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*The international financial events of the second half of the 90<sup>s</sup> has provoked reflections and analysis within the international community on ways to strengthen the international financial system in order to achieve financial soundness. International organizations, national authorities, and the private sector, in collaboration with IMF has been working on a series of initiatives intended to contribute to a more stable and efficient financial system, and toward better preparedness to address future systemic problems. This paper want to emphasize actual stage of macro and micro-prudential indicators, needed so much in actual circumstance, when economies (banking-financial system, markets, public finance) are integrated and globalised. The role of NBR and actual stage of Romanian financial system soundness are also taken into discussion*

*Keywords: financial system, financial stability, system soundness, macro-prudential indicators, NBR'role.*

*JEL Code: G10, G20*

**European Economic Integration – Benefits and Challenges**

The single market, the euro and the accompanying measures of financial integration can be viewed as a series of steps in the transition from completely segmented national markets toward a single European financial market. It is considered that European Integration has a wide area of effects, who implies important changes in political, social and economic environment. The result of Euro integration on member states can be summarized as follows: effects on members states (regarding general policy of member nations and their self-governing, consequences on market, economic policy, state of regions and currency stability), effects on citizens (outcomes on human resources, labor, consumption, prices), effects on enterprises, tourism and so on<sup>130</sup>.

A survey of economic literature suggests that financial impact of integration – that implies a single euro currency – affects financial systems of integrated countries (*banking systems, public finances, financial markets, financial institutions and financial services industry*) and also EU financial system, as a whole. European

Integration, in a financial approach, means, first of all, the introduction of a single European currency – euro. In fact, the world is different after 28 February 2002, since all national currencies in the euro area have definitely lost their legal tender status, which is now exclusively held by the euro. The introduction of the single currency marked the end of monetary differences and nowadays, the Single European Market is free of obstacles to the movement of goods, services, people and capital. For the countries participating, EMU has eliminated nominal exchange rate volatility and associated costs of exchanging different currencies within the euro area. This avoids a misallocation of resources, and hence fosters growth. The single currency makes prices across the euro area directly comparable, which increases competitive pressures and hence efficiency and growth. As a conclusion, Liebscher, K, Governor of Oesterreichische Nationalbank suggested “*Further benefits result from the reduction of risk premia built into real interest rates and from the elimination of premia resulting from less liquid markets. Thus, the*

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130 Brezeanu, P., Poantă, D. – Organisme financiare internaționale, Editura Lumina Lex, București, 2003, p.p. 232-244 and Brezeanu, .P. – Finanțe europene, Editura C.H. Beck, București, 2007, p. p. 13-27

*successful introduction of the euro and the price-stability oriented single monetary policy of the Eurosystem carry a number of benefits”<sup>131</sup>.*

### ***Euro and a single currency market – stabilizing factors and catalysts of financial integration***

The stabilizing effects of the euro is related to its role of providing an anchor in the exchange rate regimes of not only EU accession countries but, all in all, about 50 countries within the gravity zone of the euro area. The euro contributes towards more stability in the international financial system by providing price stability, fiscal stability and financial stability.

As to price stability, it is a fact that since the beginning of EMU, the euro-area has achieved low inflation and expectations thereof and thus interest rates have been low.

Given the size and the economic influence of the single currency area in Europe, the stability-oriented institutional framework of EMU and the growing integration of the financial markets of the participant countries, the euro stands every chance of becoming a currency of global importance. In fact, the euro rapidly established itself as one of the leading investment, trading and issuing currencies. So, the euro has become a catalyst for change in the integration of the up to then largely fragmented European financial markets. Capital can be allocated more efficiently, euro area financial markets have gained significantly in size and depth.

The implementation of monetary policy in the euro area has proved highly efficient in fostering financial (market) stability. The Eurosystem has successfully introduced a market-oriented, modern and flexible operational framework. The **money market** has clearly benefited from this in its refinancing operations. *Short-term interest rates* have totally converged and the money market within the euro area has become fully integrated. In the **bond market** the euro play a crucial role in fostering a deeper and more liquid market. The introduction of the euro paved the way for issuers to access a broader base of investors. Investors too have gained access to a wider spectrum of investment opportunities.

