European Union and Euro

FINANCIAL INTEGRATION PROCESS IN THE EUROPEAN UNION

Martina Novotná
VŠB-Technical University of Ostrava
Faculty of Economics
Department of European Integration
Sokolská 33
701 21 Ostrava
Czech Republic
e-mail: martina.novotna@vsb.cz

Abstract

The process of European financial integration is one of structural reforms, which were defined in the Lisbon strategy in 2000. Financial integration became a prime objective of the economic policies of the European Union. It is generally accepted that financial integration fosters financial development, which in turn creates potential for higher economic growth. There are many researches studying quantitative and qualitative indicators of financial integration process. Most of the studies concern with estimation of benefits or state and evolution of financial integration. One of many aspects of financial integration process is monitoring and measuring of achieved level on the financial market segments. Paper is focused on selected questions of European financial integration, deals with financial development, definition and benefits of financial integration and presents methods of measuring and monitoring achieved degree of integration process.

Keywords: *European Union; financial markets; integration; measuring; monetary union*

1. Introduction

The paper is focused on the selected issues of financial integration as one of primary objectives of the European Union today. The aim of the paper is to explain the need for monitoring of financial integration in the European Union and present various indicators of financial integration. In the first chapter the financial integration of the European Union is assumed in the context of globalisation and its international financial integration is expressed. Then, the impacts of financial integration are described and the main steps of European authorities to foster the creation of single European financial market are introduced. The crucial part of the paper is chapter four that deals with measuring of financial integration in the European Union. The main and frequently used approaches to measuring the integration and the most common indicators are explained there.

2. Globalisation and the financial integration

European financial integration process calls for many changes in the structure and operation of the financial services sector across the EU member states. Barriers to trade in financial services and financial assets have been gradually eliminated in the whole world and interaction among national economic systems is becoming still greater. It is generally accepted that the financial integration can have a positive influence on economical development, namely for many reasons.

Many studies are engaged in examination of evidence that the financial integration supports economic growth[1], in particular through financial innovations and investments. Financial integration would further reduce volatility and help to stabilise fluctuations in consumption relative to income. The mentioned effects of financial integration are generally accepted, but in fact it is difficult to establish a strong relationship between financial integration and growth; there is also little evidence that financial markets would be more stabilised[2]. It is needed to realize that there are also negative effects of financial integration, for example: financial crises become more frequent; volatility of financial markets is increased; the extent of financial integration by measures of financial liberalisation is unequal; the rate of financial integration (measured by gross capital flows) is also uneven, net capital flows from poor to rich countries; financial integration can make

[1] e.g. Cecchini report (1988), The London Economics Study (2002), CEPR study (2002), Gyllenhammer report (2002)
[2] BIS Paper No 23. Access from: < http://www.bis.org/publ/bispap23.htm>

countries exposed to external shocks (that reduce growth and consumption smoothing benefits).

Based on experience, we can state that enhanced financial integration has resulted in higher growth and greater convergence among economies in general. Liberalisation of capital movements, financial services, deregulation and further opening of markets to trade and investment are one of major forces contributed importantly to the globalisation process. On the other hand, one of important features of globalisation is the high integration of financial markets.

2.1 Indicators of international financial integration in the European Union

As mentioned in the previous chapter, the degree of financial integration is increasing. Foreign assets and liabilities in advanced countries have grown rapidly relative to GDP in recent years. Similarly, the portfolio equity and foreign direct investment categories have grown in importance relative to international debt stocks. Is it possible to distinguish between European integration and international integration in Europe? We can describe the broad trends in international financial integration of the European Union on the basis of countries´ portfolios of external assets and liabilities – the so-called international investment position[3].

Summary volume-based measure of international financial integration (Lane, Milesi-Ferretti, 2003) is:

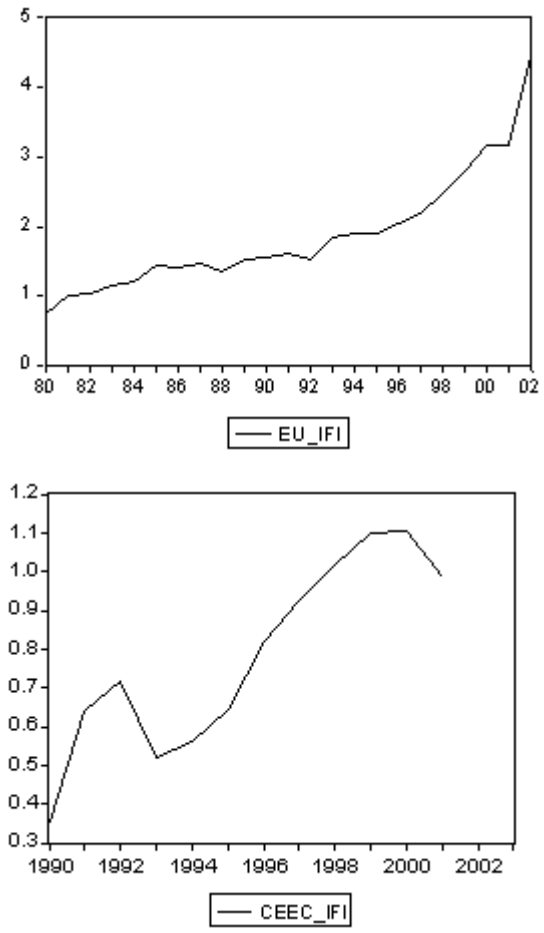
$$IFIGDP_{it} = \frac{(FA_{it} + FL_{it})}{GDP_{it}} \quad , \tag{1}$$

where $IFIGDP_{it}$ expresses the international financial integration for country i at time t; FA refers to the stocks of aggregate foreign assets and FL represents the stocks of aggregate foreign liabilities[4]. The European Union is characterised by an increasing trend (see Figure 1) for the whole period of observation. In case of new member states, the indicator increased four times over 1990s. The figures of these countries are much lower than in EU-15 member states.

[3] LANE, P. R. and MILESI-FERRETI, G.M. International Financial Integration. IMF Staff Papers. Vol. 50, Special Issue. International Monetary Fund, 2003.

[4] External assets and liabilities characterize the international investment position – summarize total holdings by domestic residents of financial claims on the rest of the world and non-resident´ claims on the domestic economy. External liabilities are divided into four main categories (foreign direct investment, portfolio investment – equity and debt securities, financial derivates and other instruments – monetary authorities, general government, banks, etc.), assets are represented the same categories plus official reserves (Volz, 2004).

Figure 1: International Financial Integration in EU-15 and CEE countries



Source: Pungulescu, 2003. Access from:
< http://venus.ci.uw.edu.pl/~rubikon/forum/crina.htm>

3. Integration of financial markets in the European Union

Process of financial integration in the European Union has been proceeding very intensively in recent years. We can assume that the introduction of euro should speed up the integration process - main reasons are the elimination of the exchange risk and obstacles to the free flow of financial assets and services. The European Commission DG Internal Market

has asked for quantification the macroeconomic benefits of full integration of European financial markets. Based on the study of London Economics (2002)[5], the process of European financial integration will have significant impacts on the functioning of financial markets.

The study identified number of major expected impacts:

- increased competition among exchanges/market places,
- increased competition among financial intermediaries,
- lower costs due to economies of scale,
- banks and other more traditional sources of corporate finance face tougher competition from financial markets,
- improved price transparency,
- increased market depth and lower liquidity risk,
- larger markets for high risk capital such as venture capital.

More open and effective European financial market could be favourable for both investors and the corporate sector. Investors will benefit from higher risk-adjusted returns on savings, through enhanced opportunities for portfolio diversification and more liquid and competitive capital markets. The corporate sector will benefit from generally easier access to financing capital. Competition in the financial intermediation sector will offer corporations a wider range of financial products at attractive prices.

The economy-wide improved allocation of financial resources to investment projects should impact positively on the equilibrium level of GDP and potentially also on GDP growth. The study deals with macroeconomic impacts on the economic growth process and estimates that the level of EU-wide real GDP should be raised by 1.1% in the long-run, total business investment should be almost 6.0% higher, private consumption should be up by 0.8% and total employment should be 0.5% higher. Results not only of the study mentioned above can be considered just as indicative of the potential benefits of European financial integration that underscore the validity of European policy on financial integration.

Responsible institutions and authorities pay to the process of financial integration in the EU member states great attention. Various measures,

[5]Quantification of the Macro-Economic Impact of Integration of EU Financial Markets. Final Report to European Commission-DG for the Internal Market. London Economics, 2002. Access from: <http://europa.eu.int/comm/internal_market/securities/overview_en.htm>

strategies and documents were gradually adopted to foster the creation of single European financial market. We can point out namely the Lisbon strategy, Financial Services Action Plan, Lamfalussy process and Green Paper on Financial Services Policy for the years 2005-2010.

3.1 Framework for integrated financial markets in the European Union

One of structural reforms defined in 2000 by the *Lisbon strategy* is the process of European financial integration. The next document called *Financial Services Action Plan* (2000, FSAP) proposed concrete policy objectives and specific measures for improving the single market in financial services. Broadly, the action planned is in the areas of wholesale market, retail market and strengthening prudential structures. Main topics[6] are:

- establishing a common legal framework for integrated securities and derivatives markets;
- removing the outstanding barriers to raising capital on an EU-wide basis;
- moving towards a single set of financial statements for listed companies;
- creating a coherent legal framework for supplementary pension funds;
- providing the necessary legal certainty to underpin cross-border securities trading;
- creating a secure and transparent environment for cross-border restructuring;
- information and transparency;
- balanced application of consumer protection rules;
- electronic commerce, insurance intermediaries, cross-border retail payments;
- moves to bring banking , insurance and securities prudential legislation up to the highest standards;
- prudential supervision of financial conglomerates, etc.

The most actual document is the *Green Paper on Financial Services Policy* (2005-2010). The material seeks ideas on the future of European financial service policy and concurs in FSAP.

The overall objective[7] over next 5 years is

[6] Financial Services Action Plan (FSAP). Access from: < http://europa.eu.int/scadplus/leg/en/lvb/l24210.htm>

[7] Green Paper on Financial Services Policy (2005-2010). Access from: <http://europa.eu.int/comm/internal_market/finances/docs/actionplan/index/green_en.pdf >

- to consolidate progress towards an integrated, open, competitive and economically efficient European financial market and to remove the remaining significant barriers;
- to foster a market where financial services and capital can circulate freely at the lowest possible cost through the EU;
- to implement, enforce and continuously evaluate the existing legislative framework.

As Jean-Claude Trichet, President of the ECB, said[8]: "*However, although the public authorities can, and must, provide an adequate framework conducive to financial integration, financial integration is ultimately a process driven by market forces and decisions taken by the private sector*."

3.2 Need for monitoring of financial integration in Europe

What the definition of financial integration? We can use the explanation of the European Commission[9] that considers financial integration as a process, driven by market forces, in which separate national financial markets gradually enter into competition with each other and eventually become one financial market, characterised by converging prices, product supply and converging efficiency/profitability among the financial services providers.

Seeing that the financial integration is one of objectives of the European Union, the need for regular monitoring is necessary to map out the state of advance in the creation of a single European market in financial services. As mentioned above, the choices involved in the integration process should be market-driven. However, lack of integration may indicate the existence of market barriers, which effectively prevent the realisation of an efficiently functioning European financial market.

A question arises in achieved level of financial integration assessment. Is it possible to measure financial integration? There are methods using different approaches that are based on two main types of indicators - volume and price indicators. The indicators provide complementary information and help to identify and diagnose market obstructions. It is essentially important that measuring approaches and methodologies of

[8] Financial Markets Integration in Europe: the ECB`s view. Speech by Jean-Claude Trichet, President of the ECB, May 2005. Access from: < http://www.ecb.int/press/key/date/2005/html/sp050718.en.html >

[9] Financial Integration Monitor, 2005. Access from: <http://europa.eu.int/comm/internal_market/finances/docs/cross-sector/fin-integration/050708background.pdf>

integration are in evolution. The basic and currently used methodology in measuring financial integration is described in the next part of the paper.

4. Measuring financial integration in the European Union

Financial markets are integrated when the law of one price holds. It implies that assets with the same risk should have the same expected return, regardless of the domicile of the issuer and of the assets holder. Based on the definition, financial market integration can be measured by comparing the returns of assets that are issued in different countries and generate identical cash flows. The mentioned way of testing the degree of financial integration assesses the price convergence of financial assets. The methods are called as the "**price-based**", "arbitrage" or "law-of-one-price" tests. We should consider that while using the price-based methods, it is usually difficult to identify comparable assets. Generally, when given identical assets command different returns, financial markets are apparently not integrated. The causes for the status are persisting legal barriers such as capital controls, tax codes, accounting and auditing differences, different bankruptcy law, different quality of judicial enforcement; we have to mention also potential economic barriers[10].

The second approach represents so-called "**quantity-based**" tests and the measurements of financial integration are then based on asset quantities. We can mention also tests based on flow measurements (international capital flows) or stock measurements that identify the amount of cross-border holdings of debt or equity. Generally, in a system with no financial barriers, the domicile of assets issuers and holders should play a decreasing role over time[11].

As described above, the crucial issue for measuring financial integration is identification of assets generating identical cash flows. In case of no identical assets we can wrongly conclude that financial markets are segmented even when they are integrated and vice versa. Moreover, any measurement of financial market integration must refer to specific assets and specific market, because we need to compare assets issued in different

[10] For instance situations of asymmetric information induce investors to evaluate differently assets that are otherwise identical. (Adam et al., 2002)

[11] For more see for example:
BAELE, L. et al. Measuring Financial Integration in the Euro Area. (ECB, 2004).
KIEHLBORN, T. and MIETZNER, M. EU Financial Integration: Is There a „Core Europe" ? (2005)
PAGANO, M. Measuring financial integration.
PUNGULESCU, C. Measuring Financial Integration in the European Monetary Union: An Application for the East European Accession Countries. (2003).

countries. Even if the price-based method is often used in various studies, in terms of mentioned above, we have always to note data under consideration.

An important implication of financial integration is that asset prices should only react to common news[12]. Then we can speak about "**news-based**" measurements in this case. Local shocks are diversified away by investing in assets from different regions on the assumption that there are no barriers to international investment. Expected returns on assets from different countries but with the same risk characteristics should depend on common rather than local news. This is possible to measure by the proportion of assets price changes that is explained by common factors. We can find researches devoted to specifying explicitly the relevant local and common information variables[13].

4.1 Indicators of financial market segments in the European Union

Based on literature, we can mention a classification of existing indicators of financial integration into four broad categories[14]:

a. indicators of credit and bond market integration;
b. indicators of stock market integration;
c. indicators of integration based on economic decisions of households and firms;
d. indicators of institutional differences that may induce financial market segmentation.

Several studies consider the effects of financial market integration on households' choices (for example the portfolio choice between home and foreign assets); we can analyse its effects also on companies' choices (such as mergers with foreign companies or acquisitions of foreign subsidiaries). Further measurements of integration are based on broad market characteristics (e.g. the size of equity, bond and bank markets, or the cross-border penetration of commercial banks and other financial institutions).

Indicators for measuring of financial integration mentioned above are in detail described in next chapters. The presented survey is processed on the basis of the Adam et al. study (2002).

[12] BAELE, L. et al. Measuring Financial Integration in the Euro Area. (ECB, 2004).
[13] See e.g. Barr and Priestly (2002)
[14] ADAM et al. Analyse, Compare, and Apply Alternative Indicators and Monitoring Methodologies to Measure the Evolution of Capital Market Integration in the European Union. (2002).

4.1.1 Credit and bond market integration

Indicators of credit market integration can be classified into two categories:

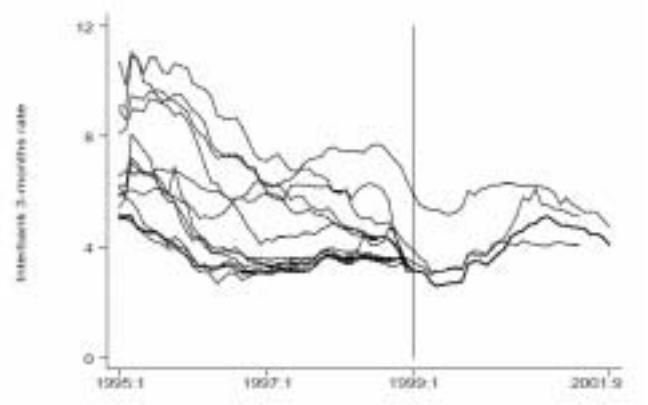
- return-based (price-based) measurements and
- quantity-based measurements.

The most common measurement of credit market integration is the assessing of *interest rate differentials*. In case of elimination of transaction costs or any other type of market segmentation, net-of-tax interest rates for assets of the same maturity and the same credit risk class should be identical. In principle, this measurement may be computed for interest rates on public debt, on corporate debt, mortgage debt, and consumer credit. The determination and assessment of differentials between the interest rates charged by banks in different EU countries could be also one of possible ways of measuring the degree of integration[15].

The Figure 2 plots the level of the inter-bank rate in all EU member states. Before 1999, the highest spread occurs in Greece, Italy and Portugal. After the launch of the Euro, the 11 Euro-zone inter-bank rates converge to the common Euribor rate (the spread is therefore zero). The spread on the 10-years benchmarked bond yield is plotted in Figure 3. Contrary to the inter-bank rate, the 10-years benchmark bond yield spreads don't fall in each country. Generally, the data indicate that convergence has taken place in this market as well, but to a smaller extent than in the inter-bank market.

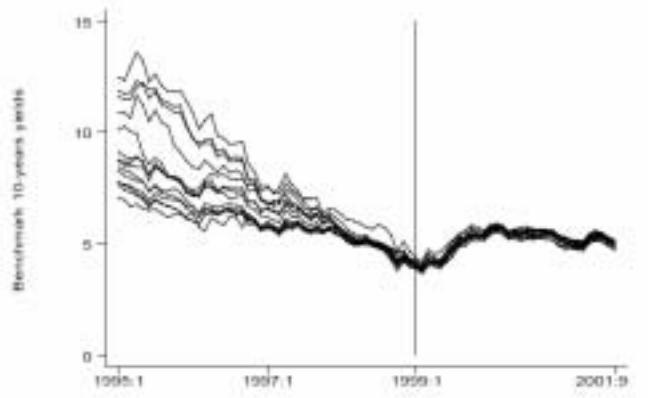
[15] A number of authors have used such measurements, e.g. Stigler and Sherwin (1985), Bodehorn (1995), Jackson (1992), Heitfield (1999), Centeno and Mello (1999), Kleimeir and Sander (2000), De Bandt and Davis (1999).

Figure 2: Inter-bank 3-months rate in EU-15 (January 1995 to September 2001)



Source: Adam et al. (2002). Access from: <http://europa.eu.int/comm/internal_market/en/update/economicreform/020128_cap_mark_int_tables_en.pdf>

Figure 3: Ten years government bond benchmark yield in EU-15 (January 1995 to September 2001)



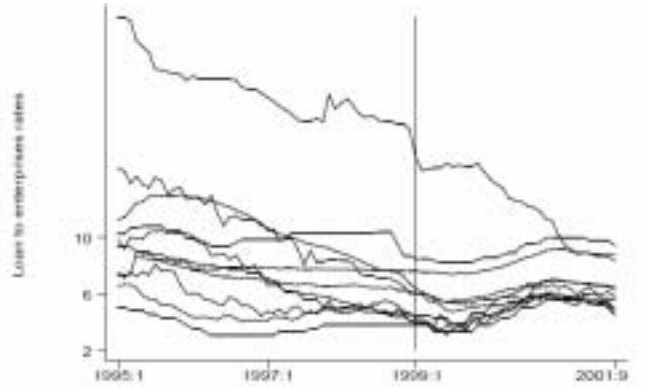
Source: Adam et al. (2002). Access from: <http://europa.eu.int/comm/internal_market/en/update/economicreform/020128_cap_mark_int_tables_en.pdf>

The effect of regulatory changes on banking competition[16] is also evident in declining *price differentials for the same banking services* (credit

[16] An important step in the removal of barriers to cross-border banking competition in Europe was the adoption of the Second Banking Directive (1989) that is based on the principle of a single passport.

cards, loan and deposit rates, corporate loan rates, current cheque accounts, personal equity transaction costs, cross-border transfers of fund). A study of De Bandt and Davis (1999) finds that the level of competition in chosen EU countries (compared to the U.S.) is quite low. The case of loan to enterprises rates in the EU is expressed in the Figure 4. Even though the corporate loans rates are considerably less volatile than other interest rates, the broad picture is similar to that of the 10-years benchmark.

Figure 4: Interest rates on corporate loans in EU-15 (January 1995 to September 2001)



Source: Adam et al. (2002). Access from: <http://europa.eu.int/comm/internal_market/en/update/economicreform/020128_cap_mark_int_tables_en.pdf>

We can also assume the degree of *cross-border banking activity.* The more financial markets are integrated the more cross-banking activity can be observed. A cause of increased cross-border transactions is especially the elimination of barriers to international capital-flows.

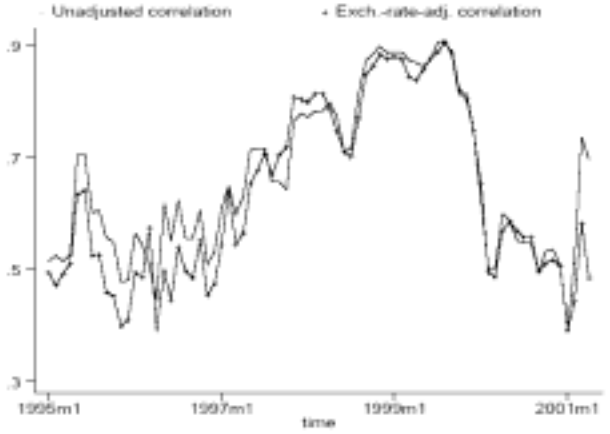
4.1.2 Stock market integration

The indicators can be again divided into two categories: *returned-based* and *quantity-based* measurements. The question is how stock market integration affects stock market returns. It is supposed that stock market returns should be more correlated in the single and integrated capital market. Is it possible to measure the phenomenon under the consideration, that markets are hit by the same shocks (oil shock, monetary policy shock etc.)? That is actual namely in the European Union, where the ongoing integration process of goods and labour markets can speed up the transmission of shocks between countries. Measurements based on ex-post data are not suitable for

this purposes from these reasons and therefore new asset-pricing models (CAPM) based on ex-ante returns have been derived.

Tests of capital market integration are based on estimating if the evolution of the risk premium on domestic stocks is sensitive to the country-specific risk in relation to the covariance with an EU-wide portfolio[17].

Figure 5: Stock market returns correlation, weighted by stock market capitalization (January 1995 to September 2001)



Source: Adam et al. (2002). Access from: <http://europa.eu.int/comm/internal_market/en/update/economicreform/020128_cap_mark_int_tables_en.pdf>

Based on Figure 5, the average stock return correlation appears to be quite unstable in the European Union over time.

The second way of measuring the capital market integration is based on quantities such as the size of capital flows or the composition of portfolios (stock measurements). The widely studied indicator is the share of domestic stocks in household portfolios compared to the share of these stocks in the world market portfolio[18].

4.1.3 Indicators based on household decisions

This way of measuring deals with effects of financial integration on the relationship between private savings and corporate investment and the relationship between private consumption and income. It is assumed that the saving decisions of domestic households should have no effect on the

[17] A number of authors have used such measurements, e.g. Bekaert and Harvey (1995), Hardouvelis, Malliaropoulos and Priestley (1999), Sentana (2000), Chen and Knez (1995), Ayuso and Blanco (1999).
[18] More in Tesar and Werner (1992), Lewis (1999), Ayuso and Blanco (1999).

investment decision of domestic firms, when international capital markets are well functioning (firms can borrow on international debt markets).

Classic tests are based on the *saving-investment correlation*. We can assume that under perfect capital mobility and unchanged investment opportunities the following statement is accepted: an increase in the saving rate in one region would cause an increase in investment in all regions. Large correlations between national saving and investment have been achieved in many studies (e.g. Feldstein and Horioka, 1980). One of disadvantages of this approach is an inability to identify financial markets insufficiently integrated.

The next used indicator is based on idea that integrated financial markets allow for *international risk sharing*. The question then arises if financial markets afford full risk sharing to consumers located in different jurisdictions[19]. The further possible way is a finding of capability of distinguishing the contribution of different financial markets and of public tax-transfer mechanism.

4.1.4 Indicators based on corporate policy

An increasing financial integration supports the consolidation of banks and companies across geographic borders. Then we can monitor and compare both the development of *mergers and acquisitions* (M&A), namely M&A activities in the banking and securities industry, and the share of bank branches controlled by foreign banks[20].

Mergers can be defined as the combination of two organisations (with comparable size) into one legal entity. Acquisitions are transactions where one firm purchases a controlling stake of another one, without necessarily combining the involved firm's assets. In terms of numbers, mergers and acquisitions among domestic credit institutions represent about 80% of total consolidation activity in the EU in each year since 1992. The only clear pickup in cross-border mergers and acquisitions is evident in the run up to the creation of the single market in 1992, when the share of domestic mergers fell to about 60%. However, cross-border mergers and acquisitions have never come close to exceeding domestic mergers and acquisitions[21].

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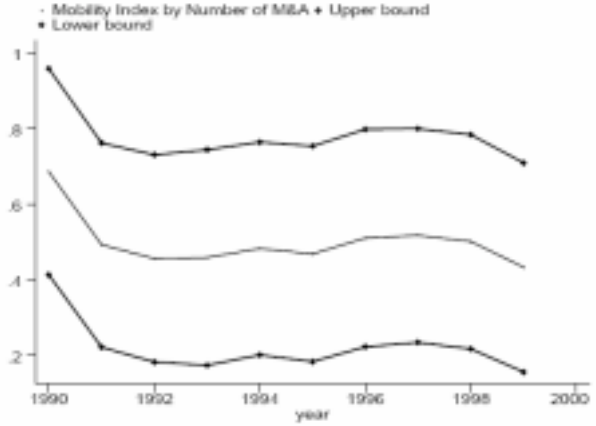
[19] A number of authors have used such measures, e.g. Cochrane (1991) and Mace (1991), Obstfeld (1994), Wincoop (1994), Townsend (1994), etc.

[20] M&A activities in Europe have taken place mainly within national boundaries rather then across them, the state is more favourable within the frame of insurance (Adam et al., 2002).

[21] See: WALKNER, CH., RAES, J.-P. (2005) Access from: <http://europa.eu.int/comm/economy_finance/publications/economic_papers/2005/ecp226en.pdf>

The negative trend in the European Union is evident in the Figure 6 that represents cross-border mergers and acquisitions expressed by the mobility index based on the relative number of cross-border M&A[22].

Figure 6: Mobility index by number of M&A (1990-1999)



Zdroj: ADAM et al. (2002). Access from: <http://europa.eu.int/comm/internal_market/en/update/economicreform/020128_cap_mark_int_tables_en.pdf>

The integration of financial markets substantially affects also the corporate financing decisions of firms. Firms in such environment can issue a wider range of financial instruments at the same standard terms, risk of the instruments then corresponds to each firm` s debt or stock irrespective of their nationality. It comes to this, that we can measure the achieved level of financial integration also by the development of *international issues* (debt or equity finance) of European companies relative to their investment or their total debt or stock issuance[23].

The previous text pointed out that the level of financial integration can be measured by different indicators as the case may be on the segments of financial market. But there are some special factors that should be taken into consideration:

Data quality and availability – it is the crucial factor. Both price-based and return-based indicators have clear advantages over quantity-based indicators. E.g. security price and return data are available at higher-frequency (monthly or even daily frequency) and are more accurate than the data on financial flows and stocks (quarterly or even longer frequency); in the

[22] You can find the calculation and definition of the index in the study of Adam et al. (2002).
[23] The large development of international issues has been noted since the launch of European monetary union (particularly by reason of currency risk elimination).

case of household or firm decisions, the choice is between micro and macroeconomic data sources. The bigger problem is certainly to devise the effects of legal institutions on financial markets.

Price and return data – computing return-based indicators requires sophisticated estimated procedures in comparison with quantity-based indicators that are generally easier to implement (data are available with sufficient international comparability).

Indicators based on economic decisions and on legal institutions – household and corporate decisions indicators can be quite easily benchmarked (the lack of correlation between investment and saving signals that capital is perfectly mobile across countries). However, empirically estimated full-risk sharing doesn't have to mean the perfect financial integration, because risk-sharing can be achieved through other channels. As for differences in legal institutions, they don't tell us if financial markets are segmented or integrated. They can refer to reasons why the markets may be segmented (e.g. institutional characteristics can help us understand reasons of interest rate differentials of identical instruments in two countries).

Convergence criteria – the process of financial integration can be assessed through the indicators then summarise the convergence or divergence over time of financial variables. The below mentioned equation is used to determine if the integration occurs and how its degree changes over time (Adam et al., 2002).

$$\Delta i_{ct} = \alpha_c + \beta i_{ct-1} + \sum_{l=1}^{L} \gamma_l \Delta i_{ct-l} + \varepsilon_{ct} , \qquad (2)$$

where *c* is country, *t* is time, Δi is the change in the interest rate, and α_c is the country dummies. The error term on the right-hand side of the equation denotes exogenous shocks that force interest rate differentials between considered countries. A negative β signals convergence (if $\beta = 0$ there is no convergence); the magnitude of β denotes the speed of convergence.

4.2 Degrees of integration in EU financial markets: some empirical results

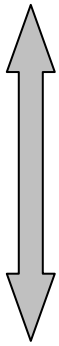
We can find many economic studies, namely in recent years; that focus on questions of measuring of financial integration. Such studies pursue the examination if financial integration occurs across the EU member states and frequently focus on European monetary union. As mentioned in the chapter three, financial integration could have positive macroeconomic

impacts on the economic growth process. The process of financial integration (in terms of integration of financial services, creation of single European capital and money markets) is one of priorities of the European Union, as indicated in above mentioned Lisbon strategy, Financial Services Action Plan and next strategies and documents. Many steps have been implemented till this time, primarily in a creation of conditions for further development (especially legislation area). These actions claim for efforts of EU responsible institutions and authorities of individual member states. Then we can conclude that the measuring of achieved degree of financial integration is one of possible ways to monitor the progress of the integration and the effectiveness of adopted measures.

The research of Thomas Kiehlborn and Mark Mietzner (2005) focuses on identifying groups of financially integrated countries from macro-level view in their study. They calculate cross-sectional dispersions by applying an inter-temporal cluster analysis to eight euro area countries for the period 1995-2002[24]. Their results show that euro countries were divided into two stable groups of financially more closely integrated countries in the pre-EMU period. However, this situation has changed remarkably with the introduction of the euro. EMU has led to a shake-up both in the number and composition of groups. The findings suggest as well that financial integration in Europe takes place in waves and degrees of integration differ notably in separate financial markets (see Table 1). The research encourages policymakers to move forward courageously in the post-FSAP era, and provides comfort that the substantial difference between the current and potentially new euro states can be overcome. The analysis could be extended to the new EU member countries, to the global level, and to additional indicators.

[24] KIEHLBORN, T., MIETZNER, M. EU Financial Integration: Is There a 'Core Europe'?- Evidence from a Cluster-Based Approach. No. 130,March 2005 (with updated graphs). ISSN 1434-3401. Access from: <http://ideas.repec.org/p/fra/franaf/130.html>

Table 1: Degrees of integration in EU financial markets

Financial market segment	***Selected sub-segments***	***Degree of financial market integration***
Wholesale markets: *Money market*	Unsecured Secured	High +  Low -
Derivates	Interest rates swaps Government bond futures	
Bond market	Government bonds	
Equity market	Equity	
Retail markets: *Credit market*	Corporate loans Mortgage loans ST letter of credit Consumer loans	

Source: Kiehlborn, T. - Mietzner, M. (2005)

4.2.1 Integration of financial markets in the European monetary union

Integration of financial markets is an important presumption for the smooth functioning of European monetary union. The main reason is that it can function as an insurance mechanism facilitating adjustment to asymmetric shocks. The introduction of euro has eliminated one of the most significant obstacles to the complete integration of financial markets but there still remain important differencies in legal systems.

European Central Bank strongly supports the Commission's policy of the European financial integration. ECB plays an important role in fostering financial integration and takes adequate steps to support the process. The introduction of the euro played an important catalyzing role for the financial integration process. The time since the introduction is still too short but we can consider the euro is one of factors contributing to the financial integration. We can assume that a well integrated financial system increases the efficiency of the euro area economy (by reducing the cost of capital and improving the allocation of financial resources). ECB began to publish an overall assessment, based on a series of indicators, of the degree of financial integration in the most important segments of the euro area financial markets, ranging from retail loans to wholesale equity trading. These indicators will be regularly updated and published twice a year. The report will be produced on an annual basis with the aim of monitoring the progress of financial integration in the euro area. In these reports, the range of indicators will be extended over time, in line with improvements in the availability of statistics

and advances in research and general economic analysis.[25] The latest report suggests that the degree of integration varies greatly depending on the market segment, analogous to the rest of the Union[26].

Degree of integration in the European monetary union differs quite between the market segments – is almost perfect in the money market, very well advanced in the government bond market, fairly high in the corporate bond market, and least advanced in the equity market; there still exist obstacles to cross-border securitisation in Europe. Integration of banking market is fairly well advanced in wholesale and capital market-related activities, but in retail market[27], it is clearly lagging behind (Trichet, 2005).

4.2.2 Financial integration of new EU member states

The financial structure of new member states differs significantly from many reasons, namely with respect to different political and economical development. Financial systems also vary in terms of integration with the euro-area financial system. However, it could be expected that the progress of the financial development will result in progressive convergence with the overall financial structure of other EU member states.

Generally, separate financial market segments in new member states are commonly much smaller than in original EU countries. Banking systems represent a special case because they are contrary to other EU member states characterized by high degrees of foreign ownership (see Table 2) that generally involves a powerful driving force for further financial integration.

