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CONTENTS

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FOREWORD

Recently, the price rise in Estonia has been relatively rapid. Naturally, the media are primarily interested in the negative effects of the inflation on consumers' wallets. Surprisingly, however, wider economic implications of the price rise are also frequently discussed – for the first time in several years. The awareness that the high inflation rate is Estonia's main obstacle to adopting the euro has set in. Meanwhile, the fear remains that introducing the euro will only entail an even faster price growth. Many have also started to realise that the postponement of the adoption of the euro may bring serious consequences to borrowers. In light of all this the central bank repeats time and again that in order to hedge economic risks it is essential to retain a conservative fiscal policy. In this issue of Kroon & Economy we are primarily trying to feature articles that might help to put all this into a broader context and thus hopefully make it easier to understand.

The fresh issue presents a slightly wider analysis related to meeting the Maastricht exchange rate criterion and the inflation criterion, which has attracted much attention in Estonia – in comparison with various Central and Eastern European countries. In addition, the issue encompasses an observation of the Baltic economies through the eyes of rating agencies, revealing what factors have probably influenced the countries' ratings.

Owing to the increasing interest of Estonian businesses in comparing themselves to their neighbours, a comparison of various aspects concerning the financial situation of Estonian and Polish enterprises is included in this issue. This type of material has not been published in Kroon & Economy before. For those who have greater interest in comparing the economic processes of countries bordered by the Baltic Sea, the issue offers some references to Internet sources and analytical articles.

MEETING THE MAASTRICHT CRITERIA FOR EXCHANGE RATES AND INFLATION DURING A PERIOD OF NOMINAL CONVERGENCE*

John Lewis[1]

The nine new Central and Eastern European countries (CEECs) that have joined the European Union but have yet to adopt the euro all obliged to join the euro area at some point in the future. Their status as member states with a derogation implies that they do not have an explicit opt-out of the single currency but, equally, they are free to make their own decisions about the timing and strategy of their entry.

Admittance to the Eurozone is based on the fulfilment of the five Maastricht criteria. In addition to nominal interest rate convergence and the fiscal criteria, candidate countries are also required to demonstrate exchange rate stability (defined as two years membership in ERM II without severe tensions) and low inflation (defined as inflation of no more than 1.5% above the average of the lowest three (positive) rates in all EU Member States).

This paper analyses the problem of meeting the exchange rate and inflation criteria simultaneously during a period in which their price levels are converging to the EU15 level. Relative price levels for CEECs are shown below:

Table 1. Relative price index in 2005 (EU15 = 100)

Country	GDP deflator	Household consumption
2004 intake:		
Czech Republic	54.0	56.4
Estonia	55.8	62.7
Latvia	48.4	55.4
Lithuania	47.4	53.3
Hungary	58.6	62.1
Poland	52.4	58.2
Slovakia	52.6	56.2
2007 intake:		
Bulgaria	35.3	42.2
Romania	43.2	51.8
Lowest 3 Eurozone:		
Portugal	80.1	82.2
Greece	81.5	84.7
Spain	86.5	86.8

Source: Eurostat

Table 1 makes it clear that price levels in CEECs are substantially lower than in the Eurozone, and significantly lower than the 3 lowest Eurozone members' price levels. On the basis of the GDP deflator, it can be seen that CEECs typically have price levels of 45–60% of the EU15, with lower figures for the 2007 intake. Since the inflation criterion is assessed on the basis of the rate of change in consumer prices (the HICP), the relative price of household consumption goods is also shown. Prices are slightly higher, but still only around 50–60% of the EU15 level.

The ongoing convergence in the price levels between the current EMU candidates and the Eurozone – also known as *nominal convergence* – requires either a sustained inflation differential, a nominal exchange rate adjustment or a combination of the two. This creates a natural tension between the process of nominal convergence and the simultaneous fulfilment of the exchange rate and inflation criteria. The authorities can use monetary policy to hit one of the criteria – either to target inflation, or to fix the exchange rate – but must then sit back and simply hope to hit the other criterion. Whether or not this tension seriously hinders a CEEC's ability to hit the convergence criteria depends on how big these convergence effects are, and for how long they persist.

In what follows three key questions are analysed. First, how big the tension posed by nominal convergence is. Second, for how long this is likely to be a problem for CEECs. Third, how the choice of exchange rate regime affects a country's ability to simultaneously fulfil the exchange rate and inflation criteria.

MODELLING THE CONVERGENCE PROCESS

Nominal convergence to the Eurozone implies that the price level in a CEEC will rise relative to the Eurozone over time. This further implies that the amount of euros needed to purchase a basket of consumer goods in a CEEC will rise over time, and that this "euro-denominated inflation rate" will be higher in the CEEC than in the Eurozone.

For countries who fix their exchange rate to the euro, this euro-denominated inflation rate is simply equal to the country's (own-currency) inflation rate. Such countries will thus, on average, have higher inflation than the Eurozone, which may make it harder to meet the inflation criterion. For countries who float their exchange rate, and target inflation at the same 2% that the ECB does, their (own-currency) inflation rate will be no higher, on average, than that of the Eurozone. Instead, nominal convergence will show up as an appreciation of the nominal exchange rate, which makes it harder for the country to stay within the ERM II bands.

The possibilities of meeting the Maastricht criteria for exchange rates and inflation during a period of nominal convergence have been analysed using the convergence model developed by Kattai (2006), which is graphically presented in Figure 1.
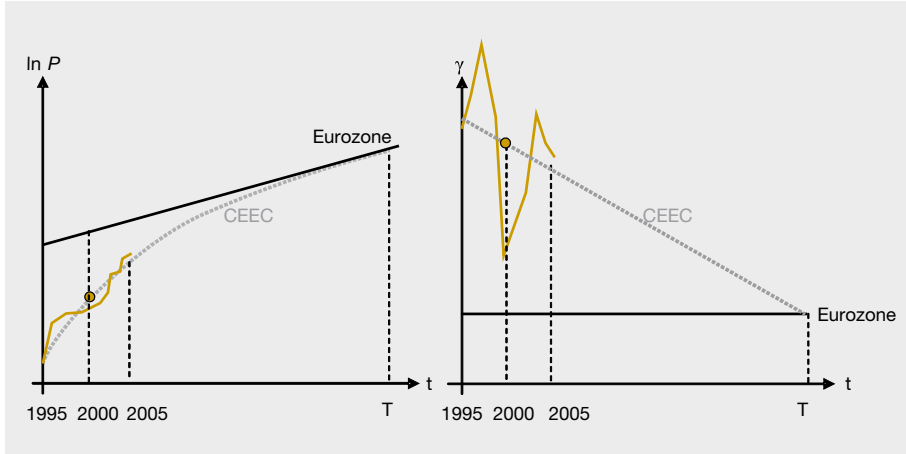
Figure 1. Projection of nominal convergence

The key feature of this model is that price level convergence P and convergence in euro-denominated inflation γ happen at the same time. This model can then be used to generate four different convergence scenarios. Using data on price levels and euro-denominated inflation from 1995–2005, we can estimate the trend values of P and γ in the year 2000 (the black dots in the figure). If we impose the requirement that P and γ converge at the same point in time, then we can solve for the unique point in time T, at which convergence is reached. Given this start and end point of the convergence process, we can then generate the trend paths of P and γ (the dotted lines in the figure). Alternatively, one can estimate the trend value of P in the year 2000, fix T, and then solve for the trend γ.

We use this approach to generate four possible convergence scenarios. These are shown below; question marks denote that the value is obtained taking the other variables as given, and then solving for the "missing" variable.

Table 2. Scenarios

Scenario	Price end-point: CEEC price level relative to Eurozone	Time taken	Initial γ	Initial P
Full convergence	100%	?	Av. 1995–2005	Av. 1995–2005
Partial convergence	80%	?	Av. 1995–2005	Av. 1995–2005
Fast convergence	100%	25	?	Av. 1995–2005
Slow convergence	100%	50	?	Av. 1995–2005

Most estimates of likely convergence times tend to report figures of between 25 and 50 years. Thus these two figures are taken as likely upper and lower bounds of convergence times. The partial convergence scenario captures the idea that prices may not fully converge. For this scenario an endpoint of 80% was chosen, based on the current price level in the Portugal, the Eurozone member with the lowest price level.