*The euro has become the second most widely used currency as a result of the overall weight of the euro area economy in the world<sup>132</sup>.*

In the perspective of challenges, the most important one to achieve economic and monetary integration of the candidate countries in a successful way. There, the Union and the Eurosystem will have to proceed in three steps. In a first step, the candidates will accede to the European Union, then they will participate in the ERM II, the exchange rate mechanism of the Union, and finally, they will introduce the euro as their national currency. In another perspective, challenges of extending and solidifying the benefits of the euro are to be resolved. Also, regarding segments of the financial market, there is the problem of short-term securities markets or repo markets denominated in euro, who are still insufficiently integrated. Similar to other areas of the EU, several obstacles have to be removed to end those fragmentations, such as: heterogeneous national infrastructures of the market, different regulatory and legal regimes or varying market practices still impede full financial integration

*From an institutional point of view*, the current state of European financial integration is still not completed. The advent of the single currency and the accompanying measures of integration do constitute a lowering of the effective barriers to free investing across the euro area. However, significant barriers to a truly unified financial market continue to exist and progress often appears to be painfully slow. From a theoretical angle, EMU has often been deemed a minor event for equity markets, as currency risk was not found to be a major component of equity returns.

*In a public debt markets and risk free rates perspective*, in which a single risk free rate is the characteristic of a truly integrated financial area, suggests that major progress has been made.

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131 Liebscher, K. - EMU and the integration of financial markets in the EU – New Challenges Ahead, speech on 12th European Pensions Conference, [http://www.oenb.at/en/presse\\_pub/reden/re\\_20020415\\_emu\\_and\\_the\\_integration\\_of\\_financial\\_markets.jsp](http://www.oenb.at/en/presse_pub/reden/re_20020415_emu_and_the_integration_of_financial_markets.jsp).

132 *ibid*.

The disappearance of currency risk has eliminated the major discrepancy between bonds issued by governments with identical credit rating in the euro-area. And with identical inflation rates resulting from a single monetary policy, the fundamentals of the participating countries government bonds have fully converged. The same approximate risk-free asset is thus available to all euro-area residents. The low inflation level targeted and delivered by the ECB moreover implies that the approximation is fairly close. Finally, the Maastricht Treaty and attending restrictions on fiscal policies signal the intention to push the convergence even further, at the level of credit risk. Thus in terms of the fundamentals of government securities and the availability of an unambiguously defined risk-free asset, the euro is indeed a break point<sup>133</sup>. *Regarding the equity markets*, the fundamentals underlying that equities have been affected in a more settle way. With a single monetary policy, closely aligned interest rates, and fiscal policies subject to a common discipline. the macroeconomic influences on company profits are clearly converging.

### **Financial system soundness – economic literature survey and indicators**

#### ***Financial system soundness – narrow economic literature survey***

Over the years, scholars have developed a variety of economic theories to explain soundness in financial system and markets. Earlier researchers focused on movements in economic fundamentals as the origin of financial distress and crisis, while recent studies have highlighted the role of the information available to, and the expectations of, investors in explaining the behavior of financial markets. The classic explanation for financial fragility is given by I. Fisher in 1933<sup>134</sup>. He argues that weakness of financial system is closely related with macroeconomic cycles, and debt liquidation. According to the author, financial fragility is largely based on deterioration in economic factors.

Other theories highlight factors affecting depositor confidence. discuss the potential existence of multiple equilibriums in financial markets<sup>135</sup>. Banks offer a mechanism of maturity transformation whereby deposits are often lent with longer maturities. It is possible that the “good” equilibrium prevailing in normal times is not the only equilibrium, and that the banking sector finds itself in a “bank run” equilibrium<sup>136</sup>.

Some studies focus on information issues<sup>137</sup>, that stresses that information asymmetries between creditors and borrowers result in an adverse selection problem. Other authors extend the argument on asymmetric information to the possible practice of credit rationing. In the presence of uncertainty about the true return on investment, there may be a discrepancy between return expectations on the part of creditor and borrower. When the creditor’s expected return on a project is less than the return on his alternative use of funds, the borrower may be rationed.

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133 Adjaoute, K., Danthine, J.P. - European Financial Integration and Equity Returns: A Theory-Based Assessment, FAME Research Paper No. 84, January 2003, p. p. 2-5.

134 see Fischer, I. – The Debt deflation theory of Great Depression, *Econometrica*, 1933 p.p. 337-342, <http://fraser.stlouisfed.org/docs/meltzer/fisdeb33.pdf>

135 see Green, J., Lin, P. - Diamond and Dybvig’s Classic Theory of Financial Intermediation:What’s Missing, Federal Reserve Bank of Minneapolis Quarterly Review, Vol. 24, No. 1, Winter 2000, pp. 3–13, <https://www.minneapolisfed.org/research/QR/QR2411.pdf>

136 Evans, O., Leone, A., Gill, M., Hilbers, P. (coordinators) - Macprudential Indicators of Financial System Soundness, IMF Occasional Papers, Washington DC, 2000, p. p. 13-14

137 see also Mishkin, F. S. - Understanding Financial Crises: A Developing Country Perspective, NBER Working Paper No. 5600, 1996, (Cambridge, Massachusetts: National Bureau of Economic Research), <http://ideas.repec.org/p/nbr/nberwo/5600.html>.