Table 2: Share of foreign ownership in the new member states

2003	CY	CZ	EE	HU	LT	LV	MT	PL	SI	SK	NMS	EU-15
As a % of total assets	12.3	96	97.5	82.3	95.6	46.3	67.6	67.8	36	96.3	70	24

Source: Financial Integration Monitor (2005). Background document

Based on Convergence report (2004), the evidence suggests that financial integration between new member states and the euro area is quite advanced[28]. Over time, the process of financial integration is associated with

[25] See <http://www.ecb.int/press/key/date/2005/html/sp050930.en.html>
[26] See <http://www.ecb.int/pub/pdf/other/indicatorsfinancialintegration200509en.pdf > for the „Integration of the Financial Integration in the Euro Area“ (2005) report
[27] In 2002, more than 90% of the loans granted by banks in Euro-area werw to domestic residents (DeGrauwe, 2003).
[28] See Convergence report (2004).

an increase in domestic financial deepening and the removal of barriers to capital mobility.

5. Conclusion

The European Union pays to the integration of financial markets across EU member states increasing attention. The financial integration could positively affect the economic growth in the long-run, based on several researches. This is one of many reasons why to foster the process of integration from the side of European authorities. It is appropriate to consider that the process of integration is taking place in the framework of the globalisation of the international financial system, major technological advances, improvements in the cross-border regulatory environment, the introduction of the euro, and a diminishing effect of so-called natural barriers such as language and culture. The European Union has to create the conditions for further development that is above all related to the elimination of barriers of free movement of financial services.

One of many aspects of financial integration is monitoring of achieved degree of the integration process. Different methods are used to evaluate the level of integration of individual financial segments. Main approaches are price-based, quantity-based and news-based measurement s. Empirical results indicate that the achieved level of integration differs due to financial market segments. The highest degree is characterized for the wholesale money market, whereas the lowest for the retail credit market. We can say this holds almost for all EU member states, both the euro-area and new member states. The level of integration in national financial segments evidently differs but we can expect a positive development. However, the integration of financial markets across the EU member states is an ongoing process and became one of principle objectives of the European Union for the next years.

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THE INTERNATIONAL MONETARY SYSTEM AND THE EURO

Codruța Maria Făt
"Babeş – Bolyai" University
Faculty of Economics and Business Administration
Finance Department
Teodor Mihaly Street, no. 58-60
4005591
e-mail: codrutafat@yahoo.com
telephone: +40264418652

Abstract

This paper analyses the impact of the Euro on the international monetary system, and especially the effects of the Euro on the function and role of the International Monetary Fund. The use of the Euro in international transactions and the fact that it was adopted by countries which are not members of the European Union, can turn this currency into an international one. The relationship between the European Union and the International Monetary Fund is a delicate problem that must be clarified by each country which is a member of the International Monetary Fund, because on that level, each country is being represented and all transactions taking place within the International Monetary Fund are being conducted in the currency of each member state. I will try to show the international role of the Euro, the relationship between the Euro and the International Monetary Fund and the role of the Euro within the framework of the International Monetary System.

Keywords: *Euro; International Monetary System; International Monetary Fund; international money.*

1. Introduction

Ever since the 1st of January, 1999, the Euro has become the national currency of 11 European countries, which were joined by Greece, on the 1st of January, 2001. Without any doubt, the Euro will become the national currency of the other 13 EU-member states, which joined the EU later on, and in the future, it is very likely that the Euro become the national currency of thirty European countries. One thing is certain: essential matters have become reality. On one hand, we consider that it was essential to start the process of introducing the single currency, a process which was successfully finished in 2002, when the single European currency literally entered the pockets of the European Union founding member states citizens, a fact which represents a world premiere; on the other hand, the first 11 member states of the European Union are large, important countries, the states which are about to adopt the new currency being smaller-sized ones[1]. Due to these aspects, we believe that we can proceed, in order to look at the impact of the single currency on the international monetary system.

The international monetary system has been defined within the conference from Bretton Woods. But from that moment on until now, the system underwent a lot of changes, with the passing of time a huge market emerged, the national currencies of different states being negotiated on it. The incurring changes were so radical, that today, one is no longer talking about reforming the International Monetary System, but about rebuilding – as if it had been destroyed – the international financial architecture. The question which arises is: did architecture replace the system, respectively, did finances replace the currency? A fact that can be easily understood is difficult to contest.

2. The international role of the single European currency (Euro)

The international role of the Euro depends on its use within international transactions, which can be the following ones:

- Transactions of the 25 countries with third states, transactions of Euro-zone residents with non-residents. For instance, France is paying in Euro for the oil, a Spanish tourist travels to Argentina with Euros in his pockets.

[1] The 12 EU member states own approximately 24% of the IMF amount holdings.

- Transactions between third states, transactions between non-Euro zone residents. For instance, Norway and Sweden are trading in Euros, Canada issues Euro-bonds in Switzerland.

The Euro will become an international currency, if it is being largely used for such transactions. It can be used as a unit of account when invoicing exchanges of goods and services and when expressing (labelling) financial assets. Finally, it can be used as a reserve currency, respectively reserve hard currency, on one hand, by Central Banks which are using the Euro in order to intervene on the financial market, on the other hand by private agents. Without any doubt, we can affirm, that the Euro is fulfilling today all the traditional monetary functions of the coin.

The reason mostly referred to is the *economic power of the Euro-zone*, from this point of view, the Euro-zone being on the same economic level with the USA. The GDP (Gross Domestic Product) of the Euro-zone is very close to that of the United States of America, representing 87% from the GDP of the USA, while the populace living in the Euro-zone is higher than the American one. But what we consider to be very important is the fact that the Euro-zone is very open towards world economy. The exports and imports of the member states represent, on the average, 24% from their GDP, while the imports and exports of the United States represent 12% from the GDP of the United States. Euro-zone member states hold 30% of world trade, twice as much as the USA. This percentage, we can affirm, lost some of its significance once the Euro was introduced. And this due to the fact that nearly half of the world trade of the Euro-zone member states is being conducted between them, that is, in the bosom of the European Union. This means, that invoices are being issued in Euros, while payments are being made in Euros, which means that at least part of the invoices are being paid in the national currency. The question is: are we still talking, in this case, about world trade? Despite this fact, the world trade share of the European Union stays at the same level with the one of the United States.

But there are also other factors supporting the international role of the single European currency. One of them is *tourism*, which represents an important factor of income for many EU-countries, a fact favouring the use of the Euro by non-residents. It also represents an important expense for countries residents often travel abroad from: thus, the use of the Euro by non-residents is being facilitated. An other factor can be considered *corruption* as well as the circulation of *laundered money*, due to the fact that high-value banknote owners, like, for instance, the banknote of 500 Euro, will, in fact, stay anonymous.

A second reason is the ***banking structure of the Euro-zone***. Thus, international payment systems were harmonized, each country implementing a real time gross settlement system (RTGSS), a system known under the name of TARGET, guaranteed by the Central European Bank. The goal of this system was to ease higher-value transactions and especially transactions connected to monetary policy. Transactions that took place between non-residents or with non-residents can be found, naturally, treated and compensated, together with those that took place between residents. Even more, the system of compensation, initiated by the ECU's Banking Association, remained in effect, and the banks situated outside the Euro-zone, like Switzerland, Russia or Japan, take part or are associated to this system. (Lelart, 2001. page 5)

The ability of the Euro-zone's banking systems to cope with the international role of the currency can be seen if looking at the importance of international operations. Regarding the engagements of non-residents' banks, placed in the zone examined by the Bank of International Settlements, the participation of the banks from the Euro-zone was, on the 30th of June 2000, of 34%, that of the banks from the United Kingdom of 21%, that of American banks of 11% and that of Japanese banks of 5.4% (BIS 2000, pages 2 and 4).

These percentages underwent no essential variations during the last three years, but the payments of European banks in what foreign currencies are concerned, fell from 35% to 26%, once the Euro was introduced, while payments in national currency increased from 32% to 48.5%. This evolution is normal, since, for instance, French banks' DM payments became payments in Euros. But the percentage of 48.5% is extremely significant: foreign payments of European banks are by far larger than payments in dollars of the American banks (30%).

A third reason is connected to ***"developed financial markets***", like those in Paris, Frankfurt or Milan, without even talking about the city of London. During recent years, we saw that agreements were signed between large European financial markets, agreements leading to the emergence and development of a European financial mega-market, which is going to "stretch" the European financial area, born at the beginning of the 80es, when capital flows were liberalized. We can say that the Euro had the chance to become and it became a placement currency, since non-residents got accustomed to invest more in the Euro-zone countries, as well as in the United States – which must finance their current account deficit – than in Japan (IMF; 2000).

Table 1 Direct and portfolio investments by area in which they were realised (billions USD)

	Euro-zone	*USA*	*Japan*
Direct investments	1.082	2.194	0.046
Portfolio investments	3.321	3.443	1.165
Total	4.403	5.637	1.211

Source: IMF report, 2000

Euro-bonds can be issued by Euro-zone countries, countries which have to borrow more and more amounts of money in national currency (Euro), since this became their common currency, but bonds can be also issued by others who borrowed amounts of money in a certain currency and now have to borrow more and more Euros. By the end of 1998, circulating international bonds were labelled (BIS, 1999, pages 70 – 71)[2]:

Table 2. Bonds and notes by currency in which they are issued

	In European currencies	*In US dollars*	*In yens*
Long-term bonds	27.8%	45.2%	11.7%
Short-term bonds	18.5%	57.3%	2.5%

On the 30th of September 2000, long-term, Euro-labelled bonds amounted to 28%, while short-term, Euro-labelled bonds amounted to 31%.

In 2004, at the end of the year, circulating international bonds and note were labelled 48.37% in euro, 34.94% in USD and 3.11% in JPY. We can say that the euro labelled bonds had a real success.

One last reason is a reason of political nature and it refers to the ***credibility of the European Monetary Union.*** Here, we must have in view the irreversible character of the Union, no state which agreed upon its creation being able to leave it easily, the Union being about to be continuously enlarged. We are talking about the existence of a single monetary law (one should not forget the Resolution of the European Council from the 3rd of May, 1998, which ensured the continuity of existing contracts

[2] Bonds issued in European currencies also include ECU bonds.

at the moment of the introduction of the Euro and the preparations of the switch to the single European currency). Last, but not least, it refers to the status of the European Central Bank, which is an independent bank and which, in its mission, resolved, as it is being several times reiterated in its statute and in its founding treaty, to ensure the stability of the single currency exchange rate and to maintain a low level of inflation. And we have to admit to the fact that, in the last year, this proved to be a very difficult thing to manage. We can add that the Euro became the national currency of 12 countries, other thirteen countries trying to cope with the criteria necessary in order to be able to adopt it. From the outside, we consider that the transition to the Euro was a soft one, without encountering major difficulties.

We consider that all these factors did nothing else than to turn the single European currency into an international one. The following examples are supporting this statement:

- *bond issuing:* net bond issuing in European currencies and then in Euros quickly increased, their number being even higher than that of USD bonds, but they slowed down in 2000.

Tabel 3. Net issuance of international bonds and notes by currency (in billion USD)

Year	*euro*	*In %*	*USD*	*In %*	*Total*
1998	224	24.00%	411	59.00%	467.7
1999	571	46.99%	545	44.85%	1215.1
2000	472.1	37.97%	613.3	49.32%	1243.5
2001	597.3	44.30%	652.6	48.40%	1348.3
2002	522.7	51.71%	419.1	41.46%	1010.8
2003	832.9	28.86%	461.6	15.99%	2885.2
2004	923.2	27.96%	372.3	11.27%	3300.7

This evolution may seem to be a surprising one, but it can be explained, first, by the attractiveness of a new currency, and then, by the debtors' preference of resorting to a hard currency, when the exchange rate of the currency plummeted. But after the year 2000 the net issuance in euro grow up quickly, in 2004 the net issuance in euro being bigger than the net issuance in USD.

- *holdings of the Central Banks:* The currency structure of the reserves of the Central Banks is as follows[3]:

Tabel 4. The currency structure of reserves of Central Banks

Year	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*
USD	66,2%	68.2%	68.3%	64.8%	63.8%	65.9%
EUR	12.5%	12.7%	13%	14.6%	19.7%	24.9%

Source: imf reports 2000 – 2005, statistical appendix

As we can notice, the American dollar continues to rank first within the reserves of the Central Banks. But ever since the introduction of the single currency and until the end of the year 2004, we have to notice that, in fact, the amount of the single currency within the foreign currency reserves of the banks has doubled. In 1999, we could not compare the holdings in ECU of the Central Banks, from previous years, which were connected to the functioning of the European Monetary System, with the holdings in Euro from the end of the same year. Even more, holdings in USD could not be compared with the holdings in European currency of the 11 states, because the latter ones were reduced, as a result of the fact that the 11 states, later 12, compensated the holdings of national currencies from the foreign currency reserves between them. Central Banks outside the Euro-zone will hold more Euros, since this one replaced the DEM or the FRF, for instance. In 1999, it was difficult to estimate the extent to which the Euro will replace the dollar. Today, we can say that, although it did not dethrone the dollar, it doubled in what foreign currency reserves of Central Banks are concerned. What we cannot see in the Table 4 is the fact that in the meantime in which the euro doubled the weight in foreign currency reserves of the Central Banks and the dollar kept it's position the share of Japanese yen in total foreign exchange reserves declined from 7% in 1997 to 4% at the end of 2004. During the past decade the share of pound sterling has been in the 2%/3% range.

Using the Euro as a reserve currency also depends upon the number of countries outside of the Euro-zone, which will tie their own national currency to the Euro. The countries from the Franc-zone did this and we believe that others will follow. Other countries left their national currency floating along with the Euro: Poland, Turkey, Chile…There is no doubt that there will be more and more countries which will do this, and the Euro will become not only a reserve currency, but also a currency of intervention on foreign currency markets.

[3] Data retrieved from IMF reports 2000 – 2005, www.imf.org

Obviously, there are also other factors which will influence and do influence the international use of the single European currency. On short term, the preference for the Euro depended and continues to depend upon the evolution of its exchange rate referred to the USD, upon the economic situation between Europe and the USA, upon the evolution of the interest rate in Europe and the USA. We believe that the replacement of the dollar by the Euro will incur at a slower or faster pace and will take effect more or less constantly. On long term, due to the fact that the Euro can be owned by non EU-residents, it will have to get out of its zone, to be more precise, it will be transferred into the rest of the world, by dint of international transactions of the EU-zone member states. This means that these countries will import more than they export – which is the opposite of what is happening today, or that they loan more than they borrow – which, in fact, is happening in an alert way. Even more, can foreign Euro holdings increase by dint of transactions conducted by the banks outside the Euro-zone, for instance in London, Montreal, Singapore or Hong Kong? The question we did not find the answer to is "which would be the place of the Euro in the bosom of Euro foreign currencies?"[4]

Another problem is that of the dimension of the Euro-zone, which, as we could notice, keeps enlarging, which was, in fact, to be expected. If, in 1998, it included 11 countries, from 2000, the number increased to 12 countries, and in 2004, the number of these countries was 2,2 times higher than at the beginning, the number of member countries amounting to 25. For the year 2007, Bulgaria is about to join the European Union, and we hope that Romania will join as well. Practically, what could be foreseen in 1998, in what the enlargement of the EU is concerned, became true.

3. The Euro and the International Monetary Fund

The statute of the IMF is based upon the idea that each country can dispose of its own currency. Thus, this institution is "*country based*" and not "*currency based*". The countries are members of the IMF, but the IMF is using their currencies. But what happens with the Euro: 12 countries, 15 countries, 25 countries, one currency?

[4] These transactions do not really affect the amount of international currency, but lead to an increase of international liquidity. The same will apply both for the Euro and for the dollar.

3.1 The structure of the IMF

Each country which becomes a member of the IMF, must pay the so-called assigned quota, which stands for the size of the subscription each country makes with the IMF. The help the country can obtain and ask from the IMF depends upon this assigned quota, as well as the number of votes the country in question disposes of. Initially, the volume of imports and exports of the respective country and the level of foreign currency reserves used to be the criteria which determined the assigned quota of the IMF member countries. The emergence of the European Monetary Union did not change, at least so far, anything about this fact for the member countries. Assigned quotas are being revised every 5 years, the last revision (the twelfth since the founding of the IMF) took place on the 31st of January 2003, when it was decided that the assigned quota remain unchanged. The question is whether, for the EU-zone, the trade conducted in Euro between the member states can any longer be considered as international trade? Given the fact that, during the last revision, the level of assigned quota did not change, we tend to believe that, from the IMF's point of view, the answer is a positive one. Anyway, it remains a problem which needs a direct answer.

Moreover, the level of the foreign currency reserves in the case of the countries which adopted the Euro diminished, or the structure of the foreign currency reserves was, at least, modified, if they were not reduced. Anyway, in a first phase, the level of the foreign currency reserves was reduced once the Euro was introduced, the single currency emerging instead of the national currencies, a currency we can no longer consider a foreign currency, but a national one.

In the future, according to Quota Formula Review Group (which was established in 1999), the GDP is likely to become the prime variable in quota calculations for industrial countries, while the role of reserves and foreign trade would decline.[5]

I was saying that, based on the assigned quota, the number of votes of each country is being determined. In early 2002, the aggregate voting power of the 15 members of the EU was of 29.9%, well above the voting power of the USA (17.2%) and Japan (18%). The enlargement of the EU (2004) increased the EU's aggregate voting power by 2.8%, to32.8%. But due to the structure of the board of administration, these votes are not being owned by a single person. It is, in fact, normal for the number of votes which should stand for the Euro-zone to be so high, compared to the USA and Japan, since the assigned quota for EU member states represent 30,4% of the volume of

[5] Leo Van Houtven, Governance of the IMF, Pamphlet Series, no. 53, IMF, Washington D.C., August, 2002, ISBN – 1-58906-130-6, pp. 9

the IMF assigned quota, while in the case of the United States, we are talking about 17.4%, or, in the case of Japan, of 6,23%.[6]

The board of administration of the IMF consists of 24 administrators. Eight countries, out of which five are the ones who own the highest assigned quota, appoint each an administrator to exert their right to vote. The other countries are grouped according to geographical, linguistic or other criteria, totalling 16 groups, each of them appointing an administrator. Even if administrators are being chosen from the ranks of EU member countries, those representing a group of countries will dispose of the number of votes of the respective group, which means that they are going to vote according to the interests of that group. Basically, we cannot say that, within the framework of the IMF, the representatives of EU countries have the last word, but their votes weigh a lot in the scales.

At the present moment, it is more and more problematical to establish whether the criteria, based upon which the IMF establishes the assigned quota, is still actual. Thus, on the 4th of November, 2005, the IMF is hosting a round table meeting on the topic of the governance of the IMF and the role of the executive board. One of the subjects to be debated is related to the way the quota system can be reformed in, in order to ensure fair representation to all member states and guarantee to the IMF the legitimacy that is essential for its effectiveness.

3.2 The role of the IMF

The role of the IMF is, first of all, to **ensure financial assistance to the member states**, which are being temporarily confronted with a deficit of the external balance of payments. The emergence of the European Monetary Union has two consequences. The first one refers to this help the IMF is granting to its members. Approximately 30 years have already passed, with no industrialized country "shooting" at the IMF. But it is possible for the EU countries to be exposed to asymmetrical shocks, which could deteriorate the external situation of these countries to such an extent, that they be compelled to resort to the help of the IMF. The second consequence refers to the way this help can be granted in. The IMF cannot impose to any of these countries an increase of the rate of interest or the depreciation of its national currency, since both the monetary and the foreign currency are decided on EU level and not on the level of the country in question. There is nothing left, except

[6] These figures were determined based upon the data published in the report of the IMF for the year 2005, appendix VII

for the economic policy, on which level the IMF could intervene with certain stipulations.

Given the international role of the single European currency, we can imagine that one day, the member countries of the EU could like to wish the stabilization of the exchange rate of their national currency in relation to the USD or to the JPY, and that, in order to do this, they would have to resort to the IMF. As the EU is not an IMF-member, the EU, and, at the same time, IMF member states, should be the ones to request this help. The question is with whom the IMF is going to negotiate the conditions: with the Council of Europe, in what the economic policies are concerned? But the Council of Europe is an organism with informative character; with the European Central Bank, in what monetary policies are concerned? But the bank is an independent body; with the Council of Ministers, in what the foreign currency in relation to non-communitarian models are concerned? But the Council of Europe has never made arrangements in this sense, except for extreme situations. These are questions the answers are still being looked for to.

The IMF has also the role of ensuring the **supervision of currency exchange evolution**, due to the fact of the floating exchange rate system. According to article IV of the IMF statute, each country, which is a member of the IMF "has the obligation to collaborate with the IMF…in order to promote a stable system of the currencies exchange rates…the IMF will exert a rigorous supervision on the foreign currency policy of the member countries…Each country will provide the IMF with the information, which is necessary to enable this supervision, on demand of the IMF, and will consult the latter one". The emergence of the European Monetary Union had important consequences upon this mission of the IMF. Due to the fact that the monetary policy is unique within the Euro-zone and due to the fact that economic policies of the member states have an impact upon other countries, the IMF has decided to intensify discussions with European institutions. The consultations taking place with each state are being doubled by the discussions with the European Central Bank, with the Council of Ministers and the Economic and Financial Committee. The envisaged modalities include semestral meetings between the IMF services and the EU institutions which are responsible for the common policies within the Euro-zone, a yearly report of the IMF services, debates of the monetary and foreign currency policy on Council of Ministers level. These relations are being facilitated by the decision of the Council of Europe in Vienna, regarding the representation of the EU in the Board of Administration of the IMF, as well as due to the fact that the IMF has given the European Central Bank the statute of an observer. The Bank is invited to delegate a representative to take part in the

reunions of the Board of Administration of the IMF, whenever the agenda reads problems referring to "the supervision of the communitarian monetary and foreign currency policies, the supervision of the Euro-zone countries economical policies, the role of the single European currency in the international monetary system…", as well as within the reunions when the agenda reads "problems considered by both institutions to be of common interest, in order to comply with their mandate"[7].

3.3 The transactions of the IMF

Given the fact that the IMF is "country based", it conducts most of its operations using the currencies of the member states, deposited into the accounts of their Central Banks. Since the 1st of January 1999, its holdings in what the currencies of the 11 European currencies are concerned – and since the 1st of January, 2001, its holdings in Greek drachms- were converted into Euros, kept in the 12 Central Banks. Each trimester, the Fund chooses the currencies it will dispense or receive. This is the budget of the IMF operations. It withholds the currencies of the countries whose position is, or seems to be good, solid, because of their good balance of external payment, and due to the fact that they have enough reserves. Every time it conducts an operation, the IMF uses the chosen currency, in order to have proportional quantities for the reserves of each country. This procedure was altered a little, as a result of the emergence of the Euro.

- *A choice does not exist any more*: the Euro is, in a normal and natural way, permanently being withheld in the budget, even if the 12 member state do not always have a solid position…Anyway, we cannot imagine that, at a certain moment, all the members of the Euro-zone would record simultaneous deficits…
- *The amount of money used*: The reserves have become less important, on one hand, due to the introduction of floating currency exchange rates and on the other hand due to the fact that the reserves of the 12 countries were affected by the introduction of the Euro. Because of this, the IMF decided that, in the future, it will consider the assigned quota of each country. To put it in other words, this assigned quota will increase in importance.

[7] IMF, 1999, pp. 187

- And, of course, without this being an effective change, *the IMF must impute Euro-operations to one or other member country*. Given the fact that the holdings in the national currency of a country of the IMF determine the position of that country in regard to the IMF, which allows the evaluation of its receivables and debts the country has with the IMF, they will be the basis of the remuneration the country will get or of the commission it will have to pay.[8].

To put it in other words, whenever the IMF dispenses or receives Euro, it must know whether it is dealing with French, Spanish or Greek Euros…

At the same time, the IMF conducts a part of the transactions in SDR, ever since the first allotment, which took place in 1970. The introduction of the single European currency had a minor impact upon these transactions, given the fact that the appointment procedure, by which the IMF was appointing the partner which was to get the SDR a country wanted to use, in exchange for the currency it needed, fell in disgrace. Moreover, for the time being, the European Central Bank is not recognized as a "desired holder" of SDR, thus, it cannot conduct transactions with SDR on its own behalf. The Euro can be traded for SDR, because it is recognized as a "freely usable currency". Like the DEM and the FRF used to be.

The impact rather refers to the value of one SDR, which is determined based upon a currency basket. Before the 31st of December, 1998, the basket contained five currencies (USD, GBP, JPY, DEM and FRF), after the 31st of December, 1998, four currencies remained, due to the fact that the DEM and the FRF were replaced by the Euro. As in the case of the assigned quota, the composition of the new SDR is updated every five years. The importance of each currency of the basket is determined based on the exports of each country and of the holdings of the Central Banks in each of these currencies. In the case of the new basket, where only four currencies remained, the importance of each currency has been updated, and the amount of currency which influences the value of an SDR has been recalculated.

[8] The difference between the assigned quota of a country and the holdings of the IMF in the national currency of that country represent the Reserve Position of that country, which is initially equal with that part of the assigned quota which is paid in gold or other reserve assets, here USD or SDR, these being those 25% of the assigned quota. The difference between the holdings of the IMF in the national currency of a country and the assigned quota of that country stands for the Credit Access, that is the debt position to the IMF.

Table 5. Old and New Composition of SDR Basket

Currency	Initial importance (%)	Initial amount of currency	Amount of currency after the introduction of the Euro	New importance (%)	New basket of currencies
USD	39	0.5821	0.5821	45	0.577
EURO–DEM	21	0.446	0.3519	29	0.426
EURO – FRF	11	0.813			
JPY	18	27.2	27.2	15	21
GBP	11	0.105	0.105	11	0.0984
	100			100	

The basket is also relevant in order to establish the interest rate of the SDR, which can be considered as an efficacy for collecting countries, respectively of cost for paying countries. This rate of interest represents, at the same time, the remuneration received by countries which have a credit position with regard to the IMF and it is also the basis of determining the commission debtor countries must pay to the IMF. It is equal to the weighted average interest of certain short-term credit instruments, labelled in the four currencies. This rate of interest was not altered, once the Euro was introduced. But since in its determination, different credit instruments from corresponding markets are being taken into consideration – three-month treasury bonds in Paris, three-month interbank deposits in Frankfurt, - there still has to be a distinction, in the new basket, between the interest rate of the Euro in Paris and the interest rate in Frankfurt… The Euro-zone has one single currency, but it is not a single country and it is not a single financial market.

4. Conclusion

The emergence of the single European currency has strongly influenced the international monetary system. It has all the attributes of a hard currency and, as we could see in recent years, it has the power to compete with the American dollar and the Japanese yen. The countries which

adopted the Euro are completely integrated in what international finances are concerned and they are holding an important position within the framework of world trade.Today, the place of the single European currency is very well specified within the international monetary system, but it is hard to establish to what extent it succeeded in stabilizing this system. On the other hand, there are more and more voices speaking about an international financial architecture to the disadvantage of the notion of international financial system. Moreover, the Euro continues to be a young currency, which has to confirm its value. Starting with 2001, we noticed a continuous enlargement of the Euro-zone, an enlargement which is far from being over, a fact which creates a certain state of uncertainness concerning the evolution in its own rows, given the changes it generates for each new member state. The relationship between the European Union and the IMF must be well defined and clarified, the external representation of the European Union must also be clarified.It is hard to forecast the future exchange rate between the dollar and the Euro, given the floating exchange courses we had to notice in recent years. One thing is certain: the emergence of the single European currency opened a new page in the history of the international monetary system.

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ECONOMIC CONVERGENCE IN THE SLOVAK REPUBLIC AND IN THE SELECTED COUNTRIES OF THE EU

Anežka Jankovská
University of Economics in Bratislava
Faculty of National Economy
Department of Banking and International Finance
Dolnozemská cesta 1,
852 35 Bratislava
Slovakia
e-mail: jankovsk@euba.sk

Abstract

The article analyses the state of the economic convergence in 11 member states of the European Union and that in the Czech Republic, Estonia, Cypre Lettland, Latvia, Hungaria, Malta, Poland, Slovenia, Slovakia and Sweden. It have used uniform starting points, which affect the price development, the deficit of the common budget, national debt, the development of the currency rate, long term interest rates and other factors. The articles show actual reference values of the price stability, stability of state in public finance, stability of the exchange rates and of the long term interst rates.

Keywords*: economic convergence, reference value, price development, fiscal development, exchange rates, long term interest rates, surplus, deficit common administration, brutt debt,*

1. Introduction

The last convergence report of the ECB analyses the state of the economic convergence in 11 member states of the European Union and that in the Czech Republic, Estonia, Cypre Lettland, Latvia, Hungaria, Malta, Poland, Slovenia, Slovakia and Sweden. By this analysis the bank used uniform starting points, which affect the price development, the deficit of the common budget, national debt, the development of the rate of currency, long term interest rates and other factors, like the results of integration of the markets, the situation and development on the current accounts on the balance of payments, development of the unitary labor costs and other price indices. The judgement of the maintenance of convergence have to be emphasised.

The single criterions have to be used in accordance to the exact stated manner:

1. It´s inevitable to safeguard, that membership of the Euro-zone can get only member of the EU which have reached economic conditions leading to maintenance of price stability and keep the Euro-zone viable,
2. the convergence kriterions form a whole and strong system and therefore it´s inevitable to fulfil all

3. convergence kriterions on the basis of current statements
4. application of the convergence criterions have to be uniform, transparent and simple.
5. The fulfilment of the convergencies will be judged not only at a fixed time but also on a preserved ground. For this reason the judgement of the single countries is directed at the maintenance of the convergence and the single statements will be judged retrospective for the period of the past 8 years. Further the forecast view has to be applicated in a suitable measure.

2. Price development

The criterion of the price stability which means, that the member country maintains a long term price stability and an average rate of inflation announced in the run of the year before the observation doesn´t exceed more as 1,5 % of the rate of inflation in max. 3 member states, which reached in the area of price stability the best results. The rate of inflation will be calculated like an increase of the last accessible 12 month average. For this reason, for the evaluation of the ECB - convergence one took the period from september 2003 till august 2004.

For the judgement of the reference value of inflation in 2004 has been applicated a non weithed arithmetic average of the rate of inflation in 3

following EU countries Finland (0,7 %), Denmark (1 %) and Sweden (1,3 %). The average rate of inflation so can reach the value of 0,9 % and with the addition of the a.m. 1,5 % has been stated the reference value about 2,4 %. The inflation will be measured on the basis of HICP (harmonized index of custom prices) which have been formed for the purposes of valuation of the convergence in the area of price stability.

3. Fiscal development

To maintain the criterion of stability of state in the public finance resources means that "in the time of statement the decision of the EU council abuot existence of an exessive deficit doesn´t refer to the member country".

By existence of an exessive deficit the European Union will prepare a message about nonfulfilment of the budget discipline requirements and that paticularly:

a) if the relation of the planned or the real deficit to the GDP (gross domestic product) exceed the reference value of 3 % except the cases:

- if this relation essential dropped or it permanent goes down and reach a level which comes closer to the reference value
- or if the exceeding over the reference value is only exceptionally or transitional and if this relation is moving near the reference value

b) if the relation of the national debt to the GDP exceed the reference value stated on the level about 60 % of GDP except the cases when this relation adequate decreases and with a suitable speed comes closer to the reference value.

The report prepared through the European Commission have also to supervise, if the national debt exceeds the government spending for the investment and also for other relevant factors incl. middle periodic economic and budged situation of the member country. For the purposes of convergence the ECB expresses its opinion too, which examine the main indicators for the development of the budget finances but unlike the commission the ECB haven´t a formal task. The task for the ECB is only to state if the government really reached an excessive deficit.

4. Development of the exchange rates

By exchange rates is required to pursuit the floating band determined through the mechanism of exchange rates of the European Currency System, min. during 2 years before the pursuit without devaluvation opposite of the

currency of each other member country. Through it the ECB pursuit, if the country take part in the mechanism ERM II during the period of min. 2 years before the pursuit without causing considerable pressures to the currency mainly without devaluvation of the currency against the EURO.

The valuation of stability of the exchange rate aginst the EURO is aligned to the fact, if the exchange rate is moving near the central parity ERM II, how is to pay attention to factors which can lead to devaluation of the currency. The width of the folating band in the mechanism ERM II has with it no influence on valuation of the criterions of the stability of the exchange rate.

The question of absence of „significant tension“ have to be valued as follows:

- relevant to the deviation of the exchange rates from the central parities against the EURO in the mechanism ERM II,
- relevant to the diferentials of the short term interest rates in the Euro-zone and their development relevant to the task, which played the exchange interventions.

Except the development of the nominal currency rates against the EURO have to be valued also the maintenance of the actuall currency rates in connection with the development of real and effective currency rates from the current capital- and finance accounts of the balance of payments from the part of the country trade with the Euro-zone on the whole foreign trade and from the clean international investment position of the country in long-term horizon.

5. Development of long term interest rates

The convergence criterion of the interest rates requires a „constant convergence, reached through the member country and his participation in the mechanism of exchange rates and which reflects in long term levels of the interest rate“. This criterion requires, that in the course of one year before the pursuit, the average long term nominal interest rate of the member country not exceed more than round 2 percent the interest rate of these three countries, which reached in the area of price stability the best results. The interest rates have to be valued on the basis of long term government obligations or comparable securities how is to consider the different definitions in single member countries.

The average long term nominal interest rate have to be calculated according to ECB in the course of one year before the pursuit and expressed the interest rate, which was calculated as arithmetic average in the last 12

months, for which are accessible the statements of the index HICP. For the needs of valuation in the convergence message have been used long term interest rates from Finland (4,2 %), Denmark (4,4 %), and Sweden (4,7 %). Afterwards the average rate have reached the level 4,4 % and additional 2 % we will get the reference value about 6,4 %.

6. Valuation of the state of economic convergence

All 11 countries valuated in the last convergence message the ECB have in connection to the third stage HMU a valued exception but not a particular status. According to the agreement the countries are obliged to take the EURO with the consequence, that they are obliged to try to fulfil all convergence criterions. The state of fulfilment of the indicators of the economic convergence is described in the following table No. 1.

