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Fiscal Challenges in Serbia Today - What to do with Privatization Receipts

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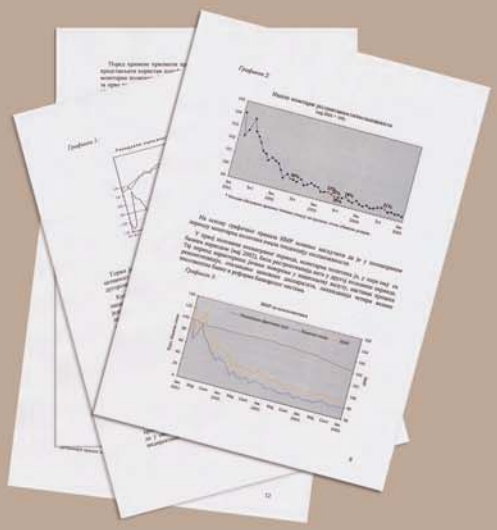

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FISCAL CHALLENGES IN SERBIA TODAY -WHAT TO DO WITH PRIVATIZATION RECEIPTS

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* The views expressed in this paper are those of the author, and do not necessarily represent the views of the National Bank of Serbia.

Abstract

This paper analyzes the relationship between the privatization receipts and fiscal deficit in Serbia, from 2002 to 2007. An empirical study incorporates monthly data series, where findings suggest that the privatization receipts in Serbia have caused an increase in budgetary deficit and expenditure, and have thus endangered a long term fiscal position of Serbia. Change in use of privatization receipts is necessary if the fiscal balance is to be kept on track in longer term. Paper suggests that the receipts should be used for capital investment, under condition that this does not threaten price stability. Should the problem with inflation arise, an alternative use for these funds should be repayment of foreign debt. It is also advisable that a methodology for budget presentation is accepted, which would be more transparent with regards to use of privatization receipts .

KEY WORDS: PRIVATIZATION RECEIPTS, BUDGET DEFICIT, DEBT REPAYMENT

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1. INTRODUCTION

Serbia has substantial privatization receipts in recent years, typical for a transition economy. There are still several big privatization projects to be realised, and that makes the issue of privatization receipts use a hot topic. Possible uses for the proceeds of privatization are debt repayment, hence saving of the proceeds, or spending of the proceeds – be it in form of current or capital expenditures. It is recommendable to either use them for debt repayment, depending on the level of indebtness, which will be discussed to greater extent later, or if deciding to spend them, to spend them for the use of capital investments, as opposed to current expenditures of the state such as wages, social transfers or other forms of operations expanses.

Though this should be a common knowledge, we will see that the data suggest it wasn't done in Serbia recently. It is my opinion that one of the reasons why this is so, is the lack of discipline and coherence in government finance recording, which blurs the state of fiscal affairs and it's potential problems. We will review government's official methodology of fiscal data presentation, along with the GFS2001 method, used internationally. Next we will look at the data on fiscal deficit and privatization in the last 5 years, and draw conclusions from their econometric analysis. Finally we will look at what might be a possible alternative for the privatization receipts use in Serbia today.

2. PRESENTING PRIVATIZATION IN GOVERNMENT FINANCIAL REPORTS

To see the difference in consequences of spending the privatization receipts for capital versus current expenditures, it is useful to observe the budget of the country as a composition of the operating balance (revenues and expenditures from operations), net acquisition of non-financial assets (revenues and expenditures from acquisition and disposal of non-financial assets), net acquisition of financial assets (expenditures from net acquisition of financial assets) and net incurrence of liabilities (expenditures from incurrence of liabilities). This is a GFS 2001 setup and is presented in the Table 1[1].

[1] GFS2001 setup for presentation of fiscal data is available at the IMF's website www.imf.org.