NOMINAL CONVERGENCE AND THE MAASTRICHT CRITERIA

The next step is to evaluate how these convergence scenarios affect the ability of a CEEC to meet the exchange rate and inflation criteria. This is done for two possible entry strategies: inflation targeting (with a target of 2%) and exchange rate fixing

In the case of an exchange rate fixer, inflation will be higher than the Eurozone until time T. From the point of view of CEECs the key question is when trend inflation is lower than the reference value, T^c (see Figure 2). For as long as trend inflation in country j, π_j is above the reference value, the CEEC must rely on "good luck", i.e. inflation below trend, to meet the criterion. Once trend inflation is below the reference value, the CEEC would only fail to meet the reference value if inflation happened to be temporarily above trend. On average, the reference value of the inflation criterion has been 0.6% above Eurozone inflation, combining this with the ECB's 2% inflation target gives a stylised value of 2.6% for the reference value. Therefore roughly speaking, the point T^c, after which trend inflation is less than 2.6%, can be considered as the point beyond which convergence factors alone are not strong enough to mean a country cannot meet the inflation criterion. This is shown in Figure 2.
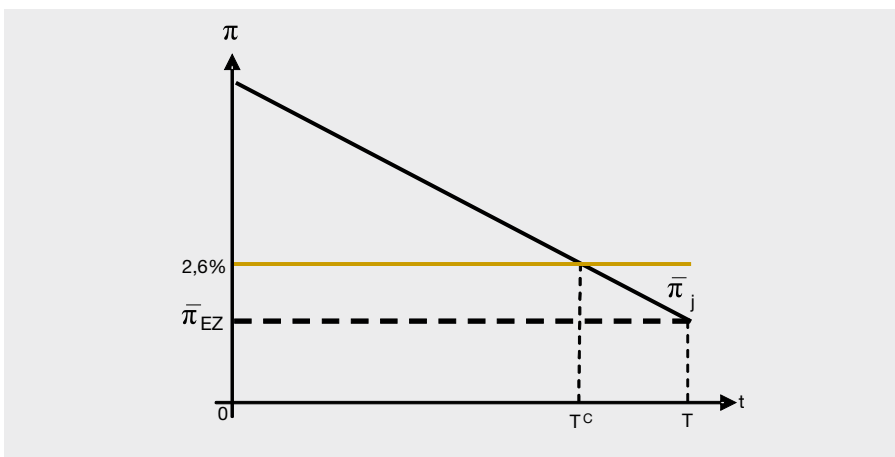

Figure 2. Trend inflation below reference value

Analysis shows that the convergence effects on inflation are large and long lasting. Under the full convergence scenario, Estonia has the earliest T^c of 2023, followed by the other Baltic nations, the larger central European countries, and lastly the 2007 intake. Under the partial convergence scenario the times are brought forward, but convergence effects are still significant for at least a decade in most cases. More generally we may say that T^c is generally very close to time T, implying that convergence effects are significant until the very end of the convergence process.

For an inflation targeter (with an inflation target of 2%), the convergence effect shows up via a nominal exchange rate appreciation. According to recent convergence reports, (ECB, 2006; European Commission, 2006) appreciations of up to 15% from their central parity could be consistent with fulfilling the exchange rate stability criterion.

The nominal exchange rate appreciations implied by convergence effects over a hypothetical two year stay in ERM II are shown below:

Table 3. Forecast 2 year appreciations within ERM II under inflation targeting (by date of joining)

	100% convergence (estimated T)			80% convergence (estimated T)			100% convergence (25 y)			100% convergence (50 y)		
	2005	2010	2015	2005	2010	2015	2005	2010	2015	2005	2010	2015
CZ	6.84	5.85	4.87	6.29	4.90	3.51	6.31	5.11	3.92	5.17	4.57	3.97
EE	7.58	5.73	3.91	6.17	3.27	0.41	5.47	4.51	3.54	4.15	3.67	3.19
HU	7.74	6.28	4.82	6.85	4.71	2.59	6.03	4.91	3.79	4.83	4.27	3.71
LV	10.36	7.63	4.94	8.96	5.19	1.50	6.56	5.29	4.02	5.47	4.83	4.20
LT	7.18	5.92	4.67	6.41	4.58	2.76	6.03	4.91	3.79	4.83	4.27	3.71
PL	5.88	5.17	4.46	5.40	4.31	3.23	5.74	4.70	3.66	4.48	3.96	3.44
SK	7.57	6.48	5.40	7.04	5.56	4.08	6.75	5.43	4.11	5.71	5.04	4.38
BU	7.11	6.51	5.92	6.89	6.13	5.37	7.85	6.22	4.60	7.04	6.22	5.40
RO	6.66	5.93	5.20	6.33	5.35	4.37	7.01	5.62	4.23	6.02	5.32	4.62

Table 3 shows that the time of joining ERM II makes a difference for the size of the appreciation. The reason for this is that nominal appreciations are higher in the earlier part of the convergence process, because γ is higher. However, in each case, for all countries, under all convergence scenarios, the appreciation over two years is less than the 15%. In other words, the convergence effect on the exchange rate is never big enough to (on its own) take the currency outside the bands of ERM II and imply automatic failure of the exchange rate criterion.

It can be concluded that countries that target inflation face much less of a problem from convergence factors, than countries who choose to fix their exchange rate. This highlights an

important feature of the Maastricht criteria – namely the different amount of room they give for the accommodation of nominal convergence. To see this point, consider the following equation:

$$\gamma_j = \pi_j + \Delta s,$$

This says that euro-denominated inflation equals own currency inflation plus the change in the nominal exchange rate. For a country with a fixed exchange rate, $\Delta s = 0$ and thus $\gamma_j = \pi_j$. If the maximum permitted inflation is assumed to be 2.6% (as before), then country j can have a γ of no more than 2.6% per annum, without breaching one of the Maastricht criteria.

For a country that targets inflation, $\pi_j = 2\%$ and the exchange rate may appreciate by up to 15% over two years, which corresponds to a yearly Δs of just over 7%. In such case, the maximum permitted γ is just over 9%. This means that countries that target inflation get around four times as much room to accommodate nominal appreciation than exchange rate fixers.

PRICE LEVELS AND INFLATION: AN EMPIRICAL ANALYSIS

The previous section considered convergence effects in isolation. In reality, inflation can and does diverge from its trend value. For example, both Estonia and Lithuania have, at certain times, had inflation below the reference value for sustained periods in recent years, despite the ongoing nominal convergence effects. On other side, some Eurozone countries have had inflation higher than the reference value, even though their price levels surpass the Eurozone average.

This raises the question of how big the convergence effects are in reality. This can be investigated using price level and inflation data that exists for the original 12 Eurozone countries since the start of EMU, and aspiring members: Estonia, Latvia, Lithuania and Slovenia, during the times for which their exchange rates were tightly fixed to the euro.[2]

In any given month, a country can either comply with reference value or not. A variable C_k is constructed which measures the proportion of the past k months for which a country has so complied. In the empirical analysis, this was done for $k = 1, 3, 6...12$.

Using the data of these 16 countries an ordered probit model was estimated to calculate the implied probability of inflation being below the reference value for k consecutive months. These probabilities are shown below:

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[2] A corresponding analysis cannot be done for inflation targeters because the number of observations for CEECs who have an inflation target of 2% would be much smaller.

Table 4. Probability of inflation below the reference value under a fixed exchange rate

Relative price level	k = 1	k = 3	k = 6	k = 12
50%	0.434	0.064	0.053	0.035
60%	0.482	0.122	0.103	0.070
70%	0.529	0.209	0.178	0.128
80%	0.577	0.324	0.282	0.213
90%	0.623	0.460	0.409	0.323
100%	0.668	0.600	0.546	0.452

Table 4 shows that for any given price level the probability of holding inflation below the reference value is bigger, the greater the number of consecutive months (the bigger k) is. Second, the higher the relative price level, the bigger the probability of meeting the reference value for a given number of months. This is in line with the theoretical analysis of the previous section, because the higher is the price level, the lower is trend inflation, and hence the more likely a country is to have inflation below the reference value. In other words, the price level does not matter so much for the probability of 1 month compliance with the reference value, but it matters a lot for 12 months compliance. Third, the fall in the probability associated with increasing k is bigger, the lower the price level. Fourth, the table shows that even if an economy is fully converged in terms of price level, it is by no means a foregone conclusion that they will be able to meet the inflation criterion for a sustained period of time. The loss of an independent monetary policy means that country specific shocks can still push inflation above the reference value. This implies that luck, as well as relative prices, has as an important role to play.