Table 1 Indicators of economic convergence in 2004

Member country	**Inflation (HICP)**	**Long term interest rates**	**Surplus + Deficit- common adm.**	**Brutt debt of the common adm.**
Česká republika	1,8	4,7	**-5,0**	37,9
Estónsko	2,0	.	0,3	4,8
Cyprus	2,1	5,2	**-5,2**	**72,6**
Lotyšsko	**4,9**	5,0	-2,0	14,7
Litva	-0,2	4,7	-2,6	21,4
Maďarsko	**6,5**	**8,1**	**-5,5**	59,9
Malta	2,6	4,7	**-5,2**	**73,8**
Poľsko	2,5	**6,9**	**-5,6**	47,2
Slovinsko	**4,1**	5,2	-2,3	30,8
Slovensko	**8,4**	5,1	**-3,9**	44,5
Švédsko	1,3	4,7	0,6	51,6
Referenčná hodnota	2,4 %	6,4 %	-3 %	60 %

Source: Report of Convergation, ECB, Eurostat and European Commision.

6.1 Reference value

During of the last two years the inflation have reached in the countries, which are not members of the euro-zone a relative low level. It lowered from the level of 10 % in the year 1997 to the level of approximately 2 % in the middle of the year 2002, where remained till the beginning of the

year 2004. Later inccrease of the inflation has been caused mainly through some factors connected with the entry into the EU, how the increase of the indirect taxes and regulated prices, strong increase of the domestic demand and the increasing energy prices. Advanced increasing of prices as consequence of increasing of the demand and wages can be expected in the near future. Some central banks have reacted to this development through increasing of interest rates.

The table No. 1 shows, that 5 from 11 valuated countries – Czech republic, Estonia, Cyprus, Lithuania and Sweden – have reached an average value of inflation rate HICP under the limit of the reference value. Inflation in Poland and Malta have only moderate exceeded the reference value. In other countries the inflation considerable exceeded the reference value: Slovenia 4,1 %, Latvia 4,9 %, Hungaria 6,5 % and Slovakia 8,4 %.

We suppose, that in the majority of countries the inflation will decline, mainly in the countries with a high level of inflation in 2004. This assumption based on the expectation of weakly consequence from the increasing of indirect taxes and regulated prices. In the new member counries the inflation can be more volatile as consequence of always significant part of food on the total living costs, and price increase in energy- and raw material sector. New member countries need a strict controling of the domestic price presures, which are connected without others with the income costs, the fiscal policy, the reform of product market, the labor and the processing of catch up the high developed member countries.

The fiscal policy has moved very slowly, how the majority of countries just only have to reach the level which can be regarded in wider degree to maintain in the middle term horizon. In this area it´s necessary to reach an important progress and so to make it possible to guarantee a sustainable agreement with the fiscal criterion in sense of the requirements through the pact of stability and growth and to fulfil the middle term objective of the budget position which comes closer to the balanced budget or to a budget with surplus.

In the position of an exessive deficit are at the present 6 countries – Czech Republic, Cyprus, Hungary, Malta, Poland and Slovakia. The reference value of the national debt in connection to the GDP exceed only two countries (Cyprus 70,9 % and Malta 71,1 % but in more countries, which joined the EU on 01.05.2004 the national debt is strong growing, because some of them have important structural problems as consequence of state guarantees and pension protection.

All member countries which show in the present a deficit, need a sonsiderable consolidation and habe to be interested to reach a permanent

fulfilment of the fiscal criterions and the middle term objective of the budget position, so a balanced or a budget with surplus according to the pact of stability and growth.

After the period of significant decrease of the long term interest rates the yields from the long term obligations began to grow, the differencies in some coutries in comparison with the Euro-zone increased, which was connected with fiscal problems and inflation presures. The consequence was the need of an enduring convergence.

By development of the exchange rates no one of the new member countries was member in the ERM II during at least two years before the valuation. Estonia, Latvia and Slovenia have joined the ERM on 28. June 2004. Estonia and Latvia have kept after joining to ERM II as unilateral obligation its currency rates. At the present in Estonia soared a significant deficit on the current capital account of the balance of payments, which have reached a level about 12,7 % which led to increasing of it´s pure foreign commitments. In Latvia also soared the deficit of the connected current and capital account and reached a level about 6,5 % of the GDP. In both countries was the agreement about paticipation in the REM II with the obligation to realise healthly fiscal policy as condition of maintaining macroeconomic stability and keeping of the convergence process. The monetary policy of Slovenia after joining the REM II was orientated to keep a relative stable currency rate against EURO and to balance the decreasing oft the tolar value aginst EURO. The tolar maintained closer to the central parity.

The majority of currencies, which remained outside the mechanism ERM II against EURO has eased off. The development of the rate of the slovak crown aginst EURO have been characte- rized through an initiate period of whole stability till to the third quarter of 2003 and afterwards the rate of the crown has increased in stages. The NBS has regarded the increasing of the crown for too fast and the reaction was the decrease of the key interest rates and intervention on the foreign currency markets. The volatility of the slovak crown against EURO was during the reference period too high and the level of the spread for short term interest rates aginst euro-zone was significant.

The development of the exchange rates during the last two years was in the single valuated counties significant different. In some countries the exchange rates have stated a significante stability, but in other countries have occured significant fluctuations caused through an uncertainity in the area of fiscal consolidation a high deficit of the current account of the balance of payments, an increasing of private credits and through an encreasing of home

demand.

7. State of economic convergence in the Slovak Republic

Table 2 Development of the inflation rate, debt and the deficit of common administration.

Years	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
HICP	5,8	6,0	6,7	10,4	12,2	7,2	3,5	8,5	7,6-8,4	4,5
Debt CA	30,3	33,3	34,0	47,2	49,9	48,7	43,3	42,6	44,0	44,2
Exchange debt CA	11,2	5,9	3,8	15,7	7,2	2,6	-1,5	3,0		
Deficit -	-7,4	-6,2	-3,8	-7,1	-12,3	-6,0	-5,7	-3,7	- 3,3	- 3,8

Source: Report of Converenton, ECB, 2004

From the table No. 2 follows, that the inflation in the Slovak Republic exceeds the reference value and in the year 2004 have reached a level of 8,4 %. The inflation grew from the initial value of 5,8 % in 1996 to 12,2 % in 2000 and in the following years dropped to 3,5 % and in the year 2003 again grew to the level of 8,5 %.

The assumption for the decrease of the inflation in 2005 is, to finish the cerrections on the regulated prices (28 % share on the commodities HIPC), the indirected taxes and to slow the encrease of the wages. The risks of inflation encreasing follow mainly from possible secondary influences of high rate of inflation in the last period, from the development of the wages and from the fiscal inbalance.

The deficit of common administration durable exceeded the reference value, but now it tends to decrease. The relationship of the national debt to the GDP was under the reference value, announced an increasing trend but the increase of the national debt was in other years slower (in the eyar 2002 even a decrease of 1,5 %) and in 2003 soared about 3 %. If we review the period from 1996 to 2003 we can see that the relationship of the national debt to theGDPsoared about 12,3 %. Until 2007 we expect, that the relationship of the deficit to the GDP will go down to the level of 2 % and the relationship of national debt will moderate soar to 45,5 %. In the future a new fiscal consolidation will be necessary with it the Slovakia can fulfil the middle term requirement of the pact of stability and growth, which can be a balanced or a surplus budget.

The slovak crown is not connected to the ERM II and the central parity REM II is not determined. The development of the currency rate will be pursued on the basis of the own reference value (41,8 SKK/EUR correspond to 100 %). The development of the currency rate aginst EURO announced a considerable volatitity measured with annualised standard deviations from the daily percent alteration. From october 2002 till september 2004 the max. above deviation from the double central parity against EURO reached the level about 4,7 % and the max. below deviation 0,7 %. The average % deviation of the double SKK currency rate against EURO for the period 1999 till september 2004 reached 20,3 %.

Table 3 Key pressure indicators on the currency rate of the slovak crown

	December 2002	March 2003	Jun 2003	September 2003	December 2003	March 2004	Jun 2004
Volatility exchange rate	5,4	5,4	3,7	3,8	2,7	3,1	2,9
Diferent between short term exchang rates	3,8	3,5	3,8	4,2	3,8	3,7	2,8

Source: Annual Report National Bank of Slovakia, 2003, 2004

The average level of long term interest rates was in the last two years under the reference value of the criterion of interest rates and has now the value 5,1 %.

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THE CZECH REPUBLIC ON THE ROAD TO THE EURO-ZONE – NOMINAL CONVERGENCE CRITERIA[1]

Pavel Tuleja
Silesian University in Opava
School of Business Administration in Karvina
Derpatment of Economy
Univerzitní náměstí 1934/3
733 40 Karviná
Czech Republic
e-mail: tuleja@opf.slu.cz
telephone: +420 596 398 259

Abstract

Prior to its EU entry, the Czech Republic accepted the obligation to exert maximum efforts in order to fulfill conditions in the possible shortest time, on whose basis it will be able to accept the common European currency – the Euro. During the proper examination of the readiness of the Czech Republic for fulfilling this criterion one has to take into account both prerequisites, which are necessary for the integration of the Czech Republic into the Euro-zone, and the dispositions of the Czech economy to maintain positive effects arising from this membership. Since such a complex analysis concerning the preparedness of the Czech Republic for accepting the Euro would be rather extensive, we paid our attention merely to the examination of the extent, to which the Czech economy meets Maastricht nominal convergence criteria. Based on the analysis, we come to a conclusion that the Czech economy will not be able to meet this obligation in the following three years, mainly due to high deficits of public finances. In the last part, based on our estimates we claim that the Czech Republic could become a member state of the Euro-zone as early as in 2010.

Keywords: *exchange rate stability criterion; government debt criterion; government deficit criterion; long term interest rate criterion; price stability criterion*

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1. Maastricht nominal convergence criteria

Although the Czech Republic became a member country of the European Union on May 1st 2004, one cannot name this momentous day as a moment, at which the process of the European integration was definitely concluded. Prior to the EC entry, the Czech Republic, likewise the remaining nine new member states, pledged that following its entry it would exert maximum efforts in order to comply with the conditions in the possible shortest time too, on which basis it would be able to accept the common currency – the Euro. If we are to evaluate the preparedness of the Czech economy for fulfilling this objective, then we have to take into account both the prerequisites, which are inevitable for the integration of the Czech Republic into the Euro-zone (Maastricht nominal convergence criteria) and its dispositions for maintaining positive effects resulting from this membership (compatibility of the Czech economy with the economies of the Euro-zone). Since such a complex analysis concerning the preparedness of the Czech Republic for accepting the Euro would be rather extensive, we will pay our attention in this article merely to the examination of the extent, to which the Czech economy fulfils Maastricht nominal convergence criteria (hereafter also MNCC).

Event though the professional public is well acquainted with the substance of MNCC, at the beginning it appears to us as appropriate to mention that one standardly distinguishes between monetary nominal convergence criteria, which determine the maximum permissible level of the growth rate of the consumer prices, long term interest rates, and the movement of the exchange rate around its central parity and between fiscal nominal convergence criteria, which determine the maximum permissible level of government deficit and government debt. It is evident from the above stated that while monetary criteria in the case of the Czech Republic are primarily affected by the monetary policy of the Czech National Bank, the level of the fulfillment of fiscal criteria is mainly influenced by the fiscal policy of the Czech Government. At the same time, we would like to remind that the main reason for accepting these criteria was an effort of the EU member states in 1992 to prevent from the fact so that countries, whose economic instability would endanger the stability of the newly arising common European currency, would enter the future Economic and Monetary Union (hereafter EMU).

2. Monetary Maastricht nominal convergence criteria

2.1. Price stability criterion

According to the Protocol of Convergence Criteria (hereafter also "Protocol"), whose version proceeds from Article 121 of the Treaty on the Establishment of the European Community (hereafter also "Treaty"), the member country complies with price stability criteria if … *in the long term, it shows a sustainable price stability and the average inflation rate, which is measured in the course of one year prior to the examination carried out, does not exceed more than 1.5 percentage point of the inflation rate of three member states at the most, which have achieved the best results in the area of the monetary stability.* (ECB) Based on that definition, the European Central Bank determines then the reference value of the inflation criterion as … *the non-weighted arithmetic average of the inflation rate in three countries, which have reached the lowest inflation rate, provided that this rate is in accordance with the requirements of the price stability.* (ECB) The own inflation in individual countries is measured by means of the current average of the harmonized index of the consumer prices for over twelve months in comparison with the previous average of twelve months (HICP 12:12).

Table 1 – The price stability criterion for the Czech Republic in the years 1999-2007 (HICP; average of the last twelve months against the average of the previous twelve months; %)

Indicator	***1999***	***2000***	***2001***	***2002***	***2003***	***2004***	***2005^{p}***	***2006^{p}***	***2007^{p}***
Inflation rate	1.80	3.90	4.50	1.40	-0.10	2.60	2.56	1.99	1.24
Criterion I	2.07	2.67	3.13	2.90	2.70	2.17	2.09	1.97	1.25
Criterion II	2.07	2.67	3.13	2.90	2.70	2.17	2.09	1.97	2.01
Criterion III	3.00	3.37	2.77	3.43	3.63	3.37	3.17	3.12	3.22
Criterion I	*yes*	*no*	*no*	*yes*	*yes*	*no*	*no*	*no*	*yes*
Criterion II	*yes*	*no*	*no*	*yes*	*yes*	*no*	*no*	*no*	*yes*
Criterion III	*yes*	*no*	*no*	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*

Source: Eurostat and one's own calculation
Note: Data concerning the development of the inflation rate and of the price stability criteria for the years 2005-2007 are the author's own estimates based on the analysis of the respective time series by means of the model ARIMA. They years, for which data was estimated, are marked with a symbol P.

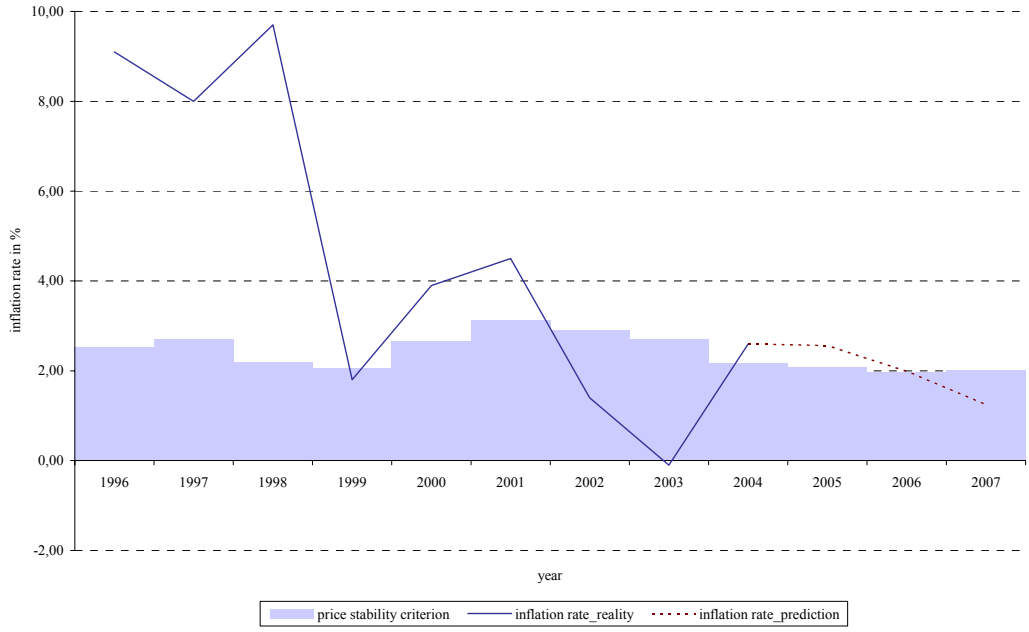
As it is apparent from the above stated, the reference value of the inflation rate is not unequivocally determined within the Protocol, in consequence of which this criterion is a target for member countries of the Economic and Monetary Union, and it is constantly changeable. Moreover, it is necessary to state that the relatively vague definition of this criterion has enabled the economists to interpret the "lowest inflation rate, which is in accordance with the requirements of the price stability" in several possible ways. If we proceed from these opinions, then we can determine the reference value of the inflation rate as an arithmetic average of the inflation rate, which has been reached:

- In three countries of the European Union with the lowest inflation rate (see criterion I in table 1),
- In three countries of the European Union with the lowest inflation rate, at the same time the countries are not included in this group, where this rate has achieved negative values (see criterion II in table 1)

Or in three countries of the European Union, which meet the requirement of the price stability best with the low inflation rate at present time (see criterion III in table 1).

It proceeds from the data showed in table 1 that if we did not take into account only the low inflation rate when determining the reference value but also the ability of the country to meet the requirement for the price stability (criterion III), then the Czech Republic would do well as for fulfilling the corresponding convergence criterion with a considerable large reserve as early as in 2002. If we proceed from another our prediction of the development of the inflation rate for the years 2005-2007, one can assume then that by fulfilling this criterion the Czech economy should not have any problems in the future either. Furthermore, it is necessary to note that this reference value corresponds to the inflation target as well, which the Czech National Bank determined with the national index of the consumer prices for this period (the target was set at the level of 3%).

Figure 1 – The inflation rate measured by HICP (12:12) and by the price stability criterion (criterion II) in the Czech Republic in the years 1996-2007



Source: Eurostat and one's own calculation

We will arrive at somewhat different conclusions then if we consider as relevant, similarly like the Ministry of Finance of the Czech Republic, the criterion, which takes into account the average inflation rate of three countries with the lowest positive inflation (criterion II). As it is obvious from table 1, in that case, according to our projection, the Czech Republic would be able to fulfill the inflation criterion for accepting the Euro only in 2007, moreover, in 2006 it would relatively and more noticeably come closer to its reference value.

In the case of the price stability criterion, we have to say that even though the Czech Republic has maintained the standard of the low inflation economy since 1999, one cannot rule out the Czech Republic might have certain problems as for fulfilling this criterion in the coming years. The estimate of the potential product[2] leads us primarily to this conclusion, from which arises that the Czech economy has been in the expansion production

[2] We have estimated the value of the potential product by means of Hodrick-Prescott's filter, which we have applied to the time series containing the annual seasonally cleaned data concerning the development of gross national product in the stable prices of the year 1995.

gap since 2003, and at the same time the value of GAP rose by 2,69 p. p. in the years 2003-2004. Should this development continue, one can relatively expect significant inflation pressures in the Czech Republic, which could be the cause of not fulfilling this criterion.

2.2 Long term interest rate criterion

It is evident from Article 4 of the Protocol of Convergence Criteria that a member country of the Economic and Monetary Union fulfils the long term interest rate criterion only if … *in the course of one year, prior to the examination, the average long term interest rate of the member state did not exceed 2 percentage points of the interest rate of three member states at the most, which have reached the best results in the area of the price stability.* (ECB) In that case, the European Central Bank determines the reference value of this criterion as *…the non-weighted arithmetic average of the long term interest rates in three countries, which have attained the lowest inflation rate.* (ECB) In this case, interest rates from the long term government bonds or comparable securities are considered as corresponding and at the same time, the European Central Bank, for calculating the long term interest rare, considers as relevant the proceeds up to the date of maturity of ten year government bonds on the secondary market.

Shall we in this case also consider the three countries with the lowest inflation rate as the countries, which have achieved the lowest positive inflation in the given period, subsequently we come to a conclusion that in the case of this criterion, the Czech Republic had no problems fulfilling it in the past, simultaneously, the same development, according to our prediction, we are expecting in the coming years. In the case of this convergence criterion, we can determine trust or distrust of the financial markets in stabilizing the Czech Republic finances as a risk factor. Should the trust be violated in the coming three years, then we can rather expect the long interest rates considerably to grow in that period.

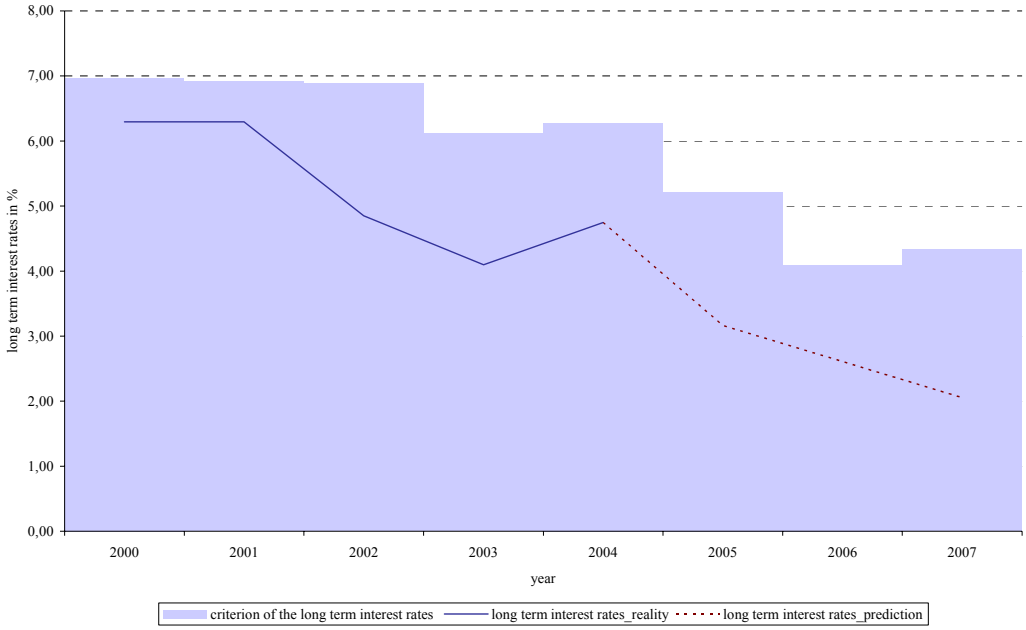
Table 2 – The criterion of the long term interest rates for the Czech Republic in the years 1999-2007 (10 year interest rates from the government bonds on the secondary market; the average over the last twelve months; %)

Indicator	***1999***	***2000***	***2001***	***2002***	***2003***	***2004***	***2005p***	***2006p***	***2007p***
Interest rates	.	6.29	6.29	4.85	4.10	4.75	3.16	2.61	2.05
Criterion	.	6.97	6.91	6.88	6.11	6.27	5.21	4.09	4.33
Criterion	.	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*

Source: Eurostat and one's own calculation

Note: Data concerning the development of the long term interest rates and the development of the long term interest rate criterion for the years 2005-2007 are the author's own estimates based on the analysis of the respective time series by means of the model ARIMA. They years, for which data was estimated, are marked with a symbol P.

Figure 2 – Ten year interest rates from the government bonds on the secondary market and the long term interest rate criterion in the Czech Republic in the years 2000-2007



Source: Eurostat and one's own calculation

2.3 Exchange rate stability criterion

Only that member state fulfills the exchange rate stability criterion, which according to the Protocol of Convergence Criteria … *has observed the fluctuation range stipulated by the mechanism of the exchange rates of the European Monetary System at least for the last two years, and the exchange rate has not been exposed to hard pressures…,* simultaneously what is applicable is that in that given period it should not have … *devalued the bilateral average rate of its own currency at its own suggestion against the currency of any other member state.* (ECB) It unequivocally follows from this definition that the respective country is able to comply with the exchange rate stability criterion only if:

- It has been in the last two years, prior to the examination carried out, a participator of the European mechanism of exchange rates, which has been the ERM II mechanism since January, 1999,
- Its exchange rate follows the nominal fluctuation range, i.e. if it moves within this mechanism near its central parity
- And the development of the exchange rate interventions and short term interest differentials against the Euro-zone do not lead to distinct tensions or strong pressures on this exchange rate.

Table 3 – The exchange rate stability criterion for the Czech Republic in the years 1999-2007 (CZK/EUR, CZK/ECU; December of the given year; fluctuation range ±15% from central parity)

Indicator	***1999***	***2000***	***2001***	***2002***	***2003***	***2004***	***2005^{p}***	***2006^{p}***	***2007^{p}***
Exchange rate	36,66	36,66	36,66	36,66	36,66	36,66	36,66	36,66	36,66
Depreciation (-15%)	27,09	27,09	27,09	27,09	27,09	27,09	27,09	27,09	27,09
Depreciation (-2,25%)	32,59	32,59	32,59	32,59	32,59	32,59	32,59	32,59	32,59
Depreciation +15%)	28,03	28,03	28,03	28,03	28,03	28,03	28,03	28,03	28,03

Source: Eurostat and one's own calculation

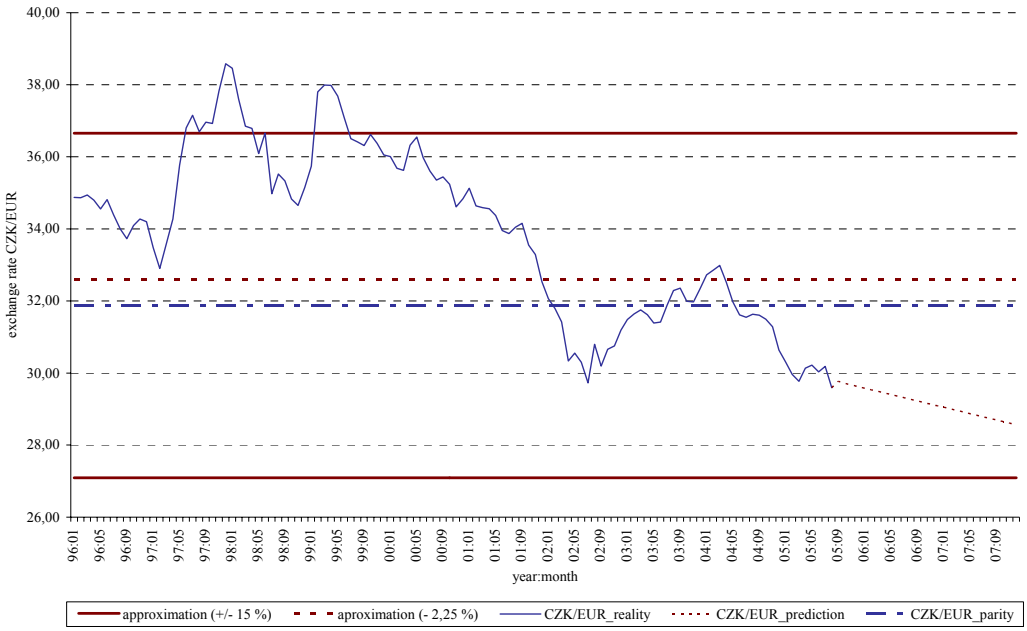
Note: Data concerning the development of the exchange rate and the development of the exchange rate stability criterion for the years 2005-2007 are the author's own estimates based on the analysis of the respective time series by means of the model ARIMA. They years, for which data was estimated, are marked with a symbol P.

We consider the determination of the "normal fluctuation range" as the main methodological problem of the exchange rate stability criterion, which can be defined in this case by one of the three following manners:

- The first possibility is to determine the normal fluctuation range in a way, as it was intended at the time of drawing up the Treaty on the Establishment of the European Community, i.e. as a range determined by the variance of ±2,25 % from the bilateral central parity, and exceptionally, this variance can reach up to ±6,00 %,
- The second possibility is to proceed from the decision, which the Council EMI accepted in August, 1993 and on which basis, the fluctuation range was extended to ±15,0 %

- And the last, the third possibility is to accede to a compromise solution, which is referred to by some economists of ČSOB and within which the fluctuation range is determined as a asymmetric range, in which a bigger space for depreciation is given for the currency of the candidate country (appreciation variance is set to +15%) and simultaneously there is a smaller space for depreciation, when the respective variance reaches only -2,25%.

Figure 3 – The nominal exchange rate CZK/EUR (ECU) and the exchange rate stability criterion in the Czech Republic in the years 1996-2007



Source: Eurostat and one's own calculation

Note: The central parity was estimated by the author by means of the average monthly exchange rate of CZK against Euro for the period of 1996-2007.

If we proceed from the above given, it is apparent that in the case of the Czech Republic, formally, we are not able to assess the level of fulfilling the exchange rate stability criterion at present. The main reason for this argument is the non-participation of the Czech Republic in the ERM II mechanism and thus there is the non-existence of the officially determined central parity of the exchange rate of CZK/EUR. Still, if we wanted to partially assess the chances of the Czech economy for fulfilling this criterion, then we could use for these purposes for instance the central parity stimulated

by means of the average of the exchange rates of CZK/EUR for the years 2003-2004. As it obvious from figure 3, since the beginning of the year 2002 the fluctuation of the currency exchange rate of CZK against Euro has been, apart from the first quarter 2004, smaller than the hypothetical asymmetric range [+15 %; -2,25 %], and at present, the significant variances of this exchange rate are taking place from its central parity. If we follow strictly the above stated conditions in this situation, then we can state that the Czech economy could have certain problems regarding its fulfilling the exchange rate stability criterion in the future. It all depends on the fact how the European Commission will view this criterion as well as the European Central Bank.

3. Fiscal Maastricht nominal convergence criteria

3.1 Government deficit criterion

The Treaty on the Establishment of the European Union in Article 121 requires member states to strive for … *a long term sustainable state of public finances apparent from the state of public budgets, which do show an excessive deficit …,* and simultaneously, as an excessive deficit is considered such an deficit, according to which *... a ratio of the planned and actual deficit of public finances to the gross domestic product exceeds the reference value (stipulated in the Protocol regarding the excessive deficit procedure of 3 % GDP)*…. (ECB) A certain exception of fulfilling this criterion can be made to such member states, where:

- The ratio of the deficit of public finances to GDP markedly and continuously decreased in the past, and in consequence of this fact it reached the maximum, which was close to its reference value at the given moment,
- Or in the case where the exceeding of the reference value took place entirely exceptionally, and at the same time temporarily. In that case, it is assumed that the actual value will be close to the reference value of the given criterion.

The government deficit is then monitored in particular countries by means of the pure loan of the government institution sector, whose value is calculated on the basis of the methodology of the system of national accounts ESA 95.

Speaking of the government deficit criterion one mustn't forget the meeting of the European Council of Finance Ministers (ECOFIN), which took place in March, this year, and in which the representatives of ECOFIN agreed to some partial amendments of the "Stability and Growth Pact", which

significantly affected the conditions, under which a member state is able to fulfill this criterion. According to these conclusions:

- ECOFIN and the European Committee, following the implementation of the compulsory fund system by the member state, can take into account net costs connected with this reform when assessing the development of the government deficit. This consideration will be then applicable in the first five years following the introduction of the reform and will have a regressive character, i.e. 100% of net costs could be taken into account in the first year, and the volume will be gradually decreasing to 80, 60, 40 and 20 % in the coming four years,
- The member states are bound to observe the middle term target, what means the maintaining of almost balanced or surplus state budget and further a share of periodically cleaned government indebtedness in GDP can reach -1% in the long term period in countries with low indebtedness and high potential growth, whereas in countries with high indebtedness and low potential growth, the state budget must be balanced or surplus,
- The Euro-zone member states and ERM II ought to base their predictions concerning the development in the area of public budgets on the same assumptions as the European Committee.

Table 4 – The government deficit criterion for the Czech Republic in the years 1999-2007 (pure loans of the government institution sector in the methodology ESA 95; December of the given year; %)

Indicator	***1999***	***2000***	***2001***	***2002***	***2003***	***2004***	***2005^{p}***	***2006^{p}***	***2007^{p}***
Deficit / GDP	-3.65	-3.65	-5.92	-6.75	-11.65	-3.02	-4.15	-2.39	-2.10
Criterion	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00
Criterion	*no*	*no*	*no*	*no*	*no*	*no*	*no*	*yes*	*yes*

Source: One's own calculation based on data of CSO

Note: Data concerning the development of the share of the government deficit in GDP for the years 2005-2007 are the author's own estimates based on the analysis of the respective time series by means of the model ARIMA. They years, for which data was estimated, are marked with a symbol P.

As it obvious from data depicted in figure 4, the Czech Republic has not been able successfully to fulfill this government deficit criterion since 1998 up to now. In this connection, one has to state that the Czech Republic

will be in all likelihood confronted with these problems in the following three years, furthermore our conclusion confirms the obligation of the Czech Government to lower public finance deficit in the years 2005-2007 from a forecast figure of -4,7 % in 2005 to the final figure of -3,3 % in 2007. It is apparent from the given that the first year, when the Czech economy ought to be able to fulfill the government deficit criterion should be in 2008. As it obvious from the above stated our prognosis of the development of government deficit can be referred to as very optimistic in this case.

Figure 4 – The share of pure loans of government institutions (methodology ESA 95) in GDP and the government deficit criterion for the Czech Republic in the years 1996-2007

Source: OECD and ones' own calculation

3.2 Government debt criterion

Article 104 of the Treaty on the Establishment of the European Union refers to the fact that … *an EU member state does not meet the requirements of budget discipline* ... if … *a ratio of public indebtedness to gross domestic product exceeds the recommended limit (stipulated in the excessive deficit procedure of the Protocol as 60% of GDP)* ... (ECB) Similarly, as in the case of government deficit, an exception of the government debt criterion can be made to a respective member state only at the moment, when this ratio of public indebtedness to GDP is sufficiently decreasing and at a satisfactory

pace it is nearing the determined reference value. As government debt is considered total gross debt of the government institution sector, which is in this case calculated on the basis of the methodology of national accounts ESA 95.

If we proceed from data depicted in table 5, then it is apparent that the government debt criterion was and in all probability will be the only criterion, with which the Czech Republic will not have any more serious problems in the future.

