

FINANCIAL STABILITY AND DEVELOPMENT OF CAPITAL MARKETS

George Horia Ionescu and
Ruxandra Dana Vilag*

Abstract

Liquidity crisis emerged in the U.S. market had a significant impact on the European financial markets. To restore confidence in the financial system, authorities took measures to reduce systemic risk and limit the impact on the economy. These measures were aimed at monetary stimulus, fiscal, liquidity injections by Central Banks and direct action to support systemically important institutions. Also, the Basel Committee adopted in September 2010 new standard relating to capital and liquidity requirements will require financial institutions from 1 January 2013, as Basel III. Financial integration in Europe is of particular importance since both economic theory and empirical results show that integration and financial development contributes to economic growth by eliminating barriers to the transfer of capital between countries in a more efficient allocation of it. These benefits to financial stability complement the critical role that capital markets play in efficient resource allocation and in reducing over-reliance on the banking sector for the mobilization of savings and financial intermediation. Regulators are often faced with the perennial question of whether and how they should intervene to manage irrational exuberance and panic in the market.

Keywords: financial stability, capital market, financial integration, financial crisis,

JEL Classification: G01, G15, E44

1. Introduction

Financial stability is a broad concept which considers different aspects of the financial system - infrastructure, institutions and markets. The term encompasses both the financial system and monetary system processes, structures and principles of private financial institutions. Given the financial system functions, we can say that it is stable when it is able to efficiently allocate resources, assess, measure, allocate and manage financial risks and to self-correctly when is affected by external shocks. We believe that

* George Horia Ionescu is Professor of Finance at the Romanian-American University, Bucharest. E-mail address: george.ionescu@profesor.rau.ro
Ruxandra Dana Vilag is Assistant Professor of Finance at the Romanian-American University, Bucharest. E-mail address: vilag.ruxandra.dana@profesor.rau.ro

the financial system is stable when it is able to facilitate the performance of an economy and the imbalances that occur as a result of significant shocks.

Safeguarding financial stability requires the identification of the main sources of risk and vulnerability: inefficiencies in the allocation of financial resources from the investors as equity holders and errors in financial risk management. Monitoring sources of risk must be proactive as they can compromise the future financial stability and therefore economic stability. The role of institutions in the financial system is the link between those who have money and those who need them, which involves the transfer and the management of risk. These risks arise due to differences in maturity, the need for short-term liquidity appears while assets have a maturity term and may be less liquid.

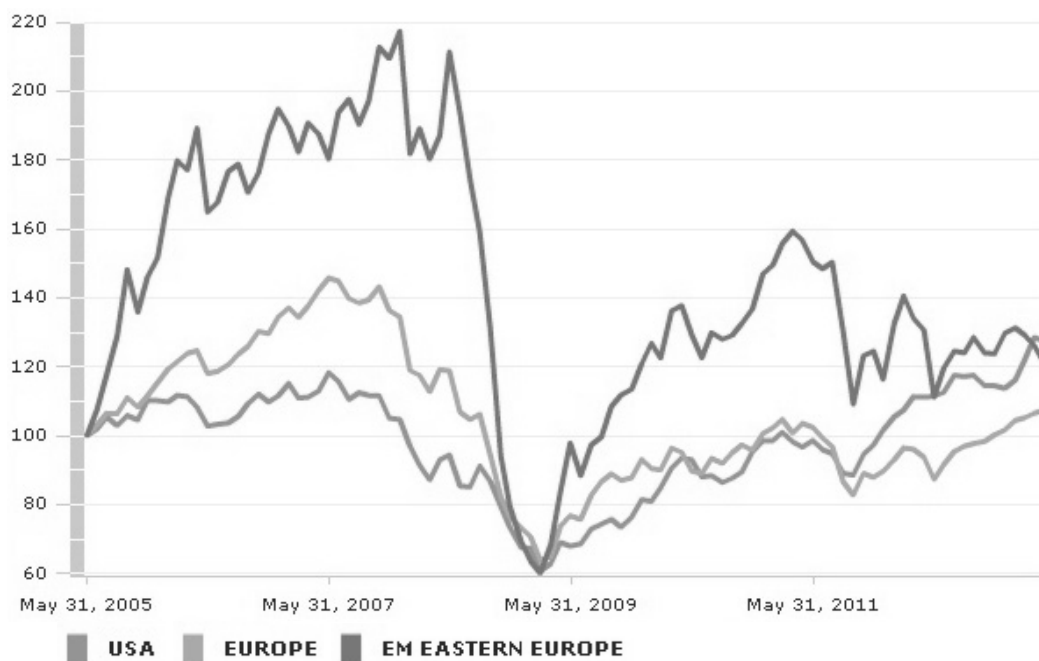
The accumulated losses due to mortgage devaluation in the United States financial system has started the financial crisis. Developing and increasing the number of transactions with more complex structured instruments, without a proper understanding of the risks and without the implementation of appropriate management methods, the lack of transparency of these products and underdeveloped regulatory framework led to the rapid expansion of crisis at global level. Financial institutions reduced their risk appetite and increased demand for liquid assets. Due to the uncertainty and lack of confidence created strong market assets have suffered impairment in value, which resulted in a loss of liquidity in the market. Participants were hesitant to trade in the market which has led to increased financial insecurity.

