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Central European Countries' Accessions to EMU – Costs and Benefits for EMU-Insiders and Outsiders

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When the West European integration process started many experts expected a relative advantage of the core, stable, big countries like Germany and France. Peripheral, unstable economies like Ireland, Portugal and Spain were expected to have more difficulties during the specific process of integration laid down in the Maastricht treaty because necessary stabilization policies in order to fullfil the Maastricht criteria were far more painful for them. More basic reforms were required in those economies reaching from the reduction of large fiscal deficits, dramatic changes in monetary and labor market policies to legal and institutional reforms like an independent central bank and the removal of capital controls. As long as these efforts are not credible for private transactors inflationary expectations remain high resulting in recessions and high unemployment. When authorities then ease their stabilization efforts in order to reduce unemployment this vicious circle is kept alive (Giavazzi/Spaventa (1990); Walters (1986)).

The empirical experience from West European integration is in sharp contrast to these expectations: Ireland (IRL), Portugal (POR) and Spain (ESP) are showing a far better real economic performance than Germany (GER) and France (FRA) (see Table 1). Since 1990 real GDP-growth in IRL, POR and ESP has been continuously higher than in FRA and GER. Only during the period 1990–1995 GER was growing faster than ESP and POR mainly as a result of the German reunification.[1]

To explain this surprising empirical development two aspects are of crucial importance. First, peripheral countries performed better in effectively adjusting their economies to the new European monetary union situation. Second, peripheral countries gained far more from increased stability than core countries. This also implies that higher levels of long

[1] The period 1990–95 is characteristic for a worldwide growth reduction. For US (UK) the average real GDP-growth was 2.3% (1.47%) after 2.9% (3.1%) for the period 1985–90. For a detailed analysis see *Alexander/Loef* (2001).

run and credible stability in economic developments are of outstanding importance for an economy's real performance. While numerous studies analyze the behavior of labor markets in EMU-member states and the progresses made to strengthen the fiscal position (Beetsma/Bovenberg (2001), 179–204; Buiter/Kletzer (1990), 221–243; Corsetti/Roubini (1996), 46–82), the soundness of the banking sector and other necessary structural adjustments (see: Giovannini/Mayer (1999)) the main attention of this paper is directed to the stability argument.

A closer look at the data makes clear that domestic investment expenditure were the main source of this higher GDP-growth in peripheral formerly unstable economies while the development of private consumption and export surpluses was similar in all countries and government deficits were brought down continuously (Alexander/Loef (2001)). Investment decisions are mainly based on the level and uncertainties of expected long run real interest rates r. In contrast to the nominal interest rates i where investors have access to a broad variety of hedging instruments to reduce or eliminate uncertainty it is not possible to use similar techniques for handling uncertainties due to future inflationary surprises with the consequence that uncertainties in the real revenue of investments remain.

It is mainly the substantial credible long run reduction in investors' uncertainty as a result of a Maastricht-type stabilization policy that contributes to the superior real economic performance in traditionally less stable countries like IRL, POR and ESP. Apparently, a lot of similarities between IRL, POR and ESP at the beginning of the West European inte-

Table 1

Real GDP-Growth (5 years averages) in Western Europe
(Source: Computations from IMF-statistics)

	80–85	85–90	90–95	95–2000
Ireland (IRL)	1,05	1,80	5,31	9,58
Portugal (POR)	1,53	4,30	2,20	3,33
Spain (ESP)	1,35	4,10	1,75	3,57
France (FRA)	1,55	2,9	1,28	2,33
Germany (GER)	1,13	2,9	2,63	1,77

gration process on one side and Central European Countries (CEC) today on the other side exist: Both groups of countries suffered from high inflation and interest rates, unsound fiscal positions, frequent devaluation of their national currencies and from underdeveloped financial markets.[2]

It is the purpose of this study to analyse whether and under what conditions CEC can achieve a positive real economic performance that is comparable to the observed developments in IRL, POR and ESP during their way of accession to the European Union (EU) first and to the European Monetary Union (EMU) later. In Chapter I. we will explain the situation of investors in CEC with special reference to uncertainties they are confronted with. In particular, attention is paid to the relation between stabilization policy efforts, investment decisions and real economic growth in the specific CEC situation. As the real economic performance of CEC crucially depends on the credibility of their stabilization efforts Chapter II. will discuss the typical credibility problems of CEC. A brief empirical analysis of the uncertainty developments in IRL, POR and ESP on one side and CEC on the other side is presented in Chapter III. In Chapter IV. the main conclusions are summarized.