Government Finance - GFSM 2001	
Statement of Government Operations and Balance Sheet	
1 Revenue	11 Taxes
	12 Social contributions
	13 Grants
	14 Other revenue
2 Expense	21 Compensation of employees
	22 Use of goods & services
	23 Consumption of fixed capital
	24 Interest
	25 Subsidies
	26 Grants
	27 Social benefits
	28 Other expense
GOB Gross operating balance [1-2+23]	
NOB Net operating balance [1-2]	
31 Net acquisition of non-financial assets	
	31.1 Acquisition of non-financial assets
	31.2 Disposal of non-financial assets
NLB Net lending / borrowing [1-2-31]	
32 Net acquisition of financial assets	
by instrument	
3202 Currency and deposits	
3203 Securities other than shares	
3204 Loans	
3205 Shares and other equity	
3206 Insurance technical reserves	
3207 Financial derivatives	
3208 Other accounts payable	
by debtor	
321 Domestic	
322 Foreign	
33 Net incurrence of liabilities	
by instrument	
3302 Currency and deposits	
3303 Securities other than shares	
3304 Loans	
3305 Shares and other equity	
3306 Insurance technical reserves	
3307 Financial derivatives	
3308 Other accounts payable	
by creditor	
331 Domestic	
332 Foreign	
Statistical discrepancy [NLB - 32 + 33]*	
Memorandum item: Expenditure [2 + 31]	

Table 1[2]

[2] Source: GFS 2001 manual.

The setup makes a difference between the two major groups of expenditures (and revenues), those from operations (i.e. taxes versus wages and transfers, etc.) and those from selling or acquiring assets and liabilities The latter is divided further into selling and acquiring (net acquisition) of financial assets (privatization together with lending – be it to public or private entities, would fall into this category), non-financial assets (capital investment would fall into this category) and incurrence of liabilities (borrowing – be it at home or abroad, etc. would fall into this category). Expression liabilities incurrence is somewhat misfortunate, and is intended to encompass net effect of all forms of liabilities increase (be it loans, bonds issuance, etc.) and their repayment.

It is important to see that the first category – operating balance – is far less volatile and less available for the discretionary decisions of the government, then the second one. It is much easier to decide that one will introduce or abandon loans to the public companies, or for that matter to private persons, and it is almost completely left to the better judgment of the government to decide weather a public company should be sold or not, or weather a road should be built or not. It is however much less a subject of debate weather or not civil servants should get their pay checks, and weather or not one should abolish a value added tax.

More importantly the source of revenue from privatization is one which has a definite limit in total government property, whereas VAT can only depend on future GDP growth.

It should therefore be general - though broadly based - rule that the expenditures from operations should, on average – i.e. in long term, be covered by the revenues from operations, and that the proceeds from sales of financial assets (hence privatization) and proceeds from borrowing, should be used for purposes of acquiring non-financial assets – hence building roads, or repayment of the liabilities.

Difference between the two categories (operating balance and the rest of the government budget) lies also in the fact that the revenues of the first category (taxes, fees, etc.) reduce the wealth of the private sector, whereas the inflow from the other categories (privatization, bond issuance, borrowing) does not. There is also a difference in macroeconomic and monetary effect of the revenues and expenditures (or inflows and outflows) of the two categories. It is reasonable to assume that the bigger percentage of the operating expenditures end up increasing domestic aggregate demand, then of the capital expenditures, and as for the foreign debt repayment, this part of the public expenditures does not influence domestic aggregate demand at all (hence has no monetary effect). Though the monetary effect of the fiscal policy can not be determined from observing the structure of the public expenditures and revenues alone, these differences also justify a framework that differentiated between the operating balance and those form activities with assets and liabilities of the state.

Ministry of finance in Serbia presents it's financial reports so that one sees the privatization receipts and the borrowing as separate items, used to finance deficit. However capital expenditures are presented together with operating expenditures, so that the use of privatization is blurred, and the importance of keeping the result from operations and result from transactions in property is not separated. Hence it does not surprise to see data suggesting that the privatization receipts in Serbia are used to finance current operating expenditures. The presentation scheme of the Ministry is given in Table 2[3].

[3] This is a standard reporting format, that the Ministry publishes in it's montly Bulletin of public finance, availabe on internet.