Registered economic boom until 2007 was due to growth and stable financial conditions. Recorded historically low real interest rates and abundant liquidity led to increased risk borrowers, investors and brokers were willing to accept. All this led to an increase in the financial system to provide credit and generate profits but exceeded capacity to manage risks.

Since 2003 has begun a global decline in risk premia, volatility and low expectations of strong growth in revenue bonds generated by loans - structured products that were given top marks by major international rating agencies. Credit default swap market growth and market related indicators made that credit risk be avoided more easily traded and, thereby supporting increased liquidity attracted to these credit instruments. Easy credit, asset price increases and consumer confidence have contributed to a significant decline in the number of companies that have gone into default, which has led to strong growth across the economy. Increased demand for assets with high profitability, easing standards and conditions for granting loans, regardless of the degree of risk that they had sold products and practices eroding important segments of the financial market has increased the concentration exposures innovative products with large expected yields but whose function was poorly understood by the market.

Driven by consistent incentives to attract new loans, without taking into account the quality of assets, the banks and other financial institutions have boosted funding by removing risky assets off balance sheet and developing innovative financial instruments with high ratings they had in turn as collateral mortgage-backed bonds. Credit risk transfer through securitization has increased bank balance sheets are marked to market. Due to insufficient or enabling regulations, these institutions have functioned without sufficient capital reserves, with significant liquidity and maturity, investing in assets without understanding their structure. Both banks and credit rating agencies had judged wrongly liquidity and concentration risks that can be caused by a general deterioration in economic conditions.

Fig. no. 1 - MSCI USA, EU and Eastern Europe Indices 2005 – 2013



Source: *www.msci.com*

Calvo and Mendoza (1999) argue that globalization can cause contagion through incentives such as the cost of collecting information and imitating arbitrary market portfolios. In the presence of short-selling boundaries, the yield of assembling information at a fixed cost may diminish with market increase. Moreover, if the marginal cost of a portfolio manager in case of a decline in market return exceeds the marginal gain of achieving above market returns, there

will be a variety of optimal portfolios in which all investors imitate arbitrary market portfolios and their number will increase with market widening. Numerical simulations suggest that these frictions can have significant implications over capital flows of emerging markets.

Their analysis shows that informational frictions themselves can't produce contagion. The existence of contagion assumes that this friction can be combined with certain institutional and regulatory features of financial markets. For fixed information costs, the gain given by the acquisition of costly information drops as the market grows if investors face short sale constraints. For variable costs, an area of multiple optimal portfolios contagion exists only if the incentives are such that the marginal cost of loss exceeds market marginal gains. In this context, policies that otherwise may seem useful instruments to limit volatility of capital flows, may actually contribute to exacerbating the problem. Therefore the role of investors' decisions in determining contagion is very important.

The liquidity crisis in the U.S. market had a significant impact on the European financial markets. Political interventions, which have facilitated access to liquidity to limit systemic risk, have failed to solve the problems of banks accessing funds. Most of the multinational banks were involved in transactions with toxic assets and had to support their liquidity refusing to provide liquidity to other institutions. This led to a contraction of the interbank market and a substantial increase in the risk premium, especially in the United States and Europe.

