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SM/07/242
Correction 1

July 26, 2007

To: Members of the Executive Board

From: The Secretary

Subject: **Republic of Estonia—Staff Report for the 2007 Article IV Consultation**

The attached corrections to SM/07/242 (7/10/07) have been provided by the staff.

Factual Errors Affecting the Presentation of Staff's Analysis

Page 6, para. 5, line 4: for "CGER estimates and other indices calculated by staff"
read "indices calculated by staff using approaches akin to the CGER's as well as other approaches"
line 6: for "these indices, always subject to considerable uncertainty, need to be treated with even more caution in a rapidly changing and fast-growing economy like Estonia's"
read "as recognized in a recent Board paper, econometric estimates such as these are subject to uncertainties which "may be particularly severe for countries undergoing rapid structural change and for those for which sample length is relatively short"—both of which apply in Estonia."
footnote 1: for "This is recognized in" read "See"

Page 8, Box 2, line 7: for "the CGER methodology presumes"
read "the indices referred to above presume"

Page 9, Box 2 table "Estimated Real Exchange Rate Overvaluation, 2006",
second row: for "Macrobalance approach (CGER-MB)"
read "Staff estimate based on CGER's macrobalance approach"
third row: for "External sustainability approach (CGER-ES)
read "Staff estimate using CGER's external sustainability approach"

Questions may be referred to Mr. Rozwadowski (ext. 37474) and Ms. Tan (ext. 37472) in EUR.

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indicate that the current account deficit exceeded 21 percent of GDP in the first quarter of 2007, though this was mainly due to increased repatriation of profits.

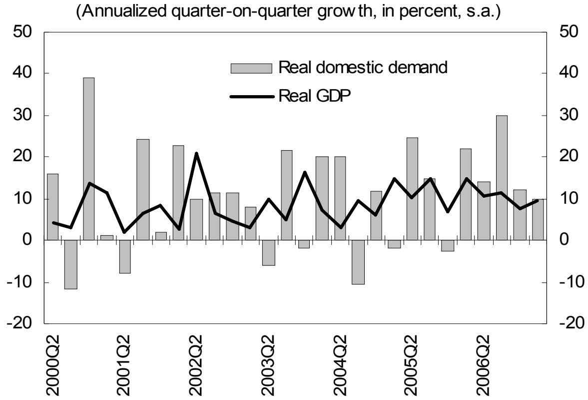
Estonia: Growth Rates of Real GDP and Main Components
Year-on-year percent change

	2001	2002	2003	2004	2005	2006
GDP	7.7	8.0	7.1	8.1	10.5	11.4
Private Consumption 1/	7.4	11.2	6.9	6.9	8.2	15.7
Government Consumption	2.6	1.9	0.3	2.2	1.1	2.8
Gross fixed capital formation	9.7	24.1	7.0	13.5	12.7	19.7
Exports (goods & services)	2.0	1.7	7.6	17.1	21.5	10.0
Imports (goods & services)	3.5	6.0	10.6	15.2	15.9	14.7
Net exports 2/	-1.5	-3.8	-3.1	-0.1	3.1	-5.2

Sources: Estonian statistical office; and staff calculations.

1/ Includes consumption of nonprofit institutions serving households.
2/ Contribution to real GDP growth

GDP and Domestic Demand, 2000Q2-2007Q1
(Annualized quarter-on-quarter growth, in percent, s.a.)

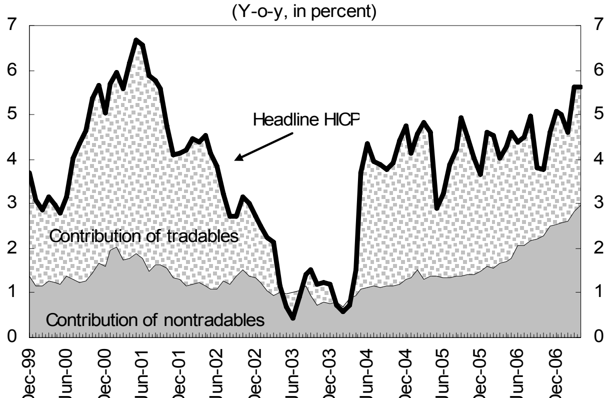


Average apartment price as a share of monthly wages
(2000Q1=100)