Republic of Serbia Ministry of finance budgetary framework

A. Budgetary revenues and expenditures
I TOTAL REVENUES
CURRENT REVENUES
1. Tax revenues
1.1.Personal and corporate income tax
1.2. VAT
1.3. Excise
1.4. Customs
1.5. Property tax
1.6. Other tax revenues
2. Non-tax revenues
3. Capital revenues
4. Donations
II TOTAL EXPENDITURES
CURRENT EXPENDITURES
1. Wages and salaries
2. Other purchases of goods and services
3. Interest repayment
4. Subsidies
5. Social insurance benefits
6. Other expenditures
CURRENT TRANSFERS
CAPITAL EXPENDITURES
CAPITAL TRANSFERS
III BUDGETARY DEFICIT (BUDGETARY SUFICIT) (I-II)
PRIMARY SUFICIT (DEFICIT) (total revenues without interest payments minus total expenditures without interest payments)
B. Net financial assets acquisition and net lending
IV EXPENDITURES OF GIVEN CREDITS AND ACQUIRED FINANCIAL GOODS MINUS REVENUES FROM FINANCIAL GOODS SALES AND CREDIT REPAYMENT
TOTAL FISCAL RESULT (III + IV)
C. Net borrowing and debt repayment
V INCOME FROM BORROWING
1. Domestic borrowing
2. Foreign borrowing
VI DEBT REPAYMENT
1. Domestic debt repayment
2. Foreign debt repayment
VII ACCOUNT BALANCE CHANGE (III + VI + V - VI)
VIII NET FINANCING (IV + V - VI - VII = -III.)

Table 2[4]

In contrast to the Ministry's fiscal data presentation method, GFS 2001 doesn't report deficit as such. This is somewhat peculiar, as budget deficit is often referred to when talking about the fiscal policy, but also makes sense, as the coverage of the deficit is often debated[5]. This debate is very hot today in Serbia, with quite a few opinions on what a budget deficit should or should not include. In this light it is also very recommendable to accept a framework that would be less open for a debate.

3. MOTIVES FOR PRIVATIZATION

Part of the problem also lies in the motives for privatization. Commonly accepted reason for privatizing the public companies is a more efficient use of assets, that is believed to be achieved in private property. However using proceeds from the privatization for financing of the current expenditure of the state, can easily lead into the situation where it becomes necessary to privatize in order to finance the operations of the state, and not to make them more efficient.

[4] Source: Republic of Serbia, Ministry of Finance bulletin.
[5] For a good, though dated, review of fiscal deficit calculation methods see Blejer and Cheasty (1990).

It is my belief that in Serbia one does not confuse the real motive for privatization with financing problems, but I am not sure that it will remain being so, unless the course of privatization proceeds use is changed. We come back to the argument that if the privatization receipts are used for closing the gap in operating balance, not only that an opportunity is foregone for capital investment to be made, but a future problem is created in having risen the expenditures to the level that will not be possible to sustain without further privatization. In this way a motive for privatization will cease to be efficiency increase, but will become a motive of deficit financing.

In theory it should hold that the privatization can even reduce the current expenditures of the state, by reducing the subsidies paid to inefficient – loss making public companies. This could hardly be the case at the moment in Serbia, as subsidies are paid out mostly to the sectors which can hardly find a buyer (i.e. the biggest subsidies are currently and for a longer period in the past paid out to the railways, which are rarely profitable and hence a poor candidate for privatization.)

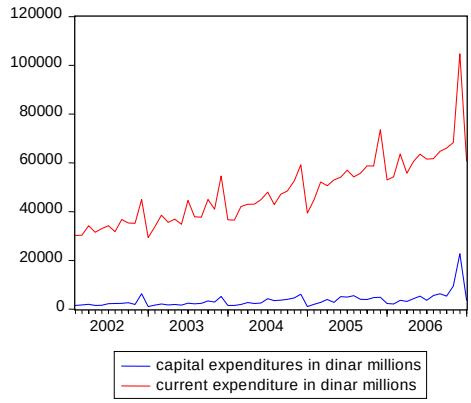
All this is off course not to say that the concept of privatization as such should be questioned, but only that it's use must be prudential so that the motives for it would not come to question in time.