CONCLUSION

When choosing its monetary policy framework, a country has one instrument with which to meet two criteria. In choosing between an inflation target and a fixed exchange rate, the authorities effectively choose which criterion they will use their monetary policy to "hit", and which one they will hope for. Thus the Baltic States meet the exchange rate criterion but must simply hope that inflation falls below the reference value. By contrast, inflation targeters, such as the Czech Republic and Slovakia, can use monetary policy to meet the inflation criterion but most hope that the floating exchange rate does not appreciate too much.

A key result of this article is that inflation targeting gives more room to accommodate nominal convergence. Matching this up with the currently observed policy regimes implies that the Baltic States may have more trouble accommodating nominal convergence than larger central European states, simply by virtue of their choice of exchange rate regime.

What the article does not address is whether it would be better for countries with fixed exchange rates to move to a regime of inflation targeting. A key part of the rationale for the existing fixed exchange rate regime is that the Baltics are very small and very open economies and are hence vulnerable to large swings in the exchange rates, which mean that inflation targeting may be far harder to implement than in larger more closed economies.

In the absence of an independent monetary policy, one option is to try to use other instruments to control inflation. Fiscal policy could be tightened to reduce aggregate demand and induce a temporary slowdown in inflation and growth. However, this would involve a cost to the real economy. Moreover, the inflation criterion also includes the requirement that price performance be sustainable, and hence a temporary fall in inflation below the reference value may not be enough to pass the inflation criterion. If neither fiscal nor monetary policy is used to affect inflation, then it is essentially a variable which the government does not control. They must simply wait and hope that inflation falls sufficiently. However, given the size of convergence effects, this wait could be quite long.

Pinpointing the effects of convergence on inflation in any particular year is difficult. In recent years the Baltic States have converged far more rapidly in real terms than they have in nominal terms. As the empirical analysis showed, it is still possible for a country with a large price level differential to meet the inflation reference value under a fixed exchange rate. However, the robustness of the results to different convergence scenarios suggest that over the longer term, regardless of what scenario is chosen for convergence – full, fast, slow or incomplete –, almost any plausible convergence process requires a differential in long-run inflation rates for many years to come.

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BALTIC ECONOMIES THROUGH THE EYES OF RATING AGENCIES

Evelin Tamla, Kädli Moor

INTRODUCTION

Recently, the rating agencies' assessments to the economies of the Baltic States have attracted more attention than usual. In May this year, Standard&Poor's lowered Latvia's sovereign rating[1] and Fitch Ratings did the same in August. In July, Standard&Poor's reduced the outlook of Estonia's sovereign rating[2] from stabile to negative, which in Lithuania's case was done already in May. According to both Standard&Poor's and Fitch Ratings, the sovereign rating of Latvia is lower than the Estonian and Lithuanian ratings. Standard&Poor's has given negative assessments to the rating outlooks of all Baltic States, considering the probability of lowering ratings greater than Fitch Ratings who regards the outlooks as stable. In September, the third major rating agency Moody's Investors Service lowered the Estonian and Latvian ratings from positive to stable. However, the rating policy of Moody's Investors Service clearly differs from the other two, focusing strongly on public finance and the long-term developments of the economies. This is reflected in a more positive sovereign rating compared to the other agencies (see Table 1).

Table 1. Sovereign ratings of Estonia, Latvia, Lithuania and other selected countries*

	Standard&Poor's	FitchRatings	Moody's
Estonia	A/negative	A/stable	A1/stable
Latvia	BBB+/negative	BBB+/stable	A2/stable
Lithuania	A/negative	A/stable	A2/stable
Hungary	BBB+/stable	BBB+/negative	A2/stable
Slovenia	AA/stable	AA/stable	Aa2/positive
Italy	A+/stable	AA-/stable	Aa2/stable
Greece	A/stable	A/positive	A1/positive
Spain	AAA/stable	AAA/stable	Aaa/stable
Portugal	AA-/stable	AA/stable	Aa2/stable
Icelan	A+/stable	A+/stable	Aaa/stable

* As at 12 September 2007.

FACTORS AFFECTING THE RATINGS OF BALTIC STATES

Rating agencies assess a country's ability and will to earn foreign currency in order to meet their long-term liabilities. The most direct determinant of a country's solvency is its debt burden and the annual state budget balance shaping the debt. In addition, the sovereign rating is affected by several

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[1] A sovereign rating is an assessment of the government's ability and will to repay long-term foreign liabilities in a timely manner by international agencies specialised on the analysis of countries' loan servicing abilities. The sovereign rating largely determines the interest rates on the loans the public as well as the private sector can obtain from foreign markets.

[2] A rating outlook indicates the expected direction of the change in the rating in the near future. The outlook may be stable, positive or negative.

indirect factors related to the situation of public finance and the vulnerability of the economy as a whole. When assessing the rating level, analysts consider the country's total economic situation, expected developments and structural foundations, political stability and institutional capacities. Rating agencies highly value the harmony of the whole economic policy.

The strengths and weaknesses of the Estonian, Latvian and Lithuanian sovereign ratings are very similar. The situation of the Baltic public finances has always strongly supported their sovereign ratings. The most remarkable example of strong public finance is Estonia, which ranks at the top not only in comparison with countries with similar rating levels, but also in terms of lowest public debt in Europe after Liechtenstein and Luxembourg. Contrary to many other countries, the indirect liabilities of the general governments in the Baltic States that derive from guarantees granted to the private sector and the potential liabilities related to public enterprises are nearly non-existent. Besides, the rating agency Standard&Poor's has assessed the flexibility of the Estonian and Lithuanian state budgets very highly and that of Latvia highly, reflecting the ability of the general government to adapt to unexpected external shocks[3].

The public finance of the Baltic States is supported by rapid economic growth, which is facilitated by exports based on economic flexibility and competitiveness. Estonia's economic efficiency is also boosted by the strong banking sector, even excluding the potential external support according to Fitch Ratings[4]. The assets of the Lithuanian banking sector are also nearly completely in foreign ownership and in the case of Latvia this figure stands at about 60%, which is an important risk-hedging factor. The banking sector owners of the Baltic States are strategic investors and there is no reason to believe that they would suddenly cease to finance their subsidiaries. The ratings of the Baltic States have long been supported by the European Union accession, intense economic integration and the membership of ERM II, among other things. In addition to enjoying the economic benefits of the common market, EU membership gives a clear quality label to the institutional development of the Baltic States. All this fosters Estonia's convergence towards the living standards of the old EU Member States.

In recent years, the perspectives of joining the euro area have played an increasing role in the ratings of the Baltic States. The fixed exchange rate systems based on the currency board in Estonia and Lithuania as well as the Latvian monetary system similar to the principles of the currency board system are regarded as the cornerstones of the countries' rapid economic expansion after regaining independence. The rating agencies agree that the currency board system is very strong and has several advantages over the customary fixed exchange rate system. However, if the national currency remains, there is a risk that the exchange rate and/or its system would have to be changed. This may be brought about by the staggering confidence in the national currency and the subsequent

[3] Research by Standard&Poor's, "The 2007 Fiscal Flexibility Index: Continental Sovereigns Still Lagging Behind", 31 May 2007.
[4] Special report by Fitch Ratings, "Bank Systemic Risk Report", 22 March 2007.

abrupt interest rate rise or a discernible deterioration in the competitiveness of the exporting sector. To a monetary system that has operated only for a dozen or so years, this change would have serious consequences in view of the expectations of economic agents – entrepreneurs, individuals, investors and the financial sector.

By adopting the euro this serious, although highly improbable threat would disappear. Moreover, the accession of the Baltic States to the euro area is supported by the optimum currency area arguments[5], which form the theoretical basis for the single currency principle. The most important of them is the fact that Baltic economies are small and open and that they have close economic relations with the European Union.

Against this background, the postponement of the accession to the euro area has been one of the primary reasons for the lowering of Baltic ratings. The perspective of joining the euro area should be viewed in direct relation to the key weakness of the Estonian, Latvian and Lithuanian economies: the large and long-term current account deficit in international comparison. On the one hand, active borrowing has increased private sector debt burden. Owing to the high degree of foreign ownership in the financial sector and other enterprises, this is reflected in external debt, which is considerably higher than the median average of other countries with comparable ratings. As in the Baltic States external liabilities and issued loans are mainly in euros but the incomes of borrowers generally in national currencies, the materialisation of the abovementioned threat of exchange rate change would create problems. However, for a euro area country the euro is its national currency and the country itself lacks the opportunity to change the exchange rate. Thus, by adopting the euro the external economic imbalance indicators would have nearly no bearing on the sovereign rating, which would considerably decrease the potential vulnerability of the Baltic States in the eyes of rating agencies.