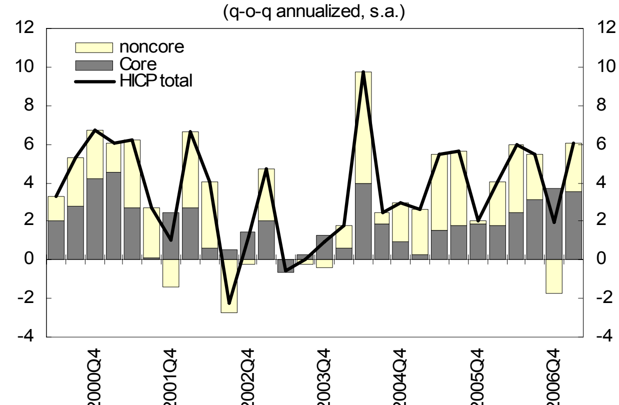
Source: Statistical Office

3. **Inflation has accelerated into the 5–6 percent range, well above the Maastricht threshold for euro adoption (currently about 3 percent)**. A rising contribution of nontradables prices is evidence that overheating pressures are being added to the underlying convergence-related price dynamic. The increasing role of core inflation suggests that it will be difficult to meet the Maastricht criterion within the next few years.

Contributions to Inflation, Dec1999-Apr2007
(Y-o-y, in percent)

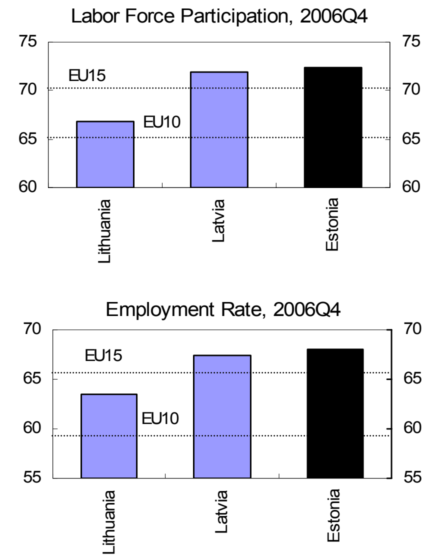


Contributions to Inflation, 2000Q2-2007Q1
(q-o-q annualized, s.a.)



Sources: Eurostat; and IMF staff calculations.

4. **Domestic growth and new employment opportunities in the EU have tightened the labor market, increasing labor costs** (Figure 2). The unemployment rate has fallen sharply in the past two years to a post-transition low of less than 6 percent. Previously marginal groups were the biggest beneficiaries, suggesting that there is little slack left in the labor market. Vacancy rates rose in 2006, particularly in the services and construction sectors where demand was strongest and employers had to compete for labor with foreign firms. The tightening fueled real wage increases, which reached 14 percent year-on-year in the first quarter of 2007. Labor force survey data suggests that the increase in real wages overtook productivity growth in mid-2005, pushing up real unit labor costs (ULC) and thus reducing the share of profits in value added. The national income accounts-based measure of real ULC, which displayed a more benign trend through mid-2006, has now also started to rise.



Source: Eurostat.

