

Financial System Regulation: Stability versus Instability Strategic considerations

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INTRODUCTION

From 1990s until now frequency and importance of financial crises have increased, which have affected to so much Emerging Economies (Latin America and Southeast Asian) as Europe and United States of America: European Monetary System, Mexico, Thailand, Korea, Indonesian, Russia, LTCM, Argentina, Brazil, technological bubble and dot.com..., with different causes and consequences. Every financial crisis supposes a deterioration of (i) system credibility, (ii) credit solvency and/or (iii) productive economy. By these facts, it is desirable financial stability.

Financial notion of stability remits to the idea of a Financial System without abrupt neither continuous fluctuations, above all unfavourable in form of losses. In practice, it supposes a control of financial risk so that unfavourable contingency, when occurs, does not surpass expected losses and affects to solvency and credibility of Financial System, and by extension to Real Economy. They are required, therefore, some preventive politics as financial regulation or prudential supervision for the sake of maintaining a stable macroeconomic environment and avoiding inefficient agents, that contribute to system fragility.

Public regulation implies that in crisis epochs, if it is seen like insufficient, large and generalized losses could be produced by moral hazard, adverse selection, loss of market credibility, speculation... And these losses are quickly diffused by feedback to all Financial System because of the Globalisation of financial products and contracts, by transnationality of economic agents, and by information in real time.

Financial System since the second half of XIX Century are similar to information markets (Eichengreen, 2003), because of telecommunications development. It permits, by greater security and velocity, the boom of capital transfers, and design and sophistication of financial operations. All these elements imply that Globalisation was not born simply by International Trade growth, but also was joined to birth and expansion of International Financial System.

Globalisation can have evil effects in Financial System by information diffusion, which generates contagion effects and herding behaviour among economic agents (Bikhchandani, 2000). These elements magnify market fluctuations, deriving in financial bubbles and crises. Financial regulation tries to limit this Globalisation influence, thanks to more quality of diffused information and to prevention of fraudulent behaviour. This control generates, at the same time, the subsistence of inefficiencies, because of arbitrage is nor cheap neither quick. Then, there is a trade-off between financial regulation, that tries to reduce frequency and importance of financial crises, and market efficiency, that tries to take advantage of inefficiencies and of regulation failures.

Therefore, financial regulation and Globalisation are key elements in Financial System stability or instability. Focusing the analysis in financial crisis regulation and Globalisation, stability will be reached when frequency and magnitude of crises be reduced (regulation for control of financial risks and fluctuations, and for supervision of globalisation of information and capital movements by authorities), and instability will be translated in the contagion of all system of a crisis or in the system fragility by a crisis (regulation failure in defence of Financial System by authorities).

A financial crisis implies losses above confidence threshold of unexpected losses. This crisis passes to be global if rational or irrational contagion effects are derived on other sectors and/or on other economies. This phenomenon is called "systemic risk" (De Bandt, 2000). It is supposed in the bases of international regulation of Financial System to avoid, in the measure of the possible, "irrational" contagion and to reduce the magnitude of "rational" contagion. This regulation is formed by implementation of agreements and recommendations of sovereign States, of different forums, as *Basel II*, or fiscal policies coordination, that they tax capital movement.

INTERNATIONAL CAPITAL MOVEMENTS EFFECTS MODEL

| EFFICIENCY | OBJECTIVES | INSTRUMENTS |
|---|--|---|
| Neutrality of International efficiency on world capital export allocation | Efficiency on investment allocation Equal tax with independence of source of income | Tax system based on residency and exemption-at-source as the general method Full Fiscal Credit |
| Neutrality of National efficiency on world capital export allocation | To avoid exit capitals. Equal National tax: it equals full profitability marginal of national investment with marginal profitability of net external investment | Deduction in tax base of international tax |
| Neutrality of International efficiency on world capital import allocation | Efficient distribution of saving. It equals profitability of investments in the country for residents and not residents. Equity on Distribution of tax base of bilateral transactions. To burden residents' income without discriminations; not to discriminate against among income obtained by non residents | Tax system based on source and exemption-at-residency as the general method Fiscal Coordination. |

TABLE 1. Direct Taxation and International Coordination. Source: Authors' elaboration based on Álvarez, 2003; Cerdón, 2001; Albi, 2000; Zubiri, 1987; and Zubiri, 1997

| | | Country B | |
|-----------|-------------|------------------|------------------|
| | | COMPETITION | COOPERATION |
| Country A | COMPETITION | (4, 4) case a | (7, 3) case b |
| | COOPERATION | (3, 7) case c | (5, 5) case d |