Easing of monetary policy by central banks has not proven effective through strong depreciation of asset prices and increase in credit spreads applied. Financial institutions have tried to reduce their risks so have reduced the volume of loans. Central banks have tightened regulations on lending conditions. To prevent systemic risk central banks and governments have intervened with important financial resources.

All these measures have failed to calm the markets and increase investor confidence. Capital markets indexes, loan spreads increased and capital markets in emerging countries continued to have a negative trend. Market participants have reviewed counterparty risk being forced to close, compensate and to restore positions or large losses. The market is awaiting further bankruptcies and many banks were forced to recapitalize, particularly as a result of the new requirements imposed by regulators.

Table no. 2 – Largest global rated defaulters by year

Year defaulted	Issuer	Amount (mil. \$)
1991	Columbia Gas System	2,292
1992	Macy (R.H.) & Co.	1,396
1993	Mesa, Inc.	600
1994	Confederation Life Insurance	2,415
1995	Grand Union Co./Grand Union Capital	2,163
1996	Tiphook Finance	700
1997	Flagstar Corp.	1,021
1998	Service Merchandise Co.	1,326
1999	Integrated Health Services Inc.	3,394
2000	Owens Corning	3,299
2001	Enron Corp.	10,779
2002	WorldCom Inc.	30,000
2003	Parmalat Finanziaria SpA	7,177
2004	RCN Corp.	1,800
2005	Calpine Corp.	9,559
2006	Pliant Corp.	1,644
2007	Movie Gallery Inc.	1,225
2008	Lehman Brothers Holdings Inc.	144,426
2009	Ford Motor Co.	70,989
2010	Energy Future Holdings Corp.	47,648
2011	Texas Competitive Electric Holdings Co. LLC	32,460

Source: *Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®*

2. The banking crisis and default entry cycle

Volatility remained high on European markets putting pressure on sovereign debt. In addition to negative effects on banks' funding costs, higher spreads in interbank rates have powerful effects on how monetary policy transmission. A change in policy interest rates is transmitted through monetary and inter-banking interest rates, with influence on loans to households and non-financial companies and thus supporting domestic consumption and investment. Interconnections between monetary and credit markets have developed in the last two decades, increased the failures in financial markets, with adverse macroeconomic consequences.

In accordance with the Basel I terms, interbank deposits with maturity up to one year are risk weighted by a factor of 20 percent. Basel II uses rating agencies, as an external evaluation, to determine risk weights. While the minimum weight remains 20 percent, it can be higher for deposits with maturity over three months or deposits denominated in another currency. As a result, banks are encouraged to ensure exposures to counterparty banks or, if the loan is unsecured, to fall in maturities of three months or less. Lately interbank loans were granted for short periods of a week or less, mostly overnight. Most short-term bank financing from sources such as money market funds, debt securities portfolios reinvested foreign exchange reserves of the central bank. Despite extensive research in this field, changes recorded by asset prices remain difficult to explain. First, asset prices are following a downward trend and this is not to be made public in advance.

In the empirical literature, Karolyi and Stulz (1996) and Connolly and Wang (2003) find that macroeconomic indicators and other information of public interest, does not affect the "parallel movements" of the Japanese and American stock markets. King, Sentani and Wadhani (1994) find that the observable economic variables explain only a small part of the "parallel movements" of international capital markets.

Because of lack of evidence that macroeconomic fundamentals can serve as determinants of contagion, researchers have found alternative explanations. Models have been developed according to arbitration limits allow crises to spread through assets held by international investors. Kodres and Pritsker (2002) develop a theoretical model of financial contagion through rebalancing portfolio containing international assets. One implication of the model developed by them is that "parallel movements" of this indicators must be symmetrical in both upturns and downturns. Kyle and Xiong (2001), Calvo (1999) and Yuan (2005) argues that the effects of crisis spread between markets due to investors who are limited in terms of assets held, and that correlations between markets are higher during crisis periods. More Kyle and Xiong (2001) argue that when investors suffer a great loss because of investments held in the country in crisis, they may be forced to liquidate positions held in other countries and thereby bring stock prices to depreciate in these other countries. Moreover, Calvo (1999) and Yuan (2005) find that income effects persist even when only a small fraction of investors are limited in terms of wealth held as long as they are relatively better informed (they argue that rational uninformed investors are unable to distinguish between selling due to liquidity shocks and sales resulting from fundamental shocks). In the presence of informed investors, contagion is likely to result from uninformed investors becoming confused. Although theoretically these statements may convince us, there is little empirical evidence supporting the contagion induced by the investors.