I. Investment Decisions in CEC

From theory we know that investment expenditure is irreversible to a large extent because capital is firm or industry specific or because its resale value is far below its purchase cost, even when new. Therefore, investment can be treated as a call option: If a transactor makes his investment expenditure now he will exercise his option to invest giving up all further information on the profitability of his investment. As a consequence, in a world of uncertain future cash-flows the well known "net present value" (NPV) – rule must be modified: The discounted future income stream from the investment expenditure must exceed the pur-

[2] It is clear that many differences exist between CEC today and IRL, POR and ESP at the beginning of the West European integration process. These differences reach from institutional factors, political and economic structures to international trade patterns. As a consequence a strict comparison between economic developments in the CEC during the coming years with the experiences from Western Europe is not possible. On the other side we should keep in mind that the substantial differences also existed between the West European countries twenty years ago and that the further convergence required in different treaties and protocols will lead to a greater similarity between the structures in CEC and in West European countries. One of the crucial differences between CEC and formally unstable West European countries consists in a far greater currency substitution in the CEC.

chase and installation cost by an amount of the value of the foregone investment option (Pindyck (1991, pp. 1111–1112)). Ingersoll and Ross (1988) have shown that the same is true for interest rate uncertainty: As with uncertainty over future cash-flows volatile interest rates will make investments only profitable when the interest rate r is lower than the internal rate of return r_0 making the NPV zero. In addition, the difference between r and r_0 increases with interest rate volatility. This implies that despite of decreasing interest rates investors prefer not to invest but to postpone their expenditure when uncertainties about future interest rates rise. On the contrary, growing rates may be accompanied by rising investment expenditure when uncertainties go down.[3]

One major source of uncertainty about the real value of expected future cash-flows as well as expected real interest rates is the development of inflation. Empirical experience shows that if inflation goes up it will also become more volatile (Gwartney/Lawson/Holcombe (2000), Gwartney/Schuler/Stein (2001, pp. 189, 196)). For investors it is getting more difficult to determine the profitability of their expenditure, in particular in the long run. Inflation also undermines the role of relative prices in signalling relative scarcity leading to lower expected real values of cash-flows with a negative impact on investment expenditure. According to Pindyck (1991, p. 1141) it is more important for stimulating investment to follow a stable and credible economic policy than to lower the level of interest rates.

If we look at the specific situation an investor is confronted with in formerly unstable economies on their way to join a monetary union (MU) additional aspects should to be taken into account and it is useful to distinguish between three different economic scenarios: Stage 1 represents the economic situation before the country's attempts to access to a MU. During this pre-integration period inflation rates are high and volatile because all attempts to permanently stabilize the economy are not successful. Inflationary surprises occur making real interest rates negative from time to time. Fiscal policy is characterized by high deficits often financed by money creation from a dependent central bank. The currency is frequently devalued against the major international currencies and the banking system and capital markets are not well developed. As a consequence investors are very uncertain about the future path of long run real interest rates as well as real values of future cash-flows.

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[3] For analyses about the influence of different uncertainties on investment behaviour see *Belke/Gros* (2001) and *Deutsche Bundesbank* (2001).

In Stage 2, the adjustment or integration period, the announced stabilization policy is not regarded as credible from the beginning because investors are sceptical about the staying power of monetary and fiscal authorities. Even when they observe decreasing levels and volatilities of inflation and interest rates and a sounding of the fiscal position they will not treat this as permanent. As long as the fear exists that the stabilization efforts will be reduced and that the economy will step back to Stage 1 again inflationary expectations and nominal interest rates will remain high with the consequence that real interest rates will go up.

Stage 3 represents the scenario of a country's full membership in the MU. After a successful qualification process the country has reached a higher level of stability, interest rates are near the MU level only including country-specific risk, the fiscal position is solid, the basic legal and institutional frameworks are comparable with and accepted by the international economic community and the exchange rate uncertainty has vanished vis-à-vis all member countries. Uncertainty about future cashflows and real long run interest rates is comparatively low and comparable with the numbers in traditionally stable countries. For CEC Stage 3 also implies that many political uncertainties are gone by coming from the probability to fall back to old socialistic structures with their unforeseeable impact on the investors' legal position.

During the adjustment period Stage 2 credibility plays a crucial role for investors: *First,* only credible policies can make investors believe that Stage 2 will lead to Stage 3, the full membership in the MU. In this case expected future cash flows and long run real interest rates are considered to become less volatile with a stimulating effect on investment. *Second,* if investors believe that a strict stabilization policy confronted with a severe recession will be abolished they expect that Stage 2 sooner or later will turn back into Stage 1 characterized by a far higher uncertainty about future earnings and real interest rates. Investment expenditure will be postponed. *Third,* the entrance into Stage 3 will only be possible if the accession country fullfils all requirements for a full membership in the MU. Therefore, a successful stabilization policy is only one pre-condition for a change from Stage 2 to Stage 3. Unresolved problems in legal and institutional reformation processes or changes in the political climate towards a more negative attitude against an accession also diminish the probability to reach Stage 3 with the described negative effects on investment. *Fourth,* it becomes obvious that the probability of joining the MU is crucial for the uncertainty an investor is confronted with in CEC because the expected real returns on his investment expenditure as well as

the real costs crucially depend on the transition from Stage 2 to Stage 3 in case of a successful stabilization policy. Changes in this probability due to new information about successes or failures of the integration efforts are reflected in expected long run real interest rates. These rates include a risk premium for not achieving full membership of EMU but falling back to Stage 1. Therefore, the signing of international treaties including the exact conditions and timing of the accession process will help to base investors' decisions on more solid grounds. We can conclude that during the accession process a successful real economic development of formerly unstable countries with increasing investment expenditure and as a consequence sufficient growth rates in real GDP can be reached by a strict stabilization policy that is credible in the long run.