Now that we have seen the data presentation and motivation problem, lets turn to econometric analysis of figures reported.

4. ECONOMETRICS OF FISCAL DEFICIT AND PRIVATIZATION

Lets see what the situation in Serbia was, when it comes to fiscal expenditures, deficit, public debt and privatization, in the past 7 years.

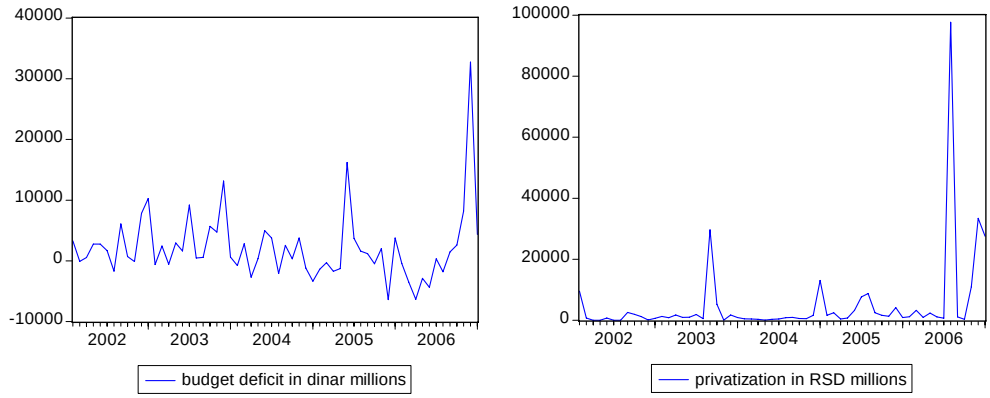
Graph 1 presents the data for current and capital expenditures of the Serbian budget in the period from January 2001. to April 2007. We see that both categories show a growing trend, where the growth is much more evident in the current expenditures. Data also shows clear seasonal behavior, which is matched in both series.



Graph 1[6]

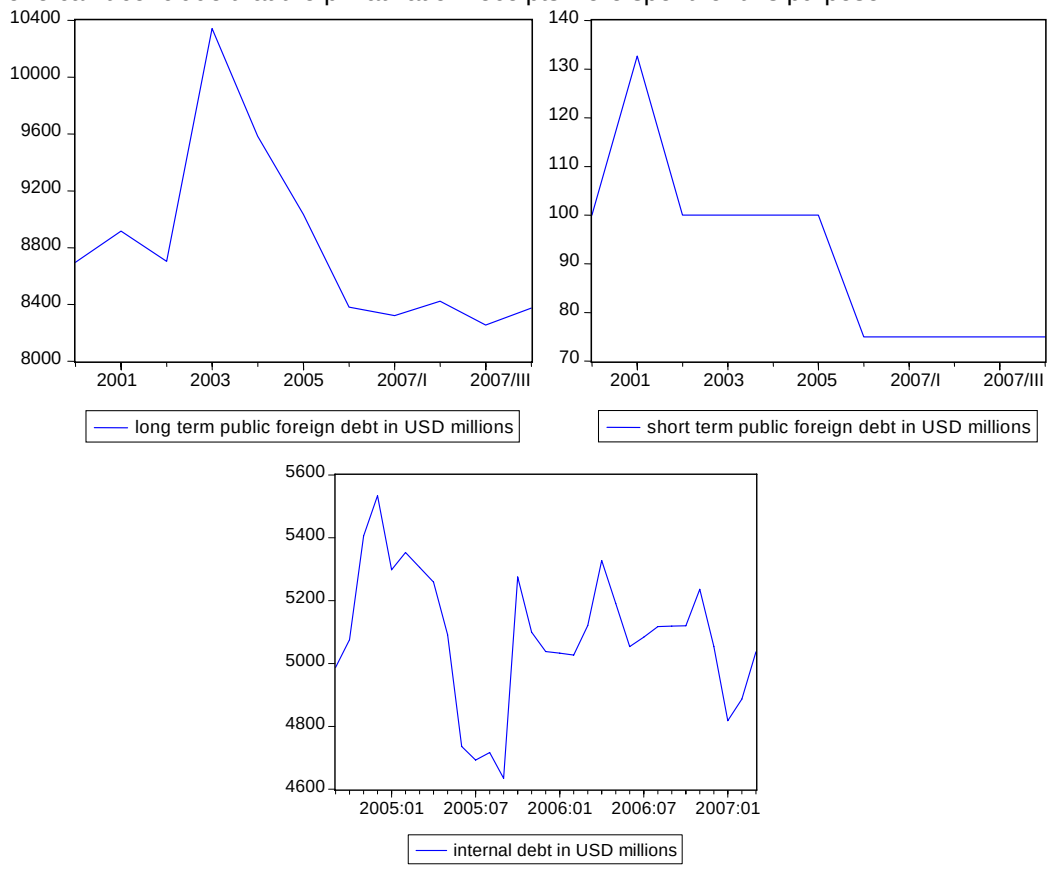
If we turn to the behaviour of fiscal result and privatization as a potential source for it's financing, we see in graph 2 that both these categories are quite volatile but a pattern can be noticed, in large deficits following large privatization receipts with a certain time lag.