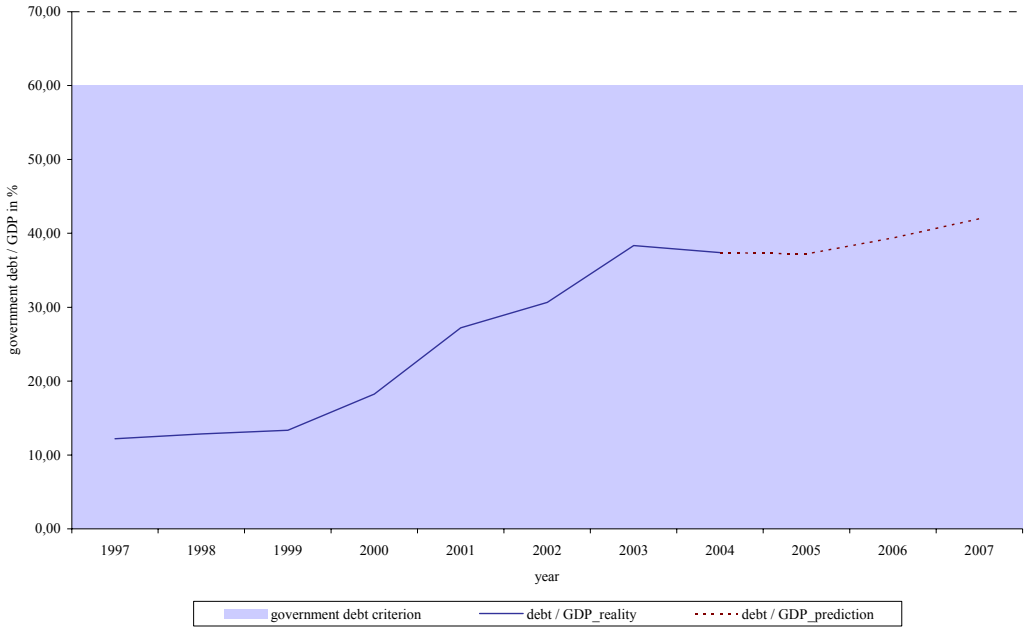
Table 5 – The government debt criterion for the Czech Republic in the years 1999-2007 (total gross debt of the government institution sector in the methodology ESA 95; December of the given year; %)

Indicator	***1999***	***2000***	***2001***	***2002***	***2003***	***2004***	***2005^{p}***	***2006^{p}***	***2007^{p}***
Debt / GDP	13.35	18.24	27.21	30.66	38.34	37.39	37.19	39.38	41.97
Criterion	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00
Criterion	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*

Source: OECD and one's own calculation

Note: Data concerning the development of the share of government debt in gross national product for the years 2005-2007 are the author's own estimates based on the analysis of the respective time series by means of the model ARIMA. They years, for which data was estimated, are marked with a symbol P.

Figure 5 – The share of total gross debt of the government institution sector (ESA95) in GDP and the government debt criterion in the Czech Republic in the years 1997-2007



Source: OECD and one's own calculation

4. Conclusion

As we have already stated at the beginning of this paper, the Czech Republic, prior to its EU entry, accepted an obligation to exert maximum efforts in order to fulfill conditions in the possibly shortest time, on whose basis it will be possible to accept the common European currency – the Euro. If we are to state whether the Czech Republic is capable of meeting the obligation, then we have to state that in all probability it will not, mainly due to the inability to fulfill the public deficit criterion in the long run. If we proceed from the assumption that the Czech economy could be able to fulfill this criterion as early as in 2008, then we could expect that in the same year, the Czech Republic would enter the exchange rate mechanism ERM II, what would mean that the Czech Republic would become a member state of the Euro-zone not earlier than in 2010.

Table 6 – The fulfillment of Maastricht nominal convergence criteria by the Czech Republic in the years 1999-2007

Indicator	***1999***	***2000***	***2001***	***2002***	***2003***	***2004***	***2005^{p}***	***2006^{p}***	***2007^{p}***
Price stability	*yes*	*no*	*no*	*yes*	*yes*	*no*	*no*	*no*	*yes*
Long term interest rates	.	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*
Exchange rate	*Czech Republic was not a member of ERM II*						.	.	.
Government deficit	*no*	*no*	*no*	*no*	*no*	*no*	*no*	*yes*	*yes*
Government debt	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*	*yes*

Source: Eurostat, OECD and one's own calculation

Note: They years, for which data was estimated, are marked with a symbol P.

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PORTUGAL – AN EXPERIENCE FROM THE TRANSITION TO THE ECONOMIC AND MONETARY UNION

Peter Rusiňák
University of Economics in Bratislava
The Faculty of International relations
The International Law Department
Dolnozemská cesta 1
852 35 Bratislava
Slovakia
e-mail: rusinak@dec.euba.sk
telephone:+421 2 67295 407

Abstract

Generally speaking, Portugal is considered to be a good example of the European integration. The 20–year-old membership in the EU clearly shows an impact of this institution on the stability of democracy in the country, especially during a period of transition – after the fall of non-democratic regime and during the negotiation about the entering EU as well. With the help of structural and cohesive funds the country was directed to the successful economic development. In comparison with the period after so called "the Carnation revolution" in 1974 the image of the country changed. Portuguese political leaders gradually understood that the success of the country ´s membership is based in its active approach and participation in the process of the European integration. As a country on the geographical and economic periphery it tried to be in the centre of everything, they took an active part in all significant integration activities, including EMU, the Schengen area, an enlargement of the EU etc. The aim of this article is to point at the Portuguese experience from this process and to present Portugal as a good example for new EU countries, especially for those ones that belong to a group of small or middle-sized countries with many historical, political and economic parallels in their development. It also concerns the Czech Republic and Slovak Republic.

Keywords: *Portugal, EMU, Experience, periphery ,new EU countries*

1. Introduction

Portugal has been a full member of the European Economic Community since 1 January 1986, after the signature of the Accession Treaty, on 12 June 1985. Both Portugal and Spain – and the latter signed the Accession Treaty and joined the European Economic Community on precisely the same date – became members of what was then known as the „Europe of the 12". The two Iberian Countries had managed to free themselves successfully in the mid-seventies of the dictatorship that had oppresed them for several decades, and with equal success had managed to establish democratic, pluralist regimes. Ninetheen years after Portugal joined what was at the time the European Economic Community it is clear that this choice was one of the most important decisions taken by Portuguese political leaders in this century. Joining the European project therefore reflected a solid determination to ensure that the country would return to its historical and cultural origins and to its undeniable European vocation. The desire to consolidate Portugal´s democracy was a major factor in the country´s accession to the European Community. After the accession, there followed a period during which a virtually exclusive priority was given to economic and social development. Initially, the viewpoint was eminently national – an approach shared by the other "cohesion countries", natably Spain. The challenge of identifying Portugal´s priorities is also a consequence of European economic and monetary integration.

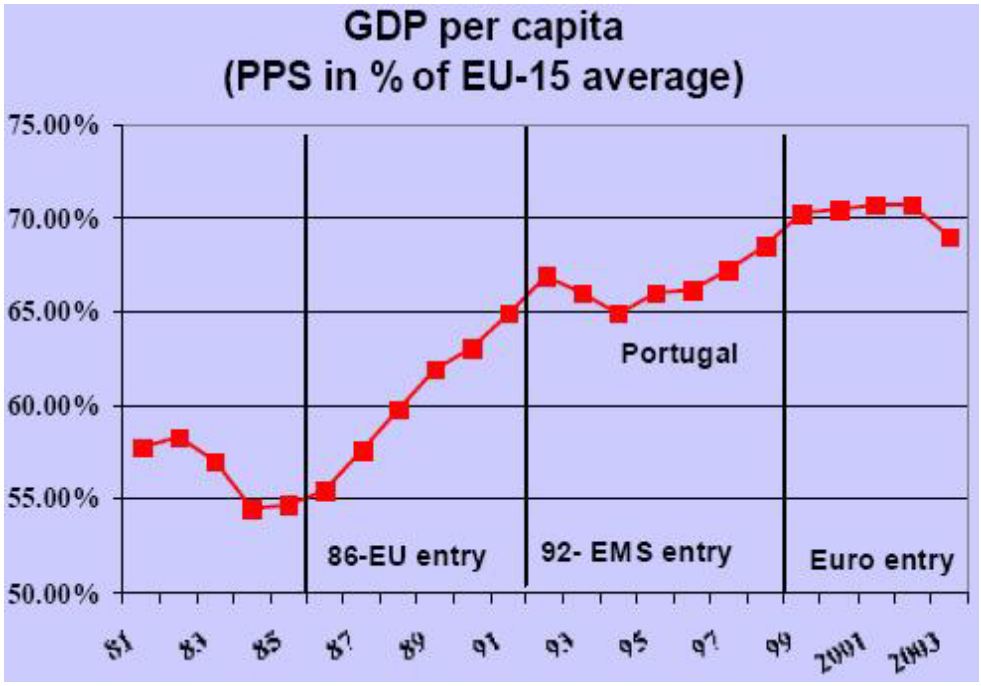
2. Portugal´s Transition to Economic and Monetary Union

2.1 Exchange Rate Mechanism participation

The Portuguese case is a good illustration of both the benefits and the risks associated with monetary integration. To properly assess its case, however, we should consider the long period of membership since 1986. In this time span we can certainly be seen as a success story, which is also true if we start the analysis in 1992 when Portugal joined the Exchange Rate Mechanism (ERM).

As in most other EU countries.perhaps even more so in the case of Portugal, the challenge of Economic and Monetary Union (EMU) has worked as a mechanism for economic stabilisation and as a pre-condition for structural reform and long-term development.

Figure 1 GDP per capita



Source: Banco de Portugal

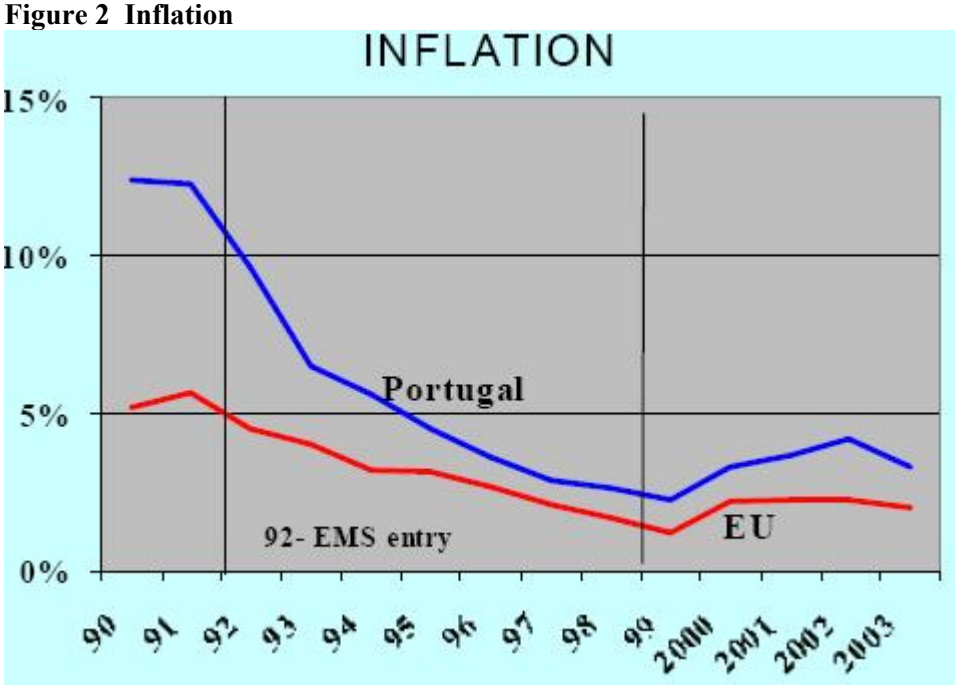
The Portuguese experience has some lessons of interests both for the case of ERM participation and of euro adoption. According to Vitor Constacio, President of the Portuguese Central Bank (Banco de Portugal) „ERM is both a test of the capacity of countries to participate in a monetary union and a useful mechanism to steer economies to comply with the Maastricht criteria“[1]. V.Constacio can understand the reluctance of some new member States in accepting the need to go through ERM participation before joining the euro. Small countries with fixed exchange rate regimes can understandably envisage staying in the ERM for a short a period of time as possible. For countries with flexible exchange rate regimes, including those shadowing ERM, participation in the ERM can be useful as the ±15% band allows exchange rate flexibility to help stabilization and absorb inflationary pressures. At the same time, ERM acts as a disciplinary framework as adequate domestic policies are essential to ensure compliance with the commitment to exchange rate stability. But the ERM is also a flexible framework as realignments are possible and should be used if necessary. This

[1] Contsancio, V.: European monetary integration and the Portuguese case. (presented at the Third ECB Central Banking Conference, Frankfurt, 21 and 22 October 2004). In: Detken,C., Gaspar, V., Noblet, G. (editors): „The new EU Member States:convergence and stability“, ECB 2005, p.2.

means that the initial central rate should not be seen as the future conversion rate. Also, with the wide bands, the ERM - although giving priority to exchange rate stability - still allows room for an independent monetary policy to target inflation, in what is a workable hybrid system.

The Portuguese experience illustrates many of the points just mentioned about the Exchange Rate Mechanism. Portugal initiated an exchange-ratebased stabilization program in 1990 and entered the ERM in April of 1992. Inflation reduction was consistently achieved throughout the decade.

Figure 2 Inflation



Source:Banco de Portugal

Entry into the ERM was helpful notwithstanding the initial turmoil in the system. Portugal was victims of contagion and the escudo was under attack after September 1992, when Portugal did not follow a realignment of central rates by other countries. This led to a significant speculative episode that was nevertheless successfully resisted. The policy response consisted in a determined and simultaneous use of interventions in forex markets and interest rate moves. Active episodes of intervention (interventions or interest rate moves above 2.5 standard deviations of the period) were 4.4 % of total days of the period and were successful 91% of the time. Successful in the sense that after an intervention the exchange rate appreciated (Frankel criterion 3) or depreciated less than before (Humpage criterion 4). During

the period of turmoil in the system Portugal changed the escudo's central parity three times (Nov 1992, -6%, March 1993, -6.5%, May 1995, -3.5%) without ever having reached the band limits. These realignments helped to offset the initial high appreciation of the currency. Also, they did not harm the disinflation process, which continued to be based on a tight monetary policy and a nominal exchange rate that did not completely offset inflation differentials. As it is stressed in an IMF working paper 5 on exchange-rate-based stabilizations in Greece, Ireland, Italy and Portugal, there was no relation in all these countries between fiscal policy and disinflation. Credibility of the disinflation process was more related with a general sustainability assessment than with the speed of deficit reduction. All these points prove the flexibility of the ERM and the advantage in not seeing the initial central rate as the future conversion rate.

Portugal stayed in the ERM for six years with exchange rate stability after 1993, as domestic policies gradually gave credibility to the objective of participating in the Monetary Union. The disinflation proceeded smoothly, without excessive demand pressures or inflation surges. This development has been influenced by very high interest rates in the first few years and by the European recession of the early 90's that also led to a recession in Portugal in 1993. So, during this period, Portugal did not suffered the Exchange Rate Based Stabilization syndrome of high growth, high capital inflows, high real appreciation, and high Current Account deficits, common features in other experiences. That came later as euro adoption approached and during the first two years of monetary union membership.

In different experiences where inflationary pressures become intense, a contradiction may appear between the Maastricht criteria of exchange rate stability 6 and of inflation performance. This may explain why some countries would like to stay only a very short period in the ERM. That is more understandable for countries with hard pegs as pressures for higher inflation could not be offset by allowing the currency to appreciate within the band. For countries with flexible exchange rate regimes, the possibility of allowing exchange rate moves within the wide bands may be useful, provided they will not stay long without achieving, with credibility, a situation approaching compliance with the Maastricht criteria. That is why they should carefully consider the timing of joining the ERM. It would be preferable if they were to join when already well advanced on the path to compliance with the criteria. In practice, of course, the concrete situation of each country has to be properly assessed.

The first condition for successful preparation of the way for entry into the euro area is the correct use of participation in the ERM as a disciplinary

framework and as a flexible way to manage the pressures associated with the convergence process.

2.2 Monetary Union participation

In spite of being many times referred to Portugal as a success in terms of European integration, namely with regard to EMU, the political merits of the Portuguese experience are in general over-estimated. In fact, until 1992, the ambiguous Portuguese response to the need for institutional reform and European integration was mirrored by complete discretion regarding the future course of exchange rate policy and the timing of monetary reform. It was only with the Country´s first presidency of the European Counsil in 1992 that Portugal´s attitude towards European monetary integration changed and the escudo joined the ERM. According to Francisco Torres „joining a monetary union that is based on istitutions that deliver price stability is probably the best way to implement a solid strategy of sustained economic development. The reason is that this option also precludes many of transition costs (the output losses of a disinflation strategy) of such a regime changed. Fixed exchange rates, unlike other policy targets, are easily observable by the private sector but also easily implemented by the autorities“[2].

The discussion about Portugal´s participation in EMU evolved significantly since the objective was put forvard in the Delors plan. Initially, the idea of a monetary union in Europe was well received by the public in general as a long-term European goal, although there was some scepticism as to Portugal´s capacity to participate. The Portuguese economy was presented to the public, by the government, opposition and social partners, as a peripheral country that was still catching up making a long transition period for monetary and financial liberalisation necessary while concentrating on how to cope with the more immediate challenge of the International Market Portuguese public opinion and polity became used to what was until then the norm, namely that Portugal would be granted yet another transitional period.

Negotiators (the monetary authorities and the administration in general, supported by reactive political parties, resist to any substantial changes, to any increased sharing of national sovereignty, until the important decisions are taken at the top political level. Negotiators and reactive politicians adapt then quickly to the new rules. That was the case of EMS membership and of all the intergovernmental conferences.

 Torres, F.: Lessons from Portugal ś Long Transition to Economic and Monetary Union. In: Portugal. A European Story. Principia 2000, p.101

The tendencies for higher inflation and possible overheating will continue to exist in a Monetary Union and can even become stronger and unavoidable. There is a sort of EMU shock as countries undergo a true change of economic regime. The main features of this change of regime with the adoption of the euro are, in Vitor Constantio´s opinion, the following:"
a) Increased substitutability of financial assets
b) Consolidated reduction in the cost of capital
c) Increase in wealth and reduced liquidity constraints.
d) Different meaning of the current account and primacy of credit risk"[3].

All these aspects are a direct result of monetary and financial integration that equalizes monetary rates, reduces risk premium as national currencies disappear and promotes integration of capital markets. This facilitates debt financing and equity issuance with an overall reduction in the cost of capital. Member countries no longer suffer from what Eichengreen and Hausman 7 called «original sin», i.e. the difficulty of long term domestic financing at fixed rates or of issuing external debt in their own currency. As a result, the current account deficit is financed in their own currency and ceases to be a macro-monetary problem to become just the result of the budget constraints of all resident economic agents.

For countries coming from an economic regime of higher inflation all these features create the conditions for demand/credit booms and possible overheating that may emerge through the following two channels:
a) The drop in interest rates increases wealth, reduces liquidity constraints and favours consumption intertemporal smoothing, which decreases savings in the present period.
b) The reduction of the cost of capital and the prospects of higher growth as a result of goods markets integration (the so-called Rose effect 9), lead to investment growth.

The two types of mechanisms just mentioned are two of the more important channels of transmission of the positive effects of euro membership. Nevertheless, they create risk, thus confirming that there can always be too much of a good thing.

The most important instruments to deal with these problems are the anti-cyclical use of fiscal policy; sensible wage policy; and good prudential supervision of the financial sector.

The Portuguese case is a good one to illustrate some of the developments just mentioned. In fact, the drop in interest rates was

[3] See Constancio, p.8

significant after 1995 and by then membership of Monetary Union seemed more assured.

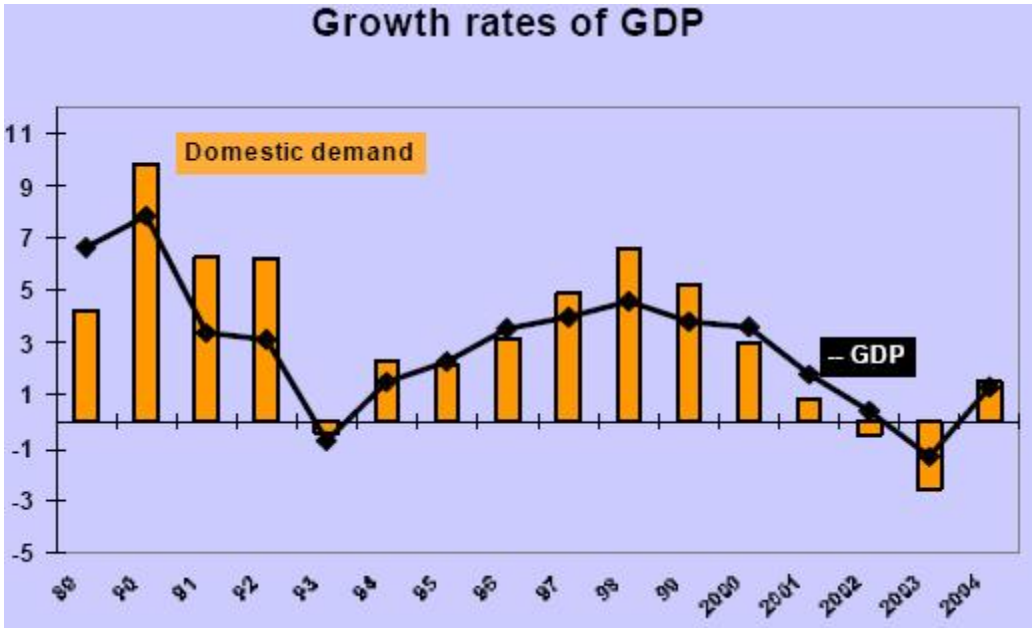
There was, of course, an explosion of debt in both households and companies, which was possible because total interest rate charges increased only marginally for households and actually decreased for firms throughout the decade. Total financial charges (interest and principal) for families stand now at 14% of disposable income, as indebtness was overwhelmingly related to housing in the form of long-term credits with low annual amortization.

However, the current account of a member of a monetary union has a totally different meaning from the case of a country that has its Portuguese currency. In a monetary union, the financing of a member country current account is carried out in the common currency with reduced liquidity constraints. The balance of payments is no longer an autonomous macro monetary restriction, it is the result of the borrowing requirements of domestic agents conditioned by their own budget constraints. Rational agents' behaviour will reflect these constraints and microeconomic credit risk analysis as it is performed by the financial sector is now the important mechanism of control. The consequence of all these factors is a gradual decline in the Horioka/Feldstein effect within the euro area. In fact, investment can become less correlated with domestic savings as a result of in-depth monetary and financial integration. After 2000, the external deficit started to decrease and it is important to underline that this evolution resulted from the spontaneous change of behaviour of indebted private agents, proving that the two mentioned self-correcting mechanisms were playing their role.

The private sector as a whole had in 1995 a positive financial balance of 5.7% of GDP but this changed to a deficit of 5.8% in 2000, whereas the public sector reduced its excess of investment over saving . Since 2000 private agents have started to reduce investment and increase savings, reaching a balanced position last year. What happened was clearly a market-driven adjustment by the private sector. The initial surge of expenditure was as unavoidable as the correction was spontaneous and equally rational.

More recently, however, Portugal has suffered a marked slowdown in growth and in 2001 Portugal breached the 3% budget deficit limit imposed by the Treaty (Figure 4). The slowdown, which attained recession level with -1.3% growth last year, was very much influenced by the international economic slowdown, but stemmed also from the adjustment of economic agents after a period of high growth fuelled by a credit boom. This type of see-saw development is the result of a practically unavoidable adjustment to a new intertemporal equilibrium associated with monetary unification.

Figure 3 Growth rates of GDP



Source: Banco de Portugal

Nevertheless, the recent economic evolution also stemmed from some mistakes of them own. It can be said that the macroeconomics of a successful monetary integration is about economic agents adopting new rules regarding fiscal policy and wage behaviour. Fiscal policy needs to play a countercyclical role to act as a shock absorber. Wage behaviour should take as a reference wage cost developments in the euro area as a whole and should deviate from these only if there is a productivity growth differential. A different performance can lead to dangerous losses of competitiveness and can feed a divergent inflation process. In a Monetary Union, however, no country may for a long period have an inflation rate very much different from the average. Only inflation differentials that are justified by equilibrium movements of the real exchange rate are sustainable. In view of the recessionary nature of the adjustment, when price and cost inflation diverges, a sensible wage behaviour is essential to minimize future unemployment.

These new realities of life in a monetary union are only with difficulty taken on board by economic agents used to other regulation mechanisms for decades. As a consequence, Portuguese fiscal policy has been mostly pro-cyclical and the relative unit labour costs have increased more than the euro area average. Portugal has aggravated, therefore, the risks of boom and bust behaviour. This is a considerable risk which, at an initial stage, confronts all

countries coming from a relatively high inflation regime to join a low inflation monetary union.

Regarding the more recent developments of the Portuguese economy, it should be stressed that the drop in domestic demand associated with the self-correcting adjustment of the private sector contributed to the recession Portugal has last year. Another important factor was the big decrease of external demand directed to the Portuguese economy. This fell from an average of 9% (1995-2000) to 1.4% in 2001 and 0.8% in 2002. Fiscal policy didn't help either as after breaching the 3% limit in 2001 we had subsequently to adopt a pro-cyclical stance.

3. The role of fiscal policy

Portugal misused fiscal policy twice in the decade. The first time at the moment of entering the ERM, which may have contributed to some contagion effects at the time of ERM turmoil in 1992. The second time after 1996, when the savings from the decrease in public debt interest charges were used to increase current expenditures. In fact, twice in the decade Portugal had significant increases in current primary expenditures, basically the wage bill.

The reduction in interest payments generated an unjustified optimism about what the State could spend. The consequence was a pro-cyclical fiscal policy, which, when the economic deceleration came in 2001, led suddenly to a deficit above 4%. To correct this excess, policy had to continue to be pro-cyclical, this time in the restrictive direction. The lesson to draw from this is that a country within the euro area must always keep a margin of safety in fiscal policy to be able to face an economic slowdown without the risk of breaching the 3% limit.Another point worth mentioning refers to the limits of fiscal policy in the context of the initial stages of monetary union participation. As Portuguese case illustrates, the budget stance did not create a demand boom and it would be asking too much of fiscal policy to think that it could have been able to significantly offset the explosion of private expenditure. Fiscal policy should undoubtedly, have been countercyclical in terms that would have allowed us to avoid breaching the Stability Pact. Nevertheless, it is also important to note that a reasonable policy could not have smoothed the cycle very significantly. The reason is that the budget multipliers of very open economies like ours are in general fairly small.

Simulations using the Banco de Portugal model show that to bring the 2001 budget deficit 2 percentage points lower, through a policy of slowing down primary expenditures since 1998, the cost in terms of GDP growth would have been 3.5% in accumulated terms, i.e. around 20% of the growth

achieved in that period. In such a scenario, the current account deficit would have been reduced only from 8 to 6% of GDP.

It should be underlined that fiscal policy, in spite of its limitations, is essential to counter the more negative effects of a demand/credit boom and partially smooth the cycle. In particular, the Portuguese experience shows the importance of some other points. Countries should maintain at all times an anti-cyclical fiscal policy. A prudent approach requires that real budget consolidation with a deficit well below 3% should be achieved before adopting the euro. On the other hand, the structural deficit should never exceed the level compatible with the full play of the automatic stabilizers without breaching the 3% limit. Finally, countries should introduce structural reforms early on to contain future budget pressures, and should adopt efficient institutional procedures for the preparation and implementation of the budget. These should include, for instance, multi-year expenditure commitments approved by Parliament. Also, in view of the need to invest in infrastructure and the limitations of the Stability Pact, which does not allow the use of debt over the cycle to finance those expenditures, adequate rules for Public Private Partnerships and project finance should be introduced to ensure real transfer of risk, transparent accounting of multi-year commitments and limits to future expenditures.

4. Conclusion

Portugal is generally considered to be a European integration success story. Over the last 19 years democracy has become consolidated, the sense that Portugal was marginal in Europe is being overcome. The benchmark argument for Portugal to join a monetary union was based on institutions delivering price stability – a means to implement a solid strategy of sustained economic development.

There are several causes for the initial effect of acceleration of growth or even for real overheating. The first one stems from the decrease, and possible temporary misalignment, of interest rates and the credit boom that follows from that. The second reason is associated with large capital inflows that add to demand pressures and may be caused either by Foreign Direct Investment or short-term capital movements related with interest rates convergence plays. Finally, the third group of causes is related with more direct pressures on prices coming from several possible factors.

All the preceding points justify some general conclusions about the appropriate policy responses for countries acceding to the European Union and the euro. The list is very simple and contains very well known points:

1. Adequate use of the ERM should be ensured with flexibility but also with a sense of the primacy of the exchange rate commitment. This implies that monetary policy cannot be conducted according to a regime of pure inflation targeting and this fact must be clear to the markets. Also, the initial central rate should not be seen as being necessarily the future conversion rate into the euro..
2. A permanent anti cyclical fiscal policy has to be applied to be able to absorb shocks coming from fluctuations of external demand or capital inflows. In this perspective, a very solid and cautious budget position should be built before joining the euro.
3. A realistic wage behaviour has to be ensured to avoid excessive real appreciation in terms of relative unit labour costs.
4. An efficient prudential supervision of the financial sector must be guaranteed, taking financial stability risks seriously.

Besides the aspects related with macroeconomic stability, openness of the economy and non-distorted markets, the modern approach underlines the importance of institutions and good governance. Countries should make sure that they are continuously making progress in this respect. In Portuguese case we have made great strides in the past couple of decades. However, having attained a good intermediate position we now face the difficult task of making further progress. In the present world conditions, no country can rest on past achievements. A permanent and determined policy of structural reforms is essential to increase or even just to maintain the rate of potential growth. Combined with the need to achieve a real fiscal consolidation, the effort to increase our growth potential constitutes the main challenge that Portugal now faces. A challenge that we are certainly better positioned to overcome within the demanding framework of the European Monetary Union.

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THE STRATEGIC CONTRIBUTIONS OF TURKEY'S FULL MEMBERSHIP TO EUROPEAN UNION ALONG WITH THEIR FINANCIAL DIMENSIONS

Ali Akdemir
Sefer Şener
Canakkale Onsekiz Mart University
Biga Faculty of Economics and Administrative Sciences
17200 Biga
ÇANAKKALE / TURKEY
e-mail: aliakdemir@comu.edu.tr, sefersener@comu.edu.tr

Abstract

In this paper, the contributions of Turkey's full membership to the EU is emphasized in contrast to the usual approach. In EU countries as well as in Turkey, the issue is limited to the subjects of the criteria that Turkey fulfills and the burdens of membership on the union. However originating from EU's structure as well as from Turkey's geographic, economic, demographic characteristics, Turkey has strategic contribution dynamics toward EU. The structural characteristics of EU that distinguish strategic contribution that Turkey will provide can be listed as the low population increase of the EU countries, low growth rate, the limited possibilities of reaching to the world through seaways, high labor cost, the geographic distance to the Middle Asia, Middle East and Balkans. The contribution parameters of Turkey's full memberships to the European Union that originates from the outstanding and superior position of Turkey, the parameters which can be specified as having three distinct seaway routes, high growing rate, widespread entrepreneurship culture, young population, nearness to the Middle East, high labor motivation, the large size of population, the existence appropriate potentials for foreign investment.This paper also focuses on the financial dimension (export, import, foreign direct investment) of Turkey's full membership to EU.

Keywords: *EU, Turkey, full membership,financial dimensions*

1 The Strategic Contributions of Turkey's Full Membership That Originate From the Structural Characteristics of the EU.

1.1 Economic Stagnation and the Low Growth Rate

Starting from the 1990's, the EU countries have grown at the rate of 1 % at most within the last 15 years. On the other hand, Japan and China have had growth rates exceeding 5%. The economic potential of USA is obviously clear. From the viewpoint of the EU who has assertions to become a super power, this aspect of evaluation is quite thought provoking. Though, probably resulting from the fact that these countries have reached to a high level of economic accumulation which has created a point of no-growth situation that requires new partners to realize a positive growth rate.

1.2 High Labor Cost and Low Labor Motivation

The labor motivation is low due to the fact that a level of prosperity has been reached. The high costs and low productivity are the expected consequences of powerful labor unions and the well established social security organizations. Specifically, the labor cost in the EU is 20% higher than the ones in the US and in Japan, and the productivity is 10% loweThe unemployment rate is approximately 10 %[1].

1.3 The Loss of Super Power Status Against USA and Japan

The EU, described originally by some as the super power project, is loosing ground when compared to Japan, China, and USA in terms of economic growth, economic size and consequently political superiority.

1.4 The Competition of the Far East Countries, the Low Level of Entrepreneurship Motivation

The competition capacity of the EU countries against the products coming from the Far East is quite low due to high labor costs and the low labor motivation. The share of the Far East countries in world exports is increasing while the share of the EU countries decreases.

[1] TUSIAD, Going Through A Performance Worldwide, UNICE, Competitive Force Report TUSIAD, t/95, 4 , 178, İstanbul, 1995, p.12

1.5 The High Level of Investment Costs and Tax Rates

The public expenditures are quite large resulting from social security expenses and social government budget. Thus, naturally these are the causes for rising tax rates[2].

1.6 Export Restrictions to Formerly Soviet Countries

The exports realized to former Soviet countries are not increasing as much as the imports from these countries. In this context, for the EU countries to establish a higher export possibility, they have to set up better situated connection points in this geographical area[3].

2 The Strategic Contributions of Turkey's Full Membership That Originate From Turkey's Geographical, Economic, Demographic, Cultural Advantages

Contrary to the unfavorable aspects of the EU which were summarized above, the advantages that Turkey has that would compensate the adverse circumstances and provide strategic contribution to the EU.

2.1 Turkey Has A High Growth Potential

Beyond the economic crisis Turkey had faced, it has potential growth rates of 5-10% which were realized during the past years. Within the past year 2004, Turkish Economy has shown a growth rate of more than 9%. With Turkey's full membership to the EU, the incoming EU investments will definitely exhibit further acceleration. The greater growth rate of Turkey will create a mediation to the growth rate of EU.