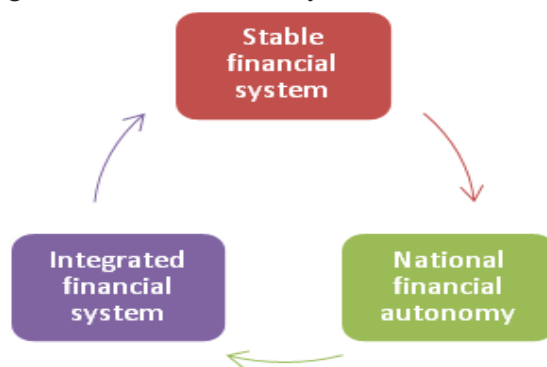
Their argument suggests that credit rationing increases with the level of uncertainty, and thus of financial vulnerability<sup>138</sup>.

There is also large literature studies related to the efficiency and financial system soundness when approaching financing system types. Financial systems are often described either as bank-based, universal, and relational or as market-based, specialized, and arms-length; and for many years academics and policymakers have debated the relative merits of these different types of systems<sup>139</sup>.

**Financial stability**

Financial stability is approached related to financial stability trilemma<sup>140</sup>, that states (1) a stable financial system, (2) an integrated financial system and (3) national financial autonomy are incompatible. Any two of the three objectives can be combined but not all three; one has to give. Figure 1 illustrates the financial stability trilemma. While this trilemma could be analyzed at the global level, it also operate associated with the financial system in the European Union. An overview of the general working of the trilemma in an international environment. As international economic integration progresses, the policy domain of nation states has to be exercised over a much narrower domain and global federalism will increase (e.g. in the area of trade policy). The alternative is to keep the nation state fully alive at the expense of further integration.(see Figure 1)

Figure 1 – Financial stability trillema



Source: Schoenmaker, D. - *The Trilemma of Financial Stability*, VU University Amsterdam, 2009, p. 1

The figure explain the classical trilemma in economics relates to monetary policy, that states (1) a fixed exchange rate, (2) capital mobility and (3) and national independence in monetary policy cannot be achieved at the same time. Central banks combine the tasks of monetary stability and financial stability. It is fair to say that central bank practices, as well as the academic literature, on monetary stability is far more advanced than those on financial stability. The central bank practice of inflation targeting is supported by well-developed forecasting models. In the literature, the monetary policy trilemma is built on the Mundell-Fleming model<sup>141</sup> of an open economy under capital mobility. In Europe, the monetary trilemma is resolved with the establishment of a supranational institution, the European Central Bank (ECB), in 1998. Even a

138 Guttentag, J., Herring, R. - Credit Rationing and Financial Disorder, *Journal of Finance*, Vol. 39 (December), p.p. 59–82, <http://ideas.repec.org/a/bla/jfinan/v39y1984i5p1359-82.html>.

139 see Allen, F., D. Gale – *Comparing Financial Systems*, MIT Press, Massachusetts, 2000.

140 Schoenmaker, D. - *The Trilemma of Financial Stability*, VU University Amsterdam, 2009, p. p. 1-4, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1340395](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1340395)

141 for Mundell-Fleming model, based on IS-LM framework see [http://www.swan.ac.uk/economics/cware/ec312/The%20Mundell-Fleming%20Model%20\(Topic%201\).pdf](http://www.swan.ac.uk/economics/cware/ec312/The%20Mundell-Fleming%20Model%20(Topic%201).pdf)

strong form of coordination of national policies within the Exchange Rate Mechanism (ERM) appeared to be insufficient to keep exchange rates fixed<sup>142</sup>.

**Indicators for determining financial system soundness**

The international financial disorder of the second half of the 1990s has provoked much reflection and analysis within the international community on ways to strengthen the international financial system. Together with other international organizations, national authorities, and the private sector, the IMF has been working on a series of initiatives intended to contribute to a more stable and efficient financial system, and toward better preparedness to address future systemic problems<sup>143</sup>. Among these initiatives are the ongoing efforts to develop and use macroprudential indicators-defined broadly as indicators of the health and stability of financial systems<sup>144</sup> (Table 1).

