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Goran Vukšić

Croatian Balance of Payments: Implications of Net Errors and Omissions for Economic Policy[1]

In Croatia, as well as in other tourist countries, a large portion of economic activity in tourism takes place in the shadow economy, i.e. unofficial economy. This paper tries to evaluate the size of unreported income from tourism, or more precisely, from foreign tourists, in a somewhat different way. The conclusions make reference to large amounts of unrecorded accumulation of foreign cash from foreign tourist spending. It seems likely that this accumulation is largely related to shadow economy in tourism, i.e. to unreported – and therefore untaxed – income from foreign tourists. The government has devoted much effort to preparing a successful tourist season in this economically difficult year. However, exactly the difficult times, i.e. the economic crisis and lower government revenues should provide an additional incentive to improve tax compliance and revenues from tourist spending. This could probably be achieved through a broad campaign warning of the overall harmfulness of tax avoidance, and through intensifying the on-site tax inspection activities.

1 What are net errors and omissions in the balance of payments?

A country's balance of payments is a statistical statement summarizing economic transactions of an economy with the rest of the world over a certain period of time. It mostly comprises transactions between residents and non-residents. It consists of two major components: current account and capital and financial account. The net errors and omissions (NEO) is a residual or balancing item. In theory, the current account balance should be equal to the capital and financial account balance (with the opposite sign), so that the overall balance of payments should be equal to zero. However, there are operative problems and imperfections in the balance of payments data collection which lead to sometimes large deviations from this theoretical rule.[2] These deviations are comprised in the NEO item. The size of the NEO is not necessarily an indicator of the relative accuracy of data, since it represents a net amount, so that the errors and omissions may be offset.

[1] This newsletter is a part of a larger ongoing research project at the Institute of Public Finance. The author is grateful to Tomislav Galac and Davor Galinec for their valuable comments.

[2] Different studies investigating the issue of the balance of payments data accuracy identified a few items with probably more profound accuracy problems (for more details, see e.g. IMF, 1987; 1993). Also, for a detailed discussion about the NEO item interpretation, see e.g. Eggerstedt, Hall and Wijnbergen. (1995).

The Institute of Public Finance deals with economic research and analysis related to various forms of public finances such as the budget, taxation and customs duties. Its orientation is thus to the various economic, legal and institutional topics that are important for the sound long-term economic development of the Republic of Croatia. So that the public should be able to have a better insight into certain issues, the Institute of Public Finance is launching its Newsletter, in which it will from time to time publish informed and independent analysis of economic questions. The views expressed in the articles published in the Newsletter will reflect the opinions of the authors, which do not necessarily coincide with those of the Institute as institution. Full text of Newsletter is also available on Institute's Web site: http://www.ijf.hr/newsletter.

However, there is a reason for concern if the NEO is persistently large and preceded with the same sign (IMF, 1993; 6-7).

In simple words, if the NEO is positive, it means that the sum of current account balance and capital and financial account balance is understated. The opposite is true for a negative NEO. In Croatia, there has been a persistently negative current account balance and a positive capital and financial account balance, with the absolute value of the current account deficit being regularly smaller than the capital and financial account surplus. This resulted in a negative amount of the NEO item over the period between 1999 and 2007 (at the annual level). Table 1 shows the balances of current account and capital and financial account for the period between 1999 and 2007, along with the corresponding NEO item. As can be seen, the absolute value of the NEO exceeds 800 million euro, except for 2001 and 2002. The highest absolute values of over a billion euro were recorded in 2004 and 2005.

It is important to stress that a permanently negative amount of NEO can be interpreted as a systematic capital outflow from the economy, either abroad or to unofficial economy. For example, a positive current account balance represents the net inflow of funds into the economy in some period, according to transactions recorded in the current account. If, for the same period, the capital and financial account balance is zero, then we have a total net capital inflow into the economy. In this example, the NEO would be negative, in order to have balanced balance of payments. This implies that a negative NEO item represents the unrecorded use of part of capital inflows, i.e. unrecorded capital outflows, either abroad or to unofficial economy.