Accompanied by very high domestic demand, constraints on production factors and strengthening inflationary pressures, the increasingly growing current account deficit of the Baltic States has raised concerns among the rating agencies that the risk of a sudden slowdown in GDP growth is increasing. Due to this – but also regardless – the probability of declining competitiveness and its long and painful recovery has risen. The economic indicators reflecting the aforementioned risks point to the fact that the resistance of the Baltic States to factors detrimental to their economic situation has weakened. A considerable slowdown in GDP growth, i.e. an abrupt adjustment of the economy, may be triggered by the deterioration of the external environment, for instance. Speaking of threats to Latvia, at the beginning of this year Standard&Poor's described the so-called real adjustment, where GDP growth would suddenly drop below the current potential level and remain there for a

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[5] According to the theory of the optimum currency area formulated by Robert A. Mundell in the 1960s, it might be economically more effective for a country to forsake independent monetary policy. The theory discusses the criteria that serve as the basis for analysing the effectiveness of the currency area. Its goal is to assess the vulnerability of countries in the selected area to asymmetric economic shocks.

long while[6]. GDP growth would remain slower over a longer period of time if both competitiveness and private consumption, which has so far grown vigorously, dropped suddenly. Competitive abilities would be difficult to restore with the help of lower wages or higher productivity, because slow economic growth would entail greater emigration of employees. Declining employment and slow productivity growth would decrease the investment attraction. All this would affect the state budget, its deficit potentially exceeding even the Maastricht criteria. This, in turn, would postpone the adoption of the euro even further. The restoration of lost competitiveness requires time and effort, still being experienced by euro area member Portugal, for instance. In fact, the rating agency Moody's Investors Service believes that the main threat to the Baltic economies is the so-called Portugal syndrome, i.e. the painful economic standstill resulting from the excessive loan burden of the private sector, rather than an abrupt adjustment.

WHAT MIGHT CHANGES IN THE ASSESSMENTS OF RATING AGENCIES ENTAIL?

Despite similar development factors and the fact that many foreign investors regard the Baltic States as a single (economic) region, rating agencies tend to disagree as to the importance of these factors and risks to economies. Nobody doubts that convergence plays an enormous role in the Baltic economies. This mitigates the threat signals that similar economic indicators would convey in case of advanced economies. At the same time, it is impossible to estimate the role of convergence unambiguously due to its complex nature. Thus, rating agencies have become more cautious owing to the deterioration of indicators reflecting economic vulnerability.

The lower sovereign ratings of Latvia were caused by its economic indicators referring to a greater vulnerability compared to other Baltic States. For instance, in 2006 the current account deficit of Latvia amounted to 22% of GDP and the consumer price index exceeded 10% at the end of summer 2007. From among the Baltic States, Latvia's outlook of joining the euro area has shifted the most to the future. Fitch Ratings has given the most recent evaluation, according to which Latvia will not adopt the euro before 2013. Fitch Ratings considers Lithuania the strongest of the Baltic States[7], its economy being the least vulnerable to sudden changes in capital flows and slowdown of economic growth. Thus, the deterioration of the outlook for joining the euro area in Lithuania has not raised such concerns as in Latvia's case. In terms of vulnerability, Estonia remains somewhere in between Latvia and Lithuania. Similar to other Baltic States, the assessments of rating agencies have become more cautious also with regard to the Estonian economy, because its internal and external imbalances have been gradually deepening according to economic indicators.

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[6] Research by Standard&Poor's, "Latvia: A Baltic Boom-Bust?", 19 February 2007.
[7] Special report of Fitch Ratings, "Risks Rising in the Baltic States", 6 March 2007.

Until the beginning of this year, the Baltic States have been witnessing only increasing ratings. Thus, lowering Latvia's sovereign rating by Standard&Poor's and Fitch Ratings, and downgrading various rating outlooks is a new experience. So far, this has not brought along significant reactions from the markets. Rating changes have generally been reflected most directly in the cost of the country's loan money and the interest spread of local markets[8]. True, the higher the rating, the less the margins have changed. Furthermore, changes in sovereign ratings influence the volume and direction of capital flows[9]. However, Baltic markets are small and trading opportunities scarce, which is why the share of portfolio investment is low. In addition, the base money has been fully covered by external reserves owing to the monetary system. In light of these circumstances the impact of changes in sovereign ratings is weak and the possibility of an extreme speculative currency attack marginal. As for Latvia, the first negative outlook in February this year was followed by a slight increase in interest rates and the interest spread has remained unchanged until today. Nevertheless, it is difficult to say whether the interest rate increase was caused by the negative outlook, because immediately before that a panic of the devaluation of the Latvian lat broke out, which was not related to the decision of the rating agency in any way.

Sovereign ratings may implicitly be regarded as the yardstick of the economy and economic policy of the Baltic States and, thus, also as a confidence shaper. For the Baltics, this is even more important than the influence of sovereign ratings on the markets. The worsening assessments of rating agencies may considerably harm the confidence of consumers and entrepreneurs. This, in turn, may trigger an abrupt economic adjustment. If the ratings decrease too much and for too long, long-term (foreign) investors may become more cautious about the economic climate of the Baltic States. This would entail less investment and potentially lower economic growth. In case of a negative scenario, also the current cheap loan money from the parent banks of the Baltic States may become scarce and/or loan margins may rise owing to the increased risk. Thus, changes in sovereign ratings may bring about long-term consequences, but their scope and impact is very difficult to assess.

THE NEAR FUTURE OF THE BALTIC STATES' SOVEREIGN RATINGS

The assessments of rating agencies indicate that at the moment the sovereign ratings of the Baltic States tend to drop rather than rise. Reducing Latvia's rating by Standard&Poor's and also by Fitch Ratings demonstrates that downward corrections are triggered when the external balance deteriorates so much as to cross the „pain threshold" of rating agencies. Especially so in combination with strong domestic demand as well as price and wage growth pressures that refer to overheating. An inflation rate that considerably exceeds the Maastricht criterion postpones the

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[8] E.g. the differences in TALIBOR and EURIBOR rates should generally also reflect differences in risk levels.
[9] E.g. Gande and Parsley have discovered that lowering sovereign ratings will entail capital outflow (A. Gande, D. Parsley (2004), "Sovereign Credit Ratings and International Portfolio Flows", http://www.internationalmonetary fund.com/external/np/seminars/eng/2004/ecbimf/pdf/parsle.pdf).

possibility of joining the euro area. The postponement of the adoption of the euro for several years compared to the initial goals of the Baltic States has not provoked negative reactions from rating agencies per se. However, together with problematic economic indicators this factor remains significant. Rating agencies find it important that Estonia, Latvia and Lithuania use the government's measures to manage the risks of overheating. This is especially topical in the case of Latvia, the most worrisome of the three countries, regarding whom both Fitch Ratings and Standard&Poor's have noted that the government's plan for combating inflation may not suffice for balancing the economy and may entail a (new) rating drop.

The comparison of the Baltic States' ratings with those of other countries enables to assess the importance of the strengths and weaknesses listed by the rating agencies. From among older euro area member states, the ratings of the Baltic States remain closest to those of Greece, Italy and Portugal. The living standards of Estonia, Latvia and Lithuania are similar to Portugal and Greece. As for countries outside the European Union and the euro area, comparison with the wealthy Iceland is the most noteworthy (see Table 1). Table 2 presents a summary of the strengths and weaknesses of those countries' ratings based on the latest reports by Fitch Ratings. The key conclusion is that euro area membership is crucial in affecting the sovereign rating, to a great extent outweighing any other weaknesses of an economy. Thus, the sovereign ratings of the Baltic States should rise upon the adoption of the euro. According to Fitch Ratings they may increase by one or two levels. Moreover, Standard&Poor's has concluded based on a mechanical analysis that should Greece, Italy, Portugal and Spain, current members of the euro area, decide to abandon the euro, this might lower their sovereign ratings by one to four levels[10]. A comparison with Iceland who is not a member of the EU or the euro area but whose external balance indicators are also weak, confirms that another way to increase the sovereign rating is the rise in living standards. A higher level of income per resident is indicative of the prosperity, versatility and flexibility of an economy necessary for withstanding unfavourable economic situations.