TABLE 2. Payoff Matrix

FINANCIAL STABILITY EFFECTS MODEL

In order to analyze stability in global Financial System, systemic risk possibility is considered. Furfine (Furfine, 1999) distinguishes two typologies: (i) a simultaneous crisis that affects to all market or (ii) a successive crisis where bankruptcy or difficulties of one or several institutions, businesses or economies affects to all system. We will analyze both possibilities, but studying only financial effects and considering that systemic crises can be avoided for a regulation or defence of Financial System by competent authorities. We follow a model of second generation similar to Krugman model (Krugman, 1998) and to Obstfeld ideas (Obstfeld, 1996) with a Financial System with competitive agents:

| | | Market | |
|-----------|-------------|------------------------|------------------------|
| | | DEFENCE | NOT DEFENCE |
| Authority | DEFENCE | (0, 0) stability | (-1, 1) speculation |
| | NOT DEFENCE | (1, -1) fluctuation | (-1/2, -1/2) crisis |

TABLE 3. Payoff Matrix (Short-term)

| | | Market | |
|-----------|-------------|--------------------------|-------------------------------|
| | | DEFENCE | NOT DEFENCE |
| Authority | DEFENCE | (1, 1) stability | (-1, 1/2) speculation |
| | NOT DEFENCE | (1/2, -1) fluctuation | (1/2, 3/2) crisis recovery |

TABLE 4. Payoff Matrix (Long-term)

CONCLUSIONS

We have considered strategic action of the three stages that take part of Financial System: the authority or International Institutions, Market, and National States. Financial stability, in the informative and dependence context of Globalisation, is subordinated to former action. There are strategic incentives to defend or attack financial stability, according to the solvency, credibility and/or inefficiencies of Financial System.

The optimum design of tax politics in terms of efficiency and equity in an international context of mobility of capital requires to establish (i) some basic principles of international tax assignment in direct taxation, (ii) the definition of coordination mechanisms that avoids double international imposition and (iii) the establishment of tax neutrality criteria (efficiency) in the international allocation of capital as equity among individuals and countries. The paralysis of fiscal process of harmonization in direct taxes especially in the case of European Union has caused a generalised discount of capital taxation in order to avoid national capital exits.

Foreseeable results of fiscal competence processes among national States can be analyzed basically from simple Game Theory models as the same as the ones that are used in fiscal decentralization. In this way, obtained results from payoff matrix if it is supposed that both jurisdictions are symmetrical in all relevant aspects does that the case in which both countries compete is the only equilibrium of Nash. Nevertheless, the competence by attraction of foreign capital cannot be produced necessarily by tax reasons and it implies agreements to avoid the double international imposition.

In relation with Financial System stability, public authorities and market actions are constrained to recommendations of New Basel Capital Accord of *Basel II*, by its large acceptance so much by International Institutions as by national States, that it derives in common international regulation of Financial System. *Basel II* is born for the lack of financial risk measures and management of fluctuation and crisis prevention. To surpass these lacks a higher sophistication in quantitative risk estimation is proposed in management models, supervision and public information.

Effectiveness of these measures and recommendations can be analyzed strategically simplifying the actors in authority (International Institutions) and in market (economic agents), where it is deduced that long-term stability and efficiency depend on Financial System credibility and solvency. It is observed that financial variable fluctuation depends on rumours, opinions, legislation..., that although they do not affect to Real Economy, they are the base of economic agents' expectations and of their financial action.

Therefore, we can conclude that effectiveness in defence of solvency and efficiency of Financial System is consequence in crises of "second generation", of strategic considerations of the participants. System instability can be affect to other investors, sectors or economies by contagion effects derived from international relations of Globalisation, from correlations among investment or hedging macroportfolios, from herding behaviour, from generalization of similar risk management standards...

| CAUSES | RECOMMENDATIONS | BASEL II |
|--|---|---|
| Free capital movement | International coordination Tax harmonisation | --- |
| Economic cycle and expansive credit | Anticyclicality provisions Sophistication of risk measures and control To improve credit risk methods | PIT Methodology Stress testing Benchmarking |
| Financial Market deregulation | Regulation to produce positive externalities with international coordination and control | Risk measurement and management supervision Market discipline |
| Financial liberalisation | Government intervention to guide liberalization and to ensure fiscal and monetary discipline | --- |
| Procyclicality of risk measures/standards | Anticyclicality provisions Flexibility of risk measures Fiscal measures for intertemporal adaptation of capital requirements Averaging measures over the cycle Contracyclical adjust over the cycle of the prudential parameter To improve credit risk methods | Sophistication and diversity of risk standards (measures and management) |
| Contagion effects Systemic risk | Diversification and no-standard portfolios selection To improve credit risk methods | Internal risk management |
| Investment herding behaviour | Portfolio diversification | Flexibility in horizons and risk correlations Internal risk control Market discipline |
| Macro-economic expectations error Risk evaluation error | Sophistication in risk measures and control Information transparency | Internal risk control Higher information transparency Market discipline |

TABLE 5. Symptoms and Prevention of Financial Instability. Source: Authors' elaboration based on Mayer, 1999; Borio, 2001; and Goodhart, 2004.90