The present level of Turkey's GNP which is calculated as 200 billion US Dollars is rather a low level for the Capacity of Turkey. However the present level of the actual state of economic size bears a great potential of higher growth in the coming years. On the other hand the developed economies of the EU countries have a much lower level of growth potential.

[2] TUSIAD, p.36
[3] "EU Foreign Trade and Formerly Soviet Countries", Spot Magazine, Y.1., S.21, 1995, p.19

2.2 The Low Level of Labor Costs

When compared to the EU, the labor costs are low and the labor potential seem to be high. For the investments that originate from the EU countries, the low labor cost will provide a high competitive advantage to the EU based companies. Being in the status of a developing country, Turkey has a high labor productivity and motivation rate.

2.3 Development Potential of Tourism

The tourism income which is presently at 12 billion US Dollars level, can also be expanded. It is obviously clear that with full membership, Turkey's tourism activities will develop to a great extent.

2.4 To Provide Support To EU's Mediterranean Policy

Though some of the EU countries have Mediterranean link, in commercial area the Mediterranean sea has a very high strategic importance for the EU. As an advantageous Mediterranean country, Turkey will play a prime role building a bridge between the EU and the other Mediterranean countries in commercial and political fields. To create Mediterranean policies at the macro levels, Turkey's full membership will bring certain advantages[4].

2.5 The Reduction of Destructive Competition of Far East Through Turkish Connection

Turkey who has similar structural characteristics with Far East countries, has better possibility to compete with these countries compared with the EU countries. Furthermore, the EU companies who invest in Turkey will be in a position to produce in a more competitive structure.

2.6 Geographical and Cultural Proximity To Balkans

Almost in all the Balkan countries there is a sizable Turkish and Muslim population. These people feel themselves very close to Turkey. The Turkish and Muslim Demographic status in Bulgaria, Albania, Greece, Bosnia-Herzegovina, Macedonia, Romania and Kosovo is important for Turkey as well as for the EU.

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[4] Saim Kohen. “We Are In Mediterranean”, Milliyet, 28 October, p.14

2.7 The Black Sea Factor and BSEC (Organization of the Black Sea Economic Cooperation); Turkey, Bulgaria, Romania, Moldava, Georgia, Ukraine, Russian Federation Constitute the Black Sea Countries

Turkey who has the longest shore to the Black Sea also has two strategic straits (the Canakkale and the Bosporus Straits) which tie the Black Sea to the Mediterranean Sea. When the term the Black Sea basin is mentioned, it does not refer to these 6 countries only. The Black Sea is also is the area that opens the Caucasus to the world. Almost all of the North Balkans area takes place in this basin. By means of the Danube River, many Middle and Eastern European Countries reach to the Black Sea and then from here to the Mediterranean. The region is the cross point of Asia-Europe which is also at the critical passage from South to North.

The Organization of the Black Sea Economic Cooperation which was established with the initiatives of Turkey does not include only the countries who have shores to the Black Sea, but also include Albania, Azebaijan, Armenia and Greece who do not have shores to this sea. Some consider it as an alternative to the EU, however BSEC is an organization which supports the EU initiative.

2.8 Proximity to the Middle East; Turkey's Neaeness to the Middle East Is Not Only Geographical But Cultural at the Same Time

When energy factor and intensive destabilization is taken into account, the presence of the EU in the Middle East can not be avoided. Thus with the full membership of Turkey, the EU will be closer to the Middle East in terms of economic, commercial and political aspects.

2.9 Proximity to Asia; the Middle Asian Republics, Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, and Kirghizistan are considered and named as Turki Republics. In terms of Cultural Composition, They have major Similarities with Turkey.

These countries have first of all very important natural gas and oil energy resources and agricultural product potentials that attract attention. For the EU countries to have dependable and stable dialog with the Middle Asian countries, it is clearly obvious that Turkey can play an intermediate role.

2.10 Proximity to Caucasia; In the Caucasus, Georgia, Azebaijan, Armenia, Turkey, Russia, and Iran are located.

Oil has a special position for the region to gain importance. Specifically the Azerbaijan oil resources bring forth the region as very important.

3. EU Turkey Financial Relations

Turkey-EU Financial relations can be analyzed in three periods namely "Pre-Customs Union Period", "Customs Union Period" and "Candidacy period":

3.1. Pre-Customs Union Period (1963-1995)

Prior to the completion of the Customs Union, financial relations between Turkey and the EU have been conducted within the framework of Financial Protocols. During this period financial assistances, which are mainly credits, are composed of grants and credits. Community resources and European Bank of Investment are the main sources of credits.
Statistics of the commitment and use of the financial assistance in this period are as follows

Credits	
Commitment: 927 Million Euro	Use: 927 Million Euro
Grants	
Commitment: 78 Million Euro	Use: 78 Million Euro
Total (*)	
Commitment: 1005 Million	Use: 1005 Million Euro

Source : www.dtm.gov.tr

*In this period, the fourth Financial Protocol worth 600 million Euros could not be materialized due to the veto of one member state. .

3.2. Customs Union Period (1996-1999)

With the Association Council Decision No.1/95, credits and grants are envisaged for Turkey after the Customs Union, within the framework of sources of EU's Budget and Mediterranean Programs. Although, the said assistance, which was made trough a unilateral Declaration of the Community, are designed to eliminate the negative effects of the Customs Union on Turkish Economy, they were far from satisfying their target both in terms of quality and quantity.

Statistics of the commitment and use of the financial assistance in this period are as follows:

Credits(*)	
Commitment: 2.062 Million Euro	Use: 557 Million Euro
Grants(**)	
Commitment: 754 Million Euro	Use: 393 Million Euro
Total	
Commitment: 2.816 Million Euro	Use: 950 Million Euro

Source : www.dtm.gov.tr

(*) The European Investment Bank credit worth of 750 million Euros envisaged by the additional protocol of Customs Union Decision could not be materialized due to the veto of one member state.

(**)The grant worth 375 million Euros envisaged to support competitiveness of Turkey in the context of the Customs Union Decision was vetoed by one member state.

3.3. Candidacy Period (1999-2006)

With the Helsinki Summit held on 10-11 December 1999 at which Turkey was recognized as a candidate state, Turkey-EU relations entered a new phase. With the candidacy, some noteworthy changes were seen in terms of both quality and the quantity of the financial assistances.

In this context, the regulation, known as "Single Framework" which is prepared to combine the EU's grants assistances under a single framework, was adopted at the Fisheries Council on 17 December 2001. Single Framework aimed to guarantee the use of assistance exclusively for Accession Partnership priorities. To this end, new structures have been established in Turkey, as done in other candidate states.

New structures, established with regard to usage of assistance provided from EU are as follows:

- The state Minister in Charge of EU Affairs has been designated as the "National Aid Coordinator" to ensure the allocation of the EU grants to the Accession Partnership and National Programme priorities.
- A "Financial Cooperation Committee" has been established to set the priorities, to prepare the annual financing plans and to oversee the allocation of the available resources in line with the priorities. The Committee is composed of the representatives of the Ministry of Foreign Affairs, Ministry of Finance, the State

Planning Organization, and the Undersecretariat for Treasury and General Secretariat for the EU.

- A "National Fund" to which the EU Funds will be transferred was established within the Undersecratariat of Treasury, and the State Minister in charge of the economy has been designated as the National Authorizing Officer who will manage the Fund.
- In addition a "Central Finance and Contracts Unit" was established for the overall budgeting, tendering, contracting, payments, accounting and financial reporting of all procurements through the EU Funds.

Presidency Conclusions of the Copenhagen Summit noted that financial assistances to Turkey will be increased and allocated under the "pre-accession expenditure" of the budget heading. Moreover, Accession Partnership, which is adopted on 19 May 2003 by European Council concluded that 250 million Euro in 2004, 300 million in 2005 and 500 million in 2006 will be allocated to Turkey.

Statistics of the commitment and use of the financial assistance in the candidacy period are as follows:

Title	Amount (m €)	Character	Period
MEDA-II***	889	Grants	2000-2006
EUROMED-II	1.470	EIB loan	2000-2006
European Strategy for Turkey***	150	Grants	2000-2002
Strengthening and Deepening of Customs Union	450	EIB loan	2000-2004
Pre-accession Facility *	8.500	EIB loan	2000-2003
Euro-Med Partnership Facility **	1.000	EIB loan	2001-2006

Source : www.dtm.gov.tr

*Credits provided under the Pre-Accession Facility were allocated to Turkey and 12 candidate countries, some of which became EU members very recently.

**Credits provided under the Euro-med partnership Facility were allocated to Turkey and other MEDA countries.

***From 2002, financial assistances provided under these titles incorporated into Pre-Accession Strategy for Turkey budget heading of the EU Budget.

4. Capital Market Integration

Integration of capital markets in Europe has taken a significant leap forward with the Single Act and the endorsement by the Council of Ministers (in Madrid in May 1989) of economic and monetary union (the Delors Report). These call for removal of virtually all barriers to free trade in financial services and the acceptance of rights of establishment of one member country's financial institutions in any other[5].

Capital market integration is a natural extansion of the economic integration that was set by the Treaty of Rome. With this treaty economic and financial integration went hand in hand with political integration . Capital market liberalization and financial integration make factor and goods mobility available. Capital market restrictions distort product market behaviour. Interest rate ceilings artificially depress savings and raise investment; credit controls interfere with domestic sectoral allocations; capital controls impede efficient allocation of resources internationally; and limitations on the free transfer of ownership undermine productive efficiency[6]. Financial integration also has been promoting cross border banking since 1980.

Table 1- Liberalization Of Banking Activities In EU Member States

	Lifting of capital controls	Interest rate deregulation	First Banking Directive	Second Banking Directive
Belgium	1991	1990	1993	1994
Denmark	1982	1988	1980	1991
France	1990	1990	1980	1992
Germany	1967	1981	1978	1992
Greece	1994	1993	1981	1992
Ireland	1985	1993	1989	1992
Italy	1983	1990	1985	1992
Luxembourg	1990	1990	1981	1993
Netherlands	1980	1981	1978	1992
Portugal	1992	1992	1992	1992
Spain	1992	1992	1987	1994
UK	1979	1979	1979	1993

Source : Financial Integration in Europe and Banking Sector Performance, Claudia M. Buch, Ralph P. Heinrich, Kiel Institute of World Economics, January 2002

[5] European Financial Integration, Alberto Giovannini, Colin Mayer, Centre for Economic Policy Research, 2005, p.1

[6] European Financial Integration, Alberto Giovannini, Colin Mayer, Centre for Economic Policy Research, 2005, p.1

The first Eu Member that lifted the control of capital is Germany in 1967. Interest rate derugulation first made by UK in 1979. Altough individual countries had opted to liberalize capital flows earlier on, agreements to abolish capital controls on a European wide level were adopted only in the 1980s

Table 2 – Openness of Banking System Towards Foreign Competition

	EU	Euroland	Developed countries	High income	Upper middle income	Lower middle income	Lower income
Limits on foreign bank ownership of domestic banks	0.00	0.00	0.08	0.17	0.44	0.19	0.14
Limits on entry of foreign banks	0.00	0.00	0.04	0.07	0.11	0.24	0.14
Concentration ratio	59.19	56.17	60.92	63.75	66.48	72.35	72.91
Foreign bank ownership	16.29	19.97	24.81	33.57	31.72	33.75	33.59
Government-owned banks	9.98	12.97	10.27	10.28	12.32	28.32	35.36
No entry applications	0.00	0.00	0.04	0.09	0.14	0.13	0.00
Domestic	0.21	0.27	0.24	0.31	0.25	0.30	0.11
Foreign	0.08	0.10	0.08	0.16	0.30	0.43	0.22
Fraction of entry applications denied	3.67	3.23	3.21	7.69	11.99	32.22	49.32
Domestic	5.42	3.37	2.13	7.16	8.33	28.04	79.82
Foreign	1.67	2.22	3.21	6.91	16.85	30.83	37.85

All variables are averages by income level or region, respectively. Limits on foreign bank ownership of domestic banks = maximum fraction of banking system assets that can be held by banks that are 50 percent or more foreign-owned. Bank concentration ratio = fraction of deposits held by the five largest banks. Foreign bank ownership = fraction of banking system's assets that are held by banks which are 50 percent or more foreign-owned. Government-owned banks = fraction of banking system's assets held by banks that are 50 percent or more government-owned. No entry applications = dummy variable which assigns a one if applications for licenses have been received in the past 5 years. Fraction of entry applications denied = fraction of applications denied in the past 5 years.
Source: Barth et al. (2001)

Europe is one of the most open regions worldwide towards foreign competition in banking. Table 2 gives an overview of the prudential regulations affecting foreign financial institutions. In Europe there are virtually no restrictions to the market entry of foreign banks in place, indicating a slightly more liberal regime in comparison to high income countries on avarage and to less developed countries in particular. EU countries as well as developed countries in general also have a lower share of entry applications being denied in comparison to lower income countries.

As it comes to the point of financial liberalization in Turkey; in 1989, the debt-ridden state moved to systematically and completely deregulate Turkey's financial markets. Together with the ongoing processes of liberalizing commodity markets and integrating with global capital markets, financial liberalization was expected to achieve fiscal and monetary stability,

stimulate business confidence to invest in productive sectors, produce stable growth, encourage privatization and control inflation. However, the new hegemony of the capital markets has gone hand-in-hand with deteriorating macroeconomic performance, a worsening income distribution, the discrediting of politics and its isolation from society[7].

The foundations of the capital markets in Turkey were laid down during the 1980s but, since then, the development of the capital markets in Turkey has not been entirely satisfactorily for a variety of reasons. Macroeconomic and political inconsistencies, the shadow economy, high domestic debt stocks and interest rates obstructed the development of fully fledged capital markets with sufficient depth. The market also suffered from more specific securities problems, such as lack of a corporate and individual investor platform and lack of diversity in the capital market instruments.

On the other hand, the Turkish capital markets are poised to emerge. The high-standard legal framework of the capital markets in Turkey, along with the well-operating institutional structure of the Turkish Capital Markets Board, gives the Turkish capital markets potential for new developments that will lead to an increase in investment in securities. Recent developments, such as the introduction of private pension funds, also bolster the liquidity of the Turkish markets. Lastly, even the mere possibility of Turkey acceding the EU has triggered an influx of foreign capital.

The proposed accession of Turkey to the EU requires harmonization of domestic legislation with the EU legislation in many areas, including capital markets. This harmonization is not only vital for Turkey's accession to the EU, but is also necessary for Turkish capital markets to compete globally in terms of economic development.

While the regulatory authorities in the Turkish capital markets are working on integration to the EU legislation, the EU legislation is leading its way to a harmonized capital market within the EU member states. It is assumed that an integrated capital market throughout the EU will decrease the cost of capital and transaction costs, resulting in market growth and lower unemployment.

Representatives of the Capital Markets Board foresee that the amendments on primary and secondary capital markets legislation for purposes of integration with the EU legislation will be completed by the end of 2005.

The Law on Capital Markets 2499 is the main piece of legislation regulating capital markets in Turkey. In turn, the Capital Markets Board is the independent government authority regulating and monitoring the capital

[7] Politics, Society and financial liberalization: Turkey in the 1990's, Ümit CizreSakallıoğlu, Erinç Yeldan, Development and Change, Volume 31, Issue 2, p. 481, March 2000

market activities through issuance of regulations and communiqués, which are in line with the Capital Markets Law.

The Ministry of Council's decision dated June 24 2003 sets out the primary steps required to be taken in many areas, including the capital markets, to adopt EU legislation.

According to this decision, harmonization of the capital markets legislation, particularly in the area of financial services, will be among the regulatory authorities' main objectives. Also, the regulatory authorities' supervision powers will be strengthened, making them structurally independent.

Another crucial amendment to the Capital Markets Law will be the abolition of the restrictions imposed on EU-based foreign investors that prevent them from investing in Turkish industries. Allowing public offerings of foreign securities in the Turkish market and loosening the restrictions on foreign financial service providers will facilitate integration of EU legislation into the Turkish finance sector.

The amendments that are envisaged for the Capital Markets Law can be summarized under seven headings. The amendments will relate to: (i) publicly listed companies; (ii) brokerage houses and their activities in the capital markets; (iii) corporate investors; (iv) private pension funds; (v) stock exchanges and other capital markets institutions; (vi) taxation in the capital markets; and (vii) effects of penalties and measures.

4.1. Publicly listed companies

As a result of the amendments to the Capital Markets Law, corporate governance principles will be widely applied by publicly listed companies. A Corporate Governance Principles Index will be used, whereby companies will be rated based on their compliance with corporate governance principles, and investors will be able to detect which companies are corporate governance friendly. Mergers and spin-offs in publicly held companies will be governed in compliance with EU legislation. Furthermore, the authority of the board of directors under the authorized share capital system to increase the capital of public companies will be limited to a maximum of five years. The scope of public disclosure in special cases will be extended and the voting rights of those that do not comply with the mandatory tender offer requirements will be suspended by court decision. Currently, persons who acquire 25% of the voting stock of public companies are compelled to launch a mandatory tender offer for the remaining shares. Lastly, the Capital Markets Board will be granted the authority to regulate the purchases of treasury shares, which is prohibited under the existing capital markets legislation.

4.2. Brokerage houses and their activities in the capital markets

Individuals will be entitled to be involved in capital markets activities within a framework to be determined by the Capital Markets Board. The activities in the capital markets will be divided into two groups, classified as primary and secondary activities.

4.3. Corporate investors

The antitrust drawbacks imposed on corporate investors will be abolished during the integration process.

4.4. Private pension funds

The restrictions imposed on the incorporators of private pension funds will be abolished and the conditions for incorporation of pension funds will be simplified. The principles for valuation of capital in kind invested in real estate investment trusts will be re-determined. Portfolio custody principles will be set out and the restrictions regarding securities that are traded by investment funds will be abolished.

4.5. Stock exchanges and other capital markets institutions

The Istanbul Stock Exchange and Istanbul Precious Metals Exchange will be reorganized to suit competition grounds that will be established throughout the integration process. The terms and conditions for quotations on the Istanbul stock Exchange will be reviewed and amended as per the terms and conditions of the EU member states. Lastly, the transition from physical shares to registered shares will become effective, which will lead to electronic record keeping of the shares of joint stock companies.

4.6. Tax in the capital markets

The tax system will be simplified, with a special focus on the taxation of foreign corporate investors. Government bonds that used to have tax advantages over corporate bonds will become subject to the same taxation principles as corporate bonds.

4.7. Penalties and measures

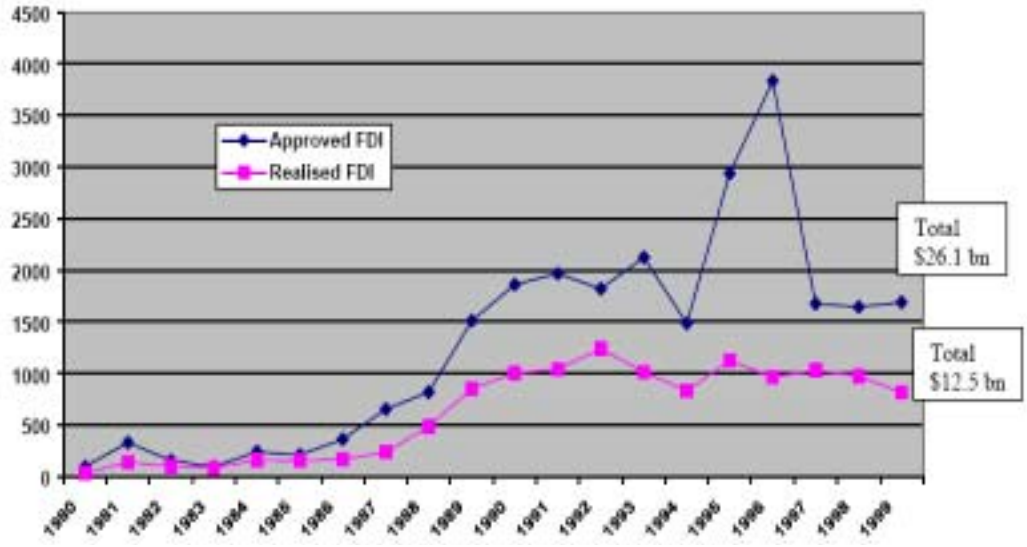
Measures for insider-trading activities will be harmonized with EU legislation. Public prosecutors will only be able to examine defendants and

witnesses in the presence of supervisors from the Capital Markets Board. Those who engage in capital markets activities without obtaining the required permits will become individually subject to bankruptcy proceedings. It has also been stated that monetary penalties will apply to financial crimes. The Capital Markets Board will be granted the authority to request from the courts the deposition of joint stock company directors who infringe the relevant laws and regulations and will be entitled to request that the courts appoint new directors. The Capital Markets Board will further be granted the authority to fine those that fail to fulfil the public disclosure requirements imposed by the Capital Markets Law. And new penalties will be incorporated with respect to joint stock companies that proceed with public offerings without fulfilling the Capital Markets Board's registration requirement.

5. Foreign Direct Investment Relationship Between Turkey and European Union

The stock of FDI (foreign direct investment) in Turkey was only $300 million in 1971, and up until 1980 the average annual inflow of FDI was only $90 million. But Turkey's FDI inflows significantly when trade regime turned into export oriented economic liberalisation in the mid 1980's (Figure 1)

Figure 1- Foreign Direct Investment in Turkey 1980-2000, US$ Million



Source: www.treasury.gov.tr

If we look at the main sources of FDI using data we can see that mainly European countries dominate FDI in Turkey (Table 3). France and Germany are the major investors in Turkey in terms of approved investment. In terms of approved investment. In terms of the number of foreign equity companies, Germany is by far the most important source of FDI – accounting for almost 18% of all projects in Turkey.

Table 3 – Main Sources of FDI in Turkey

Country	Approved investment, US$m	Number of foreign equity investment projects
France	5,364.78	243
Germany	3,487.14	897
US	3,028.38	316
Netherlands	2,972.69	316
Switzerland	2,001.55	198
UK	1,825.21	317
Italy	1,598.26	182
Japan	1,284.24	49
Other countries	4497,98	2,506
Total	**26,060.4**	**5,024**

Source : www.treasury.gov.tr

Table 4 shows the breakdown of FDI by sectors and sub sectors. Manufactoring and services dominate FDI in Turkey and there has not been much change in their share of total FDI over time. The table also shows the contribution of foreign capital in the total capital of the foreign equity ventures for each sector. This gives us an accurate indicator of the role of joint ventures in Turkey.

In the 5,024 foreign equity ventures, foreign capital accounted for 56% of the total. Another way of looking at this is that FDI leveraged an additional 44% of domestic investment, which shows the extent of joint ventures between foreign owned and Turkish firms and the spill-over contribution of FDI to Turkey's economy. In fact, up to half of all foreign equity ventures have been joint ventures.

However, government investment agencies across the world only record joint ventures that involve foreign capital, and therefore do not capture new forms of investment that have no cross-border capital flows.

Table 5 compares FDI in Turkey and its key competitor locations, using balance of payments FDI data as provided by UNCTAD. WE can see

that Turkey was the fourth major destination for FDI from 1987-1992, but only the eight major location from 1993-1999. The key reason for this change in position was sustained growth of FDI in Israel and Central Eastern European Countries. Over this period, Poland attracted nearly six times more FDI than Turkey. When adjusted for GDP, Turkey is by far the worst performing country. Hungary, Czech Republic, Poland, Romania and Bulgaria were the best performing countries. As a proportion GDP, Hungary attracted almost 13 times more FDI than Turkey from 1993-1999.

Table 4 – Breakdown Of Actual FDI by FDI by Sub-Sector (1980-March 2004)

Sector	Number of projects with foreign equity	% of total FDI	% of FDI in total capital of projects
Agriculture & Mining	**186**	**1.3%**	**49%**
Manufacturing	**1,251**	**44.4%**	**50%**
of which:			
Food & Beverage	146	5%	50%
Tobacco	10	2.8%	91%
Textiles & garments	220	2.2%	36%
Chemicals	165	8%	79%
Plastics	52	2%	88%
Cement	9	2.8%	46%
Iron and Steel	15	1.9%	19%
Electrical machinery	69	1.9%	65%
Electronics	72	1.7%	70%
Automotive	28	8%	45%
Auto side industries	102	2.9%	53%
Services	**3,587**	**54.3%**	**63%**
of which:			
Trade	1,949	9%	77%
Hotels	279	2.6%	61%
Communication	14	1.7%	30%
Financial services	37	18.2%	75%
Investment finance	47	4.5%	30%
Social services	216	10.6%	77%
TOTAL	**5,024**	**100%**	**56%**

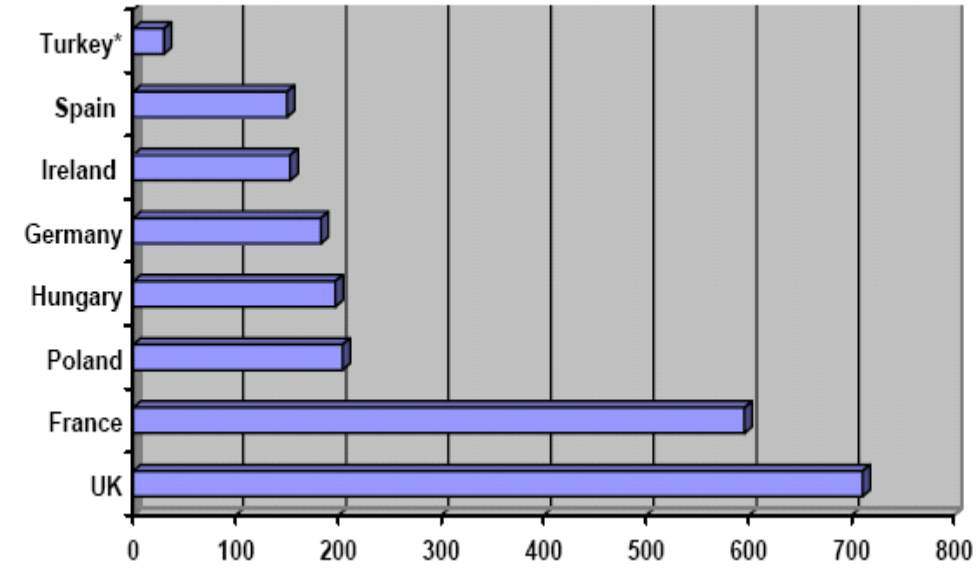
Source : www.treasury.gov.tr

Table 5 – FDI in Turkey and 9 Competitor Locations, US$ mil

	1987-92 per annum	1993	1994	1995	1996	1997	1998	1999	Total 1993-9	% of total 1993-9	Total FDI/ GDP*
Poland	183	1715	1875	3659	4498	4908	6365	7500	30520	25.99%	19.25%
Russia	na	1211	640	2016	2479	6638	2761	2861	18606	15.85%	6.73%
Hungary	675	2339	1146	4453	2275	2173	2036	1944	16366	13.94%	34.23%
Czech	533	653	869	2562	1428	1300	2720	5108	14640	12.47%	25.97%
Israel	187	429	432	1337	1382	1622	1850	2256	9308	7.93%	9.26%
Greece	938	977	981	1053	1058	984	700	900	6653	5.67%	5.51%
Turkey	**578**	**636**	**608**	**885**	**722**	**805**	**940**	**783**	**5379**	**4.58%**	**2.71%**
Romania	61	94	342	420	265	1215	2031	961	5328	4.54%	13.96%
Egypt	806	493	1256	596	637	888	1077	1500	6447	5.49%	7.79%
Slovakia	91	168	245	195	251	206	631	322	2018	1.72%	9.91%
Bulgaria	34	40	105	90	109	505	537	770	2156	1.84%	17.59%
Total	4086	8755	8499	17266	15104	21244	21648	24905	117421	100.00%	10.55%

Source: UNCTAD, WIR 2000-1999; World Bank 2000

Figure 2 – Manufacturing FDI Projects (new and expansions) in Europe, January 1997- June 1999



Source : Ernst & Young, Corporate Location, 2000

If Turkey is to increase its share of FDI projects, it is important to understand Turkey's competitive position relative to first tier locations in the Eastern Europe – Turkey region. At present Turkey is losing projects to Hungary and other countries. For example, Samsung's $21 million, 500 job

plant in Hungary is actually going to supply the Turkish market. In many cases Turkey is simply not on the investment map. But stil foreign direct investment plays a major role in the Turkish economy. Turkey is more dependent on foreign investors that most other countries for tecnological and innovation activities. However, when compared to its main competitors for inward investment, which we identified to be primarily in Eastern Europe, Turkey has been less successful in attracting FDI relative to the size of its economy and population. A key reason is the minimal level of privatisation – related investment in Turkey.

But if we look at the Table 6 and Table 7 we can understand that in the future Turkey will attract much more foreign direct investment than ever before.

Table 6 – Engineering and Science Indicators

Country	Science and engineering students, % of total tertiary students	Patent applications filed by non-residents	R&D expenditure, % of GNP
Russia	50	32,943	0.88
Turkey	**45**	**27,985**	**0.45**
Hungary	32	29,331	0.68
Ireland	31	82,484	1.61
Czech Republic	28	29,976	1.20
Poland	28	30,137	0.77
Greece	26	82,390	0.47
Egypt	12	706	0.22

Source : World Bank 2000

Table 7 – Turkey's Location Advantages for FDI

Key location factors	Competitive position
Market seeking FDI	
Economic size	Strong
Economic growth	Strong
Population size	Strong
Per capita incomes	Medium
Efficiency seeking FDI	
Labour costs	Strong
Labour productivity	Strong
Regional integration zone	Strong
Labour skills and supply	Strong
Asset seeking FDI	
Supply of engineers and technicians	Strong
R&D and innovation base	Weak
Telecoms & Internet infrastructure	Medium
FDI enabling environment	
FDI legislation (independent FDI)	Strong
FDI legislation (privatisation/infrastructure FDI)	Weak
Facilitation process	Medium
Political commitment	Weak
Incentives	Strong
Investment promotion	Weak
Institutional-Political environment	
Economic instability (inflation, exchange rates, debt)	Weak
Policy certainty	Weak
Political interference, bureaucracy, and corruption	Weak
Justice system and intellectual property rights	Weak
Internal social tensions	Weak

Source : Pricewaterhouse Coopers, Solutions for Business Location Decisions, 1999

Turkey offers huge opportunities for inward investors, not least because of its large, dynamic economy, quality labour force, and position at the centre of a growing $1.5 trillion regional economy. The IMF agrement and EU membership promise to remove many of the obstacles to inward investment in Turkey, in particular relating to minimal privatisation, chronic inflation, and obstacles to EU market Access.

6. Foreign Trade Relationship Between Turkey and European Union

Beginning from the year 1980, Turkey changed its economic development policy from "import substituting industrialization" to "export led growth" strategy. Economy opened up to world trade, export-promoting incentives were initiated (including tax exemptions, rebates and favorable credit terms), direct import controls have been eliminated, and quantity restrictions have been dismantled. State intervention in the economy was reduced to minimum level. As a result of these efforts, Turkey has increased her share from world markets, from 0,15% in 1980 to 0,6% in the year 2003. Between 1980 and 2004 exports of Turkey has increased from 2,9 billion dollars to 63 billion dollars. Structure of exported goods has also changed much from mainly agricultural products and raw materials to higher value added industrial products. Transformation still continues with increasing exports of transportation vehicles and office equipments.

Table 8 – Turkey's Foreign Trade

	Turkey's Foreign Trade ($ Million)							% Change
	1990	1995	2000	2001	2002	2003	2004	2004/ 2003
Exports (FOB)	12 959	21 637	27 775	31 334	36 059	47 253	63 121	33,6
Imports (CIF)	22 302	35 709	54 503	41 399	51 554	69 340	97 540	40,7
Volume	35 261	57 346	82 278	72 733	87 613	116 593	160 661	37,8
Balance	- 9 343	- 14 072	- 26 728	- 10 065	- 15 495	- 22 087	- 34 419	55,8
Exp./Imp.	58,1	60,6	51,0	75,7	69,9	68,1	64,7	-5,0

Source : www.dtm.gov.tr

Western Europe is the most important market for Turkish exports. In particular, European Union (EU) members is a country group that has a major share in it. The share of EU in total exports has always been above 50 percent. Exports to the EU (15) were 7.2 billion dollars in 1990 and mounted to 11 billion dollars increasing by 10.9 percent annually during the period from 1990 and 1995. In 2000, exports to EU (15) reached to 14.5 billion dollars, but its share in total exports fell down to 52.2 percent. Although at the end of 2004 exports to EU (15) has reached to 32.5 billion dollars, it's share in total exports decreased to 51.6 percent. In the year 2004 EU has enlarged to include 10 new members; but to these ten members Turkey's exports are not as high yet; these countries have around a total of %3 share in total exports of Turkey.

One of the main developments in the second half of 1990s was the increase in the import of consumption goods. Especially, in 3 years period after 1996, the policy implementation of international liabilities arising from the WTO membership and entering the final stage of customs union with European Union, led the import of consumption goods to grow by 38.8 percent in the period of 1995-2000. Related to the pace of economic recovery and rising income levels the imports of consumer goods increased by 57.8 percent in 2003 and 55 percent in 2004. It can be observed that imports of consumption goods fluctuate more than total imports. During the growth years, positive expectations of consumers determine their consumption demand. In the last 10-15 years, when expectations about the economic condition improve, consumption demand expands.

Between 1995-2002 investment goods imports increased at lower rate compared to total imports, while the trend changed in 2003. In 2003 the rate of increase went slightly above the increase in total imports, but in 2004 capital goods imports enlarged by 53,6 percent while that of total imports was 40,4 percent. The main determinant of this development was the result of the rise of private investments by %54,6 in 2004.