At this point, a specific feature of the Croatian balance of payments should be mentioned. It is usual to present changes in the foreign cash holdings of a country's residents in the financial account item »Currency and deposits of other sectors«. Due to data collection problems, this item is not shown for Croatia, which certainly affects the amount of NEO (CNB, 2003). If this were the only cause for such a NEO in the Croatian balance of payments, the negative amount of NEO in Croatia would represent unrecorded net accumulation of foreign cash.

2 Relationship between net errors and omissions from the balance of payments and tourism income

It is known that the overall macroeconomic movements in Croatia and, consequently, the balance of payments data have a strong seasonal component. Especially interesting in this respect is the influence of the tourist season, which is mostly reflected in the data for the third quarter of a year. Table 2 presents the same data as Table 1, but only for the third quarters in the period between 1999 and 2007.

As can be seen from Table 2, the current account balance was always positive in the third quarters, which is due to a high tourism income recorded in this account. At the same time, capital and financial account balance has been fairly close to zero (with small variations in

Table 1 Annual balance of payments data, in million euro

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Current account	-1,428.8	-568.1	-820.8	-2,098.7	-1,888.8	-1,433.7	-1,975.6	-2,702.1	-3,233.4
Capital and financial account	2,311.6	1,406.5	1,005.1	2,538.0	2,716.9	2,560.4	3,013.5	3,687.2	4,123.2
Net errors and omissions	-882.8	-838.3	-184.4	-439.3	-828.1	-1,126.7	-1,037.9	-985.1	-889.8

Source: CNB.

Table 2 Balance of payments data for the third quarters, in million euro

	III 1999	III 2000	III 2001	III 2002	III 2003	III 2004	III 2005	III 2006	III 2007
Current account	434.4	902.3	1,350.5	911.2	1,811.7	1,930.5	2,190.1	2,077.7	2,072.1
Capital and financial account	322.3	119.1	-443.4	19.8	-113.0	-127.0	-471.4	-57.5	115.3
Net errors and omissions	-756.7	-1,021.4	-907.0	-931.0	-1,698.7	-1,803.6	-1,718.7	-2,020.2	-2,187.4

Source: CNB.

[3] The final data for 2008 is still not available, and according to the preliminary data, the value of the NEO item stood at -1,641.4 million euro in the third quarter of 2008.

[4] As mentioned in footnote 2, there may be different causes for the NEO item, i.e. for the unbalanced balance of payments. One of them is a possible time lag in recording some of the balance of payments transactions. This problem is especially pronounced in the cases of data for shorter periods of time, such as quarterly data.

Table 3 Net errors and omissions, in million euro

	I quarter	II quarter	III quarter	IV quarter	Total
1999	-625.9	314.9	-756.7	184.9	-882.8
2000	-132.5	567.1	-1,021.4	-251.6	-838.3
2001	437.3	75.8	-907.0	209.5	-184.4
2002	132.3	12.5	-931.0	346.8	-439.3
2003	145.2	-110.8	-1,698.7	836.2	-828.1
2004	421.2	-249.7	-1,803.6	505.4	-1,126.7
2005	337.0	-64.4	-1,718.7	408.3	-1,037.9
2006	422.3	-134.3	-2,020.2	747.2	-985.1
2007	656.9	-25.5	-2,187.4	666.2	-889.8
Average	199.3	42.9	-1,449.4	405.9	-801.4
Total	1,793.8	385.8	-13,044.7	3,652.8	-7,212.4

Source: CNB.

some years), so that the NEO value was negative and high in absolute terms in this part of the year. The highest absolute values of the NEO were recorded in 2006 and 2007, when they exceeded 2 billion euro.[3] Before giving a detailed interpretation of these movements, it is useful to show, in Table 3, the complete quarterly data for the NEO item.[4]

Unlike in the third quarters, positive average amounts of NEO have been recorded in other parts of the year, especially in the first and fourth quarters. The average value of NEO amounted to 42.9 million euro in the second quarter. The cumulative amount of NEO in the third quarters of the observed period equalled -13,044.7 million euro, and at the annual level it stood at -7,212.4 million euro.

