-term goals, the government now discounts future state costs at relatively high rates so that the challenges of financing public spending through public debt could be more attractive. During the temporary rise in public spending, temporary tax changes would have a negative impact on economic growth and losses in social benefits. Therefore, the substitution of the tax financing to credit financing is ex-

tremely important, especially when it comes to large public investments concentrated in a relatively short time sequences. In this context, the use of funds for financing the public debt increases the economic efficiency for the simple reason that in the case of productive investment debt can be paid by itself through increasing economic activity and, thus, the tax base.

Any increase in public spending, which is not temporary (permanent), automatically results in an increase in the share of public debt in GDP, and therefore, the cost of servicing government debt (due to the relatively high interest rates). The condition is, of course, the only one: that public spending is not fed into taxes, but only by public debt, i.e. with funds earmarked for debt financing. As a result, the debt can no longer be used to prevent the growth of tax rates. In its contradiction, public debt becomes the incentive mechanism of the increase in tax rates. In this case, the country will eventually have a need to produce a “prolonged excess”, which represents the difference between state income and interest-free consumption (Ristic et al. 2014, 714). A goal of primary surplus is debt service. Creating a “primary surplus”, however, can go through the high (and growing) tax rates in conditions impossible to reduce public spending, whose growth is not temporary (permanent). The inability to reduce the so-called interest-free consumption leads to the situation when tax rates become a basic instrument of financial policy; because governments cannot influence long-term interest rates and economic growth in the desired direction. Therefore, they remain with the application of the so-called primary surplus, or “nice game” on the difference between national income and interest-free spending.

Over the last decade the official fiscal stance has been changed, according to which the fiscal deficit of the country is financed strictly by the same country. Therefore, a strong correlation between the total domestic supply of savings funds and the total domestic demand for funds from savings has been demolished. This, in turn, indicates that international interest rates play an increasingly crucial role in the process of equilibration of supply and demand from the savings funds. On a global scale, fiscal policy, thereby, affects the relationships between interest rates and, in particular,

the difference between the national rate and the average international rates. Therefore, global relationship between world real interest rates and global levels of government debts is important, as well as the relationship between government debt and domestic national product (which directly affects the real interest rate and the size variable of monetary policy). The results of empirical tests in OECD countries show significant positive relationship between real interest rates on long-term government bonds and the ratio of government debt to gross domestic product. "The increase in the ratio of public debt to gross domestic product by 1%, increases the real interest rate by 20 basis points," while increasing the fiscal deficit in the same size has an effect that is eight to ten times stronger.

In conditions of rising interest rates, an increase in the coefficient of relationship between government debt and social product causes negative implications for the structure of the "business" activities of the state and the public sector. For, increasing interest payments on public debt involves a growing budget deficit, as well as the growing tax burden and declining levels of permanent forms of public spending in the structure of total public sector spending. In this context, economists have different views on financing and debt service. Economists who analyse the debts of developing countries focus on debt servicing. Economists who analyse the debts of industrialized OECD countries focus on the process of increasing indebtedness (i.e. funding). The increase in public debt only temporarily prevents the increase in the level of taxation, provided that the debt is financed by a temporary increase in public spending. However, if the public debt in the medium term were associated with public investment, then the debt financing, in fact, would constitute a self-financing, provided the debt financing were associated with productive capital projects. However, the OECD's share in state investment spending in GDP has declined and fallen to almost marginal position in the structure of the final public expenditure. This is strong evidence that capital spending is not the generator of the growing trend of the public debt ratio and the social product. The level of this segment of public spending cannot be maintained at a stable (high) level. This is because capital public expenditure has no support among the stakeholders and because governments, under pressure

from public opinion polling (the line of least resistance), as a rule, raise capital costs quicker and easier than issuance of wages and business administration, which should be urgently curbed. The error is that the positive financial effects, which would be realized in the future, obstruct elementary reduction of interest-free spending policy of limiting fiscal deficits. The fact often ignored is that the increase in the level of taxation only makes economic sense if the mobilized resources are recycled in business through public investments.

In OECD countries, it is considered that the central cause of the growth ratio of public debt to national product is too fast increase in government transfers, primarily on the basis of social security. And this is the main explanation for the growth of the fiscal deficit, which modern states seek to limit by increasing the level of taxation and the reduction of interest-free spending. State transfers based on social security are relatively difficult to limit and control because the increased age of the population, which has increased the number of inhabitants who enjoy pensions and have increased the level of real pensions. There are also the costs of health care and social assistance, which also recorded a growth tendency, except for the so-called economic transfers (subsidies and grants). They are drastically decreased in the structure of public spending. Therefore, the general public (with high pressure) should take into account that the increase in public debt, with the accompanying increase in interest rates, will eventually affect the increase in the ratio of tax and social product and the changes in the structure of public spending (Ristic 2014, 187). State investment, therefore, would progressively decrease by increasing the amount of the payments for interest. Anyway, the member states of the OECD increased its debt in order to avoid “abrupt adjustment of tax rates”, but only in the short term. In the medium term, governments are being forced (despite its election promises) to increase the level of taxation due to the urgent payment of the cost of increased interest on public debt. “The experience of OECD countries shows that the increase of public debt, in the end, causes an increase in taxes. Advocating for the increase in taxes becomes all the more harder if interest rates have become significantly higher than the growth rate of the economy, which already happened in the eighties. “In