Table 9 – Exports by Country Groups

Exports by Country Groups ($ Million)							
	1990	**1995**	**2000**	**2001**	**2002**	**2003**	**2004**
EU (25)	7 327	11 722	15 085	16 854	19 468	25 899	34 399
EU (15)	7 177	11 078	14 510	16 118	18 459	24 484	32 538
EFTA	333	294	324	316	409	538	657
CIS	531	2 066	1 649	1 978	2 279	2 963	3 956
RUSSIA		1 238	644	924	1 172	1 368	1 859
NORTH AMERICA	1 032	1 610	3 309	3 297	3 596	3 973	5 174
USA	968	1 514	3 135	3 126	3 356	3 752	4 832
LATIN AMERICA	44	110	239	329	257	215	420
AFRICA	747	1 062	1 373	1 521	1 697	2 131	2 963
MIDDLE EAST	1 527	1 944	2 211	2 892	3 105	4 994	7 238
OTHERS	1 417	2 829	3 586	4 146	5 248	6 540	8 315
TOTAL	**12 959**	**21 637**	**27 775**	**31 334**	**36 059**	**47 253**	**63 121**

Source : www.dtm.gov.tr

Table 10 -Turkey's Imports by Country

Turkey's Imports by Country Groups ($ Million)							
	1990	**1995**	**2000**	**2001**	**2002**	**2003**	**2004**
EU (25)	10 219	17 255	27 388	18 949	24 519	33 495	45 428
EU (15)	9 898	16 861	26 610	18 280	23 321	31 696	42 347
EFTA	597	892	1 155	1 481	2 512	3 396	3 890
NORTH AMERICA	2 464	4 017	4 167	3 390	3 421	3 741	5 066
USA	2 282	3 724	3 911	3 261	3 099	3 496	4 697
CIS	1 247	3 315	5 693	4 630	5 555	7 777	12 886
RUSSIA		2 082	3 887	3 436	3 892	5 451	9 027
LATIN AMERICA	546	704	620	447	635	1 169	1 470
AFRICA	1 336	1 384	2 714	2 819	2 696	3 338	4 781
MIDDLE EAST	2 513	2 645	3 122	2 811	2 983	4 059	5 139
OTHERS	3 380	5 497	9 643	6 872	9 234	12 365	18 880
TOTAL	**22 302**	**35 709**	**54 503**	**41 399**	**51 554**	**69 340**	**97 540**

Source : www.dtm.gov.tr

European Countries have an important share in Turkey's imports, largely due to their geographical proximity to Turkey and their level of economic development. Among the country groups of Europe, European Union Members are in the first rank. EU is followed by CIS because of the imports of crude oil and natural gas from that region.

In brief Turkey's foreign trade has developed much in terms of quantity and quality since 1980s. Export performance is spectacular especially in the last two years, thanks to both domestic developments and international developments. Turkey has been implementing new strategies to make this development sustainable and to diversify her exports and imports more on the regional and sectoral basis. Turkey aims to go beyond 500 billion of exports by the year of 2023 and and more than 45% of this is planning to be with EU.

Table 11 – Turkey's Imports by Country Groups

Turkey's Imports by Country Groups Annual % Change						
	95/90	**00/95**	**2001/2000**	**2002/2001**	**2003/2002**	**2004/2003**
EU (25)	13,8	11,7	-30,8	29,4	36,6	35,6
EU (15)	14,1	11,6	-31,3	27,6	35,9	33,6
EFTA	9,9	5,9	28,2	69,6	35,2	14,6
NORTH AMERICA	12,6	0,8	-18,6	0,9	9,4	35,4
USA	12,6	1,0	-16,6	-5,0	12,8	34,4
CIS	33,2	14,4	-18,7	20,0	40,0	65,7
RUSSIA		17,3	-11,6	13,3	40,1	65,6
LATIN AMERICA	5,8	-2,4	-28,0	42,2	84,1	25,7
AFRICA	0,7	19,2	3,8	-4,3	23,8	43,2
MIDDLE EAST	1,1	3,6	-10,0	6,1	36,1	26,6
OTHERS	12,5	15,1	-28,7	34,4	33,9	51,1
TOTAL	12,0	10,5	-24,0	24,5	34,5	40,7

Source : www.dtm.gov.tr

7. Conclusion

Up to today, the main approach for Turkey's full membership has been from the viewpoint of the contributions that the EU will provide to Turkey and the criteria that Turkey should fulfill. Whereas the picture also has another face. When the underlying goals of the EU's establishment are analyzed, it is clearly observed that steering of the world politics, economic power domain, creation of a prosperity area and becoming a super power can be seen as the main objectives. However when we look at the present status, to accomplish these goals, Turkey stands as a potentially meaningful power and having economic, demographic advantages within the region who should be perceived as important. It is necessary to think what Turkey expresses for the EU. Turkey who is rehabilitating its democratic, cultural and economik institutions has more to contribute to EU than to receive from. It can be seen very clearly that the regional potential, labor potential, investment potential, tourism and entrepreneurship potential, the factors of the Mediterranean, the Black Sea, the Straits, the proximity to Balkans, to Middle Asia, the Caucasus and the geographic nearness to the Middle East could provide strategic contributions to the strategic goals of the EU.

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MARKET RISK DYNAMICS AND COMPETITIVENESS AFTER THE EURO: EVIDENCE FROM EMU MEMBERS[1]

Juan Piñeiro Chousa
University of Santiago de Compostela (USC)
Department of Finance
Avda. Alfonso X el sabio.
27002 Lugo
SPAIN
e-mail: efjpch@usc.es
Ph: (+34) 981 563 100

Artur Tamazian
University of Santiago de Compostela (USC)
Department of Finance
Avda. Juan XXIII, s/n. North Campus.
15782 Santiago de Compostela
SPAIN
e-mail: oartur@usc.es
Ph: (+34) 981 594 488 ext: 11672

Davit N. Melikyan
Institute of Management and Economic Reforms (IMER),
28 Charents str., Yerevan
ARMENIA
e-mail: dmelikyan@aeplac.org
Ph: (+374) 10 55 30 81

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Abstract

In this paper we propose an empirical model that considers theoretical facts on the relationship between real exchange rates and the net exports of the economy to supplement the interaction of a number of financial and economic factors with the stock market. We discuss the impact of exchange rate fluctuations on market risk in terms of Value at Risk (VaR). Our empirical findings show that common currency introduction produced increments in VaR whereas European stock returns are more sensitive to changes in competitiveness regarding the EMU rather than national exports. Finally, we show that the synchronisation of variation in competitiveness through the introduction of a single currency has made these changes more decisive in explaining financial market fluctuations.

Keywords*: Euro, Competitiveness, Market Risk, Value-at-Risk, Volatility*

1. Introduction

Over the past decade the world economy faced significant changes in financial markets and international competitiveness. More recently, the growth of trading activity in financial markets coupled with numerous instances of financial instability and a number of widely publicised losses in financial institutions have resulted in a re-analysis of the risks. The most widely advocated approach to have emerged to measure market risk is that of Value-at-Risk (VaR).

Parallel with this development, turbulence in the foreign exchange markets has also undergone significant changes compared with the pre-euro period. This effect was foreseen by various economists (Ghironi and Giavazzi, 1997; Martin, 1997; Benassy et al., 1997; Gros and Thygessen, 1992; Kenen, 1995; Aglietta and Thygessen, 1995; Cohen, 1997). But were these two developments really correlated? And, if so, how exactly could monetary reform be held responsible for higher stock market risk?

One can consider several potential links between exchange rates and stock market. For example, exchange rates may affect a firm's value by means of its impact on the liquidity of a firm's shares. There is a growing literature on the effect of liquidity on firm value. The pioneer work by Amihud and Mendleson (1986) present the first evidence to support the

hypothesis that asset liquidity is priced in equilibrium. Among more recent papers, Datar et al. (1998), Brennan et al. (1998) and Easley et al. (1999) all suggest that asset liquidity affects a firm's value through its impact on the firm's expected return. If the asset liquidity, influenced by exchange rates, determines the firm's value and expected returns, then it is pertinent to study the link between the exchange rate and the market risk, which is the scope of this study.

However, the phenomenon of higher risk is not easily explained in such a straightforward context, as there is no obvious modification in this mechanism ascribable to the introduction of a currency. We consider stock prices and real exchange rates to be intermediated by changes in corporations competitiveness reflected in variations in trade flows directions. In turn, the changes in competitiveness are reflected in company's stock prices and related market risk.

In a multicountry world, movements in one exchange rate can be offset by other factors, such as movements in other exchange rates or interest rates. There are many studies that examine the relationship between exchange rate volatility and international trade.

Asseery and Peel (1991) examine the influence of volatility on multilateral export volumes finding that volatility of exchange rates has significant positive effects on exports. At the same time, Bini-Smaghi (1991) finds strong support for the conventional assumption about volatility effects on trade. Cushman (1983), Kenen and Rodrick (1986), Giovannini (1988), Franke (1991), Pozo (1992), Sercu (1992), Sercu and Vanhulle (1992), Chowdhury (1993) and Kroner and Lastrapes (1993) among others, provide evidence that the level of exchange rate volatility impacts the volume of trade flows. On the contrary, Koray and Lastrapes (1989), Lastrapes and Koray (1990), Gagnon (1993) in their studies on the effect of exchange rate volatility on trade conclude that the relationship between the volatility and trade is weak.

Moreover, it is accepted that if the volume of trade flow is impacted by exchange rate volatility so will the value of firms. But the conclusions of relevant empirical studies are quite different. Amihud (1994) examines a sample of 32 top US exporters and concludes that their stock returns are not affected by changes in the value of the dollar. Bartov and Bodnar (1994) find that the abnormal returns of 208 firms are uncorrelated with changes in the value of the dollar. Griffin and Stulz (2001) noted that changes of weekly exchange rates had negligible impacts on industry stock indices in developed countries. In contrast, Bartov et al. (1996) finds that the return variability of US multinational corporations increases with an increase in exchange rate

volatility. Bodnar and Gentry (1993), studying industry portfolios in the US, Japan and Canada, find that only 30% of them are significantly affected by exchange rate changes. He et al. (1996) examine a large sample of Japanese firms and find that of the 422 exporting companies, 25% are significantly affected by exchange rates fluctuations. Nevertheless, the discussions and arguments indicate that there is a relationship, which seems stronger or weaker in the light of different samples and studies. In our opinion this interrelation between the exchange rate and corporation value is the one most likely to be the link between higher stock market risk and a common currency in the context of structural changes accounted after the euro.

We have constructed a monthly series of market risk as monthly averages of daily VaR (Jorion, 1997) estimated by means of GARCH model (Bollerslev, 1986). GARCH(1,1) was used since it is found to be adequate for many financial time series (Bollerslev, Chou and Kroner, 1992). McNeil and Frey (2000) use GARCH in yet another way to get value at risk. They use GARCH to estimate the volatility, and extreme value theory to get tail probabilities. Ahlstedt (1998) argues that the GARCH models represent a methodological and empirical improvement over other estimates. Therefore, the estimated impact of changes in Euro/USD exchange rates on net exports of EMU countries to the USA is the key regressor of our interest explaining the dynamics of the level of market risk in our empirical model.

Several potential factors of stock market risk are also included in the model in order to make it more specific. In particular, the remaining regressors in the model (referred to below as we further reference them) include proxies for business cycles, domestic market demand as well as bond yields, traded volume of stocks, and foreign reserves variables. Most of these factors are discussed in different contexts of interaction with financial market in financial and economic literature.

The impact of different interest rates on stock returns is studied by a number of researchers (e.g. Gallant and Tauchen, 1997; Peiro, 1996). A similar study by Rapach et al. (2004), among other factors, reveals that relative long-term government bond yields have negative impact on real return from holding stocks. Pavlova and Rigobon (2003) identify interconnections between stock, bond and foreign exchange markets and characterize their joint dynamics as a three-factor model.

Dumas et al. (2003) develop a ‘‘dynamic single-index’’ statistical model capturing the “world” business cycles as well as country-specific fluctuations. They consider current and past production as the information variable that investors use in their investment decision, as a way of predicting their decisions on which stage of the business cycle the economy is currently

running. In our model we use unemployment as a mirror of the business cycle stage. Rapach et al. (2004) also consider change in the unemployment rate as a macroeconomic factor of stock returns.

Cuñado et al. (2004) show that growth in traded volume, the next factor in our empirical model, has a significant impact on stock market volatility in Spain. They, however, conclude that it was not just the acceleration in trading volume that brought about the increased volatility but most likely the intensification of the process of economic development and opening the borders. Thus, to reflect the process of economies development a proxy for domestic market demand (changes in retail trade) is considered as another explaining variable in the model.

An ample part of the foreign exchange reserves is usually invested in international financial markets (mainly in the liquid bond markets) and consistently the changes in the volumes of reserves will somehow be reflected in the financial market volatility. Thus, covering this variable which potentially may impact on general stability of the currency market (Masson and Turtleboom, 1997; Lehay, 1996; Hening, 1997) is also important in our study.

Our empirical research discusses how the set of above mentioned factors explain the market risk dynamics in a sample of EMU countries. The empirical results make it possible to obtain additional findings on how the competitiveness of companies and stock markets interact within the sample of the countries under consideration.

The outline of the remaining sections will be as follows. In Section 2, the changes in market risk before and after the introduction of the euro are discussed. Section 3 presents our empirical model describing the dynamics of stock market risk in competitiveness-exchange rates framework. Section 4 reports the empirical results and section 5 is the conclusion.

2. Market Risk Dynamics in pre- and post-Euro Periods

Financial risk is the prospect of financial loss (or gain) due to unforeseen changes in underlying factors. The changes that euro introduction in 1999 caused in stock markets is the target of particular study. To evaluate the market risk before and after the euro we used the Value at Risk indicator (see e.g. Jorion, P., 2000; Goorbergh and Vlaar, 1999). Value at Risk (VaR) is defined as the maximum potential change in value of a portfolio of financial instruments with a given probability over a certain time horizon, with the assumption that the composition of the theoretical portfolio remains

the same[2]. VaR measures have many applications, such risk management and for regulatory requirements. In particular, the Basel Committee on Banking Supervision (1996) requires financial institutions such as banks and investment firms to meet capital requirements based on VaR estimates. The description of different possible techniques of VaR estimation is beyond the scope of our study. We simply apply just one to monitor the changes in stock market risk in the context of euro introduction.

Estimating volatility is the essence of evaluating of market risk. Among the variance methods of VaR estimation the static models do not take volatility clustering into account. By far the most popular model which captures this phenomenon is the Generalised Autoregressive Conditional Heteroskedasticity (GARCH), introduced by Bollerslev (1986) as an extension of the Autoregressive Conditional Heteroskedasticity (ARCH) model by Engle (1982). The GARCH model defines an innovation η_{t+1}, i.e., some random variable with mean zero conditional on time t information, I_t. This time t information is a set including not only the innovation at time t, $\eta_t \in I_t$, and all previous innovations, but also any other variable available at time t as well. In finance theory, η_{t+1} might be the innovation in a portfolio return. In order to capture serial correlation of volatility, or volatility clustering, the GARCH model assumes that the conditional variance of the innovations depends on the latest past squared innovations as is the assumption in the less general ARCH model, possibly augmented by the previous conditional variances. In its most general form, GARCH(p,q), can be written as:

$$\sigma_t^2 = \omega + \sum_{j=1}^{p} \beta_j \sigma_{t-j}^2 + \sum_{i=1}^{q} \alpha_i \eta_{t-i+1}^2 \qquad (1)$$

p lags are included in the conditional variance, and q lags are included in the squared innovations. In our study we regard these innovations as deviations from some constant mean portfolio return:

$$r_{t+1} = \mu + \eta_{t+1} \qquad (2)$$

expressed η_{t+1} as $\sigma_t \varepsilon_{t+1}$, where ε_{t+1} is assumed to follow some probability distribution with zero mean and unit variance, such as the standard normal

[2] Analytically, the VaR is defined by the top limit of integral of the probability density function (P) of expected returns (r) $\alpha = \int_{-\infty}^{E(r)-VaR} P(r)dr.$

distribution. The parameters are conditioned as $\omega > 0$, $\beta \geq 0$ and $\alpha \geq 0$ to ensure positive variances. If the market was volatile in the current period, the next period's variance will be high, and is intensified or offset in accordance with the magnitude of the return deviation this period. Naturally, the impact of these effects hinges on the parameter values. Note that for $\alpha + \beta < 1$, the conditional variance exhibits mean reversion, i.e., after a shock it will eventually return to its unconditional mean $\omega/(1-\alpha-\beta)$. In this way, if $\alpha + \beta = 1$, this is not the case, we would have persistence.

In order to estimate these parameters by means of likelihood maximisation, one has to make assumptions about the probability distribution of the portfolio return innovations η_{t+1}.

Considering Gaussian innovations

$$\varepsilon_t \overset{iid}{\sim} N(0,1), \qquad \eta_{t+1} \big| I_t \sim N(0, \sigma_t^2) \tag{3}$$

leading to a conditional log likelihood of η_{t+1} equal to:

$$\ell_t(\eta_{t+1}) = -\log\sqrt{2\pi} - \frac{1}{2}\log\sigma_t^2 - \frac{\eta_{t+1}^2}{2\sigma_t^2} \tag{4}$$

The log-likelihood for all series is $\sum_{t=1}^{T} \ell_t(\eta_{t+1})$.

The GARCH (1.1) is used to predict the volatility dynamics during VaR estimation period for a sample of 10 EMU member states. The daily VaR estimates, for left tail probability of 1% according to Basel Accord (1996) are reflected in figure 1 in appendix 1 while the average VaR for the pre- and post- euro periods and the corresponding growth in absolute terms is reported in the table 1. The increase in average daily VaR is obvious in EMU major stock markets. Among the countries with significant growth in market risk are the two largest economies of the EMU – Germany and France, only Italy and Austria produced a slight reduction in VaR.

The volatility of exchange rates is of high importance because it affects decisions of market participants. The consequences of exchange rate volatility on trade have long been at the centre of the debate on the optimality of alternative exchange rate regimes.

In fact, the volatility of exchange rates has also grown. For the first four years of the post-euro period the variance of percentage changes in

monthly real exchange rates was 1.191 against 0.745 points of a similar pre-euro period[3]. By the 08/2004 the figure had already reached up to 1.235.

Table 1: VaR before and after euro and the growth in absolute terms

Country	Index	Exante (%) (1995/01-1998/12)	Expost (%) (1999/01-2004/08)	Growth (% points)
Germany	DAX30	-2.97	-3.97	1.00
Belgium	BEL20	-2.16	-2.76	0.60
France	CAC40	-2.94	-3.50	0.56
Ireland	ISEQ40	-2.09	-2.55	0.46
Spain	IBEX35	-2.96	-3.36	0.40
Finland	HEX25	-3.53	-3.88	0.35
Portugal	PSI20	-2.31	-2.45	0.14
Netherlands	AEX24	-2.66	-2.78	0.12
Italy	MIB30	-3.43	-3.19	-0.24
Austria	ATX20	-2.42	-2.18	-0.24

Note: For normal distribution assumption of returns VaR is computed as: $VaR = -V\left(e^{\mu+\sigma\phi^{-1}(\alpha)}-1\right)$, where V represents the initial value of some theoretical portfolio and $\phi(\cdot)$ is the cumulative distribution function of the standard normal probability distribution. μ and σ with GARCH(1.1) are the estimates of the parameters of normal probability distribution function.
Source: Our own estimates based on Reuters data.

Further, we construct and apply an empirical model to explain how the introduction of euro could impact stock market risk.

3. Empirical Model

The starting point is the relationship between financial market risk (ϕ), estimated on stock price volatility, and a sample of explaining variables – changes in exchange rates (ε), changes in domestic market demand (λ), traded volume of stocks (ν), bond yields (τ), foreign official reserves (ϖ) and the business cycles (ρ).

$$\phi = \phi\left(\Delta\varepsilon, \Delta\lambda, \nu, \tau, \varpi, \rho\right) \qquad (5)$$

We assume that the main link between the stock market risk and exchange rates, which maybe affected by the common currency introduction,

[3] Our own calculations based on monthly series of real exchange rates by ERS, United States Department of Agriculture.

is the change in general competitiveness of the economy, reflected in terms of changes in net exports.

The relationship between real exchange rates and net exports is widely discussed in the financial literature. A number of comparatively older studies (e.g. Ethier, 1973; Cushman, 1986; Peree and Steinherr, 1989) have shown that an increase in exchange rate volatility will have adverse effects on the volume of international trade. More recent studies have demonstrated that increased volatility can have ambiguous or positive effects on trade volume (Viaene and de Vries, 1992; Franke, 1991; Sercu and Vanhulle, 1992). Barkoulas et al. (2002) concludes that under risk aversion, the benefits of international trade are reduced, resulting in a decrease in the volume of international trade. The trade surplus or deficit is reduced as well. However, they note that analysis which considers only the (often indeterminate) effects of exchange rate uncertainty on the volume of trade will not be capable of generating predictions of optimal behaviour.

Our interest in this relationship is limited to the most general ideas on the relationship of net exports with the exchange rates and its volatility by estimating the impact of changes on net export, without any requirement of model modifications or prediction making.

Relating the macroeconomic dependence of import (τ) and export (ι) with the exchange rates, GDP (ψ) and GDP of the counterpart (ψ') we have:

$$\xi = (\tau - \iota) = \tau\left(\overset{-}{\varepsilon}, \overset{+}{\psi'}\right) - \iota\left(\overset{+}{\varepsilon}, \overset{+}{\psi}\right) = \xi\left(\overset{-}{\varepsilon}, \overset{-}{\psi}, \overset{+}{\psi'}\right) \qquad (6)$$

Hence, the net export (ξ) changes caused by the exchange rate fluctuations from Eq.6 could be expressed as $\left(\Delta\varepsilon \left(\partial\xi / \partial\varepsilon\right)\right)$:

Thus, our model describing the dependence of market risk from factors including changes in competitiveness for a single country is:

$$\phi = a_0 + a_1\left(\frac{\partial\xi}{\partial\varepsilon}\right)\Delta\varepsilon + a_2\Delta\lambda + a_3\nu + a_4\tau + a_5\varpi + a_6\rho \qquad (7)$$

These particular changes in net exports reflect the changes in competitiveness of the output of the country vs. the output of the trade party. Hence, the proxy for the general competitiveness of EMU countries is the change in the EMU net exports ($\hat{\xi}$) equal to:

$$\Delta\hat{\xi} = \sum_{i=1}^{n}\left(\Delta\varepsilon_i \frac{\partial\xi_i}{\partial\varepsilon_i}\right) \qquad (8)$$

The main assumption is that after introducing the euro the changes in net exports of all the member states reflect the fluctuations of the single currency $(\hat{\varepsilon})$.

$$\Delta \hat{\xi} = \Delta \hat{\varepsilon} \sum_{i=1}^{n} \frac{\partial \xi_i}{\partial \hat{\varepsilon}} \qquad (9)$$

Thus, the changes in net exports of separate countries caused by the exchange rate changes are of the same sign. A single currency has a synchronising effect on general competitiveness changes, so that EMU has a larger $\Delta\hat{\xi}$ in the case of the euro.

By replacing this term in the equation (7) for the $i-th$ from the n countries we obtain:

$$\phi_i = a_0 + a_1\left(\Delta\hat{\varepsilon}\sum_{i=1}^{n}\frac{\partial\xi_i}{\partial\hat{\varepsilon}}\right) + a_2\Delta\lambda_i + a_3\nu_i + a_4\tau_i + a_5\varpi_i + a_6\rho_i \qquad (10)$$

From that our proposition is that the exchange rate driven changes of general competitiveness determine the level of financial market risk, which explains the phenomenon of higher value-at-risk in case of a vulnerable euro. These ideas are summarized following two propositions.

Proposition I.

In case of a single currency the $\sum_{i=1}^{n}\left(\Delta\varepsilon_i\frac{\partial\xi_i}{\partial\varepsilon_i}\right)$ is replaced with $\Delta\hat{\varepsilon}\sum_{i=1}^{n}\frac{\partial\xi_i}{\partial\hat{\varepsilon}}$, where $\left|\Delta\hat{\varepsilon}\sum_{i=1}^{n}\frac{\partial\xi_i}{\partial\hat{\varepsilon}}\right| \geq \left|\sum_{i=1}^{n}\left(\Delta\varepsilon_i\frac{\partial\xi_i}{\partial\varepsilon_i}\right)\right|$ because of the synchronised impact on foreign trade. The currency fluctuations cause greater fluctuation in general competitiveness of EMU production and result in higher volatility and risk in stock markets.

Proposition II.

The more significant variable $\sum_{i=1}^{n}\left(\Delta\varepsilon_i\frac{\partial\xi_i}{\partial\varepsilon_i}\right)$ (compared with $\Delta\varepsilon_{it}\ \left(\partial\xi_i \big/ \partial\varepsilon_i\right)$ national alternative) in

$\phi_i = a_0 + a_1\left(\sum_{i=1}^{n}\left(\Delta\varepsilon_i \frac{\partial\xi_i}{\partial\varepsilon_i}\right)\right) + a_2\Delta\lambda_i + a_3\nu_i + a_4\tau_i + a_5\varpi_i + a_6\rho_i$ equation, the deeper are particular economies integrated, and euro fluctuations are more decisive for particular stock markets.

To test proposition I empirically, it is sufficient to prove the significance of the ε in the eq.6. Therefore, when the empirical results support proposition II, together with higher volatility of real exchange rates in the post-euro period, we can fully explain the indicated growth in VaR after the euro.

4. Empirical Findings

4.1. Changes in competitiveness vs. exchange rates

Before proceeding to the empirical testing of the stated hypothesis explaining the dynamics in the level of market risk we need to obtain estimated changes in net export. We used balanced monthly panel data 1995/01-2004/06 (see table 4 in appendix 2) for 11 EMU member countries (excluding Greece) to build an empirical model where the counterpart of the EMU is the USA. In context of our study the appropriate panel regression model has fixed individual effects (b_{i0}) and different slopes (Cornwell and Schmidt, 1984) for log-exchange rates.

$$\xi_{it} = b_{i0} + b_{i1}\ln\varepsilon_{i(t-l)} + b_2\left(\frac{\psi'}{\psi_i}\right)_{t-l} \qquad (11)$$

Heteroskedasticity adjusted estimates of the model are reported in Table 2.

Based on the b_{i1} vector and the log-returns of the exchange rates with the five month lag, the impact of the exchange rate fluctuations on the net export of the particular countries (the $\Delta\varepsilon_{it}$ $\left(\partial\xi_i / \partial\varepsilon_i\right)$ series) is estimated. We interpret these estimates as changes of competitiveness of domestic production in the international market (considering US market). Finland and Ireland are removed from the sample of the countries during further analyses because of insufficient observation during the period of study. At the same time because of non robust b_{i1} coefficient, the Luxembourg is also excluded from the group.

It is normal to assume that the larger the $\Delta\hat{\xi}_t$ caused by FX changes, the stronger is the position of European companies' shares at the stock markets. Therefore investors can expect the related market risk (VaR) to fall.

Table 2: FGLS estimates of the model (eq.11)

Dependent Variable: ξ_{it}

Country (i)	b_{i0}	b_{i1}	b_2
Common			0.274*
			(2.334)
Country Specific			
Austria	883.791	-172.721**	
		(-2.860)	
Belgium	1594.762	-422.875**	
		(-5.282)	
Finland	1391.424	-278.212**	
		(-7.341)	
France	6368.738	-1219.168**	
		(-7.106)	
Germany	16010.822	-2919.492**	
		(-6.719)	
Ireland	11648.354	-2339.249**	
		(-7.451)	
Italy	5265.262	-898.207**	
		(-6.374)	
Luxembourg	-421.855	56.980	
		(1.140)	
Netherlands	147.510	-222.84*	
		(-1.976)	
Portugal	384.072	-78.044**	
		(-2.727)	
Spain	808.284	-181.321**	
		(-2.675)	
l (lag)		5	6

Unweighted Statistics			
Adj. R-sq.	0.881	S.E. of regression	285.020
Significance of Group Effects Test			
F-stat	34.605 [a]	F-crit. (1%)	2.336
White General Test			
Chi-sq. stat	22.834 [b]	Chi-sq. crit (1%)	15.086
Included Observations			
Total panel obs.	1188	Obs. in cross sections	108

Note:

a) $H_0 : b_{11} = ... = b_{n1}$ of common constant term is rejected. We use the regression model with fixed individual effects as all the results are to be applied only on a sample of EMU countries.

b) H_0 of homoskedasticity is rejected.

t-stats. are given in the parentheses.

** significant at 1%, * significant at 5% confidence level.

4.2. Explaining higher stock market risk

4.2.1. The choice between two parallel models

Certain proxies are used for the variables in eq. 10 along with estimated proxy of changes of general $\left(\Delta\hat{\varepsilon}_{(t-5-l)}\sum_{i=1}^{n} b_{i1}\right)$ and alternatively country individual $\left(\Delta\varepsilon_{i(t-5-l)}b_{i1}\right)$ competitiveness because of real exchange rate fluctuations. The changes in retail trade volumes are used to proxy the dynamics of domestic market demand ($\Delta\lambda$). We also use the long-term government bond yields, the importance of which already has been discussed (τ). Unemployment rate is included to reflect the particular stage of business cycle (ρ). The higher the unemployment, the deeper is the crisis and the higher is market risk.

$$\phi_i = a_0 + a_1\left(\Delta\hat{\varepsilon}_{(t-5-l)}b_{i1}\right) + a_2\Delta\lambda_{i(t-l)} + a_3\ln(v_{i(t-l)}) + a_4\tau_{i(t-l)} + \\ + a_5\ln(\varpi_{i(t-l)}) + a_6\rho_{i(t-l)} \quad (12)$$

$$\phi_i = a_0 + a_1\left(\Delta\hat{\varepsilon}_{(t-5-l)}\sum_{i=1}^{n} b_{i1}\right) + a_2\Delta\lambda_{i(t-l)} + a_3\ln(v_{i(t-l)}) + a_4\tau_{i(t-l)} + \\ + a_5\ln(\varpi_{i(t-l)}) + a_6\rho_{i(t-l)} \quad (13)$$

We consider two identical models by taking the country individual competitiveness variable in one (1) and the general competitiveness in the other (2) case (see Table 3). Balanced monthly panel data for post euro period (1999/01-2003/12) has been used[4] (see table 5 in appendix 2). The results suggest that replacing the $\Delta\hat{\varepsilon}_{(t-5-l)}b_{i1}$ in the first model (1) with the $\Delta\hat{\varepsilon}_{(t-5-l)}\sum_{i=1}^{n} b_{i1}$ in the second (2) improves the model. If the first variable is significant at a 5% confidence level, the variable of general competitiveness is significant at a level of 1%. The empirical results show that the growth in exchange rates reduces the international competitiveness of particular economies exports, and vice versa, as we know from macroeconomic theory.

We show that the changes in competitiveness in turn cause fluctuations in the level of stock market risk by increasing the risk when the national production loses position on the international markets, and by calming down the stock market when competitiveness grows.

Table 3: FGLS Estimates of alternative models (eq.12 and eq.13)

Dependent Variable: ϕ_i

Model	(1)	(2)	l (lag)
Constant term	-1.601 (-0.837)	-1.841 (-0.968)	
Competativeness change	-1.91E-03* (-2.311)	-2.65E-04** (-2.647)	0
Change in domestic demand	0.016** (2.732)	0.016** (2.731)	3
Traded stock volume [c]	0.132* (1.953)	0.128 (1.894)	1

[4] Last six months were dropped due to the balanced data use.

Bond yields	-0.396** (-4.564)	-0.402** (-4.623)	0
Foreign reserves [c]	0.342 (1.532)	0.375 (1.684)	1
Unemployement	0.144** (2.753)	0.143** (2.717)	0
AR(1)	0.746** (24.399)	0.749** (24.621)	
Unweighted Statistics			
Adj. R-sq.	0.603	0.604	
S.E. of Regression	0.842	0.841	
Significance of Group Effects Test			
F-stat	1.1424[a]	1.1276[a]	
F-crit. (1%)	2.6772	2.6772	
White General Test			
Chi-sq. stat	29.6992[b]	28.1000[b]	
Chi-sq. crit (1%)	27.6882	27.6882	
Included Observations			
Total panel obs.	480	480	
Obs. in cross sections	61	61	

Note:
a) $H_0 : b_{11} = ... = b_{n1}$ of common constant term is accepted.
b) H_0 of homoskedasticity is rejected.
c) Variables are expressed in logs.
t-stats. are given in the parentheses.
** significant at 1%, * significant at 5% confidence level.

Hence, the growth in exchange rates results in higher stock market risk. A set of other factors of stock market risk and volatility, already discussed, are also incorporated in the particular model.

While explaining the growth in market risk we made another, a more significant finding, in the context of European integration. Nowadays the situation (risk, volatility, etc.) in particular EMU stock markets is more

affected by the general competitiveness of the sample of European economies. So the contemporary level of European integration already acknowledges the concept of "General Competitiveness of European Economy". In fact, the introduction of a single currency in EMU was another major step in this direction.

4.2.2. Robustness checks

This section investigates the robustness of the empirical findings to a number of experiments with the estimated models (see appendix 3 tables 6-7). First, we tried the robustness of model one by one excluding the regressors. Signs and statistical significance are as expected, so that robustness with respect to EMU8 is not lacking. The other regressors are robust as well.

Next, a number of different lag structures were tried. We experiment with different lags for the regressors in the model (0, 3, 6, 9 and 12 month lags were tried one by one), to see how the EMU8 behaves. EMU8 is again robust. Coefficients and statistical significance for the other regressors in most cases also behave in an appropriate manner. However, in the case of change in domestic demand (TRADE), the coefficient keeps the positive sign for 3 and 6 month lag options, while the maximal significance is obtained for 3 month lag. Statistical significance of unemployment (UNEMPLOYMENT) lacks since 3 month lag and registers change in sign in the 6 month lag option. These cases can be interpreted as specific time limitations of the impact of these two factors and, in general, do not affect the robustness of the empirical model.

5. Conclusion

The stock markets of most EMU member states registered higher market risk after euro introduction. First of all, higher volatility of exchange rates affects the stock markets through consequent changes in the stock market value of firms. We show that exchange rates fluctuations affect the stock market risk by causing fluctuations in trade flows of the countries – our proxy for international competitiveness of the national economies.

