STOCK EXCHANGE MARKETS INTEGRATION – A CAUSE OF QUASI-SIMULTANEOUS TRANSMISSION OF FINANCIAL CRISIS

Sabău-Popa Claudia Diana
University Oradea, Faculty of Economic Sciences Oradea, str. Universităţii no. 1, 0741206643, dpopa@uoradea.ro

Financial mondialization designate the enlargement movement and the opening of capital markets at a global level which began at the beginning of the ´70s. Because of the capital markets integration, the economies are more and more exposed to the common impacts which have as result the global dimension crises. Several examples confirm the quasi-simultaneous reaction of all stock exchange markets during the crisis period. Even if the markets have lost of their materiality, there still remain major financial centers and their integration appears, first of all, through the simultaneous evolution of stock exchange indexes. This synchronization reflects the high interdependence of the economies, both during the crises period and during the calm periods.

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The evolution of stock exchange indexes of the main capital markets (Frankfurt, London, New York, Paris and Tokyo) represents one of the best way of illustration of financial mondialization, the increase and decrease phases coinciding almost perfectly.
Other indexes also show a quick consolidation of the interdependence between the national stock exchanges. The markets liberalization and the new technologies of information and communication have very much favoured the integration of stock exchange markets. Instead, the consequences of these integrations raise some questions whose answers are less peremptory. The enlargement and the opening of the markets supported the competition between the stock exchange markets, some stock exchange markets melting in order to maintain their dominatory position[338].
Two factors have played a major role in the powerful integration of the international stock exchange markets since the beginning of the ´80s: the change of the financial area and the development of the new technology of information and communication.
The change of the financial area, which began in the ´70s in the Anglo-Saxon countries, may be described briefly by the formula of ″3D-s phenomenon″[339], that is, disintermediation, deregulation and discompartmenting . The evolution of financial systems was actually marked by a strong development of the stock exchange markets, a liberalization of them and a wide opening which even though didn´t eliminate all the barriers.
The enlargement of the new technologies of information and communication also permitted a strong lower of the transaction costs and facilitated the title exchanges at international level and the portofolios diversification. At the same time, the developement of the international investors and their implication at a higher level in portofolio investments abroad, desiring the diversification of the placements lead to the increase of capital markets integration. In 1970, the foreign actives owned by the residents of the USA represented about 6% of the U.S. capital stock, and the non-residents had 4% of this stock. In 2006, these figures were of 44%, respectively 56%.

338 Gunther Capelle-Blancard & Jézabel Couppey- Soubeyran L′intégration des marchés boursiers ,Questions internationales no34 November-December 2008, La Documentation Française, p. 43
339 The formula belongs to Henri Bourguinat.

The most visible example of the stock exchange integration is the fusion from 2000 between the Stock Exchanges from Amsterdam, Bruxelles and Paris, in view of the creation of the first paneuropean stock exchange: Euronext, and it was for the first time in the world that three stock exchanges from different countries merged. Then, in 2001, this merged with the Portuguese stock exchange and the main market of derived products from London (LIFFE). In 2007, Euronext merged with New York Stock Exchange, forming NYSE-Euronext, the first world stock exchange group. The new society named NYSE Euronext is a holding society with American right, having its American headquarter in New York and its European headquarter both in Paris and Amsterdam, London representing the center for the activities on the financial derivatives markets.

NYSE – Euronext is a stock exchange capitalization of about 20 billion USD (15 billion euro) and the value of all societies coted to the new platform is about 27.000 billion USD (21.000 billion euro). Each part directly implied: operators, coted societies and investors benefit by this fusion:

-The operators have the advantage of using a completely integrated system of negociation and liquidation, modern and reliable;

-The investors benefit by an increase of liquidities and transparency, a unique regulating framework, the cotation in one currency on several markets, the decrease of transaction costs;

-The societies coted on the new markets have as advantage the unification of the regulations, the increase of the potential investors, the increase of liquidities and the reduction of capital costs.

