



## AN URGENT NEED FOR THE “FINE TUNE” OF FINANCIAL DERIVATIVE INSTRUMENTS\*

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### ABSTRACT

Financial derivative instruments, which were initially designed to hedge currency risks and thus to prevent financial instability after the collapse of the Bretton-Woods System, exposed, particularly, developing economies to remarkable risks and financial instabilities in the 1990s, and they played a much greater role than previously estimated in the international financial crises. Recent global financial crisis of 2008, once more time, indicated that they have huge potential to be dangerous for even developed economies. However, their potential role in creating instabilities in financial systems were ignored or underestimated by the dominant “neo-liberal” perspective which have wanted to shape the world economy in a pure financial liberalization approach rather than financial regulation. In this respect, the paper aims to analyze and discuss the proposed policies about the financial regulation of financial derivatives in order to put what should be done for a “win-win” solution since there can be two extremely different points of view about them.

**Key Words:** International Financial Crises, Financial Derivative Instruments, “Fine-tune” Policies

## FİNANSAL TÜREV ARAÇLARIN “İNCE AYARI” İÇİN ACİL BİR GEREKLİLİK

### ÖZET

Bretton-Woods sistemi yıkıldıktan sonra başlangıçta kur riskini sabitlemek ve dolayısıyla finansal istikrarsızlığı önlemek amacıyla tasarlanmış olan finansal türev araçlar 1990’larda özellikle gelişmekte olan ülkeleri ciddi risklere ve finansal istikrarsızlıklara maruz bıraktı ve uluslararası finansal krizlerde daha önce tahmin edildiğinden çok daha fazla bir rol oynadı. Son 2008 küresel finansal krizi bir kez daha göstermiştir ki bu araçlar gelişmiş ülkeler için bile tehlikeli olma açısından büyük potansiyele sahiptir. Fakat finansal sistemlerde istikrarsızlık yaratmadaki bu potansiyel rolleri, finansal düzenlemeden çok tam bir finansal liberalizasyon içinde dünya ekonomisini şekillendirmek isteyen hâkim “neo-liberal” görüş tarafından ya görmezden gelinmiş ya da küçümsenmiştir. Bu bağlamda, makale bu araçlar konusunda iki aşırı farklı bakış açısı olabilmesi dolayısıyla “kazan-kazan” çözümü için ne yapılması gerektiğini ortaya koymak amacıyla finansal türevlerin finansal düzenlemesi hakkında önerilen politikaları analiz etmeyi ve tartışmayı amaçlamaktadır.

**Anahtar Kelimeler:** Uluslararası Finansal Krizler, Finansal Türev Araçlar ve “İnce-ayar” Politikaları

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## INTRODUCTION

Financial derivatives<sup>1</sup>, which were initially designed to hedge currency risks and thus to prevent financial instability after the collapse of the Bretton-Woods System<sup>2</sup>, exposed, particularly, developing economies to remarkable risks and financial instabilities in the 1990s, and they played a much greater role than previously estimated in the international financial crises. Recent global financial crisis of 2008, once more time, indicated that they have huge potential to be dangerous for even developed economies.

Compared to developed countries developing economies are more open to economically harmful usages of derivatives since they do not have enough regulations to monitor these risks and prevent such activities. On the other hand, if the current global financial crisis is considered it is clear that even the financial systems of the US, UK, European and other developed countries can be unable to regulate derivative products effectively, so it does not mean that just developing countries do not have required regulations on derivatives. Moreover, sometimes, in the more sophisticated cases as seen in the current global financial crisis the existing regulations can also remain inadequate in order to prevent such accounting tricks *etc.* used by derivatives. However, their potential role in creating instabilities in financial systems were ignored or

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<sup>1</sup>Derivative Instruments are the contracts, whose value or price depends on, or is derived from, that of another asset such as a commodity, security, interest rate, index, an event or foreign exchange rate. The term “derivative” is used to stress the fact that the prices or values of these contracts are “derived from” the price of an underlying item such as a commodity, security or the value of interest rate, foreign exchange rate, index or an event (Derivatives Study Centre/Derivatives Glossary). There are four main types of derivative instruments: Forwards, Futures, Options and Swaps. Beside these traditional types, there are some special purposed derivative instruments called “Hybrid Instruments” which are determined by combining these traditional instruments with each other or with the other traditional securities and debt instruments (Derivatives Study Centre/Derivative Instruments). Financial derivative instruments, which constitute the main concern of this paper and will be called “derivatives” in what follows are the subject of financial contracts whose value do not directly depend on the contracts themselves, rather depend on the new values of financial assets, which the mentioned contracts are linked. Such new values of financial assets, which can be exchange rates, stock exchanges and interest rates, emerge according to the developments in the market conditions of financial assets.