Aggregated microprudential indicators	Macroeconomic indicators
<b>I. Capital adequacy</b>	<b>Economic growth</b>
Aggregate capital ratios	Aggregate growth rates
Frequency distribution of capital ratios	Sectoral slumps
<b>II Asset quality</b>	<b>Balance of payments</b>
<b>II.1. Lending institution</b>	Current account deficit
Sectoral credit concentration	Foreign exchange reserve adequacy
Foreign-currency-denominated lending	External debt (including maturity structure)
Nonperforming loans and provisions	Terms of trade
Loans to public sector entities	Composition and maturity of capital flows
Risk profile of assets	<b>Inflation</b>
Connected lending	Volatility in inflation
Leverage ratios	<b>Interest and exchange rates</b>
<b>Borrowing entity</b>	Volatility in interest and exchange rates
Debt-equity ratios	Level of domestic real interest rates
Corporate profitability	Exchange rate sustainability
Other indicators of corporate conditions	Exchange rate guarantees
Household indebtedness	<b>Lending and asset price booms</b>
<b>Management soundness</b>	Lending booms
Expense ratios	Asset price booms
Earnings per employee	<b>Contagion effects</b>
Growth in number of financial institutions	Financial market correlation
<b>Earnings and profitability</b>	Trade spillovers
Return on assets	<b>Other factors</b>
Return on equity	Directed lending and investment
Income and expense ratios	Government recourse to banking system
Structural profitability Indicators	Arrears in the economy
<b>Liquidity</b>	
Central bank credit to financial institutions	
Deposits in relation to monetary aggregates	
Segmentation of interbank rates	
Loan-to-deposit ratios	
Maturity structure of assets and liabilities	
Measures of secondary market liquidity	
<b>Sensitivity to market risk</b>	
Foreign exchange risk	
Interest rate risk	
Equity price risk	
Commodity price risk	
<b>Market-based indicators</b>	
Market prices of financial instruments	
Indicators of excess yields	
Credit ratings	
Sovereign yield spreads	

Source: Evans, O., Leone, A., Gill, M., Hilbers, P. (coordinators) - *Macroprudential Indicators of Financial System Soundness*, IMF Occasional Papers, Washington DC, 2000, p. 9

142 *ibid.*

143 see also Fischer S. – Central banking – The Challenges Ahead, <http://www.worldbank.org/fandd/english/0397/articles/010397.htm>

144 see also Hilbers, P. Krueger, R., Moretti, M. - New Tools for Assessing Financial System Soundness,



Related to *financial system stability*, it is considered that the concept has neither a clear definition nor a model or a standardized assessment framework. Financial stability is perceivable where no systemic crisis occurs. However, a *financial system is considered stable while being capable to efficiently allot resources (spatially and temporally), to adequately manage risks and to self-correcting when affected by external shocks, or being able to perform the intermediation function that give support to economic performances and absorb shocks to adjust imbalances generated by adverse market developments*<sup>145</sup>.

#### **Romanian financial system stability in European Integration framework**

The Romanian financial system' developments through past years requested the co-operation among the authorities in charge of licensing, regulating, supervising and controlling the component markets of the financial system in order to ensure the transparency, stability and integrity of the whole system, the compliance with the applicable legal framework, as well as the expansion of the national financial stability framework. The EU requirements on financial crisis management ask for an agreement of co-operation between all national financial supervisors, central bank and finance ministry.

The National Bank of Romania has an important role in maintaining financial stability, attributable to its capacity to act as a monetary and supervisory authority. These objectives are served while performing its regulatory and supervisory functions, the conduct and efficient transmission of the monetary policy, as well as, while overseeing the smooth functioning of the systemically important payment and settlement systems. Risks and vulnerabilities identifying and assessing is an ongoing process for the financial system as a whole and its component parts, because the financial stability monitoring has a preventive scope<sup>146</sup>. The major goal of the domestic standing group would be to ensure the exchange of information between the authorities, as well as to prevent, appraise and manage possible difficulties having a systemic impact. In order to achieve these requirements, *the Ministry of Finance, the National Bank of Romania, the National Securities Commission, the Insurance Supervisory Commission and the Private Pension Scheme Supervisory Commission* established the National Committee for Financial Stability.

The Committee consists of the following members: the Minister of Public Finance, the Governor of the National Bank of Romania, the President of the National Securities Commission, the President of the Insurance Supervisory Commission and the Chairman of the Private Pension Scheme Supervisory Commission.

Some challenges are still to be confronted. These future actions are related to adoption of Euro currency, Basel II execution, accession to EMU II, or implementation of macro-prudential indicators.

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145 <http://www.bnr.ro/Financial-Stability-3273.aspx>

146 see NBR's Role, <http://www.bnr.ro/NBR's-role-3275.aspx>

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