

LAPPEENRANTA UNIVERSITY OF TECHNOLOGY
Northern Dimension Research Centre
Publication 23

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**EU'S EASTERN ENLARGEMENT AND THE FUTURE
EXPANSION OF THE EUROZONE**

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Lappeenranta 2005

**ISBN 952-214-173-9 (paperback)
ISBN 952-214-174-7 (PDF)
ISSN 1459-6679**



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Contents

1	Introduction	4
2	The Legacy of Communism.....	6
2.1	External Economy and Central Planning.....	6
2.2	Exchange Rates.....	8
3	Monetary Integration of Europe.....	14
3.1	A Short History of EMU.....	14
3.2	The Creation of Eurozone	17
4	Current Economic Trends in NMSs	26
4.1	Economic Growth	26
4.2	Labour Market	29
4.3	Economic Stability.....	31
5	Exchange Rates in NMS-8	35
5.1	Official and PPP Adjusted Exchange Rates.....	35
5.2	The Future of Exchange Rates in NMS-area	43
6	New Member States and European Exchange Rate Mechanism.....	45
6.1	Eurozone Candidates in ERM.....	45
6.2	NMSs Outside of ERM	48
7	Conclusions	50
	Literature.....	54

List of tables and figures

Table 1. Eurozone GNP Comparisons in 1998.....	21
Table 2. Eurozone GNP Comparisons in 2001	23
Table 3. Gross Domestic Product (Annual Real Change in %).....	26
Table 4. Gross Fixed Capital Formation (Annual Real Change in %)	27
Table 5. Foreign Direct Investment Inflow, Based on the Balance of Payments	27
Table 6. Unemployment, LFS Definition, Annual Averages	29
Table 7. Labour Productivity in Industry.....	30
Table 8. Consumer Price Inflation (Annual Change in %).....	31
Table 9. General Government Budget Balance (% of GDP)	32
Table 10. Government Debt 2004 (% of GDP)	33
Table 11. Exchange rates in NMS, 2000-2004	37
Table 12. Current Account (% of GDP)	41
Table 13. Eurozone GNP in 2004	50
Table 14. GDP per Head at PPP, 2004, USD	52
Figure 1. Foreign Direct Investment Stock per Capita in 2004	28

Foreword

The Northern Dimension Research Centre (NORDI) is a research institute run by Lappeenranta University of Technology (LUT). NORDI was established in the spring of 2003 in order to co-ordinate research into Russia.

NORDI's mission is to conduct research into Russia and issues related to Russia's relations with the EU with the aim of providing up-to-date information on different fields of technology and economics. NORDI's core research areas are Russian business and economy, energy and environment, the forest cluster, the ICT sector, as well as logistics and transport infrastructure. The most outstanding characteristic of NORDI's research activities is the way in which it integrates technology and economics.

LUT has a long tradition in conducting research and educating students in the field of communist and post-communist economies. From the point of view of these studies, LUT is ideally located in the Eastern part of Finland near the border between EU and Russia.

This book describes the creation of the eurozone and its possible expansion after the Eastern enlargement of EU in 2004. Malta and Cyprus, which became EU members in 2004, are not dealt within this short report, because these two countries have no communist past.

Lappeenranta, December 2005

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1 Introduction

In the spring 2004, the European Union received ten new members, eight of which (Estonia, Latvia, Lithuania, Poland, the Czech Republic, Slovakia, Hungary, and Slovenia) are transitional economies (TEs). Malta and Cyprus are the remaining two new EU member states (NMSs). These two countries are not dealt with in this short research report which attempts to shed light on possible enlargement of the European Monetary Union (EMU) in the TE-region.

The eight TEs mentioned above have a dissimilar history in the post-communist era. In the former Eastern Bloc, which collapsed in 1989, countries had their own national currency units in the period of central planning. In Poland, the currency is called zloty (international abbreviation PLN) In Hungary, there is forint (HUF). In the former Czechoslovakia, the monetary unit was koruna, or crown. After the break-up of the federation in the early 1990s, the Czech Republic has her own koruna (CZK), and Slovakia also a koruna as a monetary unit (SKK).

Slovenia is a former state of Yugoslavian Federation, which had money called dinar. Independent Slovenia created her own currency called tolar (SIT).

The Soviet Union collapsed in 1991. After that historical event, every single former state of the union created her own currency unit, which in Estonia is called kroona (EEK), lats (LVL) in Latvia, and litas (LTL) in Lithuania.

All these national currency units will probably be dismantled in the foreseeable future, because after the Eastern enlargement of the EU the eight TEs listed above have expressed their interest in entering the eurozone. This report deals with issues involved in this process. The main focus is on TEs in the Baltic Sea region: Estonia, Latvia, Lithuania and Poland. Slovenia is the best-off TE, and thus, a serious eurozone candidate. Thus, much attention is paid to Slovenia.

In the second chapter the communist system of foreign trade is described in a very short form. The legacy of central planning has obviously been a heavy burden for all transitional economies.

The third chapter provides a short history of EMU. Obviously, the main features of the common currency (euro) must be clarified, before the possible extension of the eurozone can be discussed.

The fourth chapter deals with the main economic trends in EU's new member states in the early years of the 21st century. In this context, an attempt is made to compare living standard in different parts of Europe. On the basis of this analyses it is estimated how the enlargement of the eurozone is likely to advance.

2 The Legacy of Communism

2.1 External Economy and Central Planning

In the communist ideology, the theory of imperialism played a major role. In the early period of Soviet power, it was pointed out that the first socialist country was surrounded by hostile powers. Thus, economic disengagement from the outside world became an important objective on the Soviet political agenda. In the Soviet model, economic processes were dominated by the hierarchical system of planning and management, the State planning unit (Gosplan) constituting the peak of the pyramid. There was no scope for independence of decision-making at the operational level, as all economic calculation was carried out at the level of national plan.

In the traditional concept of the Soviet planning, foreign trade had an interim role to play. The country imported in the 1930s machines from the West in massive scale in her drive to accomplish wholesale industrialization in the shortest possible time-frame. Complete import substitution was a prime aim.

In the Soviet system of central planning, a special scheme called State monopoly of foreign trade was established. This system was protectionist to an extreme: importing took place according to planners' preferences containing almost only investment goods. Exporting was a necessary evil only to finance essential purchases from abroad.

The State monopoly of foreign trade was exercised by specialized foreign trade organizations, each of which had exclusive right to export and import a defined class of goods. For example, Avtoexport had the monopoly to export and import automotive products, Sudoimport to deal with foreign trade of ships, Soyuznefteexport with oil and oil products, etc.

In this system of foreign trade, producers of exportables had no interest in exports, and the end-users of imported goods received often machines they did not need. Immeasurable waste was involved. In this context, it is useful to bear in mind that the Soviet Union in the Cold War period was far the richest country in the world as far as the resource base was concerned. It meant that the awkward part of the foreign trade, exporting, was rather easy to take care of: selling commodities, e.g. oil and natural gas on the world market was relatively easy. Even though the system was cumbersome, the almost endless resource base allowed the Soviet Union to keep a relative equilibrium in her foreign trade.

In the post-war period, the communist countries of the former Eastern bloc adopted the Soviet model of self-sufficiency and the system of State monopoly of foreign trade. The Soviet Union and her satellites established in the late 1940s a special integration system for the intra-communist trade called the Council of Mutual Economic Assistance (CMEA). This unit was called Comecon in the Western media and books.

The intra-communist foreign trade was made on the bilateral barter basis. To facilitate the integration of foreign trade into the overall economic plan, the CMEA-countries preferred to sign trade agreements with each others on the government level. It was evident that this system was unable to guarantee an optimal division of labour and efficient allocation of resources. In the intra-CMEA trade, quality and technological development played necessarily a secondary role only.

In the 1970s and 1980s, East-West trade expanded considerably. International banking community was ready to finance large-scale technology purchases of the communist countries from the West. However, the centrally planned economies were unable to use the Western machines optimally. In the 1980s, several CMEA-countries became credit unworthy: they were unable to service hard currency credits taken from the West. This hard currency crisis in the former Eastern bloc is one of the most important background factors in the collapse of communism in Europe.

In this insolvency crisis of the centrally planned system the role of the financial institutions was discussed. In the banking circles of the West the so called “umbrella theory” was mentioned: the creditors thought that the Soviet Union will bail out her satellites after over-extension of Western credits. This anticipated rescue operation did not take place. Umbrella did not function.

In this context it is important to note that the Baltic States (Estonia, Latvia, and Lithuania) became Soviet republics amid the World War II. Thus, these now independent states had no economic units with foreign trade rights in the Soviet context: export took place via Moscow and so did import.

One of the oddities of the Soviet foreign trade system was the foreign trade organization (FTO) Lenfintorg. This FTO was situated in St. Petersburg (formerly Leningrad). This firm had the right to import products from Finland in the framework of the so called “border trade”. This business was based on barter: if an enterprise in Leningrad (Estonia, Latvia, or Lithuania) had some exportables to offer to Lenfintorg, the seller was able to buy something

from Finland. Lenfintorg organised this barter fixing the prices for both export and import. This “border trade” done on barter basis was modest in value.

The aim here is to underline that the Baltic States were very effectively isolated from the global market in the Soviet period. Countries in Central Eastern Europe have thus had a better start in transition than the Baltic States: Poland, Hungary, Czechoslovakia etc. had national institutions, including their FTOs and own monetary units. The Baltic States had to create their own currencies in the post-communist era.

2.2 Exchange Rates

Every currency has a price, called the exchange rate, against other monetary units. In the post-war period, it was customary to fix exchange rate against US dollar. This was also done in communist countries. Soviet rouble followed the value of the dollar and satellite countries followed the rouble rate. Thus, Eastern bloc currencies were indirectly linked to the main currency of the world.

In market economies, exchange rates relate domestic to foreign prices, and they roughly indicate the purchasing power of the national currency in terms of foreign currencies. Exchange rates directly determine the profitability of foreign trade, and they largely influence the size and direction of trade. If a country is unable to balance her books in the external economy (import exceeds export income permanently and severely), the country must manipulate her exchange rate (devalue her currency). Devaluations have often taken place in the post-war period.

In the communist economies, exchange rates (ER) were never modified: the official ER rates remained the same for several decades. This meant that ERs in the East became totally alienated from the real life: they did not reflect anything in the price level in the surrounding world. Thus, a multiple ER system came into being in the last years of communist power. In Poland, for example, the official exchange rate was \$ 1 = zloty 3,3; the tourist ER was \$ 1 = zloty 33; the ER for old age pensioners was \$ 1 = zloty 66, and the black market rate was about \$ 1 = zloty 80-100. Private persons operated in the black market driven by profit motive: access to hard currency was profitable by definition via buying and selling of Western goods.

Western tourists received a “bonus” of factor 10 in communist Poland: this special rate attempted to keep visitors out of black market operations. A considerable amount of Polish-

Americans lived in communist Poland and exchanged their old age pension money into zloty. This “pressure group” got a bonus of factor 20 against the official ER. This odd ER tried to keep retired Americans out of the black market.

Communist countries were unable to work out a rational system of prices for the intra-CMEA trade. According to communist ideology, world market prices were unfair reflecting exploitation of poor countries by rich ones. However, within CMEA no “communist price system” was ever found. In intra-communist trade, world market prices were applied in an odd manner: the average world market price of the previous 5-year period was used for five years in CMEA goods exchange (for example, the prices used over the period 1966-1970 were based on the average world market prices which prevailed during 1961-65). In the early 1970s, the CMEA price system was changed amid the oil crisis: prices in the mutual trade were revised every year to adjust more quickly to world market changes.

In the system of central planning, local citizens and local enterprises were not allowed to trade their local money for foreign currencies. Citizens needed a permit to travel to the West, and these permits were difficult to come by. With the travel permit, a small sum of hard currency was sold. Enterprises needed a hard currency allocation to be able to get supplies from the West. These permits to make imports from the global market were continuously in short supply. The market for foreign exchange was suppressed; in other words, communist currencies were not convertible.

The foreign trade system based on State monopoly of foreign trade combined with non-convertible currencies in communist countries caused plenty of misallocation of resources, and thus, substantial welfare losses.