II. Credibility Problems for Central European Countries

Perhaps the most important obstacle for a strict and persisting stabilization policy in traditionally less stable countries is a severe recession with high unemployment. Especially in former socialistic economies the pressure for policy shifts in case of high unemployment to higher public deficits and lower interest rates is extremely strong because of a variety of reasons: *First,* per capita incomes in CEC are relatively low and households are not buffered by real or financial assets. *Second,* though people in former socialistic countries accept difficulties during the transition to a market economy the expectations of a higher economic welfare are high and supported by a direct comparison with Western countries. *Third,* in former communist countries unemployment was regarded as the main evil of capitalism and market systems. A deep recession weakens the positions of reformers and strengthens the adherents of the old system with the result that a strict stabilization policy in order to join EMU is not longer supported by the majority of voters.

The above analysis suggests that stagnation and unemployment during a Maastricht-type integration process only can be avoided when the stabilization strategy is credible in the long run with the clear and certain perspective that it will end up in a full membership in EMU. Here the question arises: Are the stabilization strategies of CEC credible in the long run? Credibility is improved when transactors believe that the policy will lead to an accession to EU and EMU in the foreseeable future. The higher the probability of a successful accession the more credible are the stabilization efforts of CEC officials for all domestic and foreign transactors.

Table 2

Expected Dates to Join EU (polls from the beginning of 2001)
(Source: Deutsche Bank Research (2001, pp. 3–13))

	before 2003	before 2005	2006 and later
Czech Rep.	21.9*	38.0	16.2
Estonia	14.0	36.1	22.5
Hungary	26.8	33.4	12.9
Poland	19.8	41.1	18.1
Slovenia	23.7	42.1	16.9

* percentage of population

Credibility in this respect rests on two basic facts:

(1) There must be the definite political will to join EU and EMU in the CEC and to accept an enlargement inside EU.

(2) Transactors must believe that CEC have a realistic chance to fullfil the Maastricht-criteria in time by following a strict stabilization policy and by meeting all the required constitutional and structural changes.

During the whole process of transition since 1990 nearly all CEC have developed many activities to come nearer to EU and to become more independent from Russia.[4] The clear political will to join EU and EMU has been documented by regular polls (see Deutsche Bank Research (2001), 3–13): At the beginning of 2001 in Czech Rep. (CZE) only 16% would have voted against an EU accession. The corresponding figures are for Estonia (EST) 28.1%, Hungary (HUN) 14%, Poland (POL) 20.4% and Slovenia (SVN) 21.4%. It is interesting that the expected date to join EU is in the near future (see Table 2).[5]

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[4] A remarkable event was the Polish entrance into NATO. CEC launched a lot of initiatives and pushed forward strongly negotiations with EU. The objective of EU accession has become one of the basic driving forces behind the adjustment and reform efforts in these countries.

[5] This convincing positive attitude in favour of an EU-accession hides substantial inconsistencies: For example, while only 14% of the Hungarian population vote against an EU-accession, nearly 80% do not want to give foreigners the right to own land in HUN.

If we look at the EU-insiders the picture is quite different: At the end of 2000 only 44 % of the population in the EU 15 supported an enlargement with Greece (GRC) at the top (70 %) and UK at the bottom (31 %). The support is slightly decreasing over time. In addition, EU-insiders believe that an enlargement will not strengthen but weaken Europe and that the Maastricht-criteria are very important for an accession of CEC (Deutsche Bank Research (2001), 14–18). On the other hand, 100 % of the EU-population expect an accession of the above five CEC before the end of 2007 and are in favor of an enlargement because of political reasons.

To sum up we can conclude that politically the efforts of CEC to join EU and EMU are convincing and credible in the long run though the populations in the EU-countries do not expect a direct gain from this enlargement.

If we compare the present situation with the conditions at the beginning of the European integration from an economic point of view the following aspects are of great importance:

(1) Efforts to become members of EU and EMU are far more credible for CEC today than for Western peripheral countries twenty years ago (Branson/de Macedo/von Hagen (1998)). IRL, POR and ESP passed successfully the whole bulk of qualification criteria without serious painful recessions. This surprising empirical experience is important for the confidence in CEC and supports the implementation of a strict stabilization policy. A common European monetary policy with a strict stability orientation has been available since 1999, the fears of an "instability union" have been reduced dramatically. With the introduction of the common European-wide notes and coins the integration process reached the quality of a strong common economic unit. To join EU and EMU now means accession to a stable community with high stability standards in monetary policy while the situation for less stable countries twenty years ago was very unclear and uncertain. This leads to a greater transparency and credibility of strict stabilization efforts in the CEC because the final goal, the situation as a full member of EU and EMU with its specific implications, is better known to everybody. In addition, the successful way of formerly unstable Western European countries increases the confidence in the CEC to be on the right track and strengthens the support for the integration policy.

