BACKGROUND INFORMATION

IMPACT OF THE DEPRECIATION OF THE US DOLLAR ON THE EXTERNAL BALANCE OF THE ESTONIAN ECONOMY

Over the last decade, changes in the nominal exchange rate of the US dollar and the Estonian kroon have been very extensive (see Figure 1b). In 1994–2002 the exchange rate of the dollar fluctuated between 11.01 kroons (on 1 May 1995) and 18.47 kroons (on 1 July 2001). The maximum rate exceeded the minimum rate by 67.7%.

In the first half of this year, the long upward trend of the dollar rate was replaced by a decline. In the past six months, the dollar has depreciated considerably – in July it was 13% down against the beginning of February, moving from 18.18 kroons per dollar on 1 February to 15.76 kroons per dollar on 1 July 2002. The lowest daily exchange rate of the dollar in the fist nine months of 2002 was registered on 19 July, at 15.41 kroons. The last time the exchange rate of the dollar was below that point was in November 1999. The strengthening of the kroon has raised the question of its impact on Estonia's foreign trade.

Figure 1b. Nominal exchange rate of US dollar agaist Estonian kroon by monthly interval, between January 1994 – July 2002

In theoretical and empirical literature two stages of this impact are distinguished. **The first stage** concentrates on the changes in the prices of goods and services when recalculated into the national currency due to changes in the exchange rate. This effect becomes apparent immediately.

In the first half of 2002, approximately 20% of goods meant for internal circulation were bought for US dollars. In export, the share of the dollar amounted to 12%. In absolute volumes, import exceeded export by nearly two times. This means that **the depreciation of the dollar leads, without fail, to the improvement of the trade balance, all other conditions being equal**. However, the share of goods bought and sold for dollars is so small in the overall trade turnover that its positive impact on the trade balance becomes apparent only when viewed separately from other trade.

In the second quarter of 2002, for example, the annual appreciation of the kroon against the dollar was approximately 5%. All other conditions being equal,

this should have improved the overall foreign trade balance by just 0.85% of the GDP. In fact, the trade deficit deteriorated even further due to higher investment demand.

In **the second stage** *of studying the impact of the exchange rate, its relations with the volumes of transactions are usually considered. It is important to take into account that the impact of the exchange rate on the external balance resulting from the price elasticity of demand is contrary to the one seen in the first stage: cheapening of imported goods may increase demand for them, while an opposite reaction can be expected when export becomes more expensive. The main question is which has a bigger impact on the external balance: the positive impact of the nominal rate-changes expressed through prices or the negative impact expressed through the volumes of transactions[1].*

To increase Estonia's trade deficit even further, the depreciation on the dollar has to be accompanied by sufficiently high price sensitivity of consumers. At the current proportions of the Estonian foreign trade the sum total of the price elasticity of export and import demand should be at least 0.6–0.8[2]. The economic development so far and studies that have been carried out indicate that the price sensitivity of demand stays below that criterion. There are a number of reasons for this.

First of all, it has to be stressed that about one third of goods bought for dollars are brought to Estonia under contracts for processing. In such cases the import and export decisions coincide.

It is typical with normal trade (special trade excluding goods meant for processing) that import exceeds export by approximately two times and that major dollar deals concern just single groups of goods. Nearly half of the deficit of the dollar-based normal

trade comes from mineral products dominated by oil and oil products. As imported fuel lacks a local equivalent, there is little ground to suppose that cheapening of fuel would increase import considerably. The same can be said about all goods imported for dollars, which means that the price sensitivity of import demand is low and the risks must be on the export side.

In export, too, attention should be paid to single groups of goods only (livestock, food, chemical products), which show a surplus and cause concern about the consumer behaviour. In 2001, the sum of such balances amounted to merely one billion kroons and export to three billion kroons, which is less than 10% of the total volume of normal export. Food and livestock are mostly exported to the CIS countries. In 2001, for example, 62% of processed food products was exported to Russia (91% to the former Soviet republics). Since Russia is an important export destination for chemical products as well, the exchange rate of the dollar and the Russian rouble is important too, or rather, the exchange rate policy of the Russian central bank. But even if demand for the above-mentioned goods is price-sensitive, their share is not large enough to affect the entire trade balance.

In conclusion, it can be said that the impact of the weaker dollar on the balance of payments is dominated by the price effect or decrease of the trade deficit. Unfortunately, we are unable to distinguish it from other factors. In the framework of this generally positive impact we can, however, clearly distinguish the negative impact of the price hike of exported goods and the resulting low demand on the output of some industries. Due to the location of production, it can also have a regional aspect, since goods sensitive to changes in the exchange rate of the dollar are manufactured in Ida-Virumaa county where unemployment has always been high.

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[1] *When the exchange rate change impact expressed through the transaction volumes is dominating then it is usually called the J-curve effect in economic literature. Traditionally, this framework describes the depreciating of the national currency, which immediately causes a (short-term) increase of the foreign trade deficit (the downward part of the J-curve), but over a longer period and with the presence of a number of conditions (for example, high price elasticity of export and import demand, and substitution of imported goods) should considerably improve competitiveness and thus also remarkably improve the foreign trade balance (the upward part of the J-curve). In the case of the appreciating of the national currency the curve takes the shape of the mirror image of J.*

[2] *This can also be considered a modification of the Marshall-Lerner condition. The Marshall-Lerner condition traditionally proceeds from the situation where import and export are in balance. The condition is taken to be valid when the sum of the export and import demand elasticities is higher than 1: $\eta_X + \eta_M > 1$ where η_X and η_M are the price elasticity of the country's export and import demand, respectively.*