In all centrally planned economies were so called “hard currency shops” with various names, Intershop in East Germany, Pewex in Poland, Tuzex in Czechoslovakia, etc. These special shops were originally created to serve Western visitors who needed to do occasional shopping. Only Western currencies were accepted as means of payment in these special outlets.

However, all countries of Eastern bloc started printing vouchers which were valid in currency shops. High officials started getting part of their pay in these special “banknotes”. Hard currency shops expanded and the range of merchandise on offer in them grew. The population in communism was divided into two categories: those, who had an access to these special shops, and those who had not.

The vibrant “street bank system” in centrally planned economy offered extremely lucrative exchange rates to Western visitors. The black market rate of a dollar, D-mark etc. reflected the black market price level. The black marketeer in currency exchange business had access to local hard currency shop and bought Western drinks, cigarettes, coffee, etc. either for him/herself, or for further sale (on the black market). In the non-market economies of central planning with permanent shortages everything was available to high or even exorbitant prices. Black marketeers became by definition rich. This system was extremely far away of the idea of a just society. Speculation and moonlighting had a rapidly increasing trend in Eastern bloc in the last years of communism.

Therefore, it is not an accident that liberalisation of foreign trade and creation of convertible currencies had high priority in the early period of transition. Changes in this sphere were truly revolutionary in the early 1990s.

In the ER regime, there are two basic options, fixing and floating. Both methods are in use in the global economy. Some details of these two methods are given below.

In a theoretical case, country A makes her inconvertible currency x convertible by using fixed ER method. In this case, an anchor currency (normally US-dollar) is needed. After selecting the anchor, the officials in country A declare that x (the local currency) can be converted at, say, 10 x to the dollar. In this case, any person who presents one dollar for exchange would receive 10 x, and vice versa, the officials would be willing to give one dollar in exchange for 10 x. In order to credibly make such a commitment, officials of A, which can print currency x but not dollars, must ensure that the market value of 10 x is not less than \$ 1; otherwise, there will be a run on hard currency, as people try to exchange 10 x for the more valuable dollar.

By committing to a fixed exchange rate, the government of A ties its hands not to inflate the currency x more quickly than world inflation; otherwise, the run would eventually occur. The fixed exchange rate therefore serves as a “nominal anchor”, i.e., it anchors the domestic price level by restricting printing of local currency x. In this context, the stabilization of expectations is the main argument in the fixed ER regime (convincing people that the state is committed to an anti-inflationary policy).

In this context it is important that country A has an ample currency reserve, which indicates to holders of domestic currency that the opportunity to obtain foreign currency at the fixed rate (10 x to a dollar) will continue to be honoured. In 1998, Russia applied a semi-fixed ER regime which collapsed about 8 months after it was launched. The monetary authorities

attempted to hinder the run against the domestic currency, but were unable to provide the market with adequate amount of dollars. Thus, the system collapsed and the rouble depreciated strongly (for details, see Tiusanen: Development of the Russian Rouble – the Crisis of 1998 and its Aftermath. NORDI publication No. 3, Lappeenranta, 2003).

Many economies employ floating exchange rates, whereby the value of the currency is determined in the market in which it is exchanged with other currencies. In this case it is not required that the country has substantial currency reserves.

It is not a very well-known fact that in the framework of fixed exchange rate regime a special scheme called “the currency board” can be applied. This system is of special interest here, because two of TEs under review here, Estonia and Lithuania, use the method.

The currency board arrangement (CBA) was originally a colonial invention designed to make monetary policy in far-off lands manageable. In its classical form, the CBA did away with the need for a Central Bank and was run by a few specialists from afar. The system was rejuvenated in 1983 in Hong Kong to stabilize an economy that had gone into tailspin over fears of the British colony’s hand-over to China. After this hand-over, Hong Kong has continued to have her own money based on CBA system.

A CBA is a monetary institution which issues domestic currency that is backed by foreign assets. The domestic currency is convertible to an overseas anchor currency at a fixed exchange rate. The currency to which the domestic currency is pegged is usually chosen for its international acceptability, convertibility and, above all, stability. The currency board’s reserves are equal to at least 100% of all the notes and coins (in local currency) in circulation, and thus, holders of local money know that eventual conversion into foreign currency is guaranteed. The currency board generates profits arising from the difference between the interest earned on its reserve assets and the expense of keeping the local notes and coins in circulation. Market forces determine the money supply, and the only true function of the board is to be able to exchange domestic money for the anchor currency at the given fixed ER. Currency boards do not act as lenders, either to the domestic banks or to the local government.

Thus, it can be maintained that currency board is a substitute for Central Bank: monetary policy-making is “surrendered” to the Central Bank of the anchor currency. The CBA is a strict system aiming at highest possible stability: inflationary printing of money is prohibited by definition.

In the sphere of ER regimes, there is a system called “crawling peg”. This system was used in Poland and Hungary in the 1990s, when TEs had the tendency to have rather high inflation rates, higher than in the West.

In the crawling peg system, the central ER is fixed but adjusted every month. In Poland, the “crawling peg rate” was 1,9% in 1994, which meant that the central ER was devalued with that speed every month. The aim of this system is to eliminate the harmful effect of the excessive inflation in the external value of zloty (Polish currency). The monthly depreciation of ER was made on the basis of inflationary expectations. The crawling peg rate was reduced step by step in line with the deceleration of the Polish inflation.

In this system, the so-called “creeping band” is also determined. In the mid-1990s, the creeping band in Poland was $\pm 7\%$ meaning that zloty was able to fluctuate 7% up and down around the central rate (allowing market flexibility). These fluctuation limits were widened to $\pm 10\%$ and the monthly devaluation rate moderated to 0,3% in 2000. With advancing price stability, crawling peg systems in Poland and Hungary were abolished several years ago. The system served well both countries in the 1990s when inflation rates in TEs were clearly higher than in their most important export markets of Western Europe.

In the mid-1990s, the Czech Republic applied a fixed ER regime (without CBA). In 1997, this country faced a serious deficit in her current account which caused capital outflow. The fixed ER policy had to be abandoned and replaced with a floating system, which depreciated the local currency and caused an economic slump. Equivalent crisis was avoided in Hungary and Poland due to the described crawling peg regime.

Every national economy must have a relative equilibrium in her balance of payments on current account (CA). The overall current account cannot remain in deficit indefinitely. Deficits must be financed by equivalent capital import (via inward investment and/or loans from overseas). Currency devaluations normally take place when CA deficits are out of control.

CA development trends in countries under review will be discussed below. Therefore, it is necessary to give a short definition of current account:

A country’s current account measures its international trade in goods and services over a given period. Current accounts measure “visible” trade, such as imports of apples and

televisions, and “invisible” trade, such as income from services, dividends earned from investments abroad, etc. The current account also includes private transfers, such as money sent home by someone working abroad. In addition, it includes official transfers, such as a country’s payments to international organisations and interest payment on a country’s foreign debt.

3 Monetary Integration of Europe

3.1 A Short History of EMU

In the 1st of January 2002, euro banknotes came into circulation in 11 EU-countries, which had joined the common currency area. This event was an important milestone in European integration, a sign of the “deepening process” of the EU. Three member states, Denmark, Sweden and the UK, stayed out the EMU’s (European Monetary Union) frame. Greece joined the eurozone with a delay.

The road to European common currency has been a stony one. Some details of this stony road have to be discussed here, in order to get a basis for an eventual Eastern enlargement of the monetary union. The aim here is not to cover all aspects of the history of EMU.

Already in the late 1960s, EEC (European Economic Community with six member states) decided that a plan to establish an economic and monetary union is in need. The Werner Report (whose author was the Luxemburg Prime Minister) of October 1970 looked forward to fixed parities among national currencies (of EEC-countries) in preparation of a currency union. The Werner plan was reinforced in the summer of 1971 when the convertibility into gold of the dollar was formally suspended.

Before that, US dollar had a fixed gold parity (\$ 35 per fine ounce of gold). In the post-war decades, the world demanded dollars for use as an international reserve. During this period, US balance-of-payments deficits nourished the rest of the world with a much-needed source of growth of international reserves. Thus, US liabilities to foreigners continued to grow, eventually reaching a level that greatly exceeded the gold reserves backing these liabilities. Yet as long as the increase in demand for these dollar reserves equalled the supply, the lack of gold backing was irrelevant. In the late 1960s, US political and economic events (Vietnam War linked with inflationary pressure) began to cause problems for dollar’s international standing. Continuing US deficits were not matched by a growing demand for dollars, so that pressure to convert dollars into gold (at gold parity mentioned above) and a consequent falling gold reserve resulted in the dollar being declared officially no longer exchangeable for gold in August 1971 (the end of “dollar convertibility”).

Throughout the post-war period the capacity of US to fight foreign wars, maintain troops abroad and finance its foreign policy had been dependent on the willingness of its allies to

hold American dollars and dollar-denominated assets with or without dollar's "gold convertibility". The role of the dollar as the key currency of the globe has permitted the United States to live far beyond its means and thus to become the world's foremost debtor nation (in absolute, not in relative terms). As the American debt has been denominated in dollars, which is freely floating since the early 1970s (without any monetary link to gold), this US debt burden could be inflated partially away, which could impose heavy costs on Japanese and other lenders. However, in the last decades of the 20th century there was a rather high confidence in the dollar among dollar holders outside the United States. There has been a clear diversification of the currency composition of foreign-exchange reserves since the 1970s with a rising share devoted to the German mark (DM) and the Japanese yen. However, the dollar has maintained its dominant position in international reserves. Obviously, this fact – the dominant position of the dollar – is a background factor of utmost importance in the creation of the European monetary union.

The first attempt to create preconditions for European monetary union (Werner Plan) failed. This scheme is often called the currency snake (or snake in the tunnel), because it asked central banks (of EEC-members) to keep their currencies within narrow bands. Thus, the system was a managed floating, in which the "tunnel" (the bands) was given and the "Snake" (market fluctuations within the limits) moved up and down. This "snake" system was short lived. In that time, there was plenty of turbulence. The EEC had its first enlargement process (Denmark, Ireland and Great Britain joined the club in January 1973) completed. The other major event that effected Europe (and the global economy as a whole) was the 1973 oil crisis, which caused an inflationary wave in OECD-countries.

A vital step toward monetary union was taken in the late 1970s, when The European Monetary System (EMS) was established. The EMS agreement came into force in March 1979. It can be described as an ante-room of the currency union, foundations of which were created in the 1980s. In that decade, the Community got three new members (Greece in 1981 and in 1986 Spain as well as Portugal).

The EMS contains two important components with abbreviations often used in economic texts dealing with European integration, one of them is the Exchange Rate Mechanism (ERM) and the other is the European Currency Unit (ECU or Ecu). Both of them need explanation.

The objectives of the EMS were threefold: stabilization of exchange rates through closer monetary cooperation among the member countries; promotion of further economic integration of the group; a contribution to the stabilization of international monetary relations.

In the EMS system, Ecu has a key role: it is a basket of member state currencies, each of which has a weight depending on the economic potential of the country (aggregate GDP), its share in intracommunity trade and the need for short-term monetary support. Alterations in the Ecu-basket may occur every five years or when the currency of a new member enters the basket.

In the Exchange Rate Mechanism (ERM), every currency has its own central rate versus other partner currencies and the Ecu. In the relation to the partner currencies could fluctuate within a $\pm 2,25\%$ band (some “weak” currencies were permitted to float within $\pm 6\%$ limit). When a currency reaches its limit (upper or lower) of fluctuation in relation to another ERM partner currency, then intervention in the national currency of one of the two central banks is compulsory. Intervention within the margins of fluctuation may be either in the national currencies of the ERM members or in dollars

The fluctuations of each ERM currency against the Ecu were differentiated. The strictest band was set for the D-mark ($\pm 1,5\%$). Special treatment with wider bands was provided for “weak” member states.

In the 1980s the exchange rates in the EMS (or ERM) can be said to be semi-fixed. The adjustments of the central rates took place according to need. If a currency within the system is in trouble, which may not be solved by intervention, then the system permitted adjustments of the central rate. These realignments took place relatively often in the early 1980s. In that decade, Italian lira lost value against D-mark roughly 40%, and the French franc over 30%. Thus, it can be said that in actual fact a “crawling peg” system (with no regular readjustments) was at work in the ERM.