[6] Source: National Bank of Serbia.



Graph 2[7]

If we look for other purposes for which the privatization receipts might have been used, we will see in graph 3 that the long term public foreign debt, denominated in US dollars in period from 2001 to 2007 shows no significant decline from the start of the period, while for short term debt there is a more significant change but since this part of debt is on a low level, it can't be ascribed to a use of privatization receipts. Third box in graph 3 shows movements of the domestic debt, also denominated in US dollars, from September 2004 to March 2007, and here also we see that the debt does show a slightly declining trend, but since the debt in March 2007 is at the same level it was in September 2004, one can not talk about serious debt reduction. In some categories of the domestic debt there were bigger repayments (like for frozen fx savings, and pensioner debt) but this was then compensated by other forms of domestic debt, so that one can't conclude that the privatization receipts were spent for this purpose.



Graph 3[8]

[7] Source: National Bank of Serbia.

[8] Data on domestic debt was only available as of September 2004, while data on foreign debt was available on monthly basis for 2007, but only on yearly basis up to that point. Source: National Bank of Serbia.

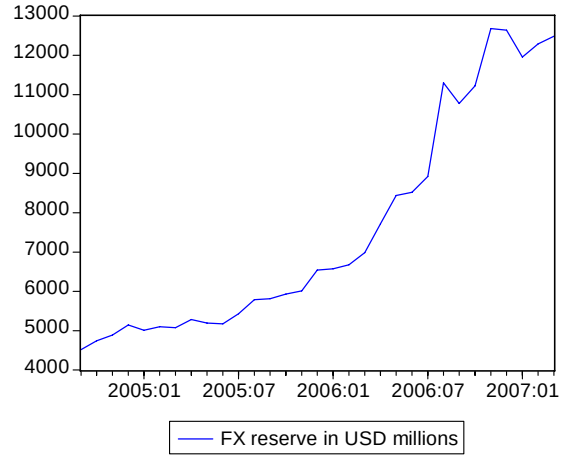
Table 3 presents the level of Serbia's short term and long term debt, in absolute terms and as a proportion of the GDP.