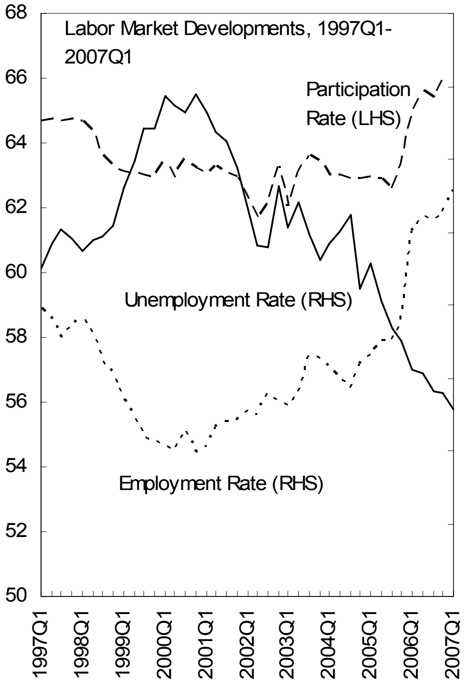
5. **More generally, indicators of external competitiveness are mixed** (Box 2)**.** Increasing penetration of world markets since 2000 (notwithstanding a modest retreat in 2006) and continued strong profitability are "bottom line" evidence that exports remain competitive. On the other hand, ~~CGER estimates and other indices calculated by staff~~ indices calculated by staff using approaches akin to the CGER's as well as other approaches suggest a real exchange rate overvaluation in the order of 10 percent—the mid-point of a wide range of estimates. However, ~~these indices, always subject to considerable uncertainty, need to be treated with even more caution in a rapidly changing and fast-growing economy like Estonia's~~ as recognized in a recent Board paper, econometric estimates such as these are subject to uncertainties which "may be particularly severe for countries undergoing rapid structural change and for those for which sample length is relatively short"—both of which apply in Estonia.[1]

6. **Estonia's regional integration has meant that the capital account has become a two-way street.** Gross FDI inflows—largely reinvested profits—continued to rise relative to GDP, but net FDI fell as residents invested abroad and now covers less than a quarter of the current account deficit (Figure 3). The decline in net FDI flows was offset by increased bank financing, intermediated by local affiliates of Nordic banks. Gross external debt, nearly all private, was 96 percent of GDP at end-2006 while net debt was 27 percent of GDP.

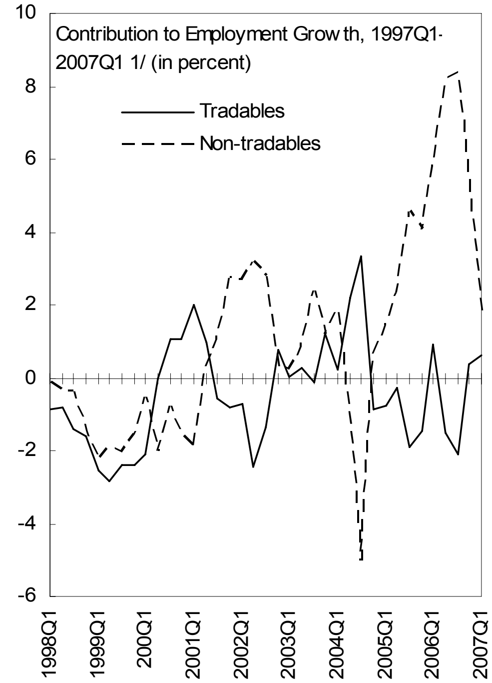
[1] ~~This is recognized in~~ See *Methodology for CGER Exchange Rate Assessments*, November 2006 (http://www.imf.org/external/np/pp/eng/2006/110806.pdf).

Figure 2. Estonia: Labor Market Developments

Strong labor demand raised employment...

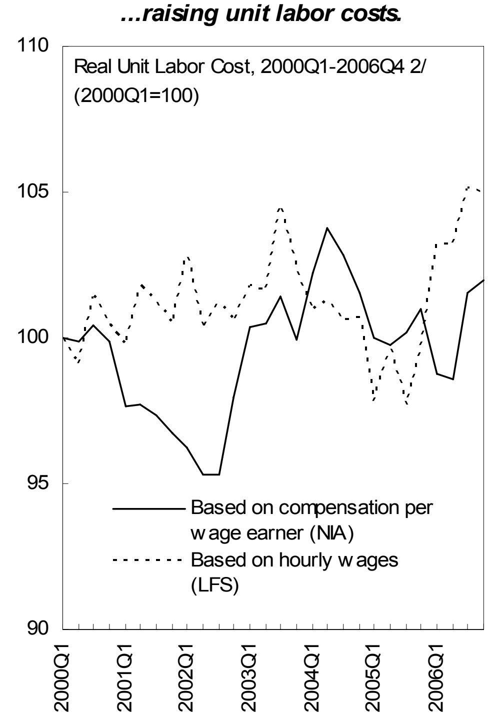


...particularly in the non-tradables sector...