(2) For EMU-insiders the accession of CEC is easier to accept than the inclusion of formerly less stable Western economies for Germany and

France because compared to the large common market the relative weight of CEC is only of minor importance and because many basic structures in the EMU like the constitution of the European Central Bank are already determined.[6]

(3) The accession to EMU with one of the major world currencies is a necessary and meaningful step for many CEC: In a global economy with massive international capital flows the competition between currencies increases. Small, weak currencies are not able to provide all liquidity services of major currencies. In addition, they are subject to speculative attacks, leading to severe devaluations, banking crises and negative repercussions for the real economy. As a consequence, small weak currencies like the Zloty, the Forinth or the Czech Krona even today are subject to currency substitution processes inside CEC with a strong consolidation pressure. After accession to EU and EMU CEC will be free of these problems.[7]

(4) In the long run an accession of CEC to EMU will also be stable and credible because of the specific European way of currency consolidation: While in the dollar-hemisphere countries only have the choice to introduce the dollar unilaterally by selling interest bearing assets the European way of dollarization implies that all national currencies become part of the new common money (multilateral dollarization). This has important long run consequences: A unilateral procedure is positive for countries only in the short run because the seigniorage that has to be paid to the US is matched by a greater imported stability. While seigniorage cost accrues as long as the dollar is used as legal tender, the benefits from imported stability decrease over time. Every year of stability and the improvement of a stability culture reduces the need to import stability and creates incentives to abandon the dollarization in order to save seigniorage costs (Alexander/von Furstenberg (2000)).

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[6] An accession of the above five CEC plus Bulgaria, Latvia, Lithuania, Romania and the Slovak Republic will increase European GDP on a PPP-basis by 11% and will decrease average GDP per capita by 13% (*IMF* (2000), 138).

[7] The entrance of CEC into EMU is also connected with costs for the accession countries: They loose their independent monetary policy, are subject to fiscal policy constraints according to the Maastricht-criteria and can not react by a devaluation in cases of asymmetric shocks. Apparently these well known negative effects turned out to be of no dominant importance in the West European integration process. If we look to the situation CEC are confronted with in their Stage 1 situation discussed above the positive effects of a EMU-entrance are far higher.

(5) In case of a multilateral way the country introducing dollars or euros participates in the gains from seigniorage and also has the right to influence the decisions of the common central bank (Feist (2001)). Therefore, the accession to EMU is not subject to a long run instability and can be treated as a credible strategy in the long run.

The main result of our discussion about the credibility of the CEC strategies to join EU and EMU is that they are in a far better position than IRL, POR and ESP at the beginning of the West European integration. This implies that CEC have a good chance to reach a high real economic growth during the Maastricht-type integration process provided they strictly follow a policy of bringing down inflation, of restructuring their labor and capital markets and sounding their fiscal positions (Fischer/ Sahay (2000)).

III. Uncertainty and Real Growth in Central European Countries

A brief empirical analysis tries to show the relevance of the theoretical considerations presented in the previous chapters. We will concentrate the discussion on CZE, EST, HUN, POL and SVN because these countries are expected to be the first candidates for becoming full members in EMU. In Table 3 we can see a high real GDP-growth in HUN and POL during the period 1995–2000 fostered by extremely high growth rates in investment expenditure. In both countries inflation rates were brought down significantly from the higher 20ies (1995) to nearly 10 % in 2000. The same picture holds for EST and SVN. In EST we observe a very successful reduction of inflation rates. SVN shows a remarkably stable real growth over the whole period, high investment growth and less successful antiinflationary efforts. The real development in CZE is completely different: During the years 1997–1999 real growth and especially investment growth were negative and inflation remained at the same level until 1998. Apparently with the exception of the CZE growth rates in CEC are relatively high. The driving forces for this performance mainly were domestic investment expenditures.