<sup>2</sup>It was just 1973 when putting an end to the Bretton Woods System of the fixed exchange rate in worldwide and starting to fluctuation of the currencies against American dollar. After this, exchange rate and the fluctuation of the exchange rate began to constitute a risk in terms of international transactions. In this regard, in the 1970s the first financial derivatives markets were opened in Chicago, the USA, under some exchanges, such as the Chicago Board of Trade (CBOT), which was established in 1848, and the Chicago Mercantile Exchange (CME), which was established in 1919, keeping their leaderships in the foreign exchange derivative markets till today (Fell, 2000: 143). It was the same with the other financial derivatives, such as stock market derivatives and interest rate derivatives. It is noted that the volatilities in interest rates stemming from the Federal Reserve’s switch from targeting interest rates to monetary aggregates and volatility in stock markets started with the stock market crash in 1987 led the usage of such financial derivatives in order to avoid from the fluctuations on assets’ values (McClintock, 1996: 18).

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underestimated by the dominant “neo-liberal” approach, which have wanted to shape the world economy in a pure financial liberalization approach rather than financial regulation.

In this respect, the paper aims to analyze and discuss the proposed policies about the financial regulation of financial derivatives in order to put what should be done for a “win-win” solution since there can be two extremely different points of view about them. In this regard, while Savona *et al.* (2000: 149) put them as “the greatest financial innovation of the late twentieth century”, Buffet (2002: 2) can describe them as the “financial weapons of mass destruction”. There should be a “fine tune” between them in terms of policy options as Garber and Lall (1996: 229) put it “The policy implication that emerges from this is that the growth of derivatives should be seen as a two-edged sword that can be very beneficial if used properly but can be harmful if not”. In this regard, after the introduction, in the first part, the role of financial derivatives in financial crises is briefly tackled in order to put the need for financial regulation for them. In the main part, the proposed policy solutions in regulatory basis in the literature is handled for all countries including both developed and developing ones in order to put what can be done to avoid from economically harmful usages of derivatives and to promote their economically beneficial usages.

## **I. THE ROLE OF FINANCIAL DERIVATIVES IN INTERNATIONAL FINANCIAL CRISES**

Viewed at the macroeconomic level, derivative instruments can act as a destabilizing factor creating vulnerability to crisis, and also, after the crisis began, the collapsing process was accelerated and deepened by the usage of some specific types of derivatives (Dodd 2000: 20-21). In this regard, it can be said that in especially weakly regulated, undercapitalized financial systems and imbalanced derivative markets, derivatives are highly open to be used for economically harmful purposes such as evading prudential regulations by leading to huge risky positions represented by high leverages, manipulating accounting rules and credit ratings, avoiding from taxation and capital requirements.

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Moreover, during the crisis, the derivatives affect the dynamics of the crisis by speculation against local currency, “which is accepted as one way bet” under pegged exchange rate regimes, leading to massive capital outflows and the collapse of the currency. Lien and Zhang (2008: 42) put it as follows: “The misuse of financial derivatives lays the foundation for financial crisis, and financial derivatives can accelerate capital outflow during a crisis. As a consequence, the volatility of international capital flow increases, which exacerbates the crisis by rendering the dynamics of crisis more unpredictable”. In this respect, Savona *et al.* (2000: 166) argue that although at the microeconomic level there are advantages of derivatives for market agents, at macro level, it should be paid attention to “the great potential systemic instability that derivatives could generate”. On the other hand, it can be said that even in microeconomic level, there have been potential challenges for market agents, which Naor (2006: 286) puts as follows:

“A complementary effect to the scarcity in regulation, germane to this paper, was the lack of clear accounting standards governing reporting on derivatives. A possible outcome of these effects is the fact that financial derivatives were the subject matter of several financial fiascos in the '90s, such as Gibson Greetings, Procter & Gamble, Orange County, as well as the infamous Enron case” (Naor, 2006: 286).

It can be said that this list can be enlarged by adding the last cases of Wall Street investment banks such as Bear Sterns, Lehman Brothers, Merrill Lynch, Goldman Sachs and Morgan Stanley, in addition to American International Group Inc, the largest insurance company in the world (Cintra and Farhi, 2009: 14), after the last global financial crisis, which points out that even regulated financial systems can remain vulnerable to crises by virtue of the sophisticated Over the Counter (OTC) derivatives, such as Credit Default Swaps (CDSs).