...which caused wages to rise sharply...

...raising unit labor costs.



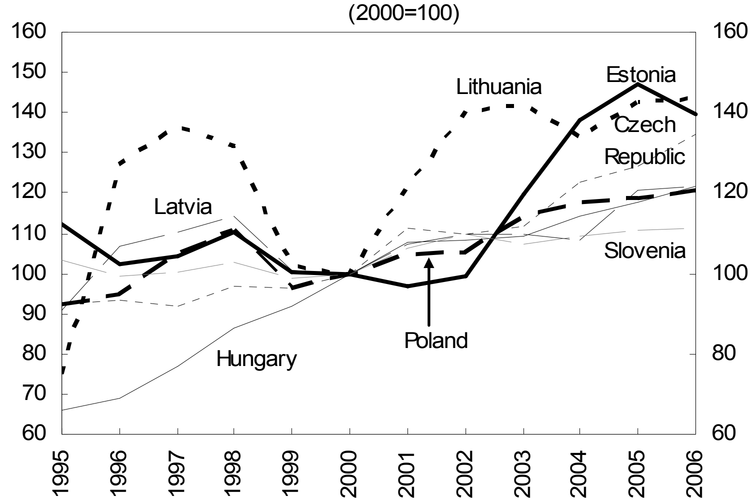
Sources: Statistics Estonia, and staff calculations.

1/ Tradables includes the follow ing sectors: agriculture, forestry, fishery, mining and quarrying, and manufacturing. Non-tradables includes the rest.
2/ Real labor productivity is defined as real value added per hour w orked. All series are seasonally adjusted. Grow th rates are y-o-y changes.

Box 2. Estonia: Competitiveness

Strong export growth has boosted Estonia's market share by 40 percent since 2000, even after some reversal in 2006. Constant market shares analysis confirms the importance of Estonia-specific factors behind this strong export growth. In contrast, indices calculated by staff, including measures derived from the CGER macro balances and external sustainability approaches, show real exchange rate overvaluation in 2006 (see next page of this box). This is consistent with the observation that the share of labor compensation in GDP seems greater than warranted by labor productivity. However, ~~the CGER methodology presumes~~ the indices referred to above presume that parameters are stable—an assumption that may not be warranted in a fast-converging economy undergoing substantial structural changes.

WEO-Based World Trade Shares, 1995-06
(2000=100)



Sources: WEO database (Winter 2006); Eurostat; DG EcFin; and staff calculations.

Constant Market Shares (CMS) Analysis of Export Changes 1/

(Billions of U.S. dollars, unless otherwise indicated)

	1995–2005	2002–05	2004–05
Change in exports			
In billions of U.S. dollars	5.87	3.37	2.17
Average annual growth rate (percent)	15.40	21.15	39.19
Due to:			
World trade effect	2.40	2.45	0.60
Commodity composition effect	-0.19	-0.09	-0.06
Market distribution effect	1.35	-0.15	-0.04
Estonia-specific factors	2.31	1.16	1.67
Memo item:			
Percent change in terms of trade (- is deterioration)	-3.14	-3.49	-2.16

Source: U.N., COMTRADE; and IMF Staff estimates.

1/ CMS analysis decomposes export growth into four components: growth due to changes in world total demand; growth due to changes in world commodity-specific demand; growth due to market distribution effects; and finally, growth due to residual effects. The last (residual) component captures the impact of Estonia-specific factors--competitiveness-related factors (such as movements in the exchange rate or changes in product type/quality) and terms of trade changes.