In the 1980s it was evident that Germany was recognised by the international financial markets as possessing the anchor currency in the union, and thus its partners had no option other than to follow its lead or abandon the system. The German Bundesbank (Central Bank) had a strong, anti-inflationary track record ever since it was founded (in the immediate post-war period), and had earned the reputation as Europe’s key monetary authority. It is worth noticing in this context that the Bundesbank was clearly independent of local political influence and permanently required stability of D-mark. Markets knew this fact very well.

It can be concluded that in the 1980s all members of the ERM pursued policies to reduce their inflation rates to correspond to German levels. The deflations thus required have been substantial for some countries, but rather frequent devaluations (of ERM-currencies other than

D-mark) smoothed the adjustment process, and rescued the system (ERM) in the 1980s. It is important to point out here that with monetary union this policy choice (devaluation against the dominant currency, D-mark) is not available.

In this context it is necessary to make some remarks on German economic history. Germany experienced two devastating hyperinflations in the 20th century (both in post-war periods) and learned the hard way that general welfare and political stability are dependent on monetary discipline. After these historical lessons, there is the conviction that public sector borrowing should not be excessive and monetary policy should not be in the hands of politicians. In the 1970s and in the 1980s, Germany with her sense of economic stability was widely regarded in Europe as the country of “economic miracle”. This label came from the period of post-war reconstruction with plenty of proof for success.

In the mid-1980s, a White Paper on the completion of the Internal Market was prepared to guarantee the creation of a single Market within the EC, with free movement of capital, goods, services, and people. This programme with the title of the Single European Act came into force in July 1987, stipulating the completion of the frontier-free internal market by the end of 1992.

3.2 The Creation of Eurozone

In the turn of the 1980s and the 1990s, the most important events toward European monetary unification took place. In June 1989 at the Madrid Summit of the Council adopted the Plan for European Economic and Monetary Union. The first stage of this plan (starting January 1st, 1990) eliminated capital controls, and intensified monetary coordination through ERM mechanism. A timetable for political and economic unity was accepted at Maastricht Summit (December 1991) and embodied in the Treaty on European Union.

The Maastricht Treaty is in essence mostly about the monetary union. This Treaty stipulates the “convergence criteria” the members must meet to qualify as a participant of the final monetary union. These criteria are as follows:

1. Price stability

Inflation in each country concerned must not be more than 1,5 per cent above that of the three lowest EU countries.

2. Budgets

No government should run budget deficit beyond 3 per cent of that country's National Income (GDP).

3. National Debt

Public sector borrowing must not build up over the years to exceed 60 per cent of a country's annual income (GDP).

4. Interest rates

The market rate of interest for long-term government bonds of each country must not be more than 2 per cent above that of the three lowest EU countries.

5. Currency fluctuation

National currencies must not be devalued two years previous to union and must stay within the narrow bands instituted by the ERM.

In real life the progress toward monetary union has been far from smooth in the 1990s. In 1992, there was plenty of turmoil in European currency market. Great Britain, which had joined the ERM with the wider band (6%) in 1990, experienced heavy speculation against its currency (pound sterling) in September 1992. In this context, Great Britain and Italy left the ERM, which experienced an actual demise in 1993. To ease the strain, a way out was found in an increase in the margins: they were widened from $\pm 2,25\%$ to $\pm 15\%$ from the central parity.

These events of 1992-1993, which obviously threatened to derail the monetary union altogether, made a mockery of the ERM system. In this complex chain of currency market events, which cannot be dealt with in detail here, there was one background factor of utmost importance: the collapse of communism in Eastern Europe, which enabled the unification of two German states.

The East German (German Democratic Republic or GDR) economy with some 16 million inhabitants had in the 1980s an overvalued currency and limited competitiveness. The conversion (in a limited scale) of GDR-marks into D-marks at a one-to-one exchange rate was obviously politically motivated move. The creation of a currency union with two German states with widely different economic substances abolished the option of depreciation of the currency (in the former GDR), in order to prevent the old East German economy to collapse. Thus, massive fiscal transfers from West to East of Germany became necessary in the early 1990s.

It was obviously impossible to finance these heavy injections of money by taxation alone, and thus, government borrowing had to rise. Bundesbank (Central Bank) was unwilling to start

inflationary increase in money supply, and thus, heavy public sector borrowing meant that German interest rates rose. In this context, D-mark was strengthened (by money inflow) while other European currencies were under strain. At the same time, there was a widespread recession in Europe calling for low interest rates to boost economic growth.

Thus, the monetary unification of Europe in the early 1990s went through a difficult period, in which rigidly fixed borderlines for exchange rate fluctuations ($\pm 2,25\%$) were incompatible with existing diversity of economic policy-making needs. Due to the shock of unification (of German states) the Bundesbank showed its traditional independence of political decision making: it simply refused to finance the costs of unification via inflationary methods. Consequently, interest rates went up in Germany due increasing public sector borrowing. This was unfortunate for Germany's European partners fighting deflation and unemployment.

This situation created really perfect scenario for speculators. With semi-fixed (almost fixed) exchange rates it was potentially profitable to convert their funds into D-marks (with the reputation of "strong" currency) and wait for devaluation (of other European currencies) to take place. Increased interest rates and direct interventions of central banks did not suffice to defend weaker currencies in Europe (with the inflexibility of ERM).

After these unfortunate events of the early 1990s, Great Britain opted out of the EMU process agreed upon in Maastricht. Later on, Denmark organized a referendum on EMU membership, and after a negative vote, took the British road of currency independence.

In the middle of 1990s, the EC with a new name of EU (European Union) experienced an enlargement, when Sweden, Austria and Finland joined the club. Austria and Finland decided to join the euro system, while Sweden abstained.

Before this enlargement, a European Monetary Institute (EMI) was created to manage the EMS. In actual fact, EMI was an embryo of ECB (European Central Bank). In January 1994, EMI started to coordinate the monetary policies of member states. Each government had to tailor its economic policies to meet "convergence criteria" (stipulated in Maastricht treaty) under the guidance of EMI. In the spring of 1998, eleven members of the EU (Germany, France, Italy, Spain, Portugal, Austria, Finland, Luxemburg, Belgium, Netherlands, and Ireland) were declared to have met the convergence criteria, and thus qualified for the final stage of EMU. It is often pointed out that some "creative accounting" was used in this context: not all qualified national economies met the set criteria, especially the 60% clause (public sector debt was not supposed to be more than 60% of the local GDP), but were

nevertheless declared eligible to join. Greece was the only “applicant”, which was disqualified and got green light with a delay.

The next stage of EMU began January 1st, 1999 when exchange rates of eleven EMU-countries were irrevocably locked and the European Central Bank assumed full responsibility for common monetary policy. In this time, euro as a bookkeeping unit started to replace national currencies gradually. The final feature of the eurozone construction was painted January 1st, 2002 with the inauguration of euro also in cash form, in banknotes and coins. In that historical day the long and stony road of creating common currency in Europe experienced a happy ending.

In the euro system, the key element is the emergence of the ECB as a supranational body with key executive powers in the sphere of monetary policy. In this context it is of utmost importance to note that in core areas traditional state sovereignty has not been abandoned: the continuing relevance of the state as a unit of action in economic policy is confirmed by the absence of EU fiscal federalism. However, EMU members are supposed to appreciate EMU rules in their fiscal policy-making to guarantee regional stability.

It is a well-established fact that euro is floating against other currencies in the global market. In the early stage of euro, it lost value against dollar in rather strong manner. The fact that eurozone national currencies are dismantled, is the corner-stone of the EMU final stage. No country can improve her national competitiveness against partners within the zone via devaluation. This is a natural consequence of the monetary union.

The irrevocable fixing of exchange rates before January 1st, 1999 naturally contained certain risks. What was the value of every individual currency against each other's within the EMU? How was that value measured?

Before that crucial event (of fixing the rate), every individual currency of the zone had to be two years in ERM. With that rule, the final market value of every EMU member currency was measured in the managed floating manner (according to ERM rules). This method was obviously supposed to deliver some objectivity in the irrevocable fixing of the exchange rates (ER).

It is interesting to try to measure the relative over- and undervaluations of different currencies in 1998 (when the final fixing of ERs in the framework of EMU was done). A simple method in this context can be used: eurozone GNP figures calculated in US dollars per capita are

picked up from World Bank statistics (World Development Report 1999/2000) and compared with the same figures with purchasing power parity adjustment. These comparisons give an impression of ER distortions.

Table 1. Eurozone GNP Comparisons in 1998

	B) GNP per capita USD 1998	A) GNP per capita at PPP USD 1998	ERDI A/B 1998
Portugal	10.690	14.380	1,35
Spain	14.080	16.060	1,14
Greece*	11.650	13.010	1,12
Italy	20.250	20.200	1,00
Ireland	18.340	18.340	1,00
Belgium	25.380	23.480	0,93
France	24.940	22.320	0,89
Netherlands	24.760	21.620	0,87
Austria	26.850	22.740	0,85
Finland	24.110	20.270	0,84
Germany	25.850	20.810	0,81

Source: IBRD.

*Greece joint eurozone with a delay

In the above table, every eurozone country has individual exchange rate deviation index (ERDI) value. These figures have been achieved by dividing A-figures (GNP per capita, PPP adjusted in \$) by B-figures (GNP per capita “original” figures in \$). ERDI figures over one indicate that currencies are undervalued (every dollar has more purchasing power than the official exchange rate indicates). ER-deviation figures under one tell us that the currency in question is overvalued (local prices exceed the international level and thus local population has less purchasing power than the official ER presupposes).

Before the final locking of ERs in eurozone, two currencies (in 1998) had in fact an equilibrium exchange rate (Italy and Ireland), which means that in both cases ERs reflected local price level correctly. In six cases ERs showed signs of overvaluation. Far the clearest case of overvaluation can be found in Germany, the largest economy of the zone (with 82 million people): ER deviates almost 20% from the equilibrium. France, the second largest economy of the zone, also shows overvaluation but in a more modest scale (11%) than in Germany. Finland (16%), Austria (15%) and Netherlands (13%) had considerable overvaluation effects, while Belgium had a rather modest (7%) ER overvaluation in the ante-euro time (1998). Luxemburg, a member of the eurozone, is not included in the World Bank statistics.

The least developed members of the eurozone, Greece, Portugal and Spain, have in the table undervalued ERs, with 12%, 35% and 14% respectively. These three countries together have

a population of roughly 60 millions or the equivalent of France. The undervaluation in Portugal is with 35% rather high.

The most striking feature in the above table is the gross overvaluation of the German currency (19%). In the late 1990s, it had become clear that the formerly communist East Germany was a heavy burden and not a blessing for the unified German economy. This assumption is based on several background factors. Firstly, productivity in the GDR was much lower than assumed in Cold War period: it was assumed to be roughly 50% of the West German level, but in actual fact was only about 25-30%. Secondly, monetary union came along with the political unification of two German states. Thus, reconstruction of the East German economy could not be helped by manipulation of the ER (with devaluations of the local money, which was not in existence any more). Thirdly, the East German infrastructure was in a worse shape than expected. Fourthly, there was pressure to harmonize income levels in both parts of Germany.

Because of these factors, it was impossible to have a fast healing process carried out in the Eastern part of unified Germany. Combining Eastern (communist-time) productivity with Western income level is a so-called difficult equation. Even if state-owned assets were privatised extremely quickly in the former GDR, economic dynamism did not return immediately, because profitable activity was possible only in exceptional cases by combining local (East German) productivity with labour costs close to those in Western Germany.

Productivity can be improved by investing in infrastructure and in new technologies in production units. Huge sums of public sector funds have been invested to bring East German infrastructure to the level achieved in West Germany (about 600 billion euro in the first decade of unification). At the same time, private investments in the industry, especially in labour-intensive branches, have been extremely thin. Thus, unemployment has remained on a very high level in the Eastern part of Germany, while many skilled people have left to the West.

In our table on living standard it is noteworthy that France, Netherlands, Belgium and Austria are better off than Germany (in GNP per capita at PPP comparison). Finland and Italy are virtually on the same level with Germany.