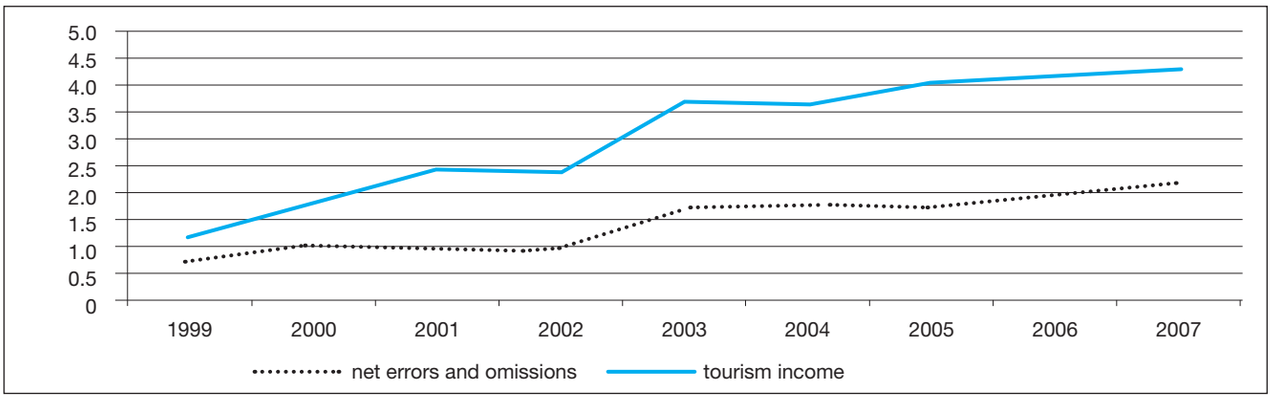
The potential importance of tourism income in the third quarter has already been mentioned, so that this data is shown in Graph 1, together with the data for NEO in the third quarters. The NEO amounts are shown in absolute terms. The tourism income increased rapidly over the observed period. Over the last three years, tourism income from the third quarters amounted to over 4 billion euro (on average, almost two thirds of the total annual tourism income were earned in the third quarters). It is important to mention that the amount of NEO in the third quarters averaged 47.8% of the tourism income.

The figure shows a relatively high correlation between two variables (the correlation coefficient equals 0.95), with an exception for the year 2001 and somewhat weaker co-movements observed in 2004 and 2005. Exactly this exception for 2001 which saw a fall of the NEO value and a significant rise in tourism income provides a basis for some conclusions in the interpretation of the NEO item in Croatia.

3 Interpretation

As already mentioned, the negative NEO item in the third quarter (and also annually) implies an overstated sum of the current account balance and capital and financial account balance. More precisely, it implies overstated income and/or understated spending in the cur-

Graph 1 Tourism income and net errors and omissions in the third quarters, in billion euro



Source: CNB.

rent account, and/or overstated inflows and/or understated outflows in the capital and financial account. Especially in the third quarters, the overstated sum may be the result of overstated current account income, i.e. tourism income, and/or understated capital outflows in the capital and financial account.

If the reason is only an overstated current account income, i.e. tourism income, the question arises: Why is the NEO item positive in other quarters (especially in the first and the last)? What would be the reason to overstate one type of income in one quarter and understate it in the others? It seems that the possible overstatement of tourism income in the third quarter cannot (completely) explain the movements of the NEO item.