Box 2. Estonia: Competitiveness (continued)

Estimated Real Exchange Rate Overvaluation, 2006

(In percent)

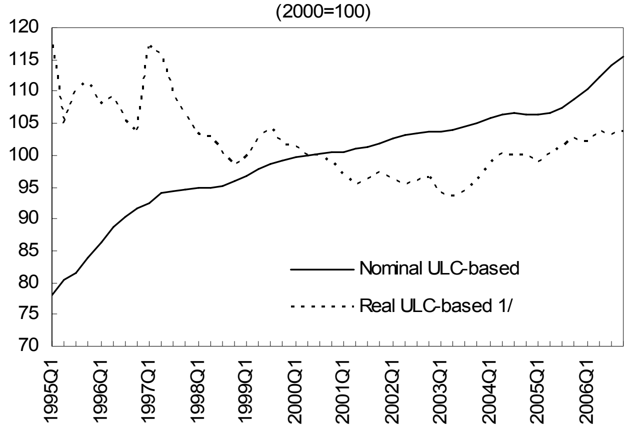
REER-deviation from trends 1/	6
~~Macrobalance approach (CGER-MB)~~	~~10-21~~
Staff estimate based on CGER's macrobalance approach	10-21
~~External sustainability approach (CGER-ES) 2/~~	~~9-20~~
Staff estimate using CGER's external sustainability approach 2/	9-20
GDP per capita/PPP approach 3/	0

1/ Percent difference between REER-real ULC based in 2006 and its average level during 2001-05.

2/ The real exchange rate correction needed to generate a current account deficit that would stabilize NIIP at 100% of GDP, assuming real interest rate of 6% (historical average), growth rate of 7 percent (potential rate over next 5 years), and current account elasticity ranging from 0.35 to 0.75.

3/ Measured as the deviation from the predicted ratio of Estonia's domestic price level to the U.S. price level, given Estonia's GDP per capita relative to the U.S. (at PPP exchange rate).

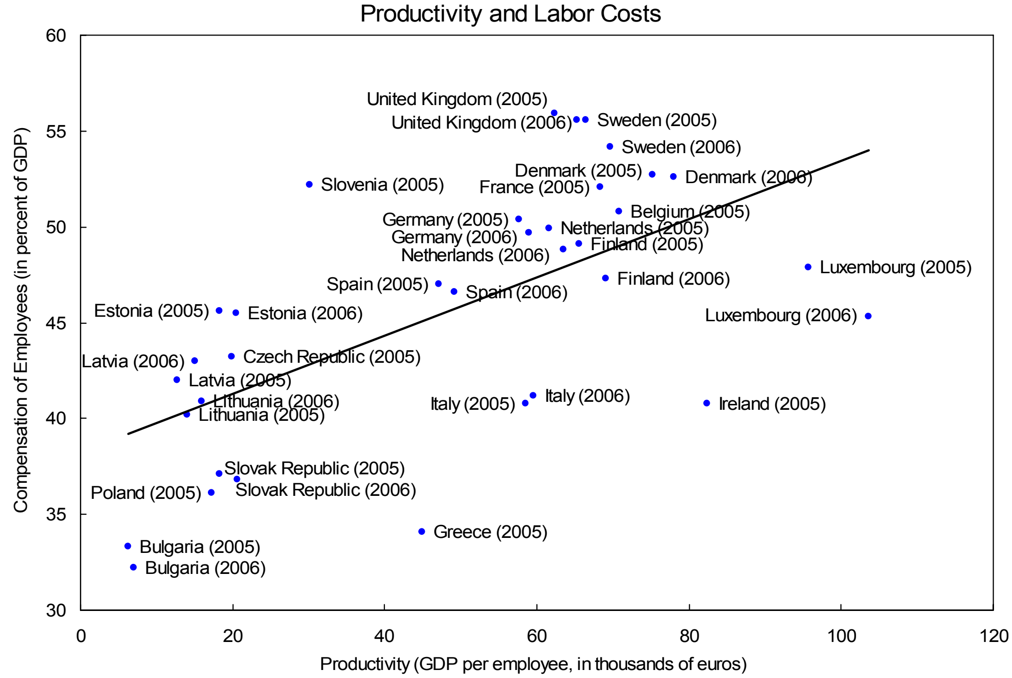
Real Effective Exchange Rates, 1995Q1-2006Q4
(2000=100)



Source: Staff calculations.