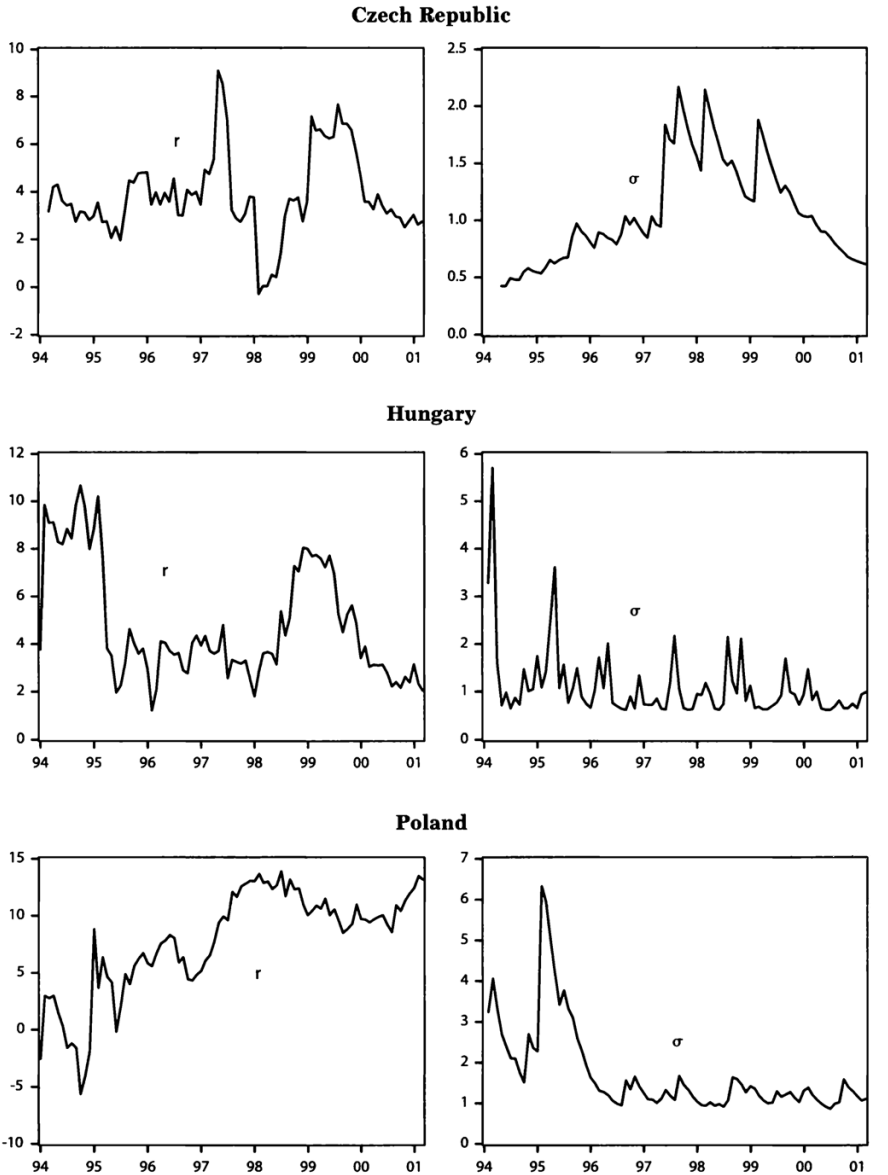
If we look at expected long run real interest rates as a main determinant of investment expenditure (Fig. 1) the following aspects will be important: The level of the expected long run real interest rate r derives from the Fisher-equation $r = i - E[\pi]$ where i represents the nominal long term lending rate, $E[\pi]$ is calculated by using static forecasts of ARIMA-processes and π is defined as CPI-growth. Interest rate uncertainty is measured by the conditional standard deviation σ of r using the

Table 3

Macroeconomic Variables in CEC

	1995	1996	1997	1998	1999	2000
Czech Republic						
real GDP growth (annual)	5,9	4,8	–1,0	–2,2	–0,8	3,1
inflation	9,2	8,1	7,7	9,6	2,2	4,3
real total gross fixed capital formation	19,8	8,2	–2,9	–3,9	–4,4	5,2
Estonia						
real GDP growth (annual)	4,3	3,9	10,6	4,0	–0,5	6,4
inflation	28,8	23,1	10,6	8,2	3,3	4,0
real total gross fixed capital formation	32,1	32,5	28,2	18,6	–10,9	4,3
Hungary						
real GDP growth (annual)	1,5	1,3	4,6	4,9	4,5	5,1
inflation	27,7	23,4	18,0	13,3	10,5	9,7
real total gross fixed capital formation	–4,3	6,7	9,2	13,3	6,6	6,7
Poland						
real GDP growth (annual)	7,0	6,0	6,8	4,8	4,0	4,1
inflation	27,9	20,0	14,7	11,5	7,2	10,2
real total gross fixed capital formation	16,5	19,7	21,7	14,2	6,5	3,1
Slovenia						
real GDP growth (annual)	4,1	3,5	4,6	3,8	5,2	4,8
inflation	12,6	9,7	9,1	8,6	6,6	10,8
real total gross fixed capital formation	27,4	21,1	18,2	17,8	24,8	13,3

(*Source:* OECD Economic Outloook 69 (2001), IMF)



Source: IMF statistics, various issues, monthly data, own calculations

Fig. 1: Expected Long Run Real Interest Rates r and Conditional Standard Deviations σ for Central European Countries