On the other hand, if the problem arises because of understated (i.e. partly unrecorded) capital outflows in the capital and financial account in the third quarter, it is likely that these outflows represent unrecorded accumulation of foreign cash which flows into Croatia as income from foreign tourists.[5] An argument for such an interpretation is the high correlation between tourism income and the absolute value of NEO in the third quarters, shown in Graph 1. This correlation is partly disturbed by the mentioned exception for 2001 (the years 2001 and 2002 are also exceptions at the annual level, with lower recorded absolute values of NEO). However, the end of 2001 was the beginning of the conversion of the national currencies of the European Monetary Union (EMU) member countries to euro. This event was an opportunity for the Croatian National Bank to estimate the amounts of foreign cash holdings in Croatia (CNB, 2003; 39-40): during 2001, the conversion to euro resulted in net foreign cash inflows into commercial banks of 2.1 billion euro, i.e. 2.3 billion euro of cash in the currencies of EMU member countries. The largest portion of these inflows ended up as foreign currency deposits of citizens. The conversion process was not finished by the end of 2001, and although the citizens' foreign currency deposits did not grow at the beginning of 2002, large gross cash flows were recorded – further cash inflows in the currencies of EMU member countries (mostly German marks) and euro cash outflows. As a result of all these movements, the total amount of German mark cash holdings before the conversion was estimated at slightly more than 3 billion euro. A part of these foreign cash holdings was replaced by euro cash at the beginning of 2002.

According to the CNB estimate (2003) for the first half of 2002, if the item »Cash and deposits of other sectors« had been shown separately in the financial account of the balance of payments, it would have accounted for 80% of the NEO item in that period (following the methodology used at the time). Although the first half of 2002 is not representative due to some special circumstances of the euro conversion, and because that period is not sufficiently long, this estimate leads to the conclusion that NEO would not be so high if the change of foreign cash holdings were excluded. It should be noted that the bulk of conversion was carried out at the end of 2001 and the beginning of 2002. Nevertheless, looking at the amounts of the NEO item, it can be assumed that the effect was felt in the third quarters as well. Overall, one can conclude that the correlation between NEO and tourism income in the third quarters would probably be even higher if the effect of the conversion of EMU member countries' currencies to euro were excluded.

Foreign cash accumulated during the third quarters can then partly and gradually flow into the official sector of the economy during other periods, which would explain the (on average) positive sign of the NEO item in the other quarters, especially the last and the first quarter. During these two quarters, tourism income is the lowest and possible »new« unrecorded foreign cash accumulation in these periods does not significantly affect the amount of NEO.[6] On the other hand, the tourist income recorded in the second quarters is usually somewhat larger than that in the first and fourth quarters, so that the »new« unrecorded foreign cash accumulation may largely offset the inflow of the »old« accumulation into the official sector of the economy. Thus, the average amount of NEO in the second quarters is only slightly above zero.

In addition, the negative amounts of NEO observed at the annual level do not necessarily imply that unrecorded foreign cash accumulation from foreign tourist spending does not completely flow into the official sector during the other periods of the year. However, in this case, there must be other unrecorded capital outflows, either abroad or outside the official sector of the economy, and/or there must be other reasons for persistently negative amounts of NEO at annual level. It is also important to state that the part of the unrecorded foreign cash accumulation during the third quarters can already flow into the official sector of the economy during the same peri-

[5] As already mentioned, due to the data collection problems in the Croatian balance of payments, the financial account item »Cash and deposits of other sectors« is not shown separately, which must influence the amount of the NEO item.

[6] At this point, it should be reminded that NEO is a net item, i.e. according to this interpretation, the balance of unrecorded capital inflows and outflows which are (partly) offsetting each other.

od, which would reduce the NEO in that period. Therefore, it is possible that the gross amount of unrecorded foreign cash accumulation from the foreign tourist spending is even larger.

4 Conclusion

Taken all together, the data presented above imply a very large amount of unrecorded seasonal accumulation of foreign cash from foreign tourist spending during the third quarters, which may reach over 2 billion euro in some years. It seems likely that this accumulation is largely related to shadow economy in tourism, i.e. to unreported – and therefore untaxed – income from foreign tourists. It is worth noting that these amounts are not strictly limited to entrepreneurs' revenues in the hotels and restaurants sector, but they probably largely comprise the retail sector and some other local services sectors. Although it seems likely that the large part of this unrecorded foreign cash accumulation ends up in the official sector of the economy, these amounts are probably mostly not taxed at (the first) consumption. Especially in this year of the economic crisis in which public revenues are decreasing, it would be irresponsible to omit this unreported income from the tax base. Tax compliance for this unreported seasonal income could probably be improved by launching a broad campaign to warn the public of the overall harmfulness of tax avoidance, and by intensifying the on-site tax inspection activities.

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