When the relative position of Germany in this comparison of real living standard is taken into consideration, the remarkable overvaluation of D-mark (19%) looks absurd. One could

assume that the higher is the living standard, the higher the overvaluation of the currency. This assumed correlation finds no evidence in our figures from 1998.

In the interim period of euro currency 1999-2001 (during which ERs within the zone were fixed against each other, but the common currency was not yet visible in the form of cash, that is, banknotes and coins), there was a long and strong depreciation of euro against US dollar in the magnitude of some 30%.

When the overvaluation of the main eurozone currencies in 1998 is taken into consideration, the mentioned euro devaluation was not surprising. The level of the erosion of euro may be regarded as surprisingly high.

It is interesting to look at the living standard and ER figures of 2001, the last year of the interim period (before launching of euro in banknote form). Data in the following table is once more from World Bank.

Table 2. Eurozone GNP Comparisons in 2001

	GNP per capita US – dollars 2001	GNP per capita at PPP, US – dollars 2001	ERDI 2001
Portugal	10.670	17.270	1,62
Greece*	11.780	17.860	1,52
Spain	14.860	20.150	1,36
Italy	19.470	24.340	1,25
Belgium	23.340	28.210	1,21
Ireland	23.060	27.460	1,19
Austria	23.940	27.080	1,13
France	22.690	25.280	1,11
Finland	22.690	25.280	1,11
Netherlands	24.040	26.440	1,10
Germany	23.700	25.530	1,08

Source: IBRD.

*Greece joint eurozone with a delay

The 2001 figures have some really amazing features. All currencies of eurozone show ERDI figures with undervaluation stamp (index value over one). The lowest mark can be found in Germany (8% undervaluation) and the highest in Portugal (62%). Greece with 52% is not far away from the Portuguese mark. Spain has an over the average figure of 36% as well as Italy with 25%.

When the final stages of the monetary union were constructed in 1998, there was a rather common fear in many parts of Europe that euro will become “too strong” and thus, hamper competitiveness in the weaker countries of the eurozone. This fear did not materialize in the

interim period (1999-2001): Portugal, Spain and Greece have all clearly higher ERDI figures in 2001 than before (1998).

On the basis of the 2001 figures, it can be maintained that the overall price competitiveness of the eurozone has improved even dramatically. The high level of D-mark overvaluation of 1998 (19%) has turned around to a clear undervaluation (8%). Thus, it can be stated that the common currency in the interim period has helped the German economy or its competitiveness, in rather radical manner.

Real living standard comparisons (PPP adjusted GNP figures per capita) in 2001 have some surprising features. The best-off country of the zone is Belgium, followed by Ireland and Austria. Netherlands are not far away from these three leading countries. Germany is on the fifth place, virtually on the same level as France and Finland.

Jacques Delors (from France), who served as president of the EU Commission for a long time in 1980s and 1990s, once said that not all Germans believe in God, but they believe in the Bundesbank. This statement symbolizes the ante-euro period in Germany: there was a strong feeling that D-mark is a strong and stable currency forever. Giving it up and substituting it with a new common currency is risky business. In Germany there seems to be plenty of nostalgia toward the old “strong” D-mark. For example many Germans point out that they cannot enjoy the strength of D-mark any more when travelling abroad.

In this context some remarks are appropriate. When Germans travel to the Mediterranean region and visit countries of eurozone (Italy, Spain, Portugal, Greece) their own currency did not change in relative value in 1999-2001. This fact is rather well visible in two previous tables. When Germans travelled in that same time-frame to the USA, for example, was the relative decline of their money bitter reality: euro depreciated strongly vis-à-vis US dollar, which was also reflected in exchanges of D-marks into dollars during tourist trips.

In social sciences it is always possible to speculate with theoretical alternatives. Had Germany been unwilling to join the monetary union with the aim to maintain its strong national currency, there had been certain repercussions. The considerable overvaluation of D-mark in the pre-1998 years was hurting local export industry. The average annual growth rate of GNP was -0,4% per capita in 1997-1998. It can be assumed that overvaluation of D-mark was one of the causes of this deflation. In 1999-2000 the equivalent growth rate was positive (+2,9 per annum). Even if one cannot maintain that this turnaround was due to ER differences only, it can be stated that one way or the other there was an urgent need to bring the ER in Germany

to a more realistic (equilibrium) level than in the pre-1999 period. D-mark was simply too strongly overvalued in the 1990s.

The ER of the common currency has fluctuated really wildly since 1999. Euro's original value was € 1,18 to a dollar. Within two years (1999-2001) euro lost value almost permanently and hit a remarkably low level of 0,85 (per dollar) in the autumn 2000. In 2001 and in the early months of 2002, euro's ER remained very modest with 0,90 or below. In that time, it was rather common to hear that euro was "undervalued", while dollar was described as "overvalued".

In the summer 2002, euro experienced a clear recovery, which gained momentum in 2003. In the autumn of 2003, euro reached its original value of 1,18 to a dollar fluctuating between 1,10 to 1,18. At the same time, big euro countries, especially Germany and France, entered a stagnation phase with serious unemployment problems. Obviously, strong euro in 2003 was hampering export industries in the new currency area.

The short history of euro ER looks in statistical charts like a roller-coaster. Wild movements in euro-dollar relationship cannot be explained by business cycles in Europe and America: both markets have had little economic dynamism in the early years of the 21st century. The new common currency – euro – is obviously seeking her "real" value in the market. Probably, ER fluctuations will be milder in the future. Medium-term forecasts in this respect can hardly be realistically made.

In the turn of the century, it has become increasingly clear that Western Europe is an expensive region of labour-intensive activities with limited flexibility in the labour market. Eastern Europe is in many contexts mentioned as a favourable alternative of investment in Europe. Foreign investors have obviously taken this option seriously in the 1990s. Investment scene in TEs is highly interesting.

4 Current Economic Trends in NMSs

4.1 Economic Growth

In the early years of the 21st century, economic growth in NMS-region has been rather brisk. In 2001-2002, the average annual GDP growth rate in 8 countries under review was 2,4%, but accelerated to 4% in 2003 and further to 4,9% in 2004.

Table 3. Gross Domestic Product (Annual Real Change in %)

	2002	2003	2004	Index 2000=100 2004
Czech Republic	1,5	3,7	3,8	112,1
Hungary	3,5	3,0	3,9	115,0
Poland	1,4	3,8	5,4	112,0
Slovakia	4,6	4,5	5,3	119,5
Slovenia	3,3	2,5	4,2	113,3
NMS-5	2,1	3,7	4,8	113,1
Estonia	7,2	5,1	6,2	127,4
Latvia	6,4	7,5	7,8	133,2
Lithuania	6,8	9,7	6,6	132,8
NMS-8	2,4	4,0	4,9	114,5

Source: WIIW.

When the year 2000 is marked with 100, in the index counting the real GDP development, the overall index of 8 countries was 114,5 in 2004. The fastest growing countries can be found in the Baltic region, where the equivalent index figure was 133,2 in Latvia and 132,8 in Lithuania. Estonia with 127,4 is not far away of her two southern neighbours. The highest figure in the group NMS-5 is in Slovakia with 119,5. Poland (112,0) and the Czech Republic (112,1) have the lowest results in this index.

Poland, which had the best growth performance in the group (NMS-8) in the 1990s, had a near stagnation in 2001-2002. In 2003, the annual GDP growth accelerated to 3,8%, and in 2004 further to 5,4%. All NMS-5 members had a modest acceleration of growth in 2004. However, none of this group of five reached the Baltic States in 2004.

Table 4. Gross Fixed Capital Formation (Annual Real Change in %)

	2002	2003	2004	Index 2000=100 2004
Czech Republic	3,4	4,8	10,0	125,6
Hungary	8,0	3,4	10,0	129,0
Poland	-5,8	-0,5	5,1	89,8
Slovakia	-0,6	-1,5	4,0	116,0
Slovenia	3,1	6,3	6,9	121,9
Estonia	17,2	5,4	7,0	149,4
Latvia	13,0	10,9	15,0	160,6
Lithuania	11,1	14,0	14,0	163,9

Source: WIIW.

The Baltic States have a vigorous growth period in investment. The index (2000=100) describing the capital formation sphere shows in 2004 about 164 points to Lithuania. Also Latvia's investment growth since the turn of the century exceeds 60%. The equivalent figure in Estonia is close to 50%.

The highest index figure in the group of NMS-5 can be found in Hungary, a bit below 130, while the lowest marking is in Poland with less than 90. This country had a very strong investment boom in the 1990s, but a declining trend in 2001-2003. Yearly investment growth in 2004 was over 5%. The Czech Republic, Hungary, and Slovenia have investment growth every year in 2000-2004, while decline was registered in Slovakia both in 2002 and 2003.

Foreign direct investment (FDI) inflow in the countries under review shows strong fluctuations. This is not necessarily surprising.

Table 5. Foreign Direct Investment Inflow, Based on the Balance of Payments (EUR mn)

	2000	2001	2002	2003	2004
Czech Republic	5.404	6.296	9.012	2.289	3.800
Hungary	2.998	4.391	3.185	2.018	3.200
Poland	10.334	6.372	4.371	3.660	4.400
Slovakia	2.089	1.768	4.397	636	800
Slovenia	149	412	1.750	299	400
NMS-5	20.974	19.240	22.716	8.902	12.600
Estonia	425	603	307	797	700
Latvia	447	147	269	267	500
Lithuania	412	499	772	160	800
Baltic countries	1.284	1.248	1.347	1.224	2.000
NMS-8	22.258	20.488	24.063	10.125	14.600

Source: WIIW.

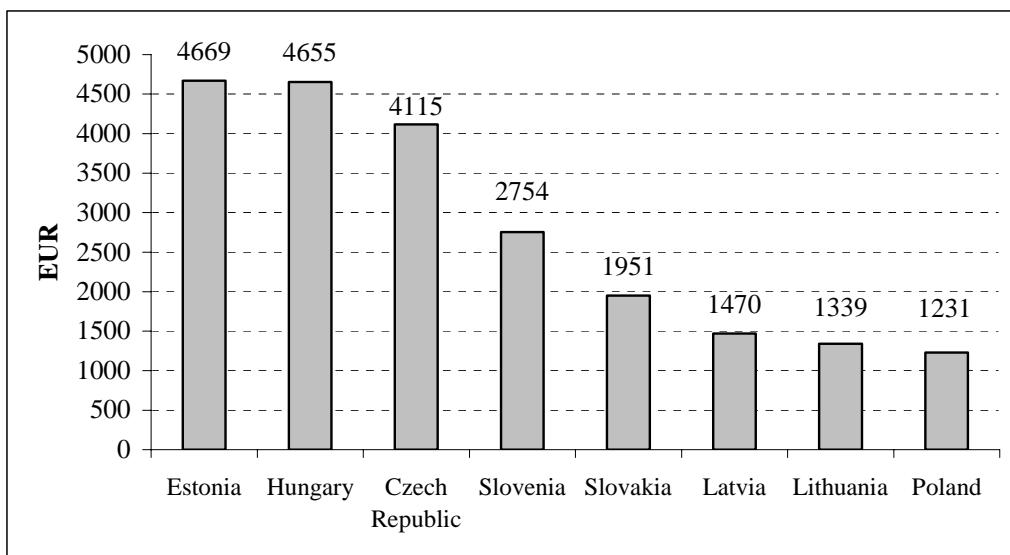
In 2000-2002, FDI inflow figures were very positive with an annual average of about €22 billion in eight countries together. In this three year boom period of FDI, the Czech Republic and Poland got an inflow of over €20 billion each. Slovakia, with a relatively small national economy received at the same time FDI in total value of over €8 billion, which is more than double her FDI stock in 1999. Slovenia's even smaller economy received in 2002 FDI in total value of almost €1,8 billion, about three times more, than in 2000 and 2001 taken together. Hungary and Estonia seem to be permanently favoured by foreign investors.

In 2003, the FDI inflow dropped dramatically from €24 billion to €10 billion. This one-year change was especially dramatic in Slovakia from €4,4 billion in 2002 to a mere €0,6 billion in 2003. The equivalent figures in Slovenia were €1,8 billion and €0,3 billion, and in the Czech Republic €9 billion and 2,3 billion. Lithuania in the Baltic region had at the same time a decline from €0,8 billion to €0,16 billion.