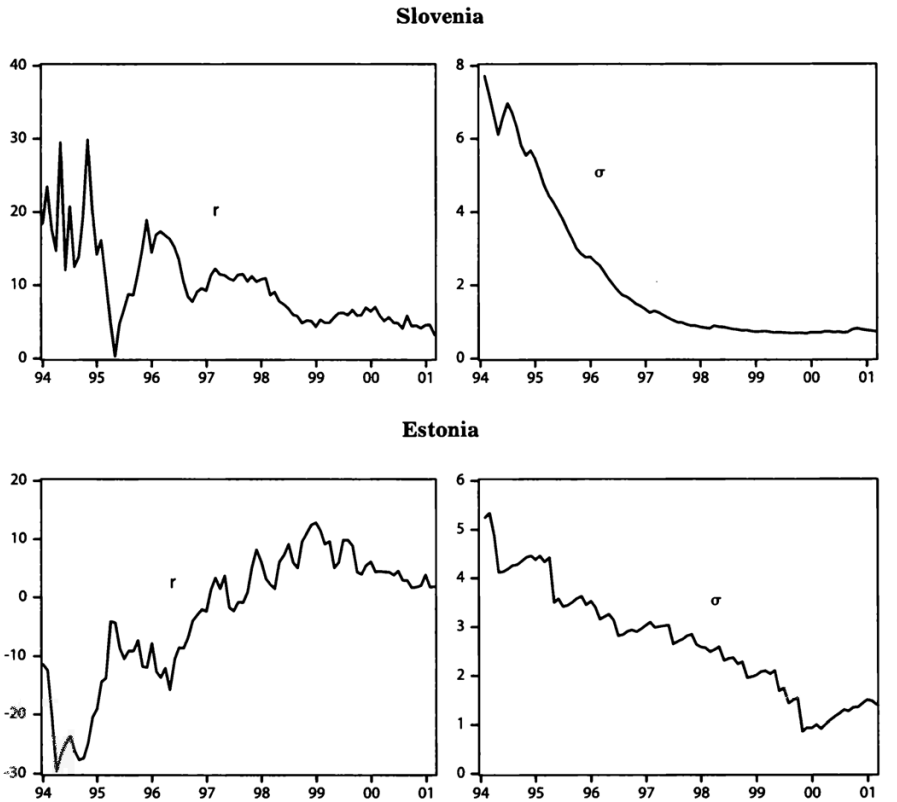


Fig. 1: continued

GARCH-technique (Engle (1982), Bollerslev (1986)). According to Engle (2001, pp. 158, 167) the GARCH-approach is appropriate in situations where the volatility of returns is of special interest and theories of investment decisions are exhibited and tested statistically.

For CZE we can see that the negative growth rates of GDP and real investment expenditure are accompanied by a significant increase in uncertainty while the level r in 1998 even became negative for a short period of time. Positive real growth rates (1995, 1996, 2000) only could be achieved with a relatively moderate σ while the average r remained nearly unchanged during the whole period 1995–2000.[8]

[8] To include the data from 1990–1993 implies that the analysis is subject to serious statistical and economic problems coming from the first years of transition.

In HUN σ was very high at the beginning of the analyzed period and then was brought down together with π. Real growth of GDP and investment expenditure went up in the years 1995–1997, the period of a strong reduction in σ and remained high even in times of rising levels of r (1998–1999).

For POL we can observe a strong reduction in σ during the years 1995–1996; since 1996 (σ) remained on a low level. On the contrary, r increased significantly and reached two digit levels in 1998 – a clear sign for a stabilization policy that is not regarded as credible. Despite of the very high level of r real GDP and investment growth remained positive with remarkable and only slightly decreasing rates.

Apparently the significant reduction in π in HUN and POL reduced investors' uncertainty (σ) and stimulated real GDP and investment growth. In CZE where inflation remained on the same level from 1995–1999 uncertainty increased and GDP as well as investment growth became negative during three years. Developments in EST and SVN are similar and comparable with the experiences in Western economies like IRL, POR and ESP: Expected long run real interest rates are sometimes negative in the first part of the adjustment process – a clear sign for inflationary surprises. In a second phase the rates increase over a substantial period of time – a typical reaction on stabilization efforts that are regarded as non credible. Then the r-values go down to "normal" levels. Uncertainty is reduced significantly in both countries stimulating economic growth despite of the increases in the levels of expected long run real interest rates.

For expectations about the further real economic performance of CEC on their way to become full members of EMU the empirical experience from the West European integration process might be informative. In particular, traditionally unstable countries like IRL, POR and ESP were confronted with a similar situation at the beginning of the process and meanwhile have reached full membership in EMU after a successful Maastricht-type qualification. Fig. 2 gives an explanation for the positive real economic performance of these countries (see Table 1) that is consistent with our former analysis: In IRL, POR and ESP investors' uncertainty σ went down drastically as a consequence of the integration process. Real growth was stimulated despite of an increasing r during