effect, the ratio of taxes and social product increased the most in countries that have achieved the highest increase in public debt and payments of the highest interest cost. The drastic increase in the coefficient of tax relations and social products was evident in Canada, Japan, Britain, Italy, Denmark, Spain and Ireland and partly in the countries with the highest coefficient of the increase in debt to domestic product and relationship interest payments to GDP.

3. BUDGET DEFICIT AND LOANABLE FINANCING OF THE PUBLIC SECTOR

Do you need to comply with the dogma of the permanent maintenance of fiscal balance in our society, regardless of the economic situation in the country or to be turned to the policies of deficit versus finance public expenditure, depending on the cyclical movements? It is quite clear that the classical theory of budget deficits and public debt cannot be empirically verified in the market-oriented economic system on the grounds (1) that the budget deficit does not mean excess demand inflationary pressures, (2) that the budget deficit does not necessarily lead to additional emission of money and monetary expansion with the contribution to the development of inflation, and (3) a public government borrowing to cover the deficit does not always mean handling spending financed by public debt from current to future generations (Ristic, 2012, 956). Modern fiscal theory undoubtedly dismissed the portrayed basic postulates of classical public finance, proving that: firstly - the budget deficit does not automatically mean excess demand, since the deficit may be a result of reduction of fiscal revenues in relation to social expenditure (not exclusive to increase public expenditure in relation to fiscal income); secondly - the fiscal deficit does not automatically lead to an increase in further money emission with inflationary impulses, since the deficit can be alimented by using financial savings of the household sector and the issue of social loans with calculated effects in terms of income redistribution and accumulation, as well as a neutral effect on the money supply, and; thirdly - the loan financing of fiscal deficits from abroad (foreign retrieval accumulation external debt), as a rule, does not mean that charges from external loans

are transferred from the current to the future generations, as the rational use of foreign accumulation through the alimationation of fiscal deficits to increase social wealth simultaneously transfers benefits to the future generations in terms of the growth of future income from productively used external loan.

Activist approach to managing fiscal parameters in our conditions implies a review of the structure of tax revenues and public expenditures, changing relationships between budget expenditures and revenues, determination the new proportion between fiscal revenues and social expenditures and social product, expansion of sources of financing fiscal deficits and effective public loans. Namely, in the budget decision-making budget deficit should be opted in terms of the economic downturn by reducing fiscal revenues (in the form of relieving the economy) and retaining the existing level of budgetary expenditures, and not by increasing the budget expenditures and retaining the existing level of tax revenues. At the same time, the structure of budget expenditures should establish relations between current expenditure, transfer expenditure and investment expenditure in terms of transfer and investment expenditure growth, while the current expenditures are stagnant (or declining). Alternatively, investment expenditure could increase, transfer expenditures could stagnate, and current expenditures could decline. Alternative options in the structure of budget expenditures could follow the structural changes in fiscal revenues in a stagnant economic environment, in terms of determining the restructuring of the fiscal burden of the economy (reduction of fiscal burden) and population (increase fiscal liabilities) (Reisen 1992, 13).

The change in the structure of budget expenditures and fiscal revenues should be considered with the change in the structure of sources of financing fiscal deficits, which are the result of a decrease in fiscal revenues compared to the existing volume of social expenditures (not vice versa). In the contemporary theory and practice, budget deficits, as a rule, be funded from several sources: (1) new taxes and increase existing taxes, (2) public loans (bond issuance and use of other forms of securities), (3) foreign borrowing (import of foreign accumulation of external debt), (4) non-cash loans to financial institutions (postal savings banks, insurance companies,

funds disability-pension insurance, investment and credit bank), (5) loans from the central banks and other monetary institutions and (6) loans from other financial institutions in public spending. In practice, the combined model of financing the deficit is outweighing depending on the programmed effects and economic trends. In the present circumstances the model of financing the deficit by introducing new taxes (ie. Revision of fiscal revenues) and increase existing taxes is not recommended, since it would increase the fiscal burden and the cancellation of the imperative of fiscal burden of the economy. Also, the model of monetary financing of the deficit (ie, loans of the central bank and other monetary institutions) is not acceptable, since it carries the potential inflationary risk over monetary expansion (although the monetary effects of lending deficit can match the reduction of reserve money creation or for other purposes, or other instruments). As an alternative, this model could be used in difficult economic situations of crisis character (Ristic 1991.76).