Due to the explosive development of the economies of developed countries, the increase in developing countries was boosted further with revenues from exports, higher commodity prices and foreign direct investments. Economic growth in developed economies increased demand for exports, so exports of developing countries have accelerated growth. Meanwhile, commodity prices experienced a

significant increase. Emerging development was based on substantial capital investments in developed countries. Consequently, emerging economy achieved the highest growth rates in the period 2007-2008.

The rapid growth in the volume of capital invested has increased real estate prices to unrealistic levels in some emerging markets. Commodities prices increases recorded in the first phase, from 2002 to 2006 were offset by lower production costs. Cheap exports from these countries allowed the world economy to continue to achieve both high growth and moderate inflation.

The summer of 2007 triggered the crisis in high-risk mortgage market, driven by strong increases in credit defaults. Many „innovative” financial products, based on toxic assets, often proved to be more risky than initial assessments indicated. The collapse of the value of these assets generated a pressure on the balance sheets of many financial institutions, these important losses.

Table no. 3 - Global corporate default summary

Year	Total defaults*	Investment-grade defaults	Speculative-grade defaults	Default rate (%)	Investment-grade default rate (%)	Speculative-grade default rate (%)	Total debt outstanding (bil. \$)
1981	2	0	2	0.14	0.00	0.62	0.06
1982	18	2	15	1.19	0.18	4.41	0.90
1983	12	1	10	0.76	0.09	2.93	0.37
1984	14	2	12	0.91	0.17	3.26	0.36
1985	19	0	18	1.11	0.00	4.31	0.31
1986	34	2	30	1.72	0.15	5.66	0.46
1987	19	0	19	0.95	0.00	2.79	1.60
1988	32	0	29	1.39	0.00	3.84	3.30
1989	43	2	35	1.74	0.14	4.66	7.28
1990	70	2	56	2.74	0.14	8.09	21.15
1991	93	2	65	3.27	0.14	11.04	23.65
1992	39	0	32	1.50	0.00	6.08	5.40
1993	26	0	14	0.60	0.00	2.50	2.38
1994	21	1	15	0.62	0.05	2.10	2.30
1995	35	1	29	1.04	0.05	3.52	8.97
1996	20	0	16	0.51	0.00	1.80	2.65
1997	23	2	20	0.63	0.08	2.00	4.93
1998	56	4	48	1.27	0.14	3.65	11.27
1999	109	5	92	2.13	0.17	5.55	39.38
2000	136	7	109	2.45	0.24	6.14	43.28
2001	229	8	173	3.77	0.26	9.74	118.79
2002	225	13	158	3.54	0.41	9.32	190.92
2003	120	3	89	1.90	0.10	4.98	62.89
2004	56	1	39	0.79	0.03	2.05	20.66
2005	39	1	30	0.58	0.03	1.44	42.00
2006	29	0	25	0.45	0.00	1.13	7.13
2007	24	0	21	0.37	0.00	0.89	8.15
2008	126	14	88	1.74	0.41	3.56	429.63
2009	265	11	223	4.06	0.32	9.52	627.70
2010	81	0	63	1.15	0.00	2.82	97.48
2011	53	1	43	0.75	0.03	1.71	84.26

Source: *Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®*

Despite fewer financial and economic headlines than in the past four years, 2011 was still a year of unprecedented events in global credit markets, marked by sovereign downgrades, most notably the U.S. In 2011, 53 global corporate issuers defaulted, down from 81 defaults in 2010 and the record high of 265 in 2009 (Table no.2). One of the 53 defaulters began the year rated investment grade (MF Global Holdings Ltd.). The debt amount affected by these defaults fell to \$84.2 billion, from \$95.7 billion in 2010.

At the end of December 2011, the speculative-grade default rates fell to 1.98% in the U.S., 0.59% in the emerging markets, and 5.98% in an assorted grouping of other developed markets (including Australia, Canada, Japan, and New Zealand). In Europe, however, the default rate rose slightly at year-end 2011, to 1.6%. When including all rated entities, the global default rate declined to 0.75% in 2011 from 1.15% a year earlier¹.