Serbian foreign debt structure

(USD mil)	2005 Decembar 31	2006 Decembar 31	2005 as % of GDP	2006 as % of GDP
Domestic debt	**5,038**	**5,118**	**19.1**	**16.1**
FX share	4,147	4,207	15,7%	13,3%
- frozen foreign exchange savings	4,099	4,157	15,6%	13,1%
- economic recovery loan	48	50	0,2%	0,2%
Dinar share	891	910	3,4%	2,9%
External debt	**9,133**	**8,674**	**34.7**	**27.3**
Short term and midium term loans	9,033	8,574	34.3	27.0
Long term loans	100	100	0.4	0.3
Total debt	**14,171**	**13,792**	**53.8**	**43.4**

Table 3[9]

The only category which recorded a rather constant growth was foreign exchange reserves. Their development over the last few years is presented in graph 4, and clearly indicates some saving on behalf of the state. Weather this is good idea will be discussed in further text. We now turn to the idea that the privatization receipts were indeed to a large extent spent, and not saved, and spent for the wrong purpose.



Graph 4[10]

One can conclude from the data that the privatization receipts were not used to pay off debt, but were instead spent to a degree to which the fiscal deficit increased. More importantly it seems evident from the data that the increase in current expenditures is markedly bigger then that of the capital expenditures, indicating thus a probability that the privatization receipts were used to finance an increase in current expenditures.

I have thus tested the relationships between privatization and deficit, as well as privatization and current and capital component of the fiscal expenditures.

Privatization and deficit time series are both stationary, if corrected for the structural breaks, which are basically due to the high frequency of the data. The results of the regression of deficit on privatization are presented in the Table 4.

[9] Source: National Bank of Serbia.
[10] Source: National Bank of Serbia.

Regression: fiscal deficit and privatization receipts

Dependent Variable: DEFICIT
Method: Least Squares
Sample: 2002:02 2007:03
Included observations: 62

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PRIVATIZATION(-3)	0.096909	0.036878	2.627800	0.0109
D0612	59136.27	4070.169	14.52919	0.0000
D0506	16023.05	4070.983	3.935918	0.0002
R-squared	0.771685	Durbin-Watson stat		1.579388

Table 4

I have introduced a dummy variable d0612 with value 1 in December 2006, and 0 in all other periods, and d0506 with value 1 in June 2005, and 0 in all other periods, to account for two large receipts on these two occasions. This would not have been necessary were the data with lower frequency, which is standard in the literature, but due to the shortness of the observed period (just over 5 years), I had to adjust to the available data.

The estimation suggests that the budgetary deficit has a statistically significant dependency on lagged privatization receipts variable, which is positive, thus indicating that the increase privatization receipts were used to increase spending, thus endangering the fiscal balance in long term.

Once I established that the privatization receipts were used to finance increase in budgetary expenditures, I turn to examination of the type of expenditures these proceeds were used for. Next table shows the results of the regression of capital expenditures and privatization receipts, including same dummies as in the previous regression.

Regression: capital expenditures and privatization receipts

Dependent Variable: CAPITALEXP
Method: Least Squares
Sample: 2002:02 2007:03
Included observations: 62

Variable	Coefficient	Std. Error	t-Statistic	Prob.
@TREND	48.11078	8.731507	5.510020	0.0000
PRIVATIZATION(-3)	0.053656	0.011508	4.662669	0.0000
D0612	18232.32	1195.228	15.25427	0.0000
C	1032.610	393.8229	2.622018	0.0111
R-squared	0.857311	Durbin-Watson stat		1.648424

Table 5

Regressing the current expenditures on privatization receipts yields the following test results. We see that the lagged privatization receipts significantly influence the current expenditure.

Regression: current expenditures and privatization receipts

Dependent Variable: CURRENTEXP
Method: Least Squares
Sample: 2002:02 2007:03
Included observations: 62

Variable	Coefficient	Std. Error	t-Statistic	Prob.
@TREND	595.0184	34.04778	17.47598	0.0000
PRIVATIZATION(-3)	0.087011	0.044873	1.939067	0.0574
D0612	40570.20	4660.689	8.704764	0.0000
C	21733.87	1535.679	14.15261	0.0000
R-squared	0.898368	Durbin-Watson stat		2.235591

Table 6

We see that the privatization receipts influence the current expenditures more significantly then the capital expenditures, thus posing a question of how these (typically downwardly rigid type of expenditures) would be financed once the privatization receipts are no longer available.