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[10] Report by Standard&Poor's „Breaking Up Is Hard To Do: Rating Implications of EU States Abandoning The Euro", 24 November 2005.

Table 2. Factors supporting and weakening the sovereign ratings of selected countries

	Estonia	Latvia	Lithuania
Sovereign rating	A/stable	BBB+/stable	A/stable
GDP per person based on purchasing power parity, 2007 (forecast), EU-25 = 100	68.8	57.0	57.3
Supporting factors	Balanced state budget and very low public debt Fast GDP growth; income convergence towards EU levels High-quality banking system in foreign ownership Free market economy which may significantly foster direct foreign investment inflow	Strong public finance, low government debt, public sector external assets Income convergence towards EU levels	Constant real GDP growth and income convergence towards EU levels Strong public finance, low government debt Banking system in foreign ownership
Weakening factors	Accession to the euro area postponed at least until 2012 because of high inflation Great current account deficit Large and increasing private sector external debt	Great current account deficit Great banking sector and private sector external debt High inflation which postpones euro area accession Low external liquidity, great short-term debt burden	Inflationary pressures which postpone accession to the euro area Large current account deficit, growing private sector external debt Weak external liquidity

	Italy	Greece	Portugal
Sovereign rating	AA-/stable	A/positive	AA/stable
GDP per person based on purchasing power parity, 2007 (forecast), EU-25 = 100	98.2	85.5	69.3
Supporting factors	Wealthy, broad-based economy Low inflation, euro area member Debt management, access to the euro area capital market	Fast GDP and income growth per capita EU and euro area member Majority government with strong economic control Successful privatisation and product market reforms Successful investments, growth of productivity, immigration	Member of EU and euro area Pro-reform majority government Strong banking system

	Italy	**Greece**	**Portugal**
Weakening factors	High public debt Deteriorating competitiveness Inflexible product market Political resistance to the public sector's cost refom	Government debt over 100% of GDP (according to the old calculation system), but budget deficit now below 3% Weak public administration, deficient labour market refom, problems with the reliability of statistical data Active borrowing in the private sector, great private consumption, fast wage growth, appreciating real exchange rate Corruption and black economy	Weak public finance, budget deficit exceeds the EU 3% reference value Ineffective public sector Low GDP per capita compared to Western Europe Low productivity

	Hungary	**Iceland**
Sovereign rating	BBB+/negative	A+/stable
GDP per person based on purchasing power parity, 2007 (forecast), EU-25 = 100	63.1	123.0
Supporting factors	High GDP ratio per person in view of the rating level Versatile economy, integrated with the EU High level of direct investment Impeccable public debt servicing	Sustainable public finance Floating exchange rate Effective institutions Great growth potential for energy-consuming industry
Weakening factors	Weak public finance Large current account deficit, external debt, need for external financing Low external liquidity, great sensitivity to confidence changes Bank loans mainly in foreign currencies	Banks' great dependance on market financing Unsustainable current account deficit High net external debt

Sources: Fitch Ratings, Eurostat.

FINANCIAL STANDING OF ESTONIAN AND POLISH COMPANIES – A COMPARATIVE STUDY

Grzegorz Golebiowski

INTRODUCTION

In any economy, enterprises are the mainstay of prosperity. Unsurprisingly, an economy derives its health from the well-being of its companies. In fact, this phenomenon is of a reciprocal natu-re, i.e. a more functional and competitive economy will foster the effectiveness of its corporate network.

The financial standing of a business can be assessed in a variety of fashions. The limited volume of this study – as well as restricted access to quantitative data adequately comparable for both corporate systems under analysis – does not permit of an exhaustive recourse to relevant met-hodology. A fairly reliable perspective can, however, be formulated through a classical set of fi-nancial ratios. They tend to shed light on such variables as financial liquidity, management skills or profitability: a yardstick of economic effectiveness.

Comparative analysis of Estonian and Polish companies

Liquidity stands out as the most critical area in assessing the financial fitness of a corporate entity. The relevant analysis has been performed from the standpoint of payment liquidity.

Table 1. Corporate liquidity ratios in Poland and Estonia in 2002–2005 (by personnel headcount)

Item		Poland 2002	Estonia 2002	Poland 2003	Estonia 2003	Poland 2004	Estonia 2004	Poland 2005	Estonia 2005
Current liquidity ratio (Level 3)	Average	1.07	1.3	1.12	1.33	1.25	1.36	1.34	1.42
	<49	1.05	1.30	1.01	1.35	1.15	1.39	1.33	1.43
	50–249	1.15	1.30	1.19	1.31	1.3	1.36	1.32	1.31
	>250	1	1.3	1.17	1.3	1.3	1.31	1.38	1.45
High liquidity ratio (Level 2)	Average	0.77	0.9	0.83	0.94	0.91	0.95	1	1.04
	<49	0.76	0.87	0.75	0.92	0.83	0.96	0.97	1.03
	50–249	0.82	0.85	0.86	0.87	0.94	0.89	0.98	0.89
	>249	0.73	1	0.88	0.99	0.96	1.01	1.05	1.15
Cash ratio (Level 1)	Average	0.2	0.3	0.2	0.27	0.3	0.28	0.3	0.34
	<49	0.22	n/a	0.21	n/a	0.25	n/a	0.31	n/a
	50–249	0.2	n/a	0.23	n/a	0.27	n/a	0.28	n/a
	>249	0.18	n/a	0.25	n/a	0.33	n/a	0.36	n/a

Source: independent calculations based on corporate balance sheet data from 2002–2005 (available from the Polish and Estonian Statistical Offices)

Liquidity ratio performance does not differ substantially on a cross-country basis. Nevertheless, the trend has been upward, which is – unquestionably – good news. Taking into account aggre-

gate data for companies in both countries, the higher-level liquidity ratios reported for Poland have trailed behind their peers in Estonia. In 2005, this gap amounted to 0.08 and had been contracting slightly on a year-on-year basis. High-level liquidity ratios also tend to be lower in Poland. In assessing corporate liquidity, the gap between both ratio types is oftentimes highly indicative. Such a gap is relatively wide for Polish enterprises. This stems from a larger proportion of inventories in their working capital. In Poland, the largest inventory counts are reported by farming, fishery and industrial processing, while in Estonia: trade, industrial processing, mining and fishery. Level 1 liquidity for companies in both countries has performed similarly along the analyzed time series. In both countries large companies tend to display superior liquidity versus small businesses.

Seamless inventory use has direct impact on liquidity on the one hand, and on overall management effectiveness, on the other. The most general ratio summarily attesting to this aspect of corporate activity is the asset turnover/efficiency/productivity ratio.

Table 2. Asset turnover ratios for Estonian enterprises in 2000–2005

Item		2000	2001	2002	2003	2004	2005
Asset turnover ratio	Average	1.51	1.51	1.48	1.36	1.27	1.29
	<49	1.96	1.81	1.72	1.55	1.45	1.55
	50–249	1.88	1.84	1.81	1.75	1.65	1.55
	>250	0.88	0.93	0.99	0.96	0.95	0.95

Source: independent research based on the data of Statistics Estonia

Lower inventory counts or better inventory management might be a function of superior management practices per se or of disparities in corporate structures in both countries and/or shorter inventory turnover cycles[1]. No matter their true cause, the fluctuations can be monitored via varying asset turnover ratio results for companies from both surveyed countries.

The improved liquidity reported within the data set (capability of timely, i.e. prior to maturity, servicing of liabilities) is not owed to higher asset productivity. Asset productivity reported by Estonian companies fell during 2000–2004. In fact, 2005 initiated a reversal of this unfavourable trend. The Polish situation is none the better: in 2004–2005 asset turnover ratios stood at 1.25 and 1.21, respectively, meaning that towards the end of the surveyed period asset productivity declined.

Enterprises will better their economic standing as their productivity ratios improve. They are also able to operate with similar success when a relatively fixed pattern of turnover ratios is accompanied by rising turnover volumes. Consequently, the favorable operational development generates surplus cash flows.

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[1] The assessment of financial standings is far from being exhaustive and its aim is to identify overall trends and tendencies.