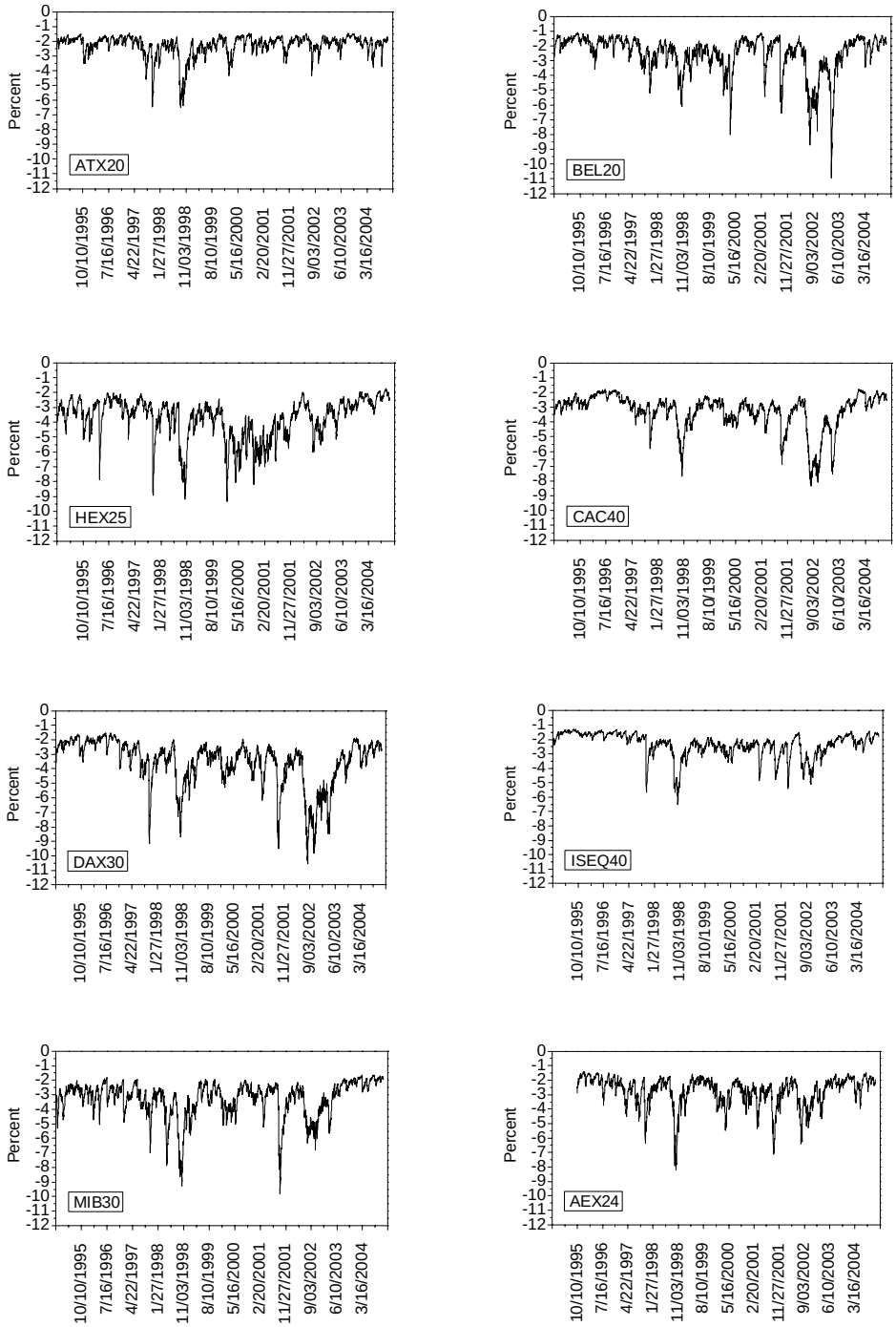
Moreover, an even more interesting fact regarding this is that common currency strengthens the "net volatility" of changes in competitiveness for the entire sample of countries by synchronising the changes of relative prices. Hence, the growth or reduction of Euro/USD exchange rates has a similar (positive or negative) effect on international

competitiveness of all the economies of the Monetary Union (at least for the observed 8 member states).

The empirical study also shows that due to the deep economic integration of particular European economies at both governmental and corporate levels, the changes in "General competitiveness" are more significant in explaining the stock market risk in separate countries than the changes in competitiveness on national levels. This phenomenon indicates a new stage of European economic integration where a European corporations and brands are represented on the international market of goods and services.

Summarising, the stock markets of most EMU member states registered higher market risk after euro introduction. Our analyses show that the Euro introduction had a triple effect on market risk, as it (1) resulted in higher volatility of exchange rates, (2) increased market risk on the stock markets because of higher synchronised fluctuations in general competitiveness, taking into account that (3) for the sample of countries it becomes more significant in explaining the dynamics of stock prices than the competitiveness changes at the national level.

Appendix 1. Market risk dynamics



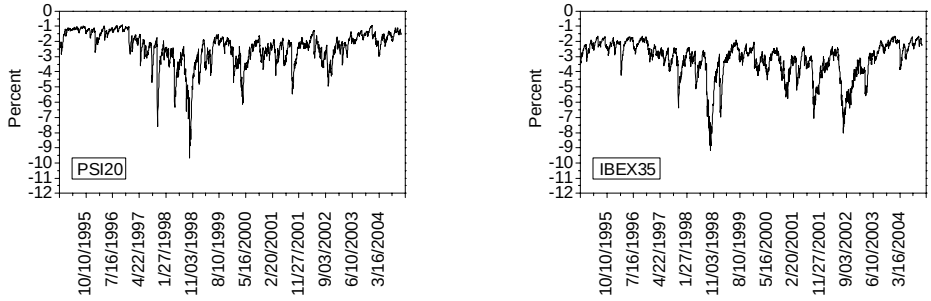


Figure 1: Value-at-Risk dynamics in EMU major stock markets: $VaR = -V\left(e^{\mu+\sigma\phi^{-1}(\alpha)} - 1\right)$, **where** V **represents the initial value of some theoretical portfolio and** $\phi(\cdot)$ **is the cumulative distribution function of the standard normal probability distribution. GARCH (1.1) model is used for volatility forecasting.**

Appendix 2. Data description

Table 4: Descriptive statistics for monthly data for the panel with 11 cross sections: 1995/01-2004/06

NET EXPORT

	Austria	Belgium	Finland	France	Germany	Ireland	Italy	Luxembourg	Netherlands	Portugal	Spain
Mean	83.4	-390.1	104.0	628.2	2270.5	669.0	1036.3	-20.8	-890.0	40.1	-42.9
Median	55.1	-380.3	103.7	576.5	2241.3	454.2	1057.7	-2.5	-899.7	33.5	-54.5
Maximum	379.0	-22.9	270.4	1437.2	4269.5	2163.0	1759.4	16.1	-465.0	159.5	238.9
Minimum	-150.1	-693.1	-194.6	-32.4	753.0	-126.5	329.1	-226.5	-1213.9	-167.7	-325.8
Std. Dev.	103.7	142.6	70.8	336.6	861.4	629.1	287.3	54.4	179.3	45.5	111.9

GDP RATIO

	Austria	Belgium	Finland	France	Germany	Ireland	Italy	Luxembourg	Netherlands	Portugal	Spain
Mean	44.8	37.6	73.0	6.5	4.5	94.9	8.0	479.8	23.2	82.8	15.2
Median	44.9	38.0	74.8	6.7	4.5	96.3	8.0	473.3	23.8	82.9	15.4
Maximum	55.3	46.1	85.9	8.0	5.8	109.0	9.6	792.7	28.0	141.9	18.5
Minimum	30.4	25.5	55.0	4.6	2.9	78.0	6.2	412.4	17.0	66.6	12.2
Std. Dev.	8.0	6.5	9.7	1.1	0.9	7.7	1.1	62.4	3.1	13.0	1.7

REAL EXCHANGE RATE (EURO/USD)

Mean	111.7
Median	112.1
Maximum	141.3
Minimum	84.8
Std. Dev.	16.4

Note:

NET EXPORT	Net exports to USA (ml. USD) (ξ). Our own evaluations based on U.S. Census Bureau data
GDP RATIO	USA GDP/GDP $\left(\psi'/\psi\right)$ of the EMU member state ratio. Our own calculations based on Eurostat's quarterly data
REAL EXCHANGE RATE	Real exchange rates (ε) index (2000 average=100%). Source: ERS, United States Department of Agriculture.

Appendix 2. Data description (continued)

Table 5: Descriptive statistics for monthly data for the panel with 8 cross sections: 1998/10-2003/12

MARKET RISK

	Austria	Belgium	France	Germany	Italy	Netherlands	Portugal	Spain
Mean	2.248506	3.011755	3.820158	4.304242	3.745171	3.027104	3.00624	3.760452
Median	2.086519	2.617973	3.435668	3.812825	3.5486	2.837025	2.818665	3.482125
Maximum	4.973214	7.139443	7.469823	8.607236	7.730505	6.4128	7.326068	7.698977
Minimum	1.560709	1.24687	2.394064	2.330409	2.318071	1.889673	1.530123	2.163114
Std. Dev.	0.578273	1.312033	1.257402	1.603473	1.229161	0.932797	0.995916	1.177494

EMU8

Mean	-1.938133
Median	18.95272
Maximum	253.2226
Minimum	-380.4286
Std. Dev.	157.9432

MEMBER

	Austria	Belgium	France	Germany	Italy	Netherlands	Portugal	Spain
Mean	-0.054746	-0.134036	-0.386433	-0.925374	-0.284699	-0.070635	-0.024737	-0.057472
Median	0.535356	1.310721	3.778868	9.049102	2.784034	0.690725	0.241902	0.562013
Maximum	7.152762	17.51223	50.48853	120.9028	37.19679	9.228603	3.231992	7.50892
Minimum	-10.74594	-26.30946	-75.85134	-181.6381	-55.88252	-13.86457	-4.855576	-11.28101
Std. Dev.	4.461411	10.92295	31.49134	75.41103	23.20085	5.75618	2.015898	4.683558

TRADE

	Austria	Belgium	France	Germany	Italy	Netherlands	Portugal	Spain
Mean	2.247619	2.88254	4.265079	0.679365	2.261905	3.634921	4.260317	6.031746
Median	1.5	2.3	4	0.4	2.4	3.9	4.3	6
Maximum	13.6	9.8	10.3	6.2	5.4	10.8	16.6	10.5
Minimum	-3.6	-3.7	-0.7	-3.4	-1.1	-7.4	-7.9	1.9
Std. Dev.	3.633751	3.386717	2.150181	2.198985	1.253952	4.089529	4.63808	1.981106

LOG (TRADED)

	Austria	Belgium	France	Germany	Italy	Netherlands	Portugal	Spain
Mean	13.86582	15.04216	17.78988	17.82006	19.8233	15.20609	16.62162	18.40176
Median	13.8928	15.09747	17.93917	17.84267	19.8233	15.25649	16.86611	18.39836
Maximum	14.69503	15.88282	18.71098	18.61468	20.26482	16.03867	17.57519	19.18314
Minimum	13.12981	13.85015	16.58183	16.80993	19.12076	13.98976	14.98853	17.46229

Std. Dev.	0.350807	0.433255	0.68846	0.501226	0.23386	0.370557	0.679087	0.50653

BOND

	Austria	Belgium	France	Germany	Italy	Netherlands	Portugal	Spain
Mean	4.854603	4.894921	4.753016	4.649206	4.923492	4.766667	4.913651	4.862381
Median	5.06	5.08	4.93	4.78	5.13	4.92	5.09	5.05
Maximum	5.77	5.79	5.66	5.54	5.75	5.67	5.81	5.76
Minimum	3.74	3.74	3.69	3.62	3.82	3.72	3.77	3.69
Std. Dev.	0.578142	0.577514	0.538863	0.517096	0.556536	0.544311	0.581598	0.572867

Appendix 2. Data description (continued)

Table 5 (continued)

LOG (RESERVES)

	Austria	Belgium	France	Germany	Italy	Netherlands	Portugal	Spain
Mean	9.701383	9.526381	11.06698	11.40466	10.82213	9.852599	9.603671	10.55496
Median	9.768681	9.51392	11.05991	11.42412	10.86735	9.846864	9.634954	10.57457
Maximum	9.982128	9.907743	11.23022	11.51983	10.96809	10.19668	9.850219	11.06093
Minimum	9.21114	9.345133	10.89176	11.2474	10.59122	9.736133	9.224835	9.963123
Std. Dev.	0.211148	0.109276	0.097267	0.070559	0.10271	0.089106	0.157217	0.187303

UNEMPL

	Austria	Belgium	France	Germany	Italy	Netherlands	Portugal	Spain
Mean	3.933	7.573	9.360	8.454	9.844	3.048	4.776	11.617
Median	3.900	7.600	9.100	8.300	9.400	3.000	4.500	11.300
Maximum	5.100	9.600	11.400	10.300	11.800	4.400	6.500	15.000
Minimum	2.900	6.100	7.800	7.200	8.200	2.200	3.800	10.200
Std. Dev.	0.624	0.881	0.909	0.775	1.089	0.513	0.876	1.074

Note:

VaR — Stock market risk (%). VaR indicator is estimated for the indexes of particular EMU stock markets (ϕ). GARCH (1.1) model is used for the parameters estimation.

EMU8 — Summed changes in net exports to USA for a sample of 8 EMU member states (Austria, Belgium, France, Germany, Italy, Netherlands, Portugal and Spain) caused by the changes of real exchange rates (ml. USD). Source: Our own evaluations based on U.S. Census Bureau data $\left(\sum_{i=1}^{8}\Delta\varepsilon_{i(t-5-l)}b_{i1}\right)$.

MEMBER — Changes in net exports to USA of particular EMU member state caused by the changes of real exchange rates (ml. USD). Source: Our own evaluations based on U.S. Census Bureau data $\left(\Delta\varepsilon_{i(t-5-l)}b_{i1}\right)$.

TRADE — Monthly growth rates of retail trade $(\Delta\lambda)$ compared to the same period of the previous year (%). Source: Eurostat.

TRADED	Traded volume of stocks. Source Reuters. (ν).
BOND	Long-term government bond yields (τ) (monthly average, not seasonally adjusted). Source: Eurostat.
RESERVES	Foreign official reserves, including gold in million euros (end of period). Source: Eurostat.
UNEMPL	Harmonised unemployment rates (ρ).Unemployment according to ILO definition (%). Source: Eurostat.

Appendix 3. Robustness checks

Table 6: Excluding regressors

Number of regressors excluded from equation	(0)	(1)	(2)	(3)	(4)	(5)
EMU8	-0.0003 (-2.6466)	-0.0003 (-2.5418)	-0.0002 (-2.2362)	-0.0002 (-1.6357)	-0.0002 (-1.7715)	-0.0002 (-1.7811)
TRADE	0.0162 (2.7311)	0.0157 (2.5552)	0.0149 (2.4561)	0.0088 (1.3984)	0.0118 (1.8539)	
LOG(TRADED)	0.1278 (1.8941)	0.2029 (3.2333)	0.2799 (5.1262)	0.2999 (5.1754)		
BOND	-0.4018 (-4.6234)	-0.4389 (-4.8851)	-0.3765 (-4.3043)			
LOG(RESERVES)	0.3748 (1.6841)	0.5289 (2.3873)				
UNEMPLOYMENT	0.1429 (2.7170)					
Adj. R2	0.6044	0.6056	0.6077	0.5989	0.5866	0.5876

Note: t-stats. are given in parentheses.

Appendix 3. Robustness checks (continued)

Table 7: Changing the lags for the regressors

Lags	(0)	(3)	(6)	(9)	(12)
EMU8*	-0.0003 (-2.3723)	-0.0002 (-1.5580)	-0.0003 (-2.0738)	-0.0002 (-1.4863)	-0.0002 (-1.5865)
TRADE	-0.0082 (-1.3247)	0.0125 (1.8725)	0.0092 (1.3306)	-0.0005 (-0.0620)	0.0145 (2.0475)
LOG(TRADED)	0.1470 (2.0918)	0.1514 (2.1711)	0.2088 (2.9526)	0.1481 (2.1064)	0.1745 (2.4948)
BOND	-0.3335 (-3.4699)	-0.3274 (-3.3469)	-0.1923 (-1.8420)	-0.1796 (-1.6741)	-0.0392 (-0.3626)
LOG(RESERVES)	0.3628 (1.5528)	0.4799 (1.8887)	0.6282 (2.3427)	0.7376 (2.8009)	0.8915 (3.2278)
UNEMPLOYMENT	0.1372 (2.5370)	0.0649 (1.1745)	-0.0013 (-0.0231)	0.0365 (0.6747)	0.0173 (0.3135)
Adj. R2	0.6056	0.6049	0.6047	0.6034	0.6033

Note: * lag is kept invariant as it appears in the original model.
t-stats. are given in the parentheses.

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MEASUREMENT OF FISCAL POLICY FLEXIBILITY (FPF) IN MONETARY UNION MEMBER COUNTRIES

Paweł Młodkowski
Department of Economics
Wyższa Szkoła Biznesu – National Louis Univeristy
Nowy Sącz, Poland
e-mail: Pawel.Mlodkowski@wsb-nlu.edu.pl

Abstract

The paper focuses on fiscal constraints imposed on monetary union member countries and a scope of freedom in conducting fiscal policy at the domestic level. Non-european monetary unions: West African Economic and Monetary Union (WAEMU), Central African Economic and Monetary Community (CAEMC) and East Caribbean Currency Union (ECCU) introduced multilateral surveillance and a variety of fiscal convergence criteria. These constraints for domestic fiscal policies were agreed at the regional level for multiple purposes. Among them the most important are: avoidance of time-inconsistent economic policies and free rider problem mitigation. Despite many other benefits, there are substantial potential costs of employing fiscal convergence criteria. They flow from a decrease in fiscal policy flexibility, which is perceived, by many authors, as crucial for monetary union well-being. The paper offers a methodology for assessment of the fiscal policy flexibility when fiscal convergence criteria or fiscal constraints, in general, are present.

Keywords: *monetary union, fiscal convergence criteria, fiscal policy*

2019

1. Introduction

There is a widely recognized need for fiscal convergence in monetary unions, evidenced by multilateral surveillance introduced in member countries of most of existing monetary unions. There is however a threat that imposing limits and requirements on a domestic fiscal policy will have a negative influence on the member's economy. Therefore the framework for fiscal convergence criteria assessment is needed in order to answer the question about their actual influence. The paper develops such a framework and offers a ratio of fiscal policy flexibility when fiscal convergence criteria are present.

The paper is structured as follows: Section I is a literature review that shows fiscal constraints as crucial factors for a successful, long-lasting monetary union and shows consequences of introducing fiscal convergence criteria for fiscal flexibility. Section II presents experiences of WAEMU, CAEMC and ECCU in fiscal convergence. Section III presents formalization for fiscal constraints. Section VI discusses fiscal policy flexibility idea and measurement methodology. Section V concludes about fiscal policy flexibility main factors.

2. Fiscal Policy Flexibility as a factor of a successful monetary union

It is widely recognized that a monetary union agreement brings many benefits. A recent empirical study by Edwards and Magendzo (2002) shows that independent currency union (ICU) member countries experienced lower rates of inflation and higher GDP growth rates (1970 – 1998) than non-member countries, using currencies of their own. However, these benefits expected to materialize due to a membership in such an agreement, are of a conditional nature. Eichengreen (2001) shows that exploiting all possible advantages offered by a common currency and monetary policy is highly conditional.

Benefits flowing from common currency and monetary policy for member countries depend on the correlation of their business cycles. The more correlated they are, the better common monetary policy is suited for every member. Since there is no country-tailored monetary policy, fiscal authorities are responsible for coordinating and converging economic cycles of members in a monetary union. There is no trade-off between fiscal and monetary policy because the latter is set at the regional level and is not influenced by individual countries. Fiscal policy becomes most important for internal and external balance.

Fiscal policy pursued by every country depends on a wide variety of internal and external factors. Masson and Pattillo (2002) show that it is not clear weather monetary union membership helps or hinders fiscal discipline. Lack of this discipline is responsible for divergence of business cycle phases, which is highly undesired under monetary union agreement. So far, empirical evidence, EMU literature and CFA franc Zone experience suggest the possibility that monetary union membership could create incentives for fiscal profligacy. Governments are tempted to undertake over-expansionary fiscal policy. Worrell (2003) shows that failure to make long-term fiscal and structural commitments implies severe penalty: high interest rates, uncertain climate for investment and low growth potential.

The incentive for fiscal profligacy flows from the possibility of a bailout by the common central bank and the distribution of costs following the imprudent fiscal policies among all member countries. The negative externalities will hit other members. They would rather help "the naughty boy" than let their union to fall apart. This scenario is very costly for every union member. The idea behind fiscal convergence criteria is to prevent such a crisis to emerge.

Hefeker (2003) argues that uncoordinated fiscal policies have negative externalities on the common currency. Another argument is pointed by Debrun et al. (2002). Rulers have an interest to benefit certain groups in the economy and it leads to over-expansionary fiscal policy.

Masson and Pattillo (2002) show also that monetary union is successful only when "the hands of the fiscal authorities are tied by a strong set of fiscal restraint criteria". These are not to be binding before joining a union but throughout its entire life. This point of view is supported by a theoretical study performed by Chari and Kehoe (1998). They show that the desirability of debt constraints in monetary unions depends critically on the extent of commitment of the common monetary authority. If the common monetary authority cannot commit, there is a free-rider problem in fiscal policy, and debt constraints may be desirable.

Monetary union agreement is not a good vehicle for growth, stability and prosperity, unless fiscal policies are tied by a strong set of fiscal restraint criteria. Beetsma and Uhlig (1999) argue that to avoid negative externalities and spillover effects fiscal policy must be coordinated among member countries. To gain possible benefits, member countries governments should define appropriate fiscal convergence criteria at a regional level and introduce a credible multilateral surveillance. There is however a threat. To meet limits and requirements imposed by fiscal convergence criteria, fiscal authorities lost freedom in conducting domestic fiscal policy.

Lack of fiscal policy flexibility is at the roots of the negative evaluation of all fiscal arrangements. It can be found in Debrun (2000) and inferred from Bean (1992), Buiter et al. (1992) or Dornbush (1997) and Sims (1998). Under common monetary policy, fighting country-specific shocks can only be done using domestic fiscal policy. Otherwise asymmetry between member countries' business cycle may increase. Therefore it is very important to recognize fiscal policy flexibility determinants and offer proxies for decision making purposes in the course of reforming monetary union agreements.

3. Experience in fiscal convergence in non-european monetary unions.

The following review of fiscal constraints in the three monetary unions of low-income countries is an attempt to explain the general ideas on which these criteria are based and also to point out differences which exist in their institutional arrangements.

3.1 WAEMU – West African Economic and Monetary Union

The West African Economic and Monetary Union is composed of Benin, Burkina Faso, Cote d'Ivor, Guinea-Bissau, Mali, Niger, Senegal and Togo.

Following the CFA franc devaluation in 1994 a system of fiscal convergence criteria and multilateral surveillance was introduced. The aim was to assure greater compliance in terms of the economic policies of member countries, with targets at the regional level.

In WAEMU during the first period: 1994 – 1998, the main fiscal convergence criteria (FCC) were the following:

- the public sector wage bill (WAB) could not exceed 50% of tax revenue. In January 1998 this limit was lowered to 40%;
- at least 20% of tax revenue had to be used to finance domestic fixed investment (DFI) by the public sector;
- basic fiscal balance (BAB), that is revenue without grants minus expenditure without public investment financed from external sources, had to be no less than 15% of tax revenue;
- change in arrears (ARR), internal and external, could not be positive.

In 1999 the WAEMU entered the second phase of fiscal convergence when the Convergence, Stability, Growth and Solidarity Pact (CSGSP)

was signed.[1] New FCC were defined. The aim was to improve macroeconomic stability, speed up economic growth and develop solidarity among member countries.

FCC were divided into two categories - primary and secondary criteria. The first of the primary criteria was aimed at improving and stabilizing public finance in member countries. According to the CSGSP, the basic fiscal balance (BAB) had to be non-negative until 2002. The second primary criterion referred to the public debt (PD) to GDP ratio and limited the ratio of nominal PD to nominal GDP to 70%. The aim of the next primary criterion was to avoid an alternative non-market financing of fiscal deficits. Change in arrears (ARR) had to be non-positive.[2] Yet another primary criterion was the limit for inflation. It had to remain below 3% per annum. The aim was to keep the difference in inflation rates between the WAEMU and France (Euro zone) at the lowest level possible. It was introduced to avoid pressures on the fixed exchange rate commitment.

The four primary FCC presented above were supported by other limits and requirements. Some of them originated from the 1994 set of FCC. Public investment financed from domestic sources (DFI) had to be at least 20% of tax revenue. The public sector wage bill (WAB) could not exceed 35% of tax revenue. Another secondary criterion required tax revenues (TAR) to be at least at 17% of GDP. The last criterion limited the current account deficit (CAD) in the balance of payments to 5% of GDP.[3]

The system of multilateral surveillance and a set of penalties for noncompliance with FCC was defined in paragraph 74 of the WAEMU Treaty. Depending on the degree of noncompliance and level of cooperation, the penalties were as follows: withdrawing financing by the West African Development Bank and suspending budgets financing by BCEAO (the central bank for WAEMU).

The imposed FCC and accompanying multilateral surveillance were successful in consolidating public finance. Dore and Mason (2002) recognized two distinctive periods under this regime. The first was 1994 – 1997. Much of the adjustment took place before 1998. After 1997 fiscal convergence was much slower and divergence appeared. Despite the negative BAB during the years 1994 – 1997, developments were positive. Public expenditure structure was improved and control was gained over current

[1] The CSGSP was signed in 1999 and new FCC were binding from 2000. The transition period for adequate adjustments was set at three years. The deadline was December 31, 2002.
[2] This requirement was already present in the previous set of FCC since 1994.
[3] In calculation of this ratio grants received from abroad are excluded.

primary expenditure. The wage bill in the public sector was decreased from 55% to 37,2% in 1998. Only two countries (Niger and Togo) violated this criterion (at 40% of tax revenue). Public investment expenditure rose from 11% in 1994 to 21% in 1998. Arrears (domestic and external) decreased. However, since 1998 those positive trends suffered a steep contraction. Large deficits, slower GDP growth and no control over public expenditure were common in WAEMU member countries. The public sector wage bill increased from 37,2% to 37,9% in 2001. Only three countries (Benin, Mali & Senegal) were in line with this criterion. Public investment rose steadily but differences among members were quite substantial. After 1998 only Burkina Faso and Mali managed to meet this criterion (at 20% of tax revenue). No improvements materialized in terms of tax revenue, which stabilized around 15% of GDP, while the FCC required a ratio of at least 17%.

WAEMU member countries expected a lot from WAEMU Directives. The 2002 deadline for implementation was not met. Countries were adopting them at different paces and with substantial delays. While the directives gave guidance with regard to most important fiscal issues, Mussa (2004) argues that their internal consistency still needs to be enhanced. Otherwise the main goal to harmonize fiscal management within WAEMU will not be attained. Another example of fiscal convergence can be observed in another CFA-franc Zone monetary union – CAEMC.

3.2 CAEMC – Central African Economic and Monetary Community

The Central African Economic and Monetary Community is composed of: Cameroon, the Central African Republic, Chad, the Republic of the Congo, Equatorial Guinea and Gabon.After devaluation in 1994, the CAEMC underwent an exercise, similar to the WAEMU, which was aimed at intensifying regional integration and to introduce multilateral surveillance. Several macroeconomic convergence criteria were imposed:

- an upper limit for inflation of 3% per annum;
- a public debt limit;
- procedures for foreign exchange reserves accumulation;
- a surplus or zero fiscal balance.

The greatest threat for reaching the criteria was the high dependence of fiscal revenue on crude oil prices and production volumes. Multilateral surveillance in CAEMC was based on a set of quantitative criteria. These were aimed at monitoring for excessive fiscal deficits and observing the economic performance of member countries. In the first phase four ratios were employed:

- foreign exchange reserves (FER) had to cover 20% of money supply,

- basic fiscal balance (BAB) had to be nonnegative,
- change in arrears (ARR) could not be positive,
- changes in public sector wage bill (WAB) could not exceed the growth rate in fiscal revenue.

Some shortages and disadvantages of the above set were noticed. Therefore, on 14th of July 2001, the board of the CAEMC Ministers agreed on a new FCC, which were expected to be introduced in January 2002. Since then the following limits constrained fiscal policies of CAEMC member countries.

The first criterion measured the government's ability to finance all current and capital expenditure with domestic resources. Basic fiscal balance had to be positive or zero. The calculation for BAB was as follows: revenue except grants, minus total expenditure. The primary surplus allows for debt repayments and indicates a no debt-trap problem.

The second FCC dealt with the inflation ratio and set the same limit of 3% p.a., as in case of WAEMU. The third FCC limited total public debt (internal and external) to 70% of GDP, starting in 2004.

The last FCC required the change in arrears to be non-positive in the current period. It was aimed at liquidating payment problems, stabilizing economies and national banking sectors and regaining credibility at the international capital markets.

Since 2002, CAEMC countries undertook attempts to meet agreed limits and requirements. After one year of adjustment (in 2003), BAB and PD/GDP criterion was met by four out of six CAEMC members. In 2003 only Republic of Congo experienced increase in arrears and the only country that violated limit for wage bill in public sector increase was Cameroon. Concluding, new set of fiscal convergence criteria was implemented successfully. Most of countries comply with four limits. For those, which violate FCC, substantial fiscal adjustment is required. This is because bringing down public debt from above 250% of GDP to 70% of GDP is not possible in such a short period.

The multilateral surveillance ratios used in the CAEMC were not binding convergence criteria. They served in diagnosing economic and financial condition of member countries. Three kinds of ratios were employed:

i. general macroeconomic ratios:
   a. real GDP growth ratio;
   b. foreign exchange reserve cover of the money supply (at least 20%);
   c. current account balance to GDP ratio;
ii. analytical ratios:
   a. investment ratio (total, public & private), as a % of GDP;
   b. public sector wage bill as a % of total revenue without external grants;
   c. changes in competitive position measured by REER;
iii. indicators of economic policy:
   a. fiscal policy stance measured by BAB/total revenue, BAB/GDP and OVB/GDP;
   b. monetary policy stance measured by money and credit supply.

The four FCC binding CAEMC countries were similar to those which were agreed by CFA Franc Zone Convergence Committee, at the super-regional level. Both African monetary unions use the CFA franc as a common currency (names of the currencies are a bit different but both are pegged to the euro at the same ratio). A guarantee by the French Treasury makes this commitment credible. The third non-european currency union that undertook steps toward fiscal convergence between its members is ECCU.

3.3 ECCU – Eastern Caribbean Currency Union

The Eastern Caribbean Currency Union (ECCU) consists of Anguilla, Antigua and Barbuda, Grenada, Mont Serrate, Dominica, St. Vincent, St. Lucia, St. Kitts and Grenadines. The union's currency is the Caribbean dollar with a fixed parity to USD.

The Eastern Caribbean Currency Union is a special case when considering fiscal convergence criteria. After a substantial worsening in the budgetary situation in member territories during 1990s, the regional central bank undertook an initiative aimed at reverting undesired tendencies.

Table 1. The actual situation of the six quantitative criteria in 2002.

ECCB directive	ECCU	Antigua& Barbuda	Dominica	Grenada	St. Kitts &Nevis	St. Lucia	St. Vincent Grenadines
Savings of the central government 4-6% of GDP	- 3,8%	-11,8%	-6,8%	1,9%	-3%	-0,9%	1,4%
Overall deficit of central government 3% of GDP	- 9,6%	-13,2%	-11%	-8,1%	-13,4%	-7,4%	-3,6%
Public debt 60% of GDP	92,5%	102,3%	105,8%	103,7%	137,2%	**56,6%**	74,1%
Savings of the public sector 7-8% GDP	-1,4%	-11,8%	-6,8%	2,1%	-3%	**7,5%**	4,3%
Public sector investment 12% GDP	8,8%	1,5%	5,4%	**13,2%**	**14,4%**	10,4%	**12,1%**
Public sector primary balance	-3,2%	-7,8%	-5,7%	-3,8%	-3,1%	**4%**	-2,1%

Source: P. Kufa, A. Pellechio, S. Rizavi (2003): Fiscal Sustainability and Policy Issues in Eastern Caribbean Currency Union, IMF Working Paper, WP/03/162, Washington: International Monetary Fund, p. 9

The Eastern Caribbean Central Bank is responsible for promoting economic growth in the region under the fixed exchange rate commitment and liberalized balance of payments accounts. To meet this goal and to prevent the monetization of public debt through the financing of fiscal deficits, the ECCB created a set of directives for the public sector. This was aimed at improving the quality of fiscal policy. Quantitative targets were supplemented by structural reforms. It was expected to improve the effectiveness of taxation and the influence of public expenditure on growth.

Introducing directives for public sector was a clear sign that the commitment to abstain from financing fiscal deficits by ECCB was not enough to prevent fiscal profligacy. However, the ECCB directives were not binding and the central bank had no authority to demand compliance with them. ECCB only suggested complying with the following six quantitative criteria:

- savings of the central governments should be at 4 – 6% of GDP annually,
- overall deficit (OVB) should not exceed 3% of GDP,
- public debt (PD) should not exceed 60% of GDP,
- public sector savings, including pensions systems, should reach 7% - 8% of GDP annually,
- public sector investment (PSI) should be at least at 12% of GDP,
- public sector primary balance (BAB) should be nonnegative.

Other general directives are the following:

- liquidation of arrears (ARR),
- public debt repayments due to the creation of amortization funds,
- creating reserve funds for the purpose of mitigating natural disasters .