Foreign borrowing to finance the fiscal deficit could potentially be an effective instrument of economic policy, but under the condition that deficits occur as a result of an increase in public investment (i.e increase in investment expenditures of the budget), but not the current expenditures of the state. Nevertheless, this model of financing should be linked to the existing ratio of foreign debt, which should be far below the lines of a 25% participation of repayment of foreign debt in the current foreign exchange inflow. However, in perspective, the model remains in the process of alternative choices. In the final opting, however, operational model issuing bonds and securities (local public loans) remains, as well as the model of lending by monetary financial institutions (postal savings banks, insurance companies, pension insurance funds, finance companies), including loans from other financial institutions public spending (public funds, development funds). Broadcast bonds (and loans of commercial banks from savings funds), as an instrument of income redistribution and accumulation, as a rule, does not create negative implications in the process of alimentation of country deficit, but raises the issue of stimulation offers of financial resources in favor of social spending from the standpoint of determining the maturity, the level of interest rates and the possibility of

buying and selling financial instruments. Under present conditions, society must make this model of financing the deficit institutionalization more attractive as well as diversification of the securities market societies with poor economies and rich populations (in order to put retransfer of citizens' savings in the budget whose deficit was due to an increase in productive investment of the public sector) (Ristic 1992, 226). However, in the long-term one should specify the volume of public loans in relation to GDP, the savings and accumulation, the budget deficit and fiscal revenues in correlation with the growth of the social product, offering funding, sectoral schedule of reservoir formation and investment (asymmetry in relation to financial savings), demand financial resources of the economy, the structure of financial institutions and the state of the internal public debt. It is only in this context that one can short-programme the funding offer segment to the state by the financial institution and its clients in order to meet demand loan by the state. Autonomous growth of budget expenditures with forced growing fiscal burden (which the economy found increasingly difficult to tolerate) in order to achieve a rigorously proclaimed budget balance, which had been established not by reducing budget expenditures rather than increasing tax revenues, led to contradictory effects of equilibrated budget financing (Ristic 1993, 142). If an active policy of budget deficit (and public loans) had been used, which were the result of the reduction of fiscal revenues (ie fiscal burden), the incremental effective demand would have been eliminated, which was mainly due to the increase of budget expenditures over revenues. The reduction of fiscal revenues would have induced an increase in the accumulation of economic agents and initiated the reduction of the demand loan to finance the economy with a reduction in interest expense and the pressure on their prices. The released part of the offer of financial means could have been used to finance the budget deficit by issuing public loans (bonds) without the so-called crowding out business investment from the financial market. In the operations on the financial market economic criteria in the supply and demand for funds would have been in the focus, but also discouraging effects of holding foreign deposits. Ultimately, this approach to the deficit budget financing and the loan financing of the fiscal deficit would have contributed to fiscal unburdening of the economy (reduction of fiscal

contributions), slowing down the budget expenditure in relation to gross domestic product, strengthening the supply of funds in the financial market, stimulation of savings of the household sector and the emphasis of economic criteria in placement of funds.

CONCLUSION

Public loans, therefore, could become an effective instrument for financing the budget deficit through the reallocation of savings, primarily the retail sector. Issuing bonds and selling them at the new financial market would create a completely new instrument of financial investments, which could, together with the dinar and foreign currency savings deposits of the household sector, contribute to the increase in the provision of financial resources, diversification of financial instruments and the rational use of savings. This mechanism could include insurance companies through the development of life insurance and an increase in premium reserves on the entire amount placed in public loans, especially in terms of real interest rates (Komazec 1992, 56).

Within the medium-term defined policy of loan financing of budget deficits resulting from decreasing tax revenues, one should define the global annual amount of public loans to the budget expenditure and GDP, as well as the amount of interest based on the budget expenditure and GDP with the amount of interest to budget revenues. The programmable coefficients could reflect the level of long-term repayment of matured annuities loan, which is in the current budget revenues without taking new loans. Thus, the declining budget deficits in the future could reflect relatively declining burden of the budget incurred by government borrowing. In this context, real interest would not be paid by the emission of the new loan (because it would lead to the cumulation of public debt of the budget), but only through the budget revenue in the form of indexed loans (i.e. valorization of principal for inflation index) (Komazec 1993, 389). In order to make bond issue more attractive for the audience (subscribers of public loans or buyers of bonds) in relation to deposits, special fiscal benefits in the form of a deduction from the tax base on total income of citizens, the corporate income tax from profit companies or the base tax on income from interest

and dividends should be institutionalized, in addition to binding interest rates to inflation ones (Meltzer 1992, 71).

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