Another example of stock exchange markets integration is Eurex, created in 1998 by the association of Deutsche Termin Borse with Swiss Options and Financial Futures Exchange. Benefiting from a negociation platform and electronic liquidation, conceived as an integrated system, Eurex offers to its participants operative, qualitative and low transaction costs services. In December 2007, Eurex took over International Securities Exchange, too. Nowadays, Eurex is the world leader on the financial derivatives market, creating a world decentralized market and managing to offer a set of products, standard, different, liquid and available at an international level, the volume of transactions exceeding 1,5 billion contracts per year.

The introduction of the unique currency, Euro, was considered as a factor of accelaration of the paneuropean capital market creation. If the introduction of the euro currency acts as a stimulus in the consolidation of the paneuropean bank system, it doesn´t favour in the same way the integration of different capital markets, more precisely the market shares. Actually, the European stock exchange area is dominated by traditional factors, often national factors. The impulse to integrate the Eurpean stock exchange market seems to be given by the bond market. The fact that the bond markets integration on European scale is more advanced than that of the market shares is due to the fact that the market shares don´t belong to the regulated stock exchange markets, but to the *over the counter* markets.

Despite the associations between the realized stock exchanges, of the registered progress regarding the integration of the bond market and techincal infrastructure, a certain fragmentation provoking inefficiency, marks a paradoxe of the European stock exchange system: the fragmentation in 15 different European market shares contrasts with the international dimension of European groups of industry and services, having as consequence much higher transaction costs in Europe. This situation is strongly in opposition with that from the USA where there are two dominant stock exchanges, in well separated areas: NYSE for the mature enterprises and NASDAQ for the increasing enterprises.

So we are still far from the stock exchange market, globally unified, functioning 24 hours a day on the five continents.

There are several indexes to measure the degree of integration of stock exchange markets. One can measure the degree of integration of the markets, testing the reaction of the markets by the news broadcast, the existence of the relations between the earning performances on long term, the coincidences of extreme events, etc. But the most simple method consists of the analysis of the correlation between the stock exchange earning performances. In the ´70s, the correlation between France, Great Britain and USA was between 40% and 50% and it was inferior to that with Japan, of 30%. Since then, it didn´t stop increasing[340]. In the present, the correlation between Germany, France, Great Britain and USA is of 80%, and the correlation with Japan reached 50%. These datas can be interpreted in the following way: in the ´70s, in case the New York Stock Exchange closed the month with increase, there were chances of about 50% that the Paris Stock Exchange close also the month with increase.

Beside the advantages regarding the lower of transaction costs, a greater diversification of the portfolios and a more optimal repartition of risks, the integration of stock exchange markets increased the fear of the contagion phenomenon.

In October 1929, the United States of America experienced one of the most serious stock exchange crisis from history. Between October 24 and November 13, New York Stock Exchange Market loses 40% of its value. At the same time, in October 1929, Paris Stock Exchange registers a lower of about 4%, then it loses again 3% in November and December. This fact is certainly important, but yet we are far from the panic appeared on the Wall Street. Actually, France didn´t suffer because of the crisis, but since the beginning of the second semester in 1930, six months after the beginning of New York Stock Exchange Market´s collapse.

In October 1987, the Dow Jones index loses almost 23% of its value, in October 19. All the stock exchange markets from the world collapse that day: the stock exchange indexes decreased with 20% in France and Canada, with 25% in Great Britain, with 40% in Australia and Hong Kong. Of course, the consequences were very different from those in 1929, especially due to the intervention of monetary authorities in order to avoid that stock exchange panic unleash a bank crisis.

The rapidity of the crisis transmission is hence a new phenomenon: while several months were necessary for the spread in the entire world of the financial crisis from 1929, in 1987, all the markets have immediately reacted. And the collapse of the stock exchanges from 1987 is not an isolated case. Since then, several examples confirm this quasi-simultaneous reaction of all the stock exchanges during a period of crisis. We can mention the Asian crisis from 1997, the reaction of the stock exchange markets at the moment of the attacks on the 11th September 2001 and the turbulences of the stock exchange markets from all the world in October 2008.