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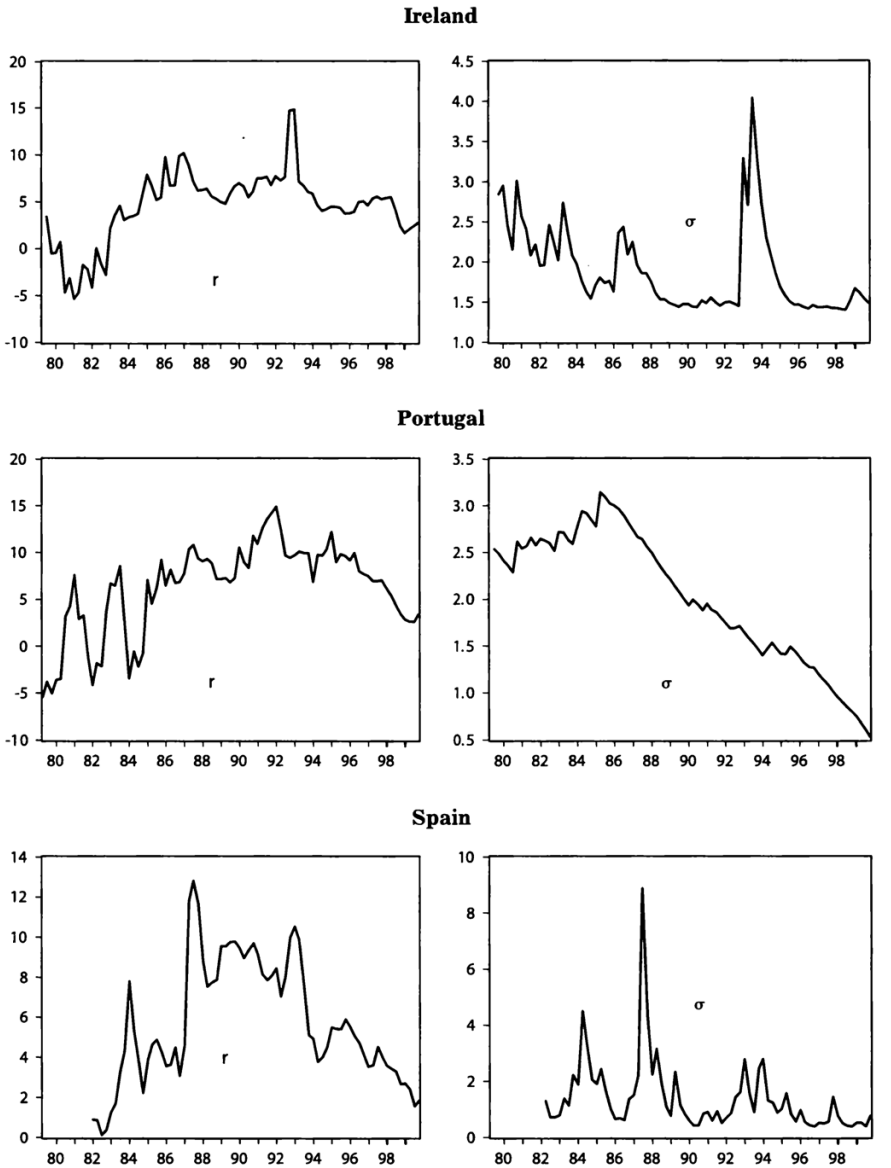
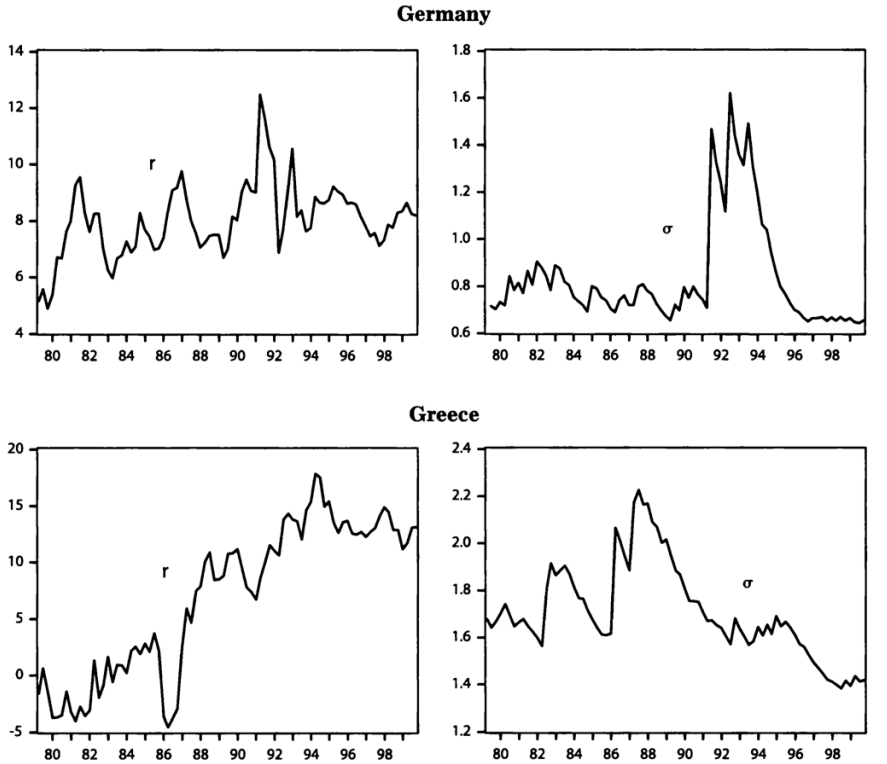
We therefore prefer to start in 1994 after 2–3 years of fundamental adjustments to a market oriented economy. In addition, if we include the data from this earlier period our main findings are strengthened.



Source: IMF statistics, various issues, quaterly data.

Fig. 2: Expected Long Run Real Interest Rates r and Conditional Standard Deviations σ for Ireland, Portugal and Spain



Source: IMF statistics, various issues, quarterly data, own calculations

Fig. 3: Expected Long Run Real Interest Rates r and Conditional Standard Deviation σ for Germany and Greece

the period 1985–1990. After a time of higher uncertainty in the first half of the 90ies (German reunification, disturbances in the European Monetary System) combined with high levels of r and a resulting lower GDP-growth uncertainty σ was reduced further since 1995 when the entrance into EMU has become more and more probable for IRL, POR and ESP. Since 1995 r decreased significantly and reached the level of the big central countries GER and FRA. This implies that the risk premium for not being included into EMU as a full member vanished in 1998. As a consequence real growth in IRL, POR and ESP went up significantly exceeding the growth rates in the big central countries like GER and FRA (see Table 1). This substantial gain from a reduced uncertainty cannot be observed in traditionally stable countries like GER. Fig. 3 shows that in

GER the development of r and σ was not influenced by the integration process because stabilization policy in GER had not changed. The average level of r is relatively stable and σ was dominantly influenced by the German reunification and the disturbances in the European Monetary System in the early 90ies. Therefore, the real gain from stabilization could not be as important as in formerly unstable countries.