5. PRIVATIZATION RECEIPTS – TO SPEND OR TO SAVE

Although this subject could be a topic of a separate working paper, I shall briefly address it, to the extent it concerns the topic of this paper. One should off course ask oneself why spend the privatization receipts to any other avail when one has debt for which the interest (however favourable) is paid. The simple answer would be that one should spend those funds for capital investment as long as return on those is higher then interest paid on debt that is being repaid.

If we introduce foreign exchange reserve into the story, the answer becomes a bit more complicated but still clear. As long as the return on fx reserves invested is lower then the return one would gain on these funds if they were invested in capital investment, and as long as it is lower then the interest paid on debt, one should limit these reserves to a minimum. Both these conditions hold almost always, but still some reserves are still held. Luckily literature has offered quite a few ideas on optimal level of fx reserves[11], and by all these standards level of reserves in Serbia is too high.

Level of foreign exchange reserves in Serbia in April 2007 stands at 12.9 USD billion. If we consider the oldest rule of monthly import coverage, we would face Serbia's 8.74 months of imports held in reserves[12] against the broadly recommended 3 to 4 months. If we considered a rule of 5 to 20% of M2 aggregate, we would face Serbia's 282% instead of the recommended 5 to 20%. And if we applied the so called Greenspan Guidotti rule, according to which reserves should cover for the entire short term debt (both public and private), we see that Serbia's reserves (average for the first quarter of 2007) covers the short term debt 8.46 times.

The mainstream rules indicate that the reserves in Serbia could be too high. An issue of their optimality and the costs of holding such high reserves (as opposed to costs of holding to little of them) is a topic of a separate paper, but a ballpark figure, determined by the mainstream rules, of optimal reserves for Serbia in first quarter of 2007 is in vicinity of 3 to 4 USD billion. This leads us back to a question of what to do with these funds - repay debt or make capital investments.

For any investment to be worth making it must hold that the net present value (NPV) of it's future cash flows is larger then the net present value of all present and future costs it incurs. In our case it would mean that the NPV of capital investment cost must be smaller then the NPV of the future cash flow it generates. Stated formally:

$$\sum_{t=0}^{\infty} \frac{CF_t - C_t}{d^t} > 0 \qquad (1)$$

where CF is cash flow, C is cost and d is appropriate discount rate for the investment in question. C includes apart from all actual funds invested, also an interest one pays on debt from which investment is made. Discount rate d that should be used here should be country specific rate, depending on estimated country risk.

[11] See „Debt and reserve related indicators od external vulnerability", IMF - Policy Development and Review Department in consulatation with other Departments, (2000), and Rodrik D, (2005), for more details.
[12] This is average of the first quarter of 2007.

But an individual rule for determining how justified certain investment is still does not answer the whole question, how much investment should the country make, i.e. should the privatization proceeds be used to repay part of the debt or should it all be invested. We will look for the answer to this question in the level of Serbia's debt, and compare it to the proscribed measure of optimality. Table 6 states that the level of public debt stands in December 2006 at 16.1% of GDP for domestic debt, 27.3% for foreign debt, or 43.4% for the total public debt. According to the World Bank rule, this level of indebtness would place Serbia into a category of countries whose indebtness is low to medium. It can be concluded that with such level of indebtness spending privatization receipts for capital investment, would be justifiable. This decision should again off course be based on an individual optimality of every specific investment that would obey the equation 1.

The answer to the question of weather the privatization receipts should be saved or spent is therefore not clear cut. Debt repayment is not such a priority that it should be made before everything else, and there are saved funds in form of foreign exchange reserves that could be used to this avail should it be necessary. This could mean that whole privatization receipts should then be spent in form of capital investment, but if this was done one must consider the effects it would have on aggregate demand (and therefore inflation), since the amounts at question here are not negligible. In 2006 total receipts from privatization amounted to RSD 154 billion, which is 7,3% of the estimated GDP in this year[13].

We look at the possible inflation consequences of the privatization receipts use, in the next chapter.