Only American at the beginning, the actual financial crisis started on the subprime mortgages markets, as a result of the prices fall in the real estate area. Then, it spread through the financial channel with the announcement of the bankruptcy of the two *hedge funds* which have invested in titles based on mortgages. Everywhere in the world, inclusively in China, the financial institutions have invested massively in this kind of complex products resulting from the securitization (the transfromation of negociable titles) of *subprime* mortgages[341], the start of crisis exposing them thus to massive loss. On a real plan, the prices fall in the real estate area lead to a strong economic lower in the United States of America. But, on an international level, from the very beginning of the crisis, there can be preview depreciations suffered by the banks which lead to the collapse of the stock exchanges.

The consequences of the actual financial crisis represented a greater depreciation registered at the foreign stock exchanges, especially those from Europe than those from the United States of America. Thus, CAC-40, the stock exchange market index of the capital market from Paris lost

340 François Longin şi Bruno Solnik, „Is the Correlation in International Equity Returns Constant: 1960-1990?”, Journal of International Money and Finance, vol. 14, no.1, February 1995, pp. 3-26.

341 Patrick Artus, Jean-Paul Betbèze, Christian de Boissieu and Gunther Capelle-Blancard, La crise des subprimes, ˝Raports du CAE˝, no. 78, La Documentation française, Paris, 2008.

25% in the period June 2007-August 2008, while S&P 500, its homologous from New York didn´t diminish but with 15%.

Many observers have interpreted the simultaneous reaction of the stock exchange markets as a phenomenon of contagion. The word contagion means the transmission of the impact of a stock exchange market to another one. More precisely, according to some researchers[342], there exists contagion only if, after an impact, the relation between the stock exchange markets is significantly consolidated.

The authors J. Forbes and R. Rigobon evidenced in their study entitled *„No Contagion, Only Interdependance: Measuring Stock Market Co-Movements*" the fact that, in the moment of the stock exchange market collapse from October 1987 or the Asian stock exchange crisis, the correlation coefficients permitting the analysis of the relation between these crisis outbreaks and other regions from the world having been affected by them, didn´t increase significantly and were strong before the crisis, too. As a result, the transmission of the crisis could be rather explained by a phenomenon of interdependence of the stock exchange markets, than by a contagion. This means that the link unifying the capital markets became permanent, both in crisis period and in normal period.

The internationalization tendency of market shares and development global capital market may have thus negative consequences, too. Moreover, some specialists consider that the globalization of the capital markets in the last decades of the past century was a determinative factor for the successive financial crisis, starting from Mexico, Thailand, South Korea, Russia and Bresil.

Similarly, the reduced level of regulation of the international capital market increases the opportunities for speculations and may affect the stability of national capital markets. A globalized financial system, where hundreds of billion dollars may circulate simultaneously as a reaction to the last news or only based on some psychological factors may become an unstable system[343].

The problem of reccurent crises and their transmission is raised with an extraordinary acuity in the context of the actual imbalance. The financial crises will spare neither the emergent areas (Latin America, Asia, Russia), nor the regions where the financial systems are more mature. Not necessarily the nature of financial crises, but their way of transmission is what has changed because of the actual financial globalization. For a long time, the spread of financial crisis was represented as a phenomenon of repercussion by means of different channels (commercial, financial), or more simply expressed, as an effect of domino[344].

In conclusion, because of the integration of capital markets, the economies are more and more exposed to the common impacts which result the crisis of global dimension. In order to illustrate the contagion of financial crises, one may resort to a metaphor, well-known by the financial specialists: ″when the Wall Street sneezes, Paris catches cold!″.

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342 Kristin J. Forbes&Roberto Rigobon „No Contagion, Only Interdependance: Measuring Stock Market Co-Movements″, The Journal of Finance, vol.57,no. 5, October 2002, pp.2223-2261.

343 Ovidiu Stoica Mecanisme şi instituţii ale pieţei de capital. Pieţe de capital emergente, Ed. Economică, 2002, p.59

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