The ECCB directives were very similar to the FCC implemented in the WAEMU and the CAEMC after devaluation in 1994. In all three monetary unions fiscal convergence criteria were present. The feature that distinguishes them is that, in Africa, FCC are binding while in the Caribbean they are not. In the WAEMU and the CAEMC multilateral surveillance and system of penalties were present. The ECCU case was then only informative because there was no external pressure mechanism for implementing FCC.

Table 2. Fiscal convergence criteria in monetary unions.

WAEMU 1994 – 1998	**CAEMC1994-2001**	**WBC quantity directives**	**Accession criteria**
BAB ≥15% TAR DFI ≥ 20% TAR ARR ≤ 0 1994-1997: WAB ≤ 50% TAR 1998: 45%	CPI ≤ 3% PD/GDP ≤ 70% FOREIGN EXCHANGE RESERVES ACCUMULATION PROCEDURES	OVB ≤ 3% GDP PD/GDP ≤ 60% Public savings ≥ 7% - 8% GDP PIE ≥ 12% GDP BAB ≥ 0 Central government savings (4%-6% GDP)	DEFICIT ≤ 3% GDP PD/GDP ≤ 60% GDP
WAEMU 1999 – 2004	**Multilateral surveillance**	**WBC quality directives**	**S&GP**
Primary criteria: BAB ≥ 0 PD/GDP ≤ 70% ARR ≤ 0 CPI ≤ 3%	***Ratios:*** FER cover 20% M BAB ≥ 0 ARR ≤ 0 WAB % change ≤ TAR % change	Liquidation of arrears Public debt repayment (amortization funds) Creation of reserves for natural disasters	Balanced budget or surplus penalties, when OVB ≥ 3% GDP (given no special circumstances)
Secondary criteria: DFI ≥ 20% TAR WAB ≤ 35% TAR TAR ≥ 17% GDP CAD ≤ 5% GDP	**CAEMC 2002 – 2004** BAB ≥ 0 CPI ≤ 3% PD/GDP ≤ 70% ARR ≤ 0 **Multilateral surveillance** ***ratios:*** general mactoeconomic analytical economic policy	**WBC structural directives** harmonization of tax code effective taxing introduction of VAT reform of budgeting process surveillance over public services incorporation of PIE into general development strategy increase of coordination between phases of investment	**Stosowane skróty:** BAB – basic budget balance PD – public debt ARR – arrears TAR – tax receipts CAD – current account balance WAB – wage bill in public sector DFI – domestically financed investment PIE – public investment expenditure OVB – overall (budget) balance

Source: Author.

Presentation of fiscal convergence in non-european monetary unions bring closer solutions employed to avoid short-sighted and time-inconsistent policies at a domestic level. Utilization of the WAEMU, CAMC and ECCU experience need formalization of fiscal convergence criteria. This is a next step to define fiscal policy flexibility (FPF).

4. Fiscal constraints measurement methodology.

Six areas are covered by fiscal constraints. The largest set of them was present in WAEMU, and some of them were present in CAEMC and ECCU. The difficulty in presenting general solutions flowed from different definitions of crucial variables. These included revenue, expenditure, basic/primary balance and investment. The methodology will be applicable to all of them after **concerning** the technical differences.

4.1 Criterion I – public debt (PD)

This criterion is defined as a maximum level of PD/GDP ratio. Nominal value of PD at the end of period "t" is: PD from the previous period (t-1), overall balance in the current period (OVB), net change in arrears (ARR) in period "t".

$PD_{it} = PD_{it-1} + OVB_{it} + ARR_{it}$ for member country i=1,…,n; and period t=1,…,T (1)

In the case of a debt-trap problem, interest payments were captured either in OVB_{it} or ARR_{it}. In the first case, financing was based on the market, while in the other, governments used non-market financing.

4.2 Criterion II – overall or basic fiscal balance (OVB, BAB).

Fiscal balance is one of the most important fiscal policy stance indicators. There are many different ways of calculating a wide variety of fiscal balances. In general, a balance is obtained when expenditure is deducted from revenue. Adjustments made to these two elements lead to a wide pattern of fiscal balances.

In each of the monetary unions covered by this study different fiscal balance was used as an indicator in multilateral surveillance.[4]

Overall fiscal balance may be decomposed in the following way:

[4] In CAEMC BAB = revenue (except grants) minus total expenditure. ECCU countries base their multilateral surveillance on two distinctive fiscal balances: overall balance = revenue - expenditure (limit of 3% GDP when deficit appears) and public sector primary balance, which should be non-negative.

$$OVB_{it} = REV_{it} - EXP_{it} \text{ for i=1,…,n; t=1,…,T} \quad (2)$$

After introducing fiscal constraint, it should satisfy a condition:

$$OVB_{it} = REV_{it} - EXP_{it} \geq 0 \qquad \text{for i=1,…,n; t=1,…,T} \quad (3)$$

Using WAEMU's definition of basic fiscal balance as non-grant revenue minus expenditure, excluding foreign-financed investment, one can break down revenue (REV) and expenditure (EXP). This is necessary as other criteria are based on some fractions of those broad categories.

Many concepts are available in the case of the primary basic fiscal balance. A basic fiscal balance in WAEMU, defined as non-grant revenue minus expenditure, excluding foreign-financed investment, serves as one of the primary fiscal constraints. However, for convenience many empirical studies (see for example Dore and Masson (2002), p. 10) used overall fiscal balance in all estimations. This was mainly due to a lack of adequate data for basic fiscal balance.

Overall balance (OVB) is defined above. The concept of basic fiscal balance is based on several exclusions from revenue and expenditure. Let us assume that total revenue (REV) is composed of tax receipts (TAR) and non-tax revenue (NTR).

$$REV_{it} = TAR_{it} + NTR_{it} \quad \text{for i=1,…,n; t=1,…,T} \quad (4)$$

Expenditure side of a budget (EXP) is a little more complex and may be divided, at first, into two categories of fiscal payments: current expenditure (CUR) and total public investment expenditure (PIE).

$$EXP_{it} = CUR_{it} + PIE_{it} \quad \text{for i=1,…,n; t=1,…,T} \quad (5)$$

Current expenditure (CUR) may be decomposed to wage bill (WAB), interest payments ($r*PD_{it-1}$) and other expenditure (OTH).

$$CUR_{it} = WAB_{it} + r \times PD_{it-1} + OTH_{it} \quad \text{for i=1,…,n; t=1,…,T} \quad (6)$$

Total public investment expenditures (PIE) may be decomposed into two categories: externally financed investment (EFI) and domestically financed investment (DFI). The former is excluded from basic fiscal balance calculation.

$$PIE_{it} = EFI_{it} + DFI_{it} \quad \text{for i=1,…,n; t=1,…,T} \quad (7)$$

Summarizing, total public expenditure (EXP) can be written as:

$$EXP_{it} = WAB_{it} + r \times PD_{it-1} + OTH_{it} + EFI_{it} + DFI_{it} \qquad \text{for i=1,…,n; t=1,…,T} \quad (8)$$

Overall fiscal balance equation takes the following form:

$$OVB_{it} = TAR_{it} + NTR_{it} - WAB_{it} - r \times PD_{it-1} - OTH_{it} - EFI_{it} - DFI_{it} \quad (9)$$

For the purpose of a basic fiscal balance (BAB) calculation, revenue (REV) and expenditure (EXP) must be modified (* – asterisks denote modified variables):

$$REV^{*}_{it} = TAR_{it} \quad \text{for i=1,…,n; t=1,…,T} \quad (10)$$

Modified revenue covers only tax receipts. In the case of modified expenditure, EFI was excluded.

$$EXP^{*}_{it} = WAB_{it} + r \times PD_{it-1} + OTH_{it} + DFI_{it} \quad \text{for i=1,…,n; t=1,…,T} \quad (11)$$

Basic fiscal balance (BAB) is then given by the difference of modified revenue (REV*) and expenditure (EXP*).

$$BAB_{it} = TAR_{it} - \left(WAB_{it} + r \times PD_{it-1} + OTH_{it} + DFI_{it}\right) \quad (12a)$$

or

$$BAB_{it} = TAR_{it} - WAB_{it} - r \times PD_{it-1} - OTH_{it} - DFI_{it} \quad \text{for i=1,…,n; t=1,…,T} \quad (12b)$$

According to information from the Bank of France database for CFA franc Zone, on revenue structure in WAEMU and CEMAC, budgetary revenue is composed mainly of TAR and external grants (NTR). In the case of oil exporters in the region, a substantial part of non-tax revenue is from the production of crude oil. Further readings on the topic of natural resources on wealth and fiscal policy in CAEMC countries can be found in Wiegand (2004). The methodology of BAB calculation was then accurate and precise for WAEMU and CAEMC. Furthermore, in WAEMU the difference between OVB and BAB had to be equal to the part of public investment expenditures (PIE) financed from external sources (EFI).

Under fiscal constraints, BAB should have met the following condition

$$BAB_{it} = TAR_{it} - WAB_{it} - r \times PD_{it-1} - OTH_{it} - DFI_{it} \geq 0 \quad \text{for i=1,…,n; t=1,…,T} \quad (13)$$

4.3 Criterion III – arrears (ARR)

In this case, two general aims prevailed in the short and the long run. The change in arrears between period “t-1” and “t” could not be positive.

$$\Delta ARR = ARR_{it} - ARR_{it-1} \leq 0 \qquad \text{for} \quad i=1,\ldots,n; \quad t=1,\ldots,T \tag{14}$$

The long-term objective implied reducing arrears to zero.

$$\lim_{t \to T} ARR_t = 0 \tag{15}$$

Arrears are of a diverse nature. An amount in arrears is understood as the value owed but not yet paid. The question was, from what date was money owed? Arrears emerge when obligations are not met in the period in which they fall due. Government debt is legally binding once goods or services have been delivered. That is the "liquidation phase". It covers a wide variety of obligations, including these flowing from current expenditure (CUR): WAB, OTH and public debt service ($r*PD_{it-1}$) or repayments.[5]

4.4 Criterion IV – wage bill (WAB)

The wage bill (WAB) in the public sector belongs to current expenditure (CUR). Remuneration for public sector workers is perceived as a demand-side stimulating instrument and non-productive expenditure with no ability to increase growth. That is why too large burden in the form of WAB is to be avoided for sustainable fiscal policy.

The introduction of fiscal constraint as WAB ratio is aimed at improving the quality of public expenditure when fiscal adjustment is needed. Cuts in wages or public sector employment are politically very unpopular. However, this is sometimes imminent and the only feasible way of arriving at a sustainable and prudent fiscal policy.

$$\frac{WAB_{it}}{TAR} < b \qquad \text{for i=1,…,n; t=1,…,T} \tag{16}$$

When requirements on other expenditures are binding, this constraint points the way for structural changes in expenditure. Once the target level of WAB is set, it is always in connection with a minimum requirement in a category of non-current expenditure. The trade-off effect is expected to

[5] The simple fact of placing the order does not commit a government to paying or constitute arrears if the payment is not made. Arrears are incurred when the ordered goods or services have been delivered (liquidation phase), but the order to pay has not been given by a credit manager to a public accountant. In this case "administrative" (or technical) arrears appear. Real arrears appear when an accountant is unable to execute an order to pay because of a lack of cash. Lags between order to pay and payment execution flow from imposed spending procedures. Therefore, even when cash is available for all payments due, they are executed with substantial delays. In this case arrears do not appear.

emerge. Decreasing current expenditure (WAB) serves as a vehicle for increasing public investment. Resources saved in this area are redirected to operations aimed at enhancing growth potential.

4.5 Criterion V – total public investment expenditure (PIE) and domestically financed investment (DFI)

This FCC is one of the two criteria aimed at improving the quality of public expenditure. A very common feature of central government spending in low-income countries is the lack of non-current expenditure. This short-term nature is explained by political instability. Governments are rarely formed in democratic elections. Lack of stability implies resources management aimed at gaining all benefits in the current period or as fast as possible without considering nationwide utility function in the long run. Political instability hinders economic growth, also in monetary union member countries. The superior examples are Cote d'Ivore and Togo in WAEMU, Central African Republic and Republic of Congo in CAEMC or Grenada in ECCU.

The criterion based on PIE/GDP (or DFI/GDP) ratio is of dual nature. First, it serves as a growth potential increasing vehicle.[6] However, it also serves the other aim. When primary FCC is intended to decrease fiscal deficit and arrive at surpluses, adjustment might be made by decreasing investment expenditure (if present). In the short run, this is both feasible and an effective way of meeting FCC. When one evaluates the long-term influence of such a policy, negative impact on growth and growth potential is evident.

"c" – minimum requirement as a percentage of tax revenue

$$\frac{DFI_{it}}{GDP_{it}} \geq c \qquad \text{for i=1,…,n; t=1,…,T} \tag{17a}$$

$$\frac{PIE_{it}}{GDP_{it}} \geq c \qquad \text{for i=1,…,n; t=1,…,T} \tag{17b}$$

The equations (16), (17a) and (17b) should then be interpreted as boundary conditions for basic fiscal balance (BAB) criterion.

In CAEMC investment ratios (total, public, private) are used in multilateral surveillance, but they do not bind governments. They serve only to diagnose economic conditions of member countries. ECCB issued a directive aimed at public investment in the Caribbean. This category is much

[6] Private sector is very often unable to undertake sufficient infrastructure investments. High level of sunken costs, long periods of return and non-monetary benefits from enhancing infrastructure leave infrastructure investments for public authorities.

broader because it covers the whole public sector investment (PIE). PIE in ECCU should be at least at 12% of GDP annually.

4.6 Criterion VI – tax receipts (TAR)

Public revenue can be broken down as shown in (4). The idea embodied in this requirement is not only to improve the quality of domestic tax systems, but to prevent political instability. Ghura and Marcereau (2004) argue that chronic weak revenue performance led to the accumulation of domestic wage and external debt arrears and the degradation of social services in Central Africa in XX^{th} century. Substantial arrears and irregular wage payments to civil servants and military personnel led to prolonged labor strikes and army rebellions. Improving tax revenue prevents the occurrence of the aforementioned situations, which are lethal for growth and stability.

Stable and assured tax receipts are highly valued in every country. However, the monetary union's case is different because fiscal policy influences more than just one territory. Automatic stabilizers make tax receipts highly pro-cyclical. Steep contraction in economic activity leads to a decrease in resources available for fiscal policy. Fiscal constraint based on a minimum requirement for tax receipts is aimed at improving a taxation system and making it more resistant to shocks. Receiving a certain amount of GDP in tax revenue completes the goal of sustainable fiscal policy. Tax revenue at the level at least at a certain minimum allows for a better expenditure management in the long run. Information about revenue in the future leads to expenditure tailoring to available resources. In this way, structural deficits may be avoided. Any unexpected deviations from the minimum level might be used for public debt repayments. This criterion may be written in the following way:

$$\frac{TAR_{it}}{GDP_{it}} \geq a \quad \text{for i=1,…,n; t=1,…,T} \tag{18}$$

4.7 Criterion VII rate of inflation

In both African monetary unions covered by this study, a limit is imposed on the rate of inflation. This is also the case in EMU but not in ECCU. The way this limit is set differs in Africa and Europe. For African monetary unions there is an inflation target set at the regional level by the central banks, for each union. It is a numerical value of annual change in general price level. In EMU limit is not fixed but depends on the inflation in member countries with the lowest growth in general price level. This way flexibility is achieved.

4.8 Criterion VIII foreign exchange cover ratio (FER)

In CAEMC a special convergence criterion is present, aimed at maintaining sufficient level of foreign exchange reserves relative to money supply. This is not a fiscal constrain. It is introduced because of a fixed exchange rate regime in CAEMC. Credibility of this commitment requires high level of backing money supply. On the one hand – French Treasury guarantees convertibility of CFA-franc. On the second hand, BEAC requires foreign exchange reserves for conducting sovereign monetary policy.

4.9 Criterion IX current account deficit (CAD)

WAEMU countries introduced a new criterion in 2000, limiting current account deficit to 5% of GDP. In calculating this variable, grants received are excluded. This is another indirect fiscal criterion. Current account balance reflects difference between domestic income and absorption.[7]

$$\frac{CAD_{it}}{GDP_{it}} \geq f \qquad \text{for i=1,…,n; t=1,…,T} \tag{19}$$

Expansive fiscal policy is very often responsible for current account deficit. This criterion is intended to impose on governments taking into account fiscal policy influence on external stability, under given income and absorption of other sectors.

4.10 Criteria X and XI government (GOS) and public sector, including pensions systems, savings (PUS)

There is only one monetary union that tries to cover public savings in a regional coordination of fiscal policies.

$$\frac{GOS_{it}}{GDP_{it}} \geq f \qquad \text{for i=1,…,n; t=1,…,T} \tag{20a}$$

$$\frac{PUS_{it}}{GDP_{it}} \geq f \qquad \text{for i=1,…,n; t=1,…,T} \tag{20b}$$

In the Caribbean ECCB issued two directives aimed at increasing domestic savings. In this way resources for investment and debt repayments are expected to emerge. However none of the ECCB directives is binding.

[7] Lack of direct or portfolio investment inflows – characteristic for low-income countries in Africa – means that there are no sustainable sources of current account deficit financing. To mitigate the problem of foreign exchange reserves depletion, permanent current account deficit should be avoided. Otherwise external instability emerges in the form of devaluation pressures, difficulties for foreign trade and capital flight.

After presentation of fiscal constraints and their interrelations, it becomes possible to show how fiscal policy is constrained at the moment of full implementation and fulfilling commitments flowing from fiscal convergence criteria.

5. Fiscal Policy Flexibility (FPF) methodology.

The flexibility of fiscal policy can be defined as a freedom in deciding about spending side of the budget. To measure this freedom one can use a level of independent expenditures. Independent expenditures are defined as the public expenditures that are not constrained directly by any of the fiscal convergence criteria. The higher the value of this indicator, the more flexible the fiscal policy. In this study it is denoted by OTH – other expenditure. Since requirements for revenue and limits on all other expenditure are introduced, little independence is left for governments. The more other expenditure (OTH) is available without breaching fiscal constraints (in UE for example incurring a deficit), the more freedom fiscal policy has. In case of presented non-european monetary unions arriving at nominal levels of fiscal convergence criteria ratios makes fiscal policy vulnerable and not very flexible. There is little freedom in reacting to asymmetric shocks.

Using BAB equation (12b), it is possible to show the level of fiscal policy flexibility when fiscal constraints are met. Satisfying PD limit implies that BAB=0 and ARR=0, then

$$0 = TAR - WAB - r \times PD - DFI - OTH \tag{21}$$

$$OTH = TAR - WAB - r \times PD - DFI \tag{22}$$

To present the general level of fiscal policy flexibility for comparisons purposes, it is feasible to define it as a percentage of GDP.

$$\frac{OTH}{GDP} = \frac{TAR}{GDP} - \frac{WAB}{GDP} - \frac{r \times PD}{GDP} - \frac{DFI}{GDP} \tag{23}$$

In non-european monetary unions fiscal constraints refer to two categories: GDP and tax revenue (TAR). To employ them all together in equation (23), one should present them with the common denominator. First, it is comfortable to substitute:

$$\frac{TAR}{GDP} \geq A \Rightarrow TAR \geq A \times GDP \quad \text{(GDP is always non-negative)} \tag{24}$$

where “A” is an actual percentage share of public revenue in the form of tax receipts in GDP.

Substituting TAR from (24) to FCC defined in relation to TAR they become:

$$\frac{WAB}{TAR} \le b \Rightarrow \frac{WAB}{A \times GDP} \le b \Rightarrow \frac{WAB}{GDP} \le b \times A \quad \text{(“A” is always non-negative)} \quad (25)$$

b – limit for wage bill in public sector, as TAR percentage

$$\frac{DFI}{TAR} \ge c \Rightarrow \frac{DFI}{A \times GDP} \ge c \Rightarrow \frac{DFI}{GDP} \ge c \times A \quad \text{(“A” is always non-negative)} \quad (26)$$

c – target ratio of public investment, as TAR percentage

$$\frac{PD}{GDP} \le d \quad (27)$$

d – limit for public debt relative to nominal GDP

Then, fiscal policy flexibility proxy at the moment of compliance with all fiscal constraints, is given by (28) because all “≥” and “≤” become “=”.

$$\frac{OTH}{GDP} = A - b \times A - r \times d - c \times A \quad (28)$$

$$\frac{OTH}{GDP} = A(1 - b - c) - r \times d \quad (29)$$

The equation (28) may be used in comparative studies of different fiscal convergence criteria levels. There is, however, one exogenous variable that strongly influences the final score. Interest rate is crucial for fiscal policy flexibility because it influenced directly interest payments which are very often a large part of the public expenditure.

6. Conclusions

The main factors of fiscal policy flexibility are: public debt, interest rate and nominal GDP growth rate. All three are beyond any direct influence of fiscal authorities at the domestic level. Public debt is a result, in most cases, of many deficits in the past. Despite debt was created by other policy makers it is required to meet all obligations when they fall due. Emergence of arrears depresses credibility of fiscal authorities as an issuer. Therefore no arrears or refusals to repay “old debts” are possible.

Interest rate depends theoretically on the common monetary policy conducted by the central bank of a union. Under financial account liberalization and fixed exchange rate regime, interest rate depends in fact on the interest rate in a country to currency of which union’s currency is pegged.

In such circumstances interest payments for the debt outstanding can not be influenced by any means by fiscal authorities at the domestic level.

GDP growth rate is very important because it allows for relaxing constraints in nominal terms. However, there is a threat that fiscal authorities would attempt to inflate out the public debt and this way avoid fiscal adjustment to meet convergence criteria. Another way to avoid compliance with fiscal constraints, recognized already in WAEMU, is creative budgetary accounting. A different way of measuring crucial fiscal variables results in business cycle divergence that is most undesired among monetary union member countries.

In the paper a framework for measuring fiscal convergence criteria influence on fiscal policy flexibility is developed. It could be used for evaluating different sets of fiscal convergence criteria, as well as their different levels when considering multilateral surveillance reforms. The methodology would be applicable in the process of creating new monetary unions and designing regional fiscal coordination. It allows for taking into account the current fiscal positions of potential member countries. The limits for fiscal policy should be set at reasonable levels. With too high fiscal adjustments needed – creative budgetary accounting is sometimes employed by member states and fiscal convergence fails. The framework developed in this paper allows also for designing fiscal convergence criteria and their levels according to monetary union well-being in the long run. There is however still the opened question of the optimal set of fiscal constraints to be implemented.

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THE BANKS AND THE STRUCTURAL AND COHESION POLITICS IN THE EU FOCUSED ON THE ENVIRONMENT

Michal Borodovčák
Eva Romančíková
The University of Ecomonics
The Faculty of National Economy
Dolnozemská 1
Bratislava
Slovakia
Email: borodov@euba.sk
Telephone: +421 2 672 913 63

Abstract

The realization of the aim of structural and regional policy in the European Union is based on the banks participation. It can be reached by offering long term loans, bridge loans, which can be used to span the temporary shortage of the financial sources, occurred due to the time lag between the debtors' payment of the valid expenses to the creditors and receiving finance sources from EK. It can be reached also by the combination of these loans. The existence of the banks in the process of using financial sources from structural and cohesion fund has its own place in case of project preparation, giving in the application for the project, project adoption by supervising institution, and project coordinating and control.

Keywords: *structural funds, cohesion fund, long term loan, banks, pledge*

1. Introduction

At first the financing of the environment protection was the domain of green funds. However, later the banks were involved to the financing process so the environmental ranking enters to the valuation of the commercial banks and insurance companies' loan and investment policy. Due to these circumstances in the 1991 from the initiative of UNEP was found UNEP's Financial Services Initiative, and in 1994 the UNEP Statement on Environmental Commitment of the Insurance Industry.At this stage the banks in developed countries in the client analysis consider also its environmental behavior and join risks. In recent days the bank credibility analysis of client includes also environmental risks.

2. The banks and the environmental risks

In the bank analysis the environmental investments are not accounted as a company expense which decreases its competitiveness but in further circumstances this investments ensure the higher competitiveness on global markets. The environmental character of the company is being enlarged by the new dimension - the system of the environmental management. The companies which are applying this system are in the banks consideration asses as the trustworthy companies with the bright management structure. At this stage it is worth to say that in the recent years the insurance companies increased their interest in the environmental risk assessment due to the dramatically rise in the insurance payments for the damages caused by environmental disasters.

In the recent years the pioneering organizations in the financing of the environmental projects are international financial institutions.

The *World Bank* as the first international institution begins with obligatory assessment of the environmental projects. According to this fact it works out the handbook of the environmental assessment procedure.

The *European Bank for Reconstruction and Development* (EBRD) in the establishment process was given the mandate "to provide the complete support to environmentally acceptable activities". These activities should be focused to meet all the national environmental standards and the EU standards. There are mostly the environmental infrastructure projects i.e. building the water pipes and sewages, waste water treatments, disposal places, energy saving implements, and urban transportation systems.

The *European Investment Bank* requires involving environmental aspects to the all phases of bank financed projects i.e. the bank finance only the projects which satisfy all the economical, environmental and technical criteria.

We can assume that in the most prominent banks the environmentally and socially responsible investment behavior is the component of their image. However it is not the main stream of banking. This statement was confirm by the study which was held by UNEP where from 177 of inquired banks only 31% has the environmental oriented products. At least one half of the banks do not monitor and asses the environmental risks. On the question how further, 88% of them answered that they will involve the environmental risk consideration in the next 15 years. Banks assume the consideration will mainly focus on energy and recycling issues.

In the circumstances of the increasing indirect negative financial impact on the financial environment (energy severe, waste) effected in the situation when, in Germany, the environmental management systems spread also in the bank sector. This is inspiring also for Slovak republic.

Only for completeness, the issue of the impact on the environment is also in the consideration of the stock markets. Due to this the Committee for the Stock in the USA calls for the need of higher commitment in the environmental issues especially in the environmental reporting. It emphasis, that the environmental responsibility has the nature, than only by the overall information we can reach the spirit of non misleading and truly informing financial reports. The aim is the early recognizing of threatening environmental loses.

3. The bank associations supporting the environmental protection

The procedure of environmental protection flow in to establishment of the bank associations. For example in 1994 in Bonne there was the foundation of Association for Environmental Management in banks, saving and insurance companies. The aim of this association is to initiate the exchange of the experience and opinions on the environmental issues. This association was the first which had above mentioned aim. The membership in this association can get only the banks, saving and insurance companies. The association regularly held the courses, where the banks and the other institution often discuss about the environmental issues, because their trading

activities are often accompanied by environmental risks and they have to respond by applying the sophisticated strategy.

The American Bankers Association was established in the USA. The members of this association have adopted the philosophy that predicts the prosperity of the banks only in the case of bank servicing markets prosperity. The markets, according to banks opinion, would not be prosperous if they waste and badly manage the sources they existence depends on. Due to the expectation of the Association the 75% of all American banks at the begging of the 1990 considered the environmental risks in the loan granting procedure.

4. Engagement of the Financial Institutions in SR in the financing of the projects supported from EU structural funds

The gain of the EU financial sources creates the possibility for the Slovak financial institutions to share on financing of the chosen projects. Banks in these circumstances can provide following services:

- Expert advisory and complex services initiating by filling up the application form for the financial contribution, continuing by the preparation of the project that meets the EU requirements and finishing in the fore financing of the project accompanied by the expert advisory
- The client orientation in EU project
- Work out the project financing model
- Draw up the documents fulfilling the requirements of executing bodies – indicative declaration about preparedness for project co financing and binding credit link
- Selecting and adjusting the client needs according to special bank products
  - Bridge loan
  - Investment loan
  - Banker's guarantee

4.1. Bank credit procedures

In the credit transaction process related with the project co financing from the EU financial sources there is the possibility to apply standard methodic procedure, which involves credit process and providing the credit transactions.

Acquisition activity in the euro financing procedure is performed not only by the employee of the banks but also by the employee of the consultancy and advisory companies cooperating with bank. At this stage it is important for the employees of the bank to find the clients – borrowers and persuade them about the ability of the bank to support their project in terms of co financing and advisory. Successful acquisition is the first step in building relationship with client and developing other common business activities.

The advisory is provided to the client by the credit officers in the scope of basic information about EU funds financial recourses drawing possibilities, the operating programs, priorities and regulations, bank procedures according to governing body and also actual information about existing and new appeals announced by governing bodies.

Banks and documents relating to euro fund financing

In the initial stage of the euro financing procedure bank issues indicative statement for client that is required by the governing bodies to approve financial recourses for the project. Client asks the bank to issue the statement in writing. The indicative statement is issued by the bank after preparing the initial rating of the client (only financial risk). For preparing the rating the client has to submit standard records (financial statements), in case that bank do not have them.

Indicative statement is for the bank non committal and it declares the banks ability to cooperate in project co financing assuming the fulfillment of the standard conditions for bank stipulated loan terms.

Binding credit link – the contract on the future contract on loan – the condition term its opening is approved client project by the governing body and submitting of the acknowledgement to the bank. The binding credit link procedure is similar to loan transaction process.

The application for opening of the credit link – the contract of the credit link is the same to standard procedure except information necessary for grant application. With application form the client enclose the grant application and project and other documentation specified in loan repayment assessment ability.

Open binding credit link proposal – settlement of credit transaction is processed by credit officer in standard procedure. If the processor in the proposal states also the conditions, according to which the contract with

client can be settled, it is not necessary to held the other credit transaction approve procedure.

On the spot check – prior to processing the application it is necessary for the banks to do on the spot check. Following check are necessary also during the realization of the project at least quarterly. Above mentioned procedure is due to strict rules applied by EU and breaking of these may result in grant withholding during the realization and also after finishing the project.

Clients own sources – in case of investment loans, mid term or long term it is necessary to bind the client in order to get client financial participation on the project. Client's participation depends on the assessment of the business plan and it should be in scope from 5% up to 30% in dependence on the duration of his business.

The limits of commitments

In the loan transaction assessment process it is necessary to define the limits of commitments on clients. These depend on character of financing – i.e. firstly the credit financing of client's project, next refundment of the eligible costs from the EU grants. The bank wants to know if the client is able to repay the loan without getting EU grant contribution. This situation can occur also in the case of vital and high quality project.

Shortening of approval procedure

There is the great possibility of occurrence the time stress in the EU co financing process between the time for submitting the project and time of getting the necessary documentation from banks (approximately 4 -6 weeks) so it is important to shorten the banks approval procedure. In means it is necessary to shorten the time for performance all the activities defined in the approval procedure from acquisition to the realization of the transaction and signing the contract on condition that the quality of the procedure will be kept.

Contractual documentation

The signing of the loan contract is under the condition to submit to the bank the governing body confirmation about its amount of the contribution and the whole amount that is necessary to get by client.

Loan drawdown

The drawing of the loan is performed according to general procedures and after complying with the loan terms. The specific terms in euro financing are:

- To submit the contract with governing body about granting the financial contribution
- opening the separate accounts for contribution from EU and from state budget

Grant drawdown
The finance contribution will be paid by installments after client will approve the initiating the realization of the project and he starts to spend money. The first payment request has to be given within 4 months from the date of approving the grant. After this the grant is paid in installments, the client has to submit the realization report and grant payment application form supported by documents approving eligible costs (invoice). The application forms are checked by government body and submitted to financing institution – in order to do a payment.

Loan repayment
Loan is repaid:
- from clients own sources
- form EU grants
- from the State budget.

5. The cooperation of the governing body and bank in the Euro funds financing

The whole preparation, financing and realization process of the projects from the EU funds is build up on stages entered subsequently by client, bank, governing body or mediator and financing institution. The procedure is following:

Client who applies for the EU fund financing sources is obliged to document financial sufficiency for project realization to governing body. Besides own financial sources there are also sources from EU and from state budget. In case of insufficiency of own sources the client has to right to ask the bank for pre financing loan or co financing loan.
- Indicative statement of a bank agreement to co finance the project is a part of the financial grant application if the governing body asks for
- In case of project approval confirmation of the governing body is produced. This enables client to continue in the project realization (selection of suppliers by public procurement). At this stage bank should issue binding credit link.

- After public procurement procedure the client notice to governing body the results of the competition and the costs of the project. The governing body asses the costs of the project and decides about the high of eligible costs and defines the contribution amount to the project. That the confirmation about the high of contribution and the necessary high of own client sources is issued. According to this confirmation bank conclude the credit contract with client (also the pledge contracts).
- After submitting the credit contract to the governing body the contribution contract is signed. This contract is submitted to the bank, bank allows loan drawn (based on fulfillment of all loan drawn conditions).
- The process of the loan drawn and refundation:
    - ⇒ The client begins to draw the loan according to the terms and conditions in the credit contract crediting the suppliers account. He has to have documentation from his suppliers. The purpose of the credit has to be checked consistently. The bank noticek the governing body about the loan drawing and the amounts of draws.
    - ⇒ The client ask the governing body for a payment according to the contract for providing non-recurring financial contribution
    - ⇒ The governing body checks the eligible costs and after costs aproval submits the application to financing institution
    - ⇒ The financing institution performs preliminary financial check of the client payment application, and after application approval by this institution, the money are transfer to special bank account of the client.
- The project financing procedure is as follows:
    - ⇒ Firstly client has to invest his own financial sources, that can get by credit
    - ⇒ Then the state budget financial sources are drawn
    - ⇒ Finally the EU fund financing
- The close cooperation of the bank with governing body, financial institution and client is in the EU fund co financing process inevitable.

6. Conclusion

In the recent years the bank system begins to consider environment protection need as the part of co financing process. The most popular arrangements in environmental protection are use of the environmental management systems (EMAS). The exploitation of the EU fund financial sources expects the close cooperation of the banks and:
- Investors – the money recipient,
- Governing body,
- financing institution.

In this process the bank accompanied the client in all stages: during the preparation, realization and financing of the project. The scope of the services provided involves the expert advisory, preparation of the project, working out the model of project financing, producing the documents about co financing ability, binding credit link. The selection and adjustments to the client needs can differ in individual banks, according to individual needs and bank abilities.

Unsolved problem in the structural and cohesion fund financing procedure is the issue of the pledge. The solution of this problem in the SR is advantageous for the banks.

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