In 2004, the inflow of FDI in the 8 countries recovered clearly from € 10 billion in the previous year to €14,6 billion. This year-to-year recovery took place in 7 out of 8 countries.

The FDI stock per capita is very unevenly distributed in the NMS-region. There are three countries clearly in the lead, all of which have a figure over €4.000 per head. The smallest country in the group of eight, Estonia, with a population of 1,4 million only, has attracted more FDI in relative terms than her NMS-competitors. Hungary and the Czech Republic are not far behind.

Figure 1. Foreign Direct Investment Stock per Capita in 2004



Source: WIIW.

On the other side of the scale is Poland with about 39 million inhabitants with a per capita FDI stock, which is roughly one quarter of the figure reached by both Estonia and Hungary. Latvia and Lithuania, both with less than €1.500 are far away from their Baltic neighbour, Estonia. Slovakia got a considerable wave of FDI in the turn of the century, but is still in the FDI per capita comparison clearly behind her previous federation partner, the Czech Republic. Slovenia is clearly the richest of the NMS-8 with a relatively good result of almost €3.000 in FDI per head table.

4.2 Labour Market

As shown above, NMS-8 group of countries are amid a very healthy period of economic growth with brisk investment activity. However, this positive growth cycle seems to have rather moderate influence on the labour market.

Table 6. Unemployment, LFS Definition, Annual Averages

	In 1000 persons			Rate (%)		
	2002	2003	2004	2002	2003	2004
Czech Republic	374	399	426	7,3	7,8	8,3
Hungary	239	245	253	5,8	5,9	6,1
Poland	3.431	3.329	3.280	19,9	19,6	19,3
Slovakia	487	459	489	18,5	17,4	18,5
Slovenia	62	65	63	6,4	6,7	6,3
NMS-5	4.593	4.496	4.511	15,3	15,1	15,1
Estonia	67	66	66	10,3	10,0	10,0
Latvia	135	119	118	12,0	10,6	10,4
Lithuania	224	204	185	13,8	12,4	11,4
NMS-8	5.019	4.885	4.880	15,0	14,7	14,6

Source: WIIW.

The overall number of unemployed persons in NMS-8 is close to 5 million. The unemployment rate of some 14,5-15% is rather high.

Country-wise differences in absolute and relative terms are striking. In Poland, there were about 3,3 million people out of work in 2004, down from 3,4 in 2002. Between these 2002 and 2004, the unemployment rate dropped from 19,9 % to 19,3%, a very mild improvement. In Slovakia, about 0,5 million people are out of work. Unemployment rate of 18,5% shows no declining trend.

On the other side of the scale are Hungary and Slovenia. In the former, the unemployment rate increased slightly from 5,8% in 2002 to 6,1% in 2004. In the latter, there was a marginal

decrease from 6,4% (2002) to 6,3% in 2004. It can be maintained that these two countries have reached a relative full employment.

The trend in the Czech Republic shows deterioration: the unemployment rate grew from 7,3% in 2002 to 8,3% in 2004.

In the GDP growth comparison Latvia and Lithuania were the two best performing countries. In Lithuania, the unemployment rate seems to be positively influenced by economic growth: the 2002 figure of 13,8% went down to 11,4% in 2004. The equivalent figures in Latvia were 12,0% and 10,4%, respectively. In Estonia the unemployment rate is roughly on the 10% level.

In the sphere of NMS industry, productivity development has been striking. Unfortunately, no figures on the Baltic States are available from the WIIW database.

Table 7. Labour Productivity in Industry

	Index, 1990=100 2004	Index, 2000=100 2004
Czech Republic	176,7	134,3
Hungary	313,7	134,2
Poland	325,4	138,0
Slovakia	154,3	124,1
Slovenia	195,2	119,5

Source: WIIW.

In the long index period (1990-2004), industrial productivity has increased by more than factor three in Poland and Hungary. In the Slovenian case, the equivalent figure is almost two. The Czech part of the former Czechoslovakia was in the communist period the most industrialised part of the region. In the first index, this country achieved a growth rate of circa 77%. Slovakia's productivity development is amazingly different from Poland and Hungarian performance: there has only been a rather modest improvement of 54,3% in the transitional period in Slovakia.

The second index (2000=100) shows that productivity in NMS industry has improved further in the early years of the 21st century. Also in this case, Poland is in the lead with 38% growth. The Czech Republic and Hungary are not far behind with circa 34% growth rates each. Slovakia with 24% growth and Slovenia with even lower figure of about 20% are at the bottom of the scale in the second index.

Productivity improvement in the Polish industry is astonishing. It can be assumed that this productivity development offers a partial explanation to the high unemployment rate in Poland: demand for supplementary labour force is meager amid a rationalization process.

Unemployment rate figures in Poland and in Slovakia are not far away from each others. The same cannot be said about productivity improvement figures: Poland outperforms Slovakia with a huge margin.

4.3 Economic Stability

EMU is said to be a stability pact. Therefore, it is obvious that potential new eurozone members are supposed to have relative price stability. Inflation rates have an interesting history in the transitional period.

In this context, it is useful to bear in mind that all prices in centrally planned economies were tightly controlled by the state. Application of the market mechanism caused a huge inflationary wave in the early period of transition. All TEs were involved.

In the mid 1990s, inflationary pressure in TEs under review here was still considerable. Thus, the table below covers the annual inflation rates in a ten-year period.

Table 8. Consumer Price Inflation (Annual Change in %)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Czech Republic	9,1	8,8	8,5	10,7	2,1	3,9	4,7	1,8	0,1	2,8
Hungary	28,2	23,6	18,3	14,3	10,0	9,8	9,2	5,3	4,7	6,8
Poland	27,8	19,9	14,9	11,8	7,3	10,1	5,5	1,9	0,8	3,5
Slovakia	9,9	5,8	6,1	6,7	10,6	12,0	7,1	3,3	8,5	7,5
Slovenia	13,5	9,9	8,4	7,9	6,1	8,9	8,4	7,5	5,6	3,6
Estonia	29,0	23,1	11,2	8,2	3,3	4,0	5,8	3,6	1,3	3,0
Latvia	25,0	17,6	8,4	4,7	2,4	2,6	2,5	1,9	2,9	6,2
Lithuania	39,6	24,6	8,9	5,1	0,8	1,0	1,3	0,3	-1,2	1,2

Source: WIIW.

In the first year of the above table (1995), the most modest inflation rate was 9,1% registered in the Czech Republic. Slovakia was just below the 10% limit, while other countries of the table had double-digit figures. Lithuania scored almost 40%. Hungary, Poland, and Estonia were close to the 30% mark.

In the second half of the 1990s, inflation decelerated rather clearly. Two countries had still in 2000 double-digit inflation figures, Slovakia and Poland. Slovenia was with 8,9% not far below the 10% limit.

In the last four years of the table, Lithuania is far the best performing country in price stability. In 2001, her consumer price inflation was 1,3%, and in the following year a mere 0,3%. In 2003, Lithuanian price level dropped by 1,2%. The inflation rate of 1,2% in 2004 is very close to price stability.

The inflation picture in the Czech Republic is very positive: the rate decelerated from 4,7% in 2001 to 1,8% in 2002 and further to 0,1% in the following year. In 2004, consumer price inflation was 2,8%, still a rather modest figure. A rather similar scene is visible in Estonia with a bit higher figures. Poland's trend is not too far away from those two countries.

Slovenia has a clearly deceleration inflationary tendency: from 8,4% in 2001, the rate has continuously dropped to 3,6% in 2004. Latvia seemed to be heading toward relative price stability in 2001-2002, but experienced an acceleration of consumer inflation in 2003-2004: in 2004, the rate more than doubled to 6,2%.

Hungary and Slovakia seem to be suffering of a relatively high inflation rates which have no clearly decelerating tendency. In 2004, Slovakia had the highest figure of the table with 7,5%. Hungary was with 6,8% not too far away.

Balancing general government budgets is a key issue in the economic stability. According to EMU rules, budget deficits are not supposed to exceed 3% of the local GDP in anyone year. Discipline in bookkeeping is required.

Table 9. General Government Budget Balance (% of GDP)

	2001	2002	2003	2004
Czech Republic	-5,9	-6,7	-12,5	-4,3
Hungary	-4,4	-9,1	-6,2	-5,3
Poland	-3,7	-3,6	-3,9	-5,5
Slovakia	-6,0	-5,7	-3,7	-5,5
Slovenia	-2,7	-2,3	-2,0	-2,1
Estonia	0,3	1,3	3,1	0,5
Latvia	-2,1	-2,7	-1,5	-2,0
Lithuania	-2,0	-1,5	-1,9	-2,6

Source: WIIW.

Countries in the above table can be divided in two groups with clear distinction: the first four ones do not meet the 3% annual deficit limit in any single year between 2001 and 2004; in the second group of four, every country fulfils the requirement permanently in the given time frame.

In the above table, the Czech Republic is scoring very badly. It has the highest figure of the table: a deficit reached in 2003 of no less than -12,5%. In the following year, it got her lowest score with -4,3%, still clearly over the 3% critical limit.

Hungary also shows very bad results with over -9% in 2002. Maastricht limit is relatively far away in all four years.

Poland shows an increasing trend in her deficit-spending: the highest figure of -5,5% is reached in 2004. Slovakia's annual average deficit is more than -5%.

In the group of successful countries, Slovenia has a tendency toward equilibrium: deficits in 2003-2004 are about -2% a year. Estonia shows an exceptional record by reaching a budget surplus in every single year of the table. Latvia's yearly deficits are in average -2% showing clear budget discipline. Lithuania has in general terms a similar record with her northern neighbour.

It can be concluded that the four countries of the second group take EMU membership carefully into consideration in their fiscal policy-making. The clear star performer of the table is without any doubt Estonia with surpluses of her budget in all years of the table.

Budget deficits must be financed which means that permanent imbalances in the government bookkeeping enhance the public sector accumulated debt. The debt criterion in EMU rules says that the general government debt is not supposed to be more than 60% of GDP.

Table 10. Government Debt 2004 (% of GDP)

Estonia	4,9
Latvia	14,4
Lithuania	19,7
Slovenia	29,4
The Czech Republic	37,4
Poland	43,6
Slovakia	43,6
Hungary	57,6

Source: EIU, Economies in Transition, June 2005.

Estonia, with very prudent fiscal policy, has an extremely low public sector debt of less than 5% of GDP. In this comparison, Hungary has the highest mark of almost 58%, not far away from the critical 60% limit. Poland and Slovakia have exactly the same figure, 43,6%. Slovenia's figure is just below 30%, and Lithuania's just under 20%. Latvia has a moderate figure of less than 15%.

In the above table, Baltic States have better results than five TEs in Central Eastern Europe. None of NMS-8 has an excessive public sector debt burden.

5 Exchange Rates in NMS-8

5.1 Official and PPP Adjusted Exchange Rates

In mature market economies, exchange rates normally reflect the purchasing power of the national currency in terms of foreign currencies. In eurozone, there are naturally no national currencies.

If a tourist travels from Finland to Germany with €1.000 in his/her pocket, he/she is supposed to get a consumer basket of goods in Germany which has got exactly the same price tag as in Finland (provided that the content is the same). This presupposes that markets are perfect, and thus, harmonize all prices within a currency area.

Unfortunately, markets are not perfect. Competition between grocery stores is fiercer in Germany than in Finland. Thus, it is highly likely that an average grocery basket is cheaper in Germany in comparison to Finland. Average consumer baskets may be cheaper in small cities than in big ones within a currency area.

Furthermore, every tourist has a special content in his/her consumer basket during the trip. It is likely that a tourist eats more in restaurants than in his/her everyday life. Thus, €1.000 is spent by a tourist in a different manner in comparison to a “normal” week of working life back home.

In mass tourism, “cheap” destinations are favoured. Emerging markets are visited by “rich country” tourists because of price advantage. A tourist from Finland has “more value” for his/her €1.000 in Bulgaria than in Germany.