Table 3. Revenue dynamics reported by Estonian companies during 2001–2005 (%)

Item		2001	2002	2003	2004	2005
Revenue dynamics	Average	114.4	112.5	108.1	117.7	118.5
	<49	116.7	113.9	104.1	116.8	122.1
	50–249	115.9	108.7	111.3	120.1	112.3
	>250	106.3	114.1	115.4	116.8	118.2

Source: independent research based on the data of Statistics Estonia

Table 4. Revenue dynamics reported by Polish companies during 2000–2005 (%)

Item	2001	2002	2003	2004	2005
Revenue dynamics	100.7	102.4	112.7	116.4	105.5

Source: independent research based on the data of the Polish Central Statistical Office

The comparison demonstrates superior performance on the part of Estonian businesses. The sales growth of Estonian companies outpaced that of Polish enterprises virtually throughout the surveyed period. The sole exception was 2003 when Polish companies showed more vigorous sales growth than their Estonian peers. Nevertheless, the trend initiated in 2003 proved all but sustainable. In 2005, the growth slowed down. Conversely, the Estonian growth trend powered ahead since 2003. The driving force behind this unabated expansion is not clearly identifiable, yet large entities (employing over 250 staff) appear to have the dominant effect on soaring revenues.

Table 5. Net profitability of sales in respect of enterprises in Estonia and Poland during 2002–2005 (according to NACE; %)

	Estonia 2002	Poland 2002	Estonia 2003	Poland 2003	Estonia 2004	Poland 2004	Estonia 2005	Poland 2005
Average	6.00	-0.30	7.08	2.00	7.49	4.80	8.07	4.00
Farming	6.91	-2.80	4.83	-3.90	9.01	5.00	8.90	2.00
Fishery	1.78	-5.30	4.14	5.50	-0.46	2.60	4.32	10.10
Mining	1.87	-1.30	4.55	28.50	6.35	13.80	8.90	12.30
Industrial processing	5.72	0.70	5.79	2.20	5.32	6.00	6.03	4.70
Energy generation & distribution	-2.35	0.30	9.04	1.50	7.14	3.60	10.72	4.10
Construction	5.19	-2.00	5.11	-0.50	5.33	2.10	6.72	2.50
Trade & repair	3.65	0.00	3.44	0.50	4.15	2.30	3.95	2.00
Hotels & restaurants	6.35	-1.60	7.41	-0.20	5.48	7.40	10.57	6.40
Transport, storage and communications	n/a	-6.60	n/a	1.50	n/a	7.80	n/a	5.40
Financial intermediation	n/a	3.30	n/a	3.40	n/a	8.70	n/a	1.10
Real estate services	19.63	-0.30	28.94	5.00	35.99	7.10	40.01	6.80

Sources: independent research based on financial reporting contained in publications by the Polish Central Statistical Office and Statistics Estonia for 2002–2005.

With slower revenue dynamics and inferior revenue margins, Polish enterprises are ill-poised to generate free cash flows.

In 2005 alone, sales margins posted by Estonian enterprises averaged 8% and were twofold higher than the Polish peer group. In 2003, the Estonian ROS topped threefold its Polish benchmark – where only starting 2003 cumulative ROS tested positive territory. The rift may be caused by the high proportion of costs borne by an average Polish enterprise – with particular encumbrance due to payroll taxes. In Estonia, such taxes are limited to a single transfer, which is subsequently redistributed among various government agencies. Poland has a complicated system of a myriad of payroll-related levies; furthermore, their overall scale is significantly higher than in Estonia.

The Estonian ROS peaks at 40% for real estate services, whereas in Poland the best performance was in 2005 posted by the mining industry – at a comparatively lacklustre 12%. The highest costs in Poland were paid by the financial intermediation sector – its ROS was a meagre 1.1% –, while in Estonia highest costs were witnessed in trade – slightly over 3%.
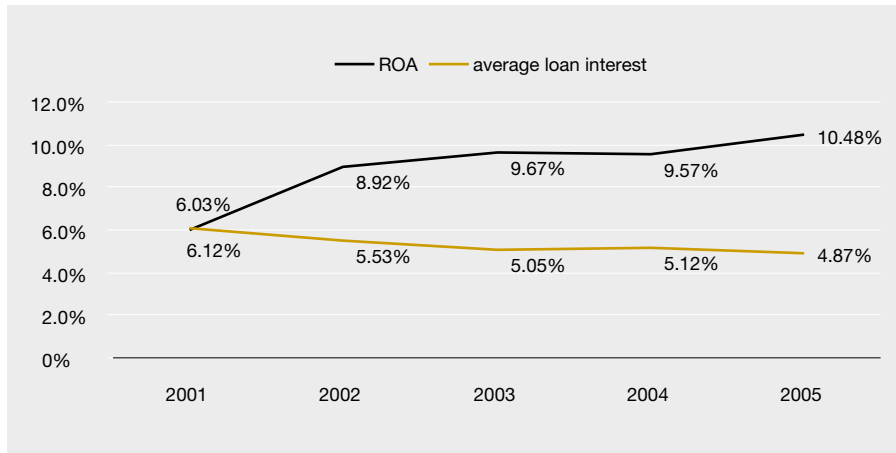
Figure 1. Asset profitability posted by Estonian enterprises during 2001–2005 (against average cost of credit)

Source: Independent research based on reports submitted to Statistics Estonia

Corporate economic potential (gauged via ROA) tends to be higher among Estonian companies. Additionally, they have access to more "spare capacity", as their ROA has, throughout the surveyed period, been higher than average and this ratio has consistently improved. In such circumstances, enterprises can rely harder on external funding (leverage), thereby enhancing ROE.
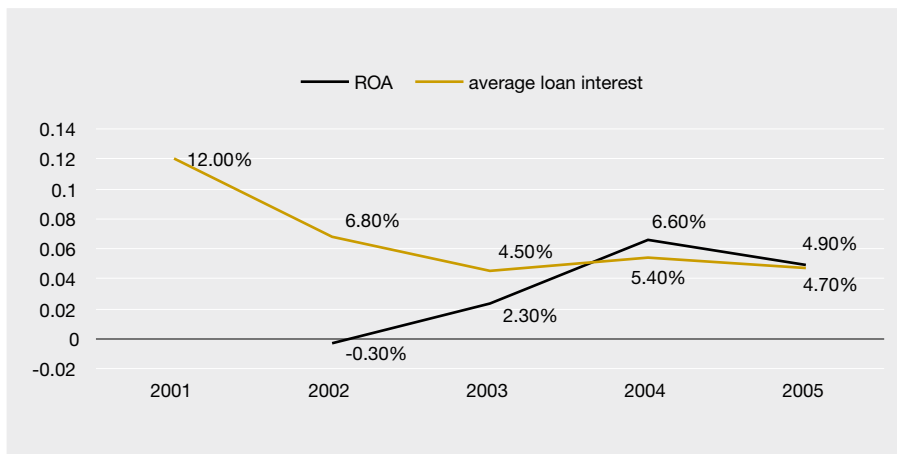
Figure 2. Asset profitability posted by Polish enterprises in 2001–2005 (against average cost of credit)[2]

The profitability of assets, as other ratios expressing the financial standing of Polish and Estonian companies, differs significantly between both countries. The proportion of aggregate operating profits to total corporate assets in Poland equalled a paltry 5% in 2005, while the same relationship with regard to Estonian companies was twofold higher. ROA across most economic sectors in Poland happened to be negative in 2001–2002, whereas in Estonia such results were noted solely by the infrastructural sector in 2002–2003. While Estonian companies' assets are gaining in profitability, their Polish peers have been displaying an opposite trend. In both countries, mining companies seem to have fared the best, while improvement was discernible in construction and industrial processing. It is noteworthy that construction recorded a ROA of 17%, the maximum for this ratio in Estonia across the analysed data set; the Polish ROA maximized at 10% (the mining industry), with a clear downward trend.

Efficiency measured through ROE ratios is also superior for Estonian businesses, which comes as no particular surprise taking into account the previous ROA results. While the average Estonian ROE posted in 2005 exceeded 20%, in Poland it was twice lower, or (in 2001–2003) downright negative. During the equivalent period, the ratio for Estonian companies topped 12%. Given the large exposure of the Estonian corporate universe to foreign capital, the reason behind this phenomenon is easily explainable. The role of a foreign investor usually goes beyond passive funding and usually involves hands-on restructuring, which, in turn, has a beneficial impact on the operational side and financial profitability.

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[2] The cost of credit has been estimated using a 3M Warsaw Inter Bank Offered Rate (WIBOR) adjusted by a 0.5% fee for each year of the surveyed period and by appropriate Corporate Income Tax Rate rates.