After hitting an all-time high of 265 defaults in 2009, the count of defaulting companies fell off considerably in 2011, to 53. This includes publicly and confidentially rated entities as well as entities that were not rated at the time of default. Although distressed exchanges have remained popular over the last few years, missed principal or interest payments were responsible for the largest proportion of defaults in 2011, at 43% of the total. Distressed exchanges accounted for 23% of all defaults.

3. Conclusions

The development of deeper domestic capital markets can improve the economy's stability to absorb shocks and manage financial risks. These benefits to financial stability complement the critical role that capital markets play in efficient resource allocation and in reducing over-reliance on the banking sector for the mobilization of savings and financial intermediation. Diversified capital markets provide investors with alternative asset classes in times of financial stress. However, developing such markets is a long-term process that requires proper planning and commitment as well as appropriate prioritization and sequencing.

Capital markets in emerging markets and developing economies have become more interlinked within the local and global financial systems, but remain vulnerable to changes in investor sentiment and contagion effects. Compared to advanced economies, capital markets in emerging markets and developing economies are more shallow and susceptible to sudden price movements and greater disruption that may undermine confidence in their integrity. Liquidity in those markets can erode quickly, causing panic sales and contagion effects resulting in disorderly markets and financial instability, as evidenced by a number of crises affecting these economies in the past two decades².

¹ 2012 *Annual Global Corporate Default Study And Rating Transitions*, Standard & Poor's, 2012

² *Causes, effects and regulatory implications of financial and economic turbulence in emerging markets*, Emerging Markets Committee, IOSCO, 1999

In many emerging markets and developing economies, there is a lack of a sufficiently diverse and deep pool of investors that can act as a source of stability in times of crisis. The efficiency of the intermediation process in capital markets is highly dependent on the investor base, which should have a combination of domestic retail and institutional investors as well as foreign investors. In most emerging markets and developing economies, there is rarely a balance across those three categories of investors and, as a consequence, capital markets become vulnerable to the behavior of the dominant class of investors. For example, in times of capital flight by foreign investors (as a result of an exogenous event) and in some cases by domestic retail investors (as a result of major changes in market sentiment), the presence of strong domestic institutional investors with a predominantly domestic investment mandate can play a key role in acting as a “buffer” against severe price declines³.

Regulators are often faced with the perennial question of whether and how they should intervene to manage irrational exuberance and panic in the market. While there are arguments for and against the imposition of market intervention measures, often a judgment call by the market authorities is required, and this may involve significant reputational risk. Regulators need to consider the introduction of various robust intervention tools (e.g., market-wide circuit breakers, trading halts, price limits, etc.) as a means of providing market participants an opportunity to pause and assess market conditions during significant market declines. However, such market intervention measures should have clear rules and parameters. This is particularly important for discretionary market interventions, especially market closures, which may have the most severe impact and reputational damage on emerging markets and developing economies markets. This will also ensure that markets are not indiscriminately closed under political or stakeholder pressures. It is crucial to apply such measures consistently across all exchanges and/or markets to prevent regulatory arbitrage. For example, a survey⁴ of emerging markets and developing economies shows less than half the markets halt trading in derivatives when the underlying stock is halted. It is critical therefore for regulators to ensure that rules on interventions aimed to ensure the stability and integrity of markets are consistent across all exchanges and/or markets.

In terms of the extent and forms of interventions, the regulatory philosophy and the state of development of the individual markets are important considerations that require careful evaluation. Some markets which operate under a free market philosophy lean towards a framework with minimal intervention in order to keep trading continuous at all times. On the other hand, other markets, including a number of emerging markets, have regulatory frameworks that tend to be more protectionist in nature, where a basket of intervention measures are in place to protect the markets from extreme market volatility and severe market disruption.

³ *Financial Stability Issues in Emerging Market and Developing Economies*, Financial Stability Board and International Monetary Fund and World Bank, 2011

⁴ *Effectiveness of Market Interventions in Emerging Markets*, Emerging Markets Committee, IOSCO, 2010

This includes interventions which are automatic and are based on pre-determined set of parameters (e.g. price limits and circuit breakers), as well as discretionary interventions that depend on the judgment of the authorities (e.g. trading halts and market closure).

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