Another characteristic of the West European integration process can be observed in the behavior of interest rates in GRC (Fig. 3): Compared to IRL, POR and ESP expected long run real interest rates in GRC remained high up to 1999 which implies that the Greek efforts to stabilize the economy were not treated as credible and that inflationary expectations remained high. One major reason for this more painful economic development may be the delayed and uncertain entrance of GRC into EMU.

To sum up, the brief empirical analysis presented above makes it clear that significant reductions in investor's uncertainty lead to higher growth rates in real investment and GDP. Because this uncertainty is strongly connected with the probability of a full membership we can conclude that for CEC a strict and credible policy of accession to EMU reducing the probability of not becoming a full member is the best way to achieve stability and to avoid recession and high unemployment during the transition period. This implies that inflation has to be brought down further to levels comparable with EMU, that the fiscal criteria and all the institutional and legal requirements have to be fullfilled completely. In addition, binding treaties between EU-insiders and CEC including exact timetables and conditions for the entrance increase the credibility of accession efforts, pave the way for internal political support inside CEC and reduce investors' uncertainties concerning the time path of the accession process.

IV. Conclusions

The main results of our analysis based on the empirical experience from the integration process in Western Europe are, that a strict stabilization policy in order to fullfil Maastricht-type criteria will not necessarily be accompanied by painful growth reductions and unemployment. The main reason for this positive perspective is a dramatic reduction in uncertainties investors are confronted with as a consequence of a permanently low inflation scenario. The basic requirement for such a successful stabilization is the credibility of the strategy in the long run with the clear perspective to become a full member of EU and EMU.

For CEC the chance to pass a Maastricht-type qualification process with minor real costs is high because politically their integration strategy is credible and because economically the gains from an accession to EU and EMU are convincing for the markets. In addition to the discussed stabilization efforts CEC should strictly follow the policy of adjustments in their institutional and legal systems to meet the requirements for an entrance into EU because otherwise the credibility of the accession process is reduced. After having become a member of EU it is helpful for CEC to sign treaties with EU including the exact timetable and conditions for a membership in EMU. This is an important support for credibility of their accession efforts.

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Summary

Central European Countries' Accessions to EMU – Costs and Benefits for EMU-Insiders and Outsiders

During the process of economic integration in Western Europe formerly unstable peripheral countries (Ireland, Portugal, Spain) achieved higher real economic growth than Germany and France provided their stabilization efforts are treated as credible in the long run. One important reason analysed in the paper was that the shift to stability reduced uncertainties for investors. Central European Countries have an even better chance to pursue a stabilization policy without painful real effects like unemployment because their political will to join EMU and their economic advantages in case of an accession are credible. Therefore they should follow a strict stabilization strategy combined with suitable institutional and legal adjustments. (JEL F31, F33, F36)

Zusammenfassung

Der Eintritt zentraleuropäischer Länder in die Europäische Währungsunion – Vor- und Nachteile für Mit- und Nichtmitglieder

Im Verlauf des Prozesses der wirtschaftlichen Integration in Westeuropa erreichten ehemals instabile, periphere Länder wie Irland, Portugal und Spanien ein höheres reales Wachstum als Deutschland und Frankreich. Die Voraussetzung dafür war, dass ihre Stabilitätsbemühungen langfristig als glaubwürdig aufgefasst wurden. Ein wichtiger Grund für diese Entwicklung, der im vorliegenden Manuskript analysiert wurde, bestand darin, dass die Neuausrichtung auf Stabilität Unsicherheiten für Investoren reduzierte. Die zentraleuropäischen Länder haben eine noch günstigere Chance, ihre Stabilitätspolitik ohne schmerzhafte reale Effekte wie Unterbeschäftigung durchzusetzen, da ihr politischer Wille, der Europäischen Währungsunion beizutreten, und ihre ökonomischen Vorteile im Falle eines Beitritts als absolut glaubwürdig gelten. Deshalb sollten sie eine konsequente stabilitätspolitische Strategie verfolgen, kombiniert mit passenden institutionellen und gesetzlichen Anpassungen.

Résumé

L'entrée des pays d'Europe centrale dans l'Union monétaire européenne – Avantages et inconvénients pour les membres et non-membres

Au cours du processus d'intégration économique dans l'Europe de l'Ouest, des pays périphériques auparavant instables, comme l'Irlande, le Portugal et l'Espagne, ont obtenu une croissance réelle plus élevée que celle de l'Allemagne et de la France. La condition en était que leurs efforts de stabilité aient été considérés comme crédibles à long terme. Une raison importante de cette évolution, analysée dans le présent travail, était que la nouvelle tendance de stabilité a réduit les incertitudes des investisseurs. Les pays d'Europe centrale ont une chance encore plus grande de poursuivre leur politique de stabilité sans effets réels douloureux, comme le chômage, parce que leur volonté politique d'entrer dans l'Union monétaire européenne et leurs avantages économiques en cas de l'intégration sont absolument crédibles. C'est pourquoi, ils doivent poursuivre une stratégie de politique de stabilité de manière conséquente, combinée avec des ajustements institutionnels et légaux adaptés.