Table 6. Average return on equity reported by Estonian and Polish enterprises in 2002–2005 (according to NACE; %)

Item	Estonia 2002	Poland 2002	Estonia 2003	Poland 2003	Estonia 2004	Poland 2004	Estonia 2005	Poland 2005
Average	18.81	-0.90	19.38	-0.80	19.06	12	20.94	9.50
Farming	18.83	1.70	10.88	-1.50	19.54	3	17.18	1.40
Fishery	10.33	0.40	15.56	-11.80	-1.41	3.10	12.64	10.30
Mining	4.90	-3.90	12.38	-22.30	15.69	31.90	19.57	24.40
Industrial processing	20.42	-1.40	18.71	2.40	16.40	19.40	18.30	13.50
Energy generation & distribution	-1.67	0	7.04	0.50	5.75	4.40	7.84	5.10
Construction	35.57	-4.90	29.26	-9.90	27.37	10.90	34.98	12.30
Trade & repair	28.53	2.40	23.70	0.30	27.61	16.80	27.37	13.50
Hotels & restaurants	17.63	1	18.79	-1.90	18.12	9.20	28.83	7.60
Transport, storage & communications	n/a	-6.60	n/a	-11.40	n/a	15.30	n/a	8.80
Financial intermediation	n/a	-9.40	n/a	5.10	n/a	16.20	n/a	14.50
Real estate services	19.79	0.40	19.91	-0.20	20.97	3.40	25.75	3.40

Source: author's own calculations based on financial reporting by businesses surveyed in 2002–2005 by the Statistical Offices of Poland and Estonia

Insight into key drivers affecting ROE can be gained while analyzing the DuPont model to disaggregate the ROE ratio[3] (shown below):

$$\frac{\text{Net profit}}{\text{Equity (average)}} = \frac{\text{Net profit}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Total assets}} \times \frac{\text{Total assets}}{\text{Equity (average)}}$$

The equation demonstrates an evident link between ROE and ROA. The sole difference between both ratios is limited to the way in which assets are financed, represented by the quotient of assets over equity. The equity coefficient rises proportionately to the share of leverage in the asset financing structure.

In other words, the formula helps display reciprocal relationships between equity and sales profitabilities as well as operational efficiency (the financing structure). Interestingly enough, a given profitability (i.e. rate of return) can be achieved by a company through various combinations of profit margins, asset turnovers and capital structures.

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[3] Cf. e.g. G. Golebiowski, P. Szczepankowski, Analiza wartosci przedsiebiorstwa, Warsaw, Difin 2007.

As at 2004 in Poland:

$$\frac{72,200[4]}{601,500[5]} = \frac{72,200}{1,513,807} \times \frac{1,513,807}{1,214,520} \times \frac{1,214,520}{601,500}$$

i.e. 12% (ROE) = 4.77% x 1.25 x 2.02.

As at 2005:

$$\frac{63,823}{674,822} = \frac{63,823}{1,598,878} \times \frac{1,598,878}{1,318,404} \times \frac{1,318,404}{674,822}$$

i.e. 9.46% (ROE) = 3.99% x 1.21 x 1.95.

A multiplication formulated as Z = a x b x c permits a causal analysis of Z deviations e.g. using logarithms, wherein:

$$\Delta Z_a = \Delta Z \times \frac{\log \frac{a_1}{a_0}}{\log \frac{Z_1}{Z_0}} \; ; \quad \Delta Z_b = \Delta Z \times \frac{\log \frac{b_1}{b_0}}{\log \frac{Z_1}{Z_0}} \; , \quad \Delta Z_c = \Delta Z \times \frac{\log \frac{c_1}{c_0}}{\log \frac{Z_1}{Z_0}} \; .$$

Using the aforementioned elements of the DuPont equation for Polish companies, an aggregate deviation of equity can be calculated for the surveyed period. It thus amounts to:

$$\Delta Z = \text{ROE}_{2005} - \text{ROE}_{2004} = 9.46\% - 12.0\% = -2.55\%.$$

Partial deviations are as follows[6]:

Effect of change in sales profitability (factor a):
$\Delta Z_a = -0.01901$

Effect of change in asset turnover (factor b):
$\Delta Z_b = -0.00293$

Effect of change in capital coefficient (factor c):
$\Delta Z_c = -0.00352$

Consequently, the fall in equity profitability has been primarily owed to eroding sales profitability, followed by drops in the capital coefficient and slower asset turnover.

The respective calculations of equivalent relationships concerning Estonia are as follows:

Item	ROE	ROS	Turnover	Coefficient
2004	19.06%	7.49%	1.28	1.99
2005	20.94%	8.07%	1.30	2.00

$$= ROE_{2005} - ROE_{2004} = 20.94\% - 19.06\% = 1.88\%.$$

Partial deviations are as follows:

Effect of change in sales profitability (factor a):
ΔZ_a = 0.014891

Effect of change in asset turnover (factor b):
ΔZ_b = 0.003287

Effect of change in the capital coefficient (factor c):
ΔZ_c = 0.000575

Equity profitability growth has been primarily fuelled by increasing sales profitability, followed by rising asset turnover and – in the least – a growing capital coefficient.

The capital coefficient, mirroring corporate asset structure, is, on average, similar for Polish and Estonian companies. The present research indicates, however, that it is the Estonian corporate network that is better equipped to upgrade its future effectiveness inter alia thanks to available recourse to financial leverage, which has been tapped on a moderate scale there. Polish enterprises ought to seek opportunities for bolstering their sales margins and operating skills, which is likely to translate into gains in overall efficiency.

CONCLUSION

The comparative study demonstrates relative superiority on the part of the Estonian corporate sector; not only does it deliver better financial results, but it is more likely to finance research and development (R&D), which has a favourable impact on long-term profitability, operating flexibility and efficiency. On average, Polish enterprises have only in the past 3-4 years operated at a profit. The driving force behind the Polish profitability rally has clearly been European Union accession; in the Estonian case the proximity and commitment of Nordic investment appears to have played an important role. Basic ratio analysis performed for both countries accentuates the significance

of overall "friendliness" of a country's business climate and, hence, its attractiveness to foreign investment; such factors (to a considerable extent) tend to determine corporate turnovers and capital structures. Technological backup to domestic enterprises, promotion of industrial and services sectors pursuing state-of-the-art technology, along with regulatory and administrative flexibility and support to innovative start-ups (usually inexperienced and lacking access to traditional financing sources) all represent key determinants of competitiveness – both at sectoral and pan-economic levels. In analysing the competitive positions of both countries, one must not abstract from their broader socio-cultural settings. Corporate governance, judiciary and business ethics standards are, beyond doubt, responsible for day-to-day corporate practice at decision-making (i.e. human) level. By various measures in this respect[7], Estonia has consistently ranked far above Poland.

Corporate development in Estonian and Poland is, to a substantial degree, a function of key macroeconomic variables. Polish companies operate in a low-inflation environment (moderate inflationary pressures are currently afoot), while in Estonia inflation control has remained a paramount and lasting challenge. A currency board (the Estonian case) eliminates the leeway for "hands-on" monetary policy – a resource still being available to Poland. Nonetheless, Estonia has a history of low public indebtedness and comfortable budgetary surpluses, which is a proxy for limited government involvement in free-market activity. The Polish market for corporate debt instruments is disproportionately (to the needs of Polish companies) underdeveloped, chiefly due to the soaring public debt and, consequently, large issuance of high-yield short-term government bonds (thereby stifling growth of corresponding instruments on the corporate side). The classical "crowding-out effect" is likely to persist in Poland (taking into account government ambitions as to nationwide investment and social spending). The most likely loser in this game will be the Polish small and medium enterprise segment. The current attempts at a more flexible labour market (and lower wage costs) might also prove harder to accomplish. This is despite the generally high level of labour-related spending, which does not appear to be easily controllable – primarily on account of wage pressures, thereby prices, which might ultimately uncoil an "inflationary spiral".

Furthermore, erecting a knowledge-based economy implies ongoing commitments to education, research and the personal development of an individual employee. Estonia is far ahead Poland in this race. Estonia has put together a consistent scheme designed to promote entrepreneurship – specifically oriented toward job creation. Poland also lags behind in cooperation between companies and research centres. Many international firms have moved to set up their R&D facilities in Poland regarding it an optimal value-for-money location from the workforce quality viewpoint. Similarly to Estonia – the picture of falling unemployment is marred by a massive exodus of highly qualified employees in the wake of EU enlargement. Both labour markets are beginning to suffer

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[7] For further information, please refer to indices developed and published by Transparency International www. transparency.org.

shortages of specialists, an unwieldy legacy of obsolete high school and tertiary education curricula, especially in engineering.