Exchange rate formation is an important background factor in this scene. Currencies in emerging markets, TEs included, have the tendency to be undervalued, which gives a price advantage in foreign trade, as well as in the “invisible” part of the current account. For example, in tourism cheap services attract visitors, who enhance the “invisible” earnings of the country. Many TEs, e.g., Estonia and Slovenia earn net tourist income in the current account.

Undervaluation of a currency means that the official exchange rate does not reflect correctly the local price level. Therefore, living standard comparisons between emerging markets and

developed countries are rather difficult to make. The standard method in making international living standard comparison is to take GDP per capita figures and convert them into euros and/or dollars at the official exchange rate. The result of this common procedure is to exaggerate the differences in real income between rich and poor countries, since many goods and services are counted in the rich country's income at a much higher price than they are in the poor country. The correct basis of comparison involves establishing the cost of buying specified quantities of comparable goods and services in different expenditure categories for each of the countries involved. The aim of this exercise is to yield a purchasing power parity (PPP) for an average consumer basket. PPP adjusted exchange rates allow to compare quantities consumed in countries involved in international comparisons.

Obviously, it is very difficult to create a feasible basis for PPP adjusted GDP statistics and PPP adjusted ERs. In this context, NORDI permanently relies on data provided by The Vienna Institute for International Economic Studies (WIIW). An international living standard comparison including NMS-region is available in NORDI publication No. 7 (Tiusanen, Kinnunen, Kallela: EU's Enlargement Process: Investment Climate in 10 Transitional Economies, Lappeenranta, 2004). This research report provides evidence that TE currencies are undervalued which is measured by exchange rate deviation index (ERDI). In addition, the report points out that undervaluation of TE currencies tend to decline with economic progress in post-communist countries. If this tendency continues, the undervaluation problem will disappear: official ERs and PPP adjusted ERs will converge. It is said in the economic language that an equilibrium exchange rate is reached when there is no ERDI present: in this case, the ER directly indicate the purchasing power of the currency in question.

The tendency of NMS currencies toward "equilibrium rates" can be investigated in the light of some recent figures. The results are of utmost importance in assessing NMS-region's chances to join the eurozone. The table below contains three indicators of every country under review. The first one, marked with A, shows the development of the official exchange rate between 2000 and 2004 against euro. The second one (B) tells the development of PPP adjusted ER in the same period of time (local ER/euro). The third one (C) measured the deviation between the two first ones (A/B=C).

Table 11. Exchange rates in NMS, 2000-2004

	2000	2001	2002	2003	2004	Growth % 2000-2004
Czech Republic						
A) Official ER, CZK/EUR	35,60	34,10	30,80	31,80	31,90	-10,4
B) PPP ER, CZK/EUR	16,30	16,70	16,50	17,00	17,10	4,9
C) A/B	2,18	2,04	1,87	1,87	1,87	-14,2
Hungary						
A) Official ER, HUF/EUR	260,00	256,70	243,00	253,50	251,70	-3,2
B) PPP ER, HUF/EUR	122,10	126,20	132,90	141,80	147,60	20,9
C) A/B	2,13	2,03	1,83	1,79	1,71	-19,7
Poland						
A) Official ER, PLN/EUR	4,01	3,67	3,86	4,40	4,53	13,0
B) PPP ER, PLN/EUR	2,07	2,12	2,11	2,17	2,19	5,8
C) A/B	1,94	1,73	1,83	2,03	2,07	6,7
Slovakia						
A) Official ER, SKK/EUR	42,60	43,30	42,70	41,50	40,10	-5,9
B) PPP ER, SKK/EUR	18,30	18,70	18,80	20,00	20,40	11,5
C) A/B	2,33	2,32	2,27	2,08	1,97	-15,5
Slovenia						
A) Official ER, SIT/EUR	205,00	217,20	226,20	233,70	238,90	16,5
B) PPP ER, SIT/EUR	147,70	156,30	167,10	175,50	179,10	21,3
C) A/B	1,39	1,42	1,35	1,33	1,33	-4,7
Estonia						
A) Official ER, EEK/EUR	15,70	15,70	15,70	15,70	15,70	0
B) PPP ER, EEK/EUR	7,90	8,30	8,70	9,00	9,10	15,2
C) A/B	1,99	1,89	1,80	1,74	1,73	-13,1
Latvia						
A) Official ER, LVL/EUR	0,56	0,56	0,58	0,64	0,67	19,6
B) PPP ER, LVL/EUR	0,28	0,29	0,29	0,31	0,32	14,3
C) A/B	2,00	1,93	2,00	2,06	2,14	7,0
Lithuania						
A) Official ER, LTL/EUR	3,70	3,56	3,46	3,45	3,45	-6,8
B) PPP ER, LTL/EUR	1,71	1,67	1,66	1,66	1,66	-3,0
C) A/B	2,16	2,13	2,08	2,08	2,08	-3,7

Source: WIIW.

In the Czech Republic, the official ER (CZK/EUR) dropped between 2000 and 2002 relatively strongly, but increased slightly in 2003-2004. However, in the timeframe 2000-2004, there was a decline of 10,4%. This drop in CZK/EUR rate points out that CZK has appreciated nominally in the years under review by more than 10%: in 2000, visitors from eurozone received CZK 35,6 for every euro exchanged in Prague while in 2004 they got only CZK 31,9 for euro, or CZK 3,7 less than in 2000. Thus, euro depreciated against CZK about 10%.

The second indicator (B) shows an increase by 4,9% in 2000-2004. This PPP adjusted ER growth indicates that the gap between the Czech and the eurozone price level narrowed by about 5% in the same period of time.

When the A figure of 2000 is divided by the B figure of the same year, the result (C) is 2,18, indicating that the discrepancy between the official ER and PPP adjusted ER is relatively high (that undervaluation of CZK is substantial). One year later, the equivalent figure (C) was 2,04 and in 2002 only 1,87. In 2003-2004, this figure remained stable (1,87).

These figures show that the Czech undervaluation advantage eroded very strongly between 2000 and 2002 by 14,2%; in other words, the CZK against euro appreciated strongly in that period (by 14,2%) in real terms.

The undervaluation of CZK against euro can be clarified by an example. In 2004, visitors from eurozone received CZK 31,9 for every euro they exchanged in Prague, instead of CZK 17,1 per euro presupposed on the basis of PPP adjusted exchange rate. Thus, a tourist coming from the eurozone got “an undervaluation bonus” of CZK 14,8 per every euro exchanged in Prague. The same can be said other way round: every Czech visitor of eurozone paid an “undervaluation penalty” (paying CZK 31,9 per euro instead of CZK 17,1 per euro) when exchanging local money into euros. Thus, tourist coming from eurozone regards the Czech Republic as a cheap destination, while Czechs going to eurozone face an expensive travel target.

The obvious result of undervaluation is that the Czech Republic offers an attraction for tourists coming from the eurozone, while it gives a clear disadvantage for locals to leave to eurozone as tourist.

Therefore, it can be maintained that undervaluation of the local currency helps to create “invisible” income in the current account. Undervaluation advantage in “visible” trade is obvious: it gives price competitiveness of exportables, and makes importables expensive (calculated in local currency). Thus, undervaluation supports equilibrium in the external bookkeeping (in CA).

In the case of the Czech Republic, the deviation index (C) declined in the 5-year period under review. However, the figure of 1,87 (in 2002 to 2004) is still rather far away from the equilibrium rate (1,00).

In Hungary, the three indicators in the above table show similar general tendency as in the Czech case. The official ER has appreciated between 2000 and 2004, but only by 3,2%. PPP adjusted ER (HUF/EUR) increased simultaneously no less than 20,9%. Thus, in Hungary the undervaluation advantage eroded in 2000-2004 rather rapidly, by 19,7% (indicator C).

Hungarian forint appreciated almost 20% against euro in the 5-year period under review, stronger than in the Czech Republic (in real terms).

The Polish path in the above table differs from the two previous cases. The Polish zloty appreciated clearly in 2001 (indicator A), but depreciated against euro in 2002-2004. The official ER depreciated by 13% in five years (2000-2004). In the same period, indicator B (PPP adjusted ER) grew by 5,8%. Thus, indicator C (A/B) has in Poland an increasing trend: the undervaluation of zloty aggravated (C grew from 1,94 in 2000 to 2,07 in 2004). This means in actual fact that Poland improved her price competitiveness in 5 years under review.

Slovakia's position in the above table resembles that of Hungary in general features. Indicator A has a decline of 5,9% in 2000-2004 reflecting SKK's appreciation against euro in the light of the official ER. PPP adjusted ER grew at the same time by 11,5%. This development eroded Slovakia's undervaluation advantage from C-value of 2,33 in 2000 to 1,97 in 2004, a decline of 15,5%.

Slovenia is the most affluent country in NMS-region. Thus, her currency (tolar) was relatively moderately undervalued in 2000. The official ER (indicator A) shows an increase of 16,5% in 2000-2004, indicating that the currency depreciated nominally against euro. However, the PPP adjusted ER (B) grew at the same time even faster, by 21,3%. Thus the real ER appreciated somewhat (by 4,7%) in 2000-2004 period: indicator C went down from 1,39 in 2000 to 1,33 in 2004, which means that tolar is relatively close to "equilibrium rate".

In Estonia, the official exchange rate has permanently been fixed in the framework of the currency board arrangement (CBA). Originally, the fixing was done against the German mark (D-mark). After the introduction of euro in 1999, the anchor currency in Estonia was naturally changed with a relationship of EEK 15,65 per euro. This official ER is rounded to EEK 15,7/euro.

In the 5-year period covered in the above table, Estonia's PPP adjusted ER shows an upward trend: indicator B grew by 15,2% in 2000-2004. Thus, Estonia's undervaluation advantage has declined clearly (indicator C dropped 13,1% in 2000-2004).

Latvia resembles somewhat Poland in the light of ER figures in the above table, in which Latvia's A figure (official ER) grew by 19,6% in 2000-2004. Thus Latvian LVL depreciated rather strongly against euro according to nominal ER comparison. PPP adjusted LVL rate

increased more moderately, by 14,3%. Therefore, indicator C increased from 2,00 in 2000 to 2,14 in 2004: Latvia's undervaluation advantage aggravated.

In the Lithuanian original CBA system, the anchor currency was US dollar. Since 2002, the anchor currency is euro (with a fixed ER of LTL 3,45 per euro). In the 5-year period covered in the above table, LTL's official rate against euro appreciated by 6,8%. The PPP adjusted ER moved in the same direction with a moderate change of 3%. In Lithuanian case, the undervaluation advantage has been in the first years of the 21st century relatively stable: indicator C dropped from 2,16 in 2000 to 2,13 in 2001, and further to 2,08 in 2002 remaining on that level in 2003-2004.

The message of the above table can be summarized as follows:

- All countries under review have undervalued currencies still in 2004. This means that the PPP adjusted exchange rate is lower than the official exchange rate.
- These two ERs ought to be on the same level: official exchange rate would in that case reflect the local price level (the equilibrium rate is one to one).
- In the majority of cases, the undervaluation advantage is eroding (measured with indicator C, which is in decline).
- In two countries involved, the opposite is true: in Poland and in Latvia, undervaluation advantage has grown between 2000 and 2004 (about 7% in both cases).
- In these two countries (Poland, Latvia), and also in Lithuania, indicator C is over 2,00. Slovakia is not far away from this limit (1,97).
- The most dramatic decline of C indicator (erosion of undervaluation advantage) has taken place in Hungary (with almost -20% in 2000-2004), followed by Slovakia (-15,5%), the Czech Republic (-14,2%), and Estonia (-13,1%).
- The lowest deviation between the official and PPP adjusted ERs is in Slovenia: indicator C is only 1,33. Hungary is in this respect on the second place with an equivalent figure of 1,71 and Estonia third (1,73).

Occasionally, undervaluation of a national currency is called "exchange rate protectionism". The higher the undervaluation of the currency, the more the national economy is protected against global competition via low prices and low wages. This "protection" via ER, is different in the eight countries under review. Extreme cases in NMS group are Slovenia (with only 33% undervaluation), and Latvia (with an equivalent figure of 114%, that is, with C indicator 2,14).

It can be assumed that undervaluation of a national currency is a tool to keep current account of a national economy in relative equilibrium. Normally, current account equilibrium is measured in relation to local GDP: a deficit (or surplus) in current account is taken as a percentage of GDP. This method is used in the table below.