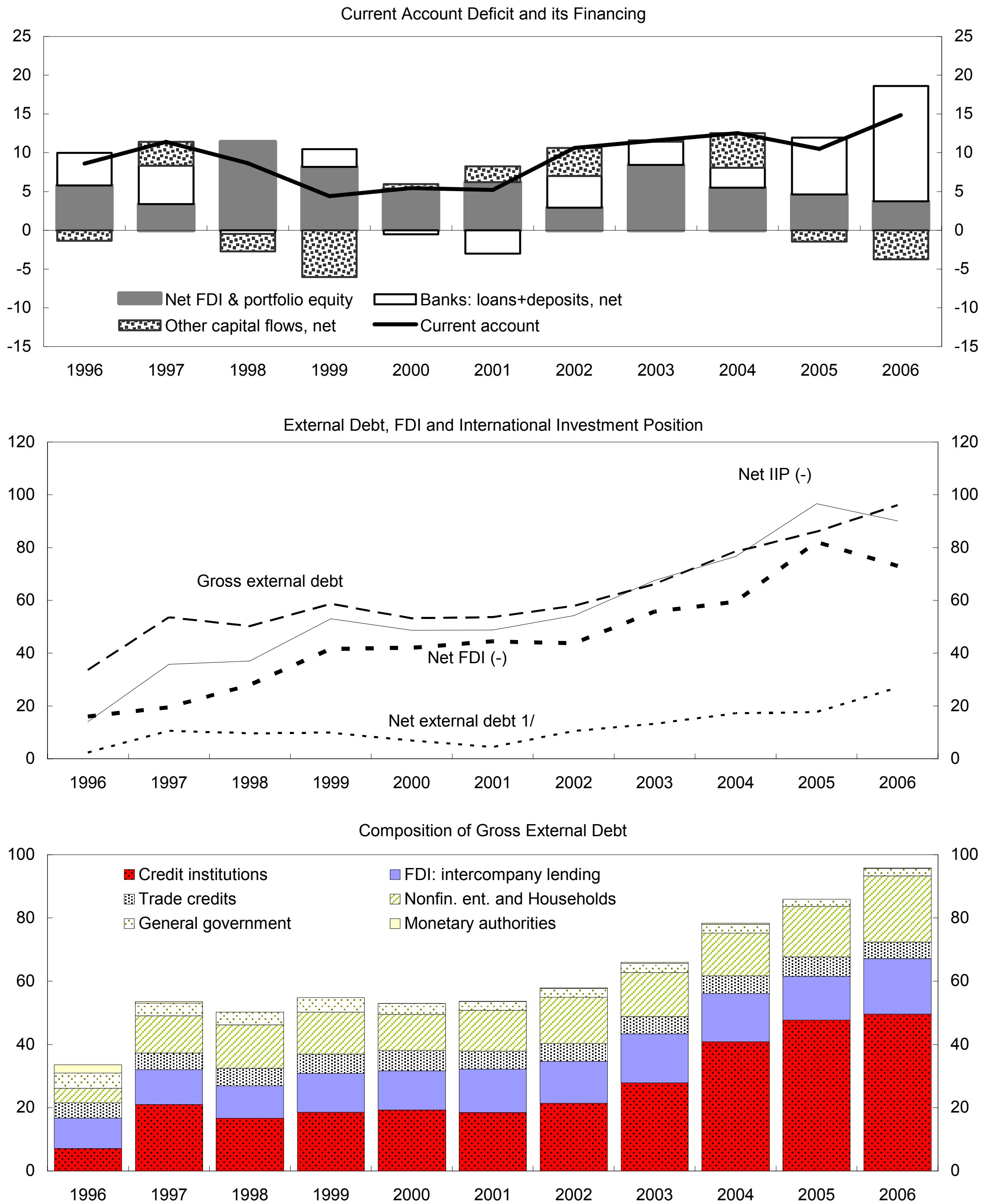
1/ Real ULC is calculated using the industry (ex-construction) deflator. It is a proxy for labor's share in manufacturing value added.

Productivity and Labor Costs



Sources: Eurostat and staff calculations.

Figure 3. Estonia: Current Account, FDI, and External Debt, 1996-2006
(In percent of GDP)



Source: Bank of Estonia.
1/ Net of portfolio, financial derivatives, other investment, and reserve assets held by the Bank of Estonia.