Corporate activity is frequently also affected by a wider institutional and regulatory framework, its functionality and continuity. Estonian enterprises enjoy, with the exception of inflationary pressures, the comfort of a predictable political and regulatory environment, something strongly envied by their Polish peers. Last but not least, corporate existence (let alone development) is by definition vulnerable to excessive political and bureaucratic interference, which invariably consumes the time and effort of entrepreneurs. Both countries have a long way to go towards the "Old European" (EU 15) standards in the aforementioned context, yet the comparisons unequivocally place Estonia further down this road.

Stage 1	**Stage 2**	**Stage 3**
Armenia, Azerbaijan, China, Egypt, India, Kenya, Moldova, Mongolia, Pakistan, Ukraine, Vietnam	Argentina, Brazil, Bulgaria, Chile, Croatia, Lithuania, Mexico, **Poland**, Romania, Slovakia, Turkey	USA, Finland, Denmark, Singapore, Germany, Sweden, UK, Japan, France
	Albania, Colombia, Macedonia, Peru, Thailand	Czech Republic, **Estonia**, Hungary, Korea, Taiwan

Figure 3. Economic development stages according to the Global Competitiveness Index (GCI) as at 2006

Source: independent research inspired by B. Snowdon's interview with X. Sala-i-Martin, *The Enduring Elixir of Economic Growth*, World Economics Vol. 7, No. 1, January-March 2006.

The growth of individual businesses can foster nationwide economic expansion solely in propitious institutional and legal circumstances. Therefore, the competitiveness of individual business units has to fall back on functional administration at government level, where the authoritative ambits of free-market competition and basic economic efficiency tend to be delineated. In the Polish case, this top-level decision making process appears to be insufficient in coherence and completely lacking in long-term vision. Conversely to Estonia, whose economic roadmap drawn back in the 1990s has been consistently implemented – resulting in admirable macroeconomic prosperity and corporate robustness.

APPENDIX

HAVE YOU NOTICED THESE MATERIALS?

Below you can find a few links to additional reading for those interested in regular monitoring of economic processes in Poland and the Baltic States. We also recommend visiting the section on **Baltic economies** on the central bank's web site (http://www.eestipank. info/pub/et/dokumendid/virtuaalraamatukogubm/BaltimaadeMajandus/).

The central bank also provides a **virtual library** (http://www.eestipank.info/pub/et/ dokumendid/virtuaalraamatukogu/, only in Estonian).

World Bank EU8+2 regular economic report
[http://www.worldbank.org/eu8-report]
Published: four times a year
Notes: until 2007 titled "World Bank EU8 quarterly economic report"
Summary: World Bank new series aimed at monitoring economic and reform developments in the eight Central European and Baltic EU accession countries (the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, the Slovak Republic, and Slovenia). The report is prepared by a team of Bank economists in the region.

Baltic Rim Economies: Estonia – Latvia – Lithuania – Poland – Baltic Russia / Turku School of Economics and Business Administration [http://www.tukkk.fi/pei/bre/]
Published: bimonthly
Summary: The Baltic Rim Economies - bimonthly Review consists of concise information on recent macroeconomic development, and the reasons behind important movements and expectations concerning the near future. In addition, we inform our readers of interesting news concerning the business climate, legislation, corporate acquisitions and major foreign direct investments in the three Baltic States and Poland. Each bimonthly report includes 2-3 expert articles on current topics. The bimonthly Review is published regularly on the last weekday of every even month. The report is freely available on the Internet.

MAIN QUARTELY INDICATORS OF THE ESTONIAN ECONOMY as at 1 October 2007

	Unit	Period	Indicator	Change compared to the previous period (%)	Change compared to the same period last year (%)	Source
Gross domestic product						
Current prices	EEK m	Q2 07	60,873.8			ESA
Constant prices	EEK m	Q2 07	43,232.7	8.7	6.7	ESA
Production						
Volume index of industrial production (at constant prices (2000 = 100)	%	Q2 07		6.7	7.2	ESA
Investments in fixed assets (at current prices)	EEK m	Q2 07	9,827.5	12.8	6.2	ESA
Construction						
Construction activities of construction enterprises (at current prices)	EEK m	Q2 07	15,039	41.9	28.9	ESA
Usable floor area of completed dwellings	thousand m²	Q2 07	164.7	35.2	100.4	ESA
Usable floor area of non-residential buildings	thousand m²	Q2 07	271.2	18.5	16.9	ESA
Consumption						
Retail sales volume index (at constant prices, 2000 = 100)	%	Q2 07		12	17	ESA
New registration of passenger cars	pieces	Q2 07	21,864.0	21.8	3.2	ARK
Prices						
Consumer price index	%	Q2 07		1.9	5.7	ESA
Producer price index	%	Q2 07		2.4	8.5	ESA
Export price index	%	Q2 07		2.5	7.5	ESA
Import price index	%	Q2 07		1.6	3.2	ESA
Construction price index	%	Q2 07		2.1	15.2	ESA
Real effective exchange rate (REER) of the Estonian kroon	%	Q2 07		0.8	2.2	EP
Labour market and wages						
Employment rate (based on the Labour Force Survey)*	%	Q2 07	62.9	61.8	62	ESA
Unemployment rate (based on the Labour Force Survey)*	%	Q2 07	5	5.3	6.2	ESA
Registered unemployed (according to the Labour Market Board)	persons per month	Q2 07	13,133	-5.1	-17.5	TTA
% of population between 16 years old and pension age*	%	Q2 07	2	2	1.9	TTA
Average monthly gross wages and salaries (health insurance benefits excluded)	EEK	Q2 07	11,549	11.9	21.2	ESA

* Indicators of the period, not changes

	Unit	Period	Indicator	Change compared to the previous period (%)	Change compared to the same period last year (%)	Source
General government budget (net borrowing not included here)						
Revenue	EEK m	Q1 07	19,336.5	-8.7	24.6	RM
Expenditure	EEK m	Q1 07	18,610.8	-19	20.6	RM
Balance (+/-)*	EEK m	Q1 07	725.7	-1,804.7	87	RM
Period's revenue to the planned annual revenue*	%	Q1 07	27	29.5	21.6	RM
Transport						
Carriage of passengers	thousand	Q2 07	50,883	-5.2	-2.2	ESA
Carriage of goods	thousand tons	Q2 07	27,964	-3.4	23.7	ESA
Tourism, accommodation						
Visitors from foreign countries received by Estonian travel agencies	thousand	Q2 07	491.4	16.3	19.6	ESA
Visitors sent to foreign tours by Estonian travel agencies	thousand	Q2 07	134.7	5.1	14.4	ESA
Accommodated visitors	thousand	Q2 07	626.2	58.5	3.1	ESA
o/w foreign visitors	thousand	Q2 07	397.8	99.3	-4.1	ESA
Foreign trade (special trade system)						
Exports	EEK m	Q2 07	32,859.6	10.4	6.7	ESA
Imports	EEK m	Q2 07	45,653.9	9.4	7.1	ESA
Balance*	EEK m	Q2 07	-12,794.3	-11,973.8	-11,855.8	ESA
Foreign trade balance/exports*	%	Q2 07	-38.9	-40.2	-38.5	ESA
Balance of payments*						
Current account balance	EEK m	Q2 07	-8,548.7	-12,027.8	-7,847.9	EP
Current account balance to GDP	%	Q2 07	-14	-21.9	-15.2	EP
Foreign direct investment inflow	EEK m	Q2 07	7,650.9	8,779.4	3,374.4	EP
Foreign direct investment outflow	EEK m	Q2 07	-6,776.0	-3,488.6	-3,982.1	EP
International investment position						
Net international investment position	EEK m	30/06/07	-168,582.9	5.7	18.6	EP
Direct investment in Estonia	EEK m	30/06/07	162,995.2	5.9	9.3	EP
Net external debt	EEK m	30/06/07	235,230.8	9.5	35.2	EP
o/w government	EEK m	30/06/07	3,139.5	-34.2	-36.6	EP
EEK/USD average quarterly exchange rate	**EEK**	**Q3 07**	**11.4**	**-1.9**	**-7.2**	**EP**

ESA – Statistical Office of Estonia
ARK – Motor Vehicle Registration Centre
EP – Eesti Pank /Bank of Estonia
TTA – Labour Market Board
RM – Ministry of Finance