The Role of Financial Derivative Instruments in International Financial Crises can be handled and redefined as follows: 1-Direct Crisis Effects and 2-Indirect Crisis Effects of the Financial Derivative Instruments in International Financial Crises.

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### **A. The Direct Crisis Effects**

Within the framework of the direct crisis effect of derivatives, the presence of derivatives in the unregulated derivatives markets of developing world of the 1990s is tackled as a destabilizing factor of the financial sector and the economy as a whole, which creates vulnerability to crisis, namely, affects the dynamics of a crisis, whether in the floating or fixed exchange rate systems. As a next step, during the crisis, in the fixed exchange rate system case, whether a hard, soft or crawling peg, the presence of derivatives is handled as a special set of challenges for a government which tries to maintain the fixed exchange rate (Dodd, 2002b: 14). In this case, the derivative products are handled as they affect the dynamics of the exchange rate during the crisis and once crisis begin they contribute to the volatility of the exchange rate.<sup>3</sup> In this regard, it can be said that developing economies are highly open to economically harmful usages of derivatives due to they do not have enough regulations to monitor these risks and prevent such activities. They mostly do not have appropriate legal framework or power to implement such framework and have political corruption or market failures such as moral hazard problems or asymmetric information. In these situations, the derivatives obtain a significant potential in making the developing countries vulnerable to financial crises more rapidly and destructively. Thus, improperly regulated derivative and financial markets of developing countries contribute the crisis effect of derivatives as well as increasing the negative effects of crisis as transforming them into economic crises with severe social consequences.

It can be said that compared to developed countries developing economies are more open to economically harmful usages of derivatives since they do not have strong enough regulations to monitor these risks and prevent such activities. On the other hand, if the current global financial crisis is considered it is clear that even US, European and other developed countries' financial systems are unable to regulate derivative products effectively, so it does not mean that just developing countries do not have required regulations on derivatives. Moreover, sometimes, in the more sophisticated cases as seen in the global financial crisis of 2008 the existing regulations can also remain inadequate in order to prevent such accounting tricks *etc.*

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<sup>3</sup> See Sarıalioğlu-Hayali (2010) for a detailed analysis of the mechanisms of the direct crisis effect of derivatives.

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used by derivatives, especially the OTC ones. In this regard, such potential risks of OTC derivatives shed light on the last global financial crisis, in which CDSs were in play<sup>4</sup>. In this regard, there was no transparency by being off- balance sheets of these derivatives. There were highly leveraged positions pointing to the illiquidity with financial fragility with a position of “high risk-high return” and high potential to create systemic risks<sup>5</sup>. Moreover, such CDSs were very open to be used for harmful purposes of speculators which are called “naked CDSs” in which “the buyer of protection does not own the underlying bond” and refers to a harmful situation which is put by Roy (2009a) as follows: “Once lauded as a way of offering protection against the risk of companies defaulting, CDSs instead magnified uncertainty as buyers wondered whether sellers could really afford to pay up if called on”. In this regard, Marcos and Cinta (2009: 11) highlight the fact in terms of the “global shadow banking system”<sup>6</sup> as follows: “Not being credit ‘originators’, the global shadow banking system institutions mainly assumed the short position in these derivatives, since they could thus ‘synthetically’ reproduce exposure to credit and to their gains”. Although neo-liberal

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<sup>4</sup>Marcos and Cinta (2009: 11) put them as follows: “The credit default swaps (CDS), which transfer risk credit between the agent that purchases the protection and the counterparty that accepts to sell it. By this mechanism, the holder of a credit portfolio purchases protection (pays a premium) from the protection seller. In exchange, the seller assumes, for a predetermined period of time the obligation to pay the agreed sums in the cases specified in the contract, ranging from default and bankruptcy to a reduction of credit rating or other events which may entail a drop in the portfolio value.”

<sup>5</sup>It is noted that “By resorting to the already existing swap mechanisms, the credit derivatives allowed banks to move risks off their balance sheets at the same time that the global shadow banking system’s financial institutions found new means of risk exposure and profit on the credit market... The fact that these risks were transferred did not eliminate them and they remained present at the same consolidated amount. This risk transfer only meant that they would no longer appear on the balance sheet of the institution that originated that credit and became the responsibility of the institution that constituted the operation’s counterparty. In an aggregate manner, the financial institutions of the global shadow banking system became the counterparties of banks in