6. MONETARY EFFECT OF THE PRIVATIZATION

For the purpose of this paper I define the monetary effect of privatization (or for that matter any other type of government) receipts as the part of receipts which influences aggregate demand, and hence inflation. For example if the privatization receipt are coming from abroad, and are all spent in the country in form of social transfers, this will increase aggregate demand in the amount of privatization receipts. However, if the receipts are of a domestic origin, then the effect will not be the same, and aggregate demand may not even change at all.

In this context monetary effect of the privatization depends on two key issues, the source of the privatization receipts and their use. Obviously if the receipts are not spent, the monetary effect will not materialize, so that the question is, if there is a difference in the monetary effect of spending the receipts for the current versus capital expenditure.

The source of the receipts on the other hand matter for the monetary effect of privatization in as much as they are domestic or foreign sources. If the sources are domestic, again there will be no monetary effect as long as all the receipts are spent in the country. If the sources are on other hand foreign, the monetary effect would be the same as those of the donations. If they are spent in the country, this will have a full effect on domestic aggregate demand (and inflation). Since this is most often the case in Serbia, the issue of monetary effect of these privatization receipts arises.

One could think about the possibility that if the receipts are spent for the capital investment, they would pressure aggregate demand less then if they were spent in form of social transfers (broadly speaking wages, pensions, etc.) However, though this is hard to prove in the data, it does seem reasonable to believe that the funds that go into capital investment, also end up fully materialized in the domestic aggregate demand. The key reason for beliefs that the capital investment do not pressure aggregate demand as much as the current ones, was the premise that those funds end up paying for the imported merchandise and hence do not influence domestic inflation. This however is not really so, most of this merchandise is bough through local subsidies of the multinational companies, and those set their prices locally, thus influencing the inflation in the same way domestic producers would.

For these reasons an issue of inflation pressures of investments financed by privatization receipts, and placed into imported investment goods, must also be considered. This means that the cost of the

[13] An estimate made by the National Bank of Serbia.

sterilization of inflationary effects of possible high capital investment, financed from privatization, must also be considered, and hence this investment's timing has to be considered in a framework of business cycle.

In other words, it would be advisable to make capital investments in times when GDP is under it's long term potential, and to coordinate them with current portion of government spending, so that the inflationary pressures would be tamed. This is complicated in Serbia where measurement of GDP gap and hence a business cycle can not be completely relied on, but a general rule could be applied, that larger capital investment should be accompanied with balanced current component of the budget, and that any access funds which would notably start to pressure inflation should be redirected towards foreign debt repayment.

7. CONCLUSION

This paper shows, though on a short sample, that the privatization receipts in Serbia were not used to repay debt but were partly saved (and accumulated in form of foreign exchange reserves) and partly spent (to a larger extent to finance current expenditures of the state, and to a smaller extent to finance capital expenditures). A positive, statistically significant connection is found between the privatization receipts and deficit, and also privatization receipts and current and capital expenditures, where the link between the privatization and current expenditures is stronger.

The fact that the positive correlation, between the privatization receipts and fiscal deficit in Serbia, found in the data is contradictory to opposite results found in the sample of OECD and even transition countries[14] is even more worrying.

Establishing statistical relations, the paper concludes that financing of the current expenditures from these sources is certainly a wrong thing to do, and turns to discussion on weather it would be a better idea to save these funds (i.e. repay debt or accumulate reserves) or to spend them in form of capital expenditures.

It is then shown that according to all currently used measures of foreign exchange optimality, Serbia possibly accumulated too large reserves. This leads back to the question of weather these funds should be spent on debt repayment or capital investment. As we have seen Serbia currently falls into a category of countries of low to medium indebtness, and as such does not have a priority of debt repayment. For this reason it is a conclusion of this paper that the proceeds of the privatization should be placed into capital investment, but caution should be exercised with the monetary effects of such placements. Should the capital investment pose threat to preserving prices stability, foreign debt repayment should be consider as an alternative use of these funds

[14] See empirical studies of Barnett (2000), and Katsoulakos and Likoyanni (2002).

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