Table 12. Current Account (% of GDP)

	2002	2003	2004
Czech Republic	-5,6	-6,2	-5,4
Hungary	-7,2	-9,0	-8,5
Poland	-2,7	-2,2	-1,8
Slovakia	-7,9	-0,8	-3,0
Slovenia	1,4	-0,4	-0,7
Estonia	-10,2	-13,2	-15,1
Latvia	-6,7	-8,2	-12,5
Lithuania	-5,2	-6,9	-8,3

Source: WIIW.

Within NMS group, current account positions differ remarkably from each other. It can be maintained that Slovenia's CA is rather nicely in equilibrium in the three-year period of 2002-2004. In the first year of the above table, Slovenia had a modest surplus of 1,4% of GDP, and a modest deficits of 0,4% in 2003 and 0,7% one year later.

Slovenia has far the most modest undervaluation of her currency and far the best results in her CA within NMS group. When these two factors are taken together, it can be stated that Slovenia is the best candidate to enter the eurozone of the TEs reviewed here. In addition, Slovenia is a small country with 2 million inhabitants only. This means that Slovenia by definition cannot be a big disturbing factor in the future eurozone. As pointed out above, Portugal's currency was undervalued by 35% in 1998 (the year before the establishing of euro as a bookkeeping currency). Slovenia is in line with that figure in the light of 2004 data.

Estonia's CA position is on the other side of the scale. Her CA deficit was over 10% of GDP in 2002, over 13% in 2003, and over 15% in 2004. These deficits are obviously not sustainable.

As pointed out above, Estonia has lately had a brisk inflow of FDI, with which CA deficits have been conveniently financed without any excessive external credits. However, it is rather difficult to predict whether this risk-capital inflow will continue in the near future. If that is not the case, Estonia must start paying attention to her CA disequilibrium.

Also Latvia's CA problem has aggravated lately: the deficit grew from 6,7% of GDP in 2002 to 8,2% in 2003, and further to 12,5% in 2004. This deterioration took place, even though Latvia's currency experienced a devaluation (in real terms) in the period 2002-2004.

Hungary's currency appreciated strongly in 2002-2004. Her CA was in rather deep deficit of 9% (of GDP) in 2003 and 8,5% in 2004. In Lithuania, where the currency is permanently rather strongly undervalued, the CA deficit has lately had an increasing tendency: the figure of 8,3% of GDP in 2004 is rather high.

Slovakia's CA improved considerably in 2003: the deficit decreased from 7,9% of GDP in 2002 to 0,8% in 2003. The 2004 equivalent figure of 3% is not excessive. In Poland with increasing undervaluation of the currency, CA deficits in 2003-2004 have been moderate, in average 2% a year.

The current account scene can be summarized as follows:

- Slovenia with a very moderate undervaluation of her currency has in the light of above figures a structural equilibrium in her CA. Thus, it can be maintained that Slovenia has the best overall competitiveness in the region of NMSs.
- Poland and Slovakia have both a relative balance in their respective external economies (in CAs). In both cases, currencies are rather strongly undervalued, which is supposed to help balancing the current account.
- In the Czech Republic, the currency appreciated rather strongly in the early years of this decade. However, the CA deficit shows no clearly increasing tendency. Annual deficit of 5,5-6,0% of GDP are rather far away from equilibrium.
- Hungary had the strongest appreciation of her currency (in real terms) within the group of eight in 2000-2004. This is not necessarily helping to balance the CA books: annual deficits of 8,5-9,0% of GDP are rather excessive.
- Lithuania had a very moderate appreciation of her currency's real exchange rate in 2000-2004. CA deficit shows, however, a clearly increasing tendency.
- In Latvia, CA deficit has grown even faster than in Lithuania reaching a double-digit figure of 12,5% of GDP in 2004. The unfavourable trend has taken place, even though Latvia's currency is strongly undervalued.
- In Estonia, CA deficit have reached double-digit figures annually in 2002-2004. In the first years of this decade, Estonia's currency appreciated rather heavily in real terms. This fact has obviously contributed to high annual CA deficits, the latest of which (in 2004) exceeds the 15% limit of local GDP.

5.2 The Future of Exchange Rates in NMS-area

It was pointed out above that Slovenia with the highest living standard in the NMS-area has an ER relatively close to equilibrium. Thus, it can be assumed that all currencies in NMS-region have the tendency to approach the equilibrium rate with further development of their economies.

In this context, it is expected that exchange rates tend to give different currencies equal purchasing power over goods and services. This presupposes that all products are homogeneous and all services similar and both (goods and services) are on offer everywhere with competitive prices undistorted by internal and external factors. Expressed in language of economics, a perfect market will bring about equilibrium exchange rates everywhere.

Unfortunately, not all goods and services are actually traded internationally. In real life, goods are traded internationally more than services. It is normally assumed that international differences are more pronounced in production industries (manufacturing) than in service sector. A barber, lawyer, or doctor in Eastern Europe will deliver something close to the level of service in Western Europe. However, the pay level of these services in TEs is kept down by the low wages prevailing in the industries producing traded goods. As a result, relative GDP per capita in the least developed NMS-countries is understated by factor two when measured using official exchange rates rather than PPP based measures.

In the plain language it can be stated that the epithet “hard currency” is directly linked with high performance (high productivity), and consequently, high level of competitiveness. High productivity in export industries in eurozone countries is reflected in high wages. High pay in goods production gives the opportunity to charge relatively high prices in barber shops, by taxi drivers, etc. (in the service sector).

As pointed out above, the “undervaluation problem” in NMS-region has a tendency to decrease, which is linked with increasing productivity in their goods industries. A very important background factor of this productivity trend is inflow of FDI. Increasing “invisible” income in NMS group, especially in the sphere of tourism, has affected decisively the overall income level. Foreign visitors (via supplementary demand) have helped to improve incomes in several service activities.

In this context, it is important to remark that the elimination of undervaluation of NMS currencies cannot be predicted in a linear manner. Presently, only Slovenian current account

seems to be in structural equilibrium. Relative CA balancing was observed above in Poland and Slovakia. Other countries under review had high or even very high CA deficits annually. Therefore, many NMS currencies can hardly appreciate in real terms rapidly. In other words, substantial erosion of the undervaluation advantage may affect visible and invisible export income negatively and enhance import expenditure causing CA deficits to deepen.

Aspects of international trade are not the only determinants of exchange rates. International capital flows have increased extremely rapidly during the last two or three decades. Short term capital flows often respond to interest rate differentials. Internationally mobile capital is looking for speculative profits by assessing ER fluctuations. Inward FDI normally improves competitiveness of local economy, and thus, influences local currency positively. Portfolio equity investment comprises huge sums of money, which moves from one stock exchange to another in enormous speed. All these forms of capital flows affect exchange rates, and vice versa, ERs influence direction of capital flows. Therefore, forecasting ER changes is extremely difficult under present circumstances of high volatility.

6 New Member States and European Exchange Rate Mechanism

6.1 Eurozone Candidates in ERM

In the very early stage of the transition, Estonia introduced its own currency, the Estonian kroon (EEK). At a time when the West was still urging the former Soviet republics to stay in the rouble zone, Estonia decided to separate herself from the inflationary development of the post-Soviet era. The country did not adopt any interim measures such as transitional currencies or coupons. The kroon was introduced in June 1992, through direct conversion from roubles, with wages, prices, and bank deposits and loans swapped at a rate of 10 Soviet roubles to one kroon. Each individual was allowed to exchange 1.500 Soviet roubles at a rate of 10:1, while the remainder was converted at a 50:1 rate.

Estonian monetary policy is based on a currency board arrangement which means that base money issue has to be fully covered by gold and foreign currency reserves. The Bank of Estonia is obliged to buy and sell Estonian kroons at a fixed exchange rate.

An orthodox definition of a currency board includes an institutional arrangement in which the board's sole responsibility is to issue and redeem notes and coins at a fixed rate of exchange against a base currency. Alternatively, as is the case in Estonia, the principles of the currency board arrangement may be used within a central banking framework. The Estonian monetary system is based on the Currency Law, the Law on the Security of the Estonian kroon and the Central Bank Law.

The first two set up a currency board-like system by stating that emissions of Estonian kroons must be fully covered by gold and foreign exchange reserves, by fixing the external value of Estonian kroon to the German mark at 8 EEK to 1 DEM, and by establishing full current account convertibility. Only the Estonian parliament can devalue the Estonian kroon, but the Bank of Estonia can revalue it. According to the Law on the Central Bank, the Bank of Estonia's main goal is the stability of the Estonian currency: the Bank enjoys full independence from the government in conducting monetary policy.

Latvia's move towards national currency took place in two stages. In response to an acute shortage of Russian rouble banknotes in 1992, Latvia introduced the Latvian rouble (rulbis) in May 1992, which became the sole legal tender two months later. In early 1993, the Bank of

Latvia moved on to stage two, the introduction of a national currency, the lat (LVL). The rublis was gradually phased out and ceased to be legal tender in October 1993.

Latvia did not establish a currency board system. After the introduction of lat, it was allowed to float freely. However, in February 1994, lat was pegged to the SDR (Special Drawing Rights, the currency basket of the IMF) at a rate of LVL 0,799 to SDR 1.

Like Latvia, Lithuania launched its own national currency in two stages. The talons were introduced in October 1992 as a transitional coupon. In the summer of 1993 the national currency, the litas (LTL), was introduced.

The introduction of the Currency Board arrangement in Lithuania on April 1st, 1994, was a significant step in the process of the stabilization of Lithuania's economy. Under this arrangement the central bank's lending to government is suppressed, and the amount of money in circulation is limited to the market value of the gold and hard currencies maintained in the Bank of Lithuania. According to the original Currency Board arrangement, the litas was pegged to the US dollar at the rate of LTL 1 to USD 0,25. Since that date, the Bank of Lithuania has been conducting a monetary policy that is based on strict rules rather than on discretionary behaviour. The exchange rate is an intermediate monetary policy target, and the Currency Board arrangement is the main instrument of achieving the stability of the exchange rate. The replacement of dollar with euro as anchor currency (mentioned above) brought up no fundamental policy alteration.

In sum, all three Baltic States have chosen the fixed exchange rate regime. There are two basic reasons for choosing a fixed exchange rate policy. First, the fixed exchange rate is a policy tool used to stabilize the financial environment and to provide a nominal anchor for the economic system during transition from a centrally planned to a market economy. Second, the aim of the fixed exchange rate policy is – by using the stability of the currency – to introduce undistorted world market prices to the domestic economy. Through them, domestic agents can give adequate and predictable price signals in investment decisions.

The launching of euro naturally caused a technical change in the currency system of Estonia: the anchor of EEK (German D-mark) ceased to exist. The central Bank of Estonia issued a statement in December 1998 that the official EEK-euro ER is 15,6466 to one. Thus, the fixed ER policy based on currency board arrangement continued with a new anchor, the euro, which is equivalent of EEK 15,65.

Lithuania rearranged her currency peg in early 2002 (February 2nd) switching from dollar to euro. The new peg of litas is LTL 3,4528 equals one euro. In the time of this switch from dollar to euro peg, the new anchor (euro) was rather weak against US dollar. Thus, in early 2002 the change of LTL peg meant a devaluation of LTL. However, soon afterwards euro strengthened strongly against dollar which made Lithuanian exports more expensive outside the euro-area.

Estonia and Lithuania from the Baltics joined ERM II in June 2004 together with Slovenia. Latvia announced her entry in April 2005 (together with Malta and Cyprus). Thus, the first steps in the eurozone enlargement are already taken.

The term ERM II is the ante-room of EMU membership. Number II in this abbreviation means that in the fixed – but – adjustable ER-system the wide fluctuation bands ($\pm 15\%$) are used (instead of $\pm 2,25\%$ mentioned in the original ERM scheme).

The aim of the ante-room scheme is to measure the correct level of the exchange rate before fixing it irrevocably in the context of final membership of EMU. Thus, ERM II can be described as a “trial period”, during which the “right” level of ER is supposed to be found.

Some observers maintain that within this trial period or even before every eurozone candidate ought to exercise free floating of her ER, and via this method, let market forces determine the “correct” level of the currency value before fixing it against euro irrevocably. However, the general rule is to have the ER in the ERM II for two years before entering EMU:

Estonia has obviously not given up her currency board system with fixed EEK-euro exchange rate. The real ER of EEK has clearly appreciated between 2000 and 2004. As a result, current account deficit has increased to no less than 15% of local GDP. Therefore, it is justified to ask whether Estonian EEK’s exchange rate is on a “correct” level. Thus, some kind of a market measurement of EEK’s external value (giving up the fixed ER) would not be necessarily harmful.

Lithuania has, like Estonia, applied currency board scheme for several years using US dollar as anchor currency. LTL’s external value against euro has been relatively stable in 2000-2004. Her ERDI value is higher than the equivalent in Estonia: Lithuania’s ERDI had a stable value of 2,08 in 2002-2004 showing relatively strong undervaluation of LTL. However, Lithuania’s CA deficit has increased from 5,2% of GDP in 2002 to 8,3% in 2004. In comparison to Estonia, this deficit is still rather moderate.

In Latvia, the undervaluation of currency (LVL) shows aggravating trend in 2002-2004, which ought to improve price competitiveness. However, at the same time CA deficit has increased from 6,7% of GDP in 2002 to no less 12,5% in 2004. Thus, Latvia's ER is not on a level which can guarantee relative equilibrium in her CA.

Alongside with the three Baltic States, Slovenia has joined ERM II system with the aim to enter EMU in the near future. As pointed out above, Slovenian currency (SIT) is only moderately undervalued (about 33% only). Even though Slovenian tolar is rather close to the theoretical "equilibrium exchange rate", the country has managed to keep her current account well balanced: in 2002, there was a surplus (1,4% of GDP), and minor deficits in 2003 (-0,4% of GDP), and in 2004 (-0,7%). Thus, Slovenia does not need a strongly undervalued currency to keep her CA in relative equilibrium. In this respect, Slovenia on one side, and the Baltic States on the other, differ from each other fundamentally.

In the three Baltic States, the overall population is about 7 million. Slovenia has about 2 million inhabitants. Thus, countries willing to join EMU in the first wave of eurozone Eastern enlargement have a rather narrow population base: the potential newcomers in the monetary union can from this point of view be absorbed rather easily.

6.2 NMSs Outside of ERM

In the second half of the 1990s, Poland had relatively high inflation rates, in double-digit figures annually. Therefore, it was rational to use the so called "crawling peg" ER regime, as described above (permanent devaluation of Polish zloty, PLN).

This system was dismantled in the turn of the century. The floating ER caused a strong PLN appreciation in 2001, in nominal and also in real terms. However, undervaluation of Polish currency has clearly deepened in 2002-2004: exchange rate deviation index was 2,07 in 2004.

CA deficit in Poland was in 2002 about 2,7% of GDP, going down to 2,2% in 2003, and further to 1,8% in 2004. Thus, there is a tendency toward CA equilibrium via "weak" ER of zloty.

Poland had parliamentary elections in the autumn of 2005, in which the previous socialist government was ousted. The new centre-right cabinet has promised to pay special attention to social problems (including the high unemployment). Thus, joining the EMU via ERM II has no high priority in economic policy-making: the new government needs leeway in the fiscal

policy. Limiting budget deficits to 3% of GDP (according to EMU rule) is not convenient from the point of view of Poland with a relatively low level of economic development in EU comparison. Joining ERM II in a very near future is thus unlikely.

In the Czech Republic, the real ER of Czech crown appreciated in the early years of the new century, but remained stable in 2003-2004. In 2002-2004, the current account has had an annual average deficit of less than 6% of GDP in the Czech Republic. The equivalent figure in Hungary is over 8% of GDP. Hungarian forint shows a declining ERDI values in 2000-2004.

Slovakia's CA deficit was almost 8% of GDP in 2002, but less than 1% in 2003. In 2004, CA deficit was not alarming, only 3% of GDP. ERDI value shows in Slovakia decreasing trend, but was with 1,97 in 2004 still rather high. Poland, the Czech Republic, Hungary, and Slovakia show thus no common trend in their respective current accounts.

These four countries have not been very successful in balancing their budgets lately. None of these four countries met the "Maastricht criterion" concerning budget deficit (which is not supposed to exceed 3% of GDP) in anyone of the years in 2001-2004 (see Table 10 above). Therefore, it can be assumed that the Czech Republic, Hungary, and Slovakia (alongside with Poland) are not willing to join ERM II in the near future because of fiscal policy considerations.

7 Conclusions

A limited number of rather clear preconditions were fixed for potential EMU members in the 1990s. After the launching of euro (1999), it became clear that one of the main rules of the eurozone game, the 60% public sectors debt (of GDP) was not strictly applied. In the short history of eurozone, it has become obvious that the second most important rule of EMU, the 3% annual maximum of budget deficit of GDP has not been strictly obeyed by all member states of the monetary union.

As shown above (Table 1), six of twelve EMU members had overvalued currencies in 1998 (before the irrevocable fixing of ERs). Germany's overvaluation was close to 20%. Two countries, Italy and the Republic of Ireland had an equilibrium rate, while four countries had undervalued currency, Portugal with highest ERDI value of 1,35.

In 2001, before circulating euros in banknotes and coins, all EMU countries had an ERDI value higher than one. Portugal had the highest mark of 1,62, while Germany's figure was the most modest, 1,08. Thus, in the eve of launching euro notes on the market (January 1st, 2002), the common currency area showed signs of undervaluation (see Table 2 above).

Figures in Table 1 and 2 originate from the World Bank, which provides new data for 2004. It is interesting to compare the situation now in the eurozone countries after three years of euro circulating in twelve countries.

Table 13. Eurozone GNP in 2004

	GNP per capita, USD	GNP per capita at PPP, USD	ERDI	CA* as % of GDP
Portugal	14.350	19.250	1,34	-7
Greece	16.610	22.000	1,32	-8
Spain	21.210	25.070	1,18	-2
Italy	26.120	27.860	1,07	1
Belgium	31.030	31.360	1,01	3
Austria	32.300	31.790	0,98	2
Netherlands	31.700	31.220	0,98	5
France	30.090	29.320	0,97	1
Ireland	34.280	33.170	0,97	19
Germany	30.120	27.950	0,93	4
Finland	32.790	29.560	0,90	7

Source: IBRD, World Development Report 2006.

*The World Bank uses the term External Balance of Goods and Services, % of GDP. This is taken as a proxy for current account.

The above table gives the results of the euro-system in its third year of existence. It is extremely interesting to observe that within the eurozone there are six countries with ERDI

values less than one (indicating overvaluation) and five countries with ERDI values over one (indicating undervaluation), even though common currency (euro) ought to have abolished price differentials in the zone as a whole and ought to have established equilibrium ERs in every member country of the currency area.

Actually, there are five countries in the eurozone which are very close to an equilibrium in the above calculation. In France, ERDI value is 0,97 indicating that GNP at official ER deviates only 3% of the PPP adjusted one (indicating 3% overvaluation). In the Netherlands ERDI value is even closer to one (0,98) witnessing a moderate overvaluation of 2%. Austria has exactly the same situation, as Netherlands. Belgium is closest to the equilibrium rate with 1,01 ERDI value, and thus, her figure shows an undervaluation of only one percent. Ireland is with her ERDI of 0,97 in the same position as France.

Germany's ERDI in the above table is 0,93 which indicates 7% overvaluation. ERDI in Finland is 0,90 indicating that her overvaluation is with 10% even higher than in Germany. In Italy, ERDI value is 1,07 pointing out that euro in that country deviates 7% of the equilibrium rate in the direction of moderate undervaluation.

The most severe deviations from equilibrium can be found in Portugal, Greece, and Spain, which have the lowest living standard figures in the above table (measured in GNP per capita figures at PPP). In the Spanish case, ERDI is 1,18 indicating 18% undervaluation. The equivalent figures in Greece are even higher (ERDI value 1,32, and thus, 32% undervaluation). Portugal has the highest ERDI value with 1,34 in the countries under review in the above table.

It is interesting to observe that Portuguese ERDI has hardly changed since 1998 (Table 1), while at the same time Spanish ERDI has grown somewhat, and Greek ERDI has increased strongly from 1,12 in 1998 to 1,32 in 2004.

External balance of goods and services (for eurozone countries) is part of the above table. In the three countries with most severe undervaluation figures, Spain, Greece, and Portugal, this balance (a proxy for current account) is in deficit: in Spain -2% of GDP, in Greece -8% of GDP, and in Portugal -7% of GDP.

On the other side of the scale there is Ireland with the highest living standard of the zone, and far the most substantial surplus in her external balance of no less than 19% of GDP. Finland has the second highest CA surplus with 7% of GDP. The equivalent figure in Germany is 4%.

External balance is very well in equilibrium in both France and Italy: there is a modest surplus of 1% of GDP in both cases. The equivalent figure in Austria is 2%, and in Belgium 3%, while in the Netherlands the surplus is with 5% somewhat higher in relative terms than in Germany.

Thus, it can be concluded that Portugal and Greece in 2004 have rather clearly undervalued currency within the eurozone, and still have rather high current account deficits of 7-8% of GDP. Membership in the monetary union has in these two cases not guaranteed equilibrium in external economy.

Portugal has a bit lower and Greece a little higher living standard than Slovenia (GDP per capita at PPP, in US dollars). Other eurozone candidates in the sphere of transitional economies are clearly behind Slovenia in welfare.

Table 14. GDP per Head at PPP, 2004, USD

Slovenia	21.333
Czech Republic	16.849
Hungary	15.240
Slovakia	14.608
Estonia	13.808
Lithuania	12.649
Poland	12.010
Latvia	11.199

Source: EIU.

On the basis of statistical data brought up in this short research report, it can be concluded that Slovenia is an excellent candidate for eurozone membership: Slovenia's ERDI in 2004 is not higher than equivalent figures in Greece and Portugal, which are already EMU countries. More importantly, Slovenia has reached almost precise equilibrium in her external balance (CA), while the poorest eurozone countries, Greece and Portugal, have rather high CA deficits.

The three Baltic States with ERM II status are rather clearly behind Slovenia (and Greece and Portugal) in living standard. ERDI values in Latvia and Lithuania are relatively high. Estonia's ER shows also a remarkable undervaluation, even though it is more moderate than in other two Baltic States. However, Estonia has the highest relative CA deficit among NMSs: Estonia's CA deficit of 15% of GDP indicates that the ER is not on an appropriate level.

The exchange rates of the three Baltic currencies ought to be measured properly by market forces in the framework of ERM, which is meant to be an antechamber of eurozone full

membership. During this trial period of ERM scheme, suitable exchange rates ought to be looked for via economic, and not via administrative methods in every single case of a potential eurozone membership.

Estonia's share of EU's GDP (25 countries) is 0,01%. The equivalent figure in Latvia is also 0,01%, in Lithuania 0,18% and in Slovenia 0,25%. Thus, the share of EU's GDP (at official exchange rate) in these four euro candidates taken together is 0,45 percent. The country with the highest percentage in this comparison, Slovenia, has a living standard which compares well with Greece and Portugal. Slovenia has relative equilibrium in her CA.

These figures here are brought up in order to show that the four euro candidates can hardly cause substantial disturbances on EU affairs because of their relatively modest size (taken together). From this point of view, eurozone enlargement with these four countries in this decade can be described as a rather easy exercise.

Those four transitional economies, which are EU members, but not yet in ERM II (Poland, Slovakia, Hungary, the Czech Republic) have together a 3,9 percent slice of EU's GDP (of 25 countries). This calculation is made at official exchange rate basis (without PPP adjustment). The figure of less than 4% is rather low. In comparison, the equivalent share of EU's GDP (25 countries) of those three "old" EU members, which are not in eurozone (United Kingdom, Denmark, Sweden) is about 22%.

Thus, about one quarter of EU's total output (of 25 members) is created outside of the eurozone. The possible eurozone enlargement comprising Slovenia, Estonia, Latvia, and Lithuania, is only marginally affecting the scene (measured with the mentioned circa 0,5% of EU's GDP created in the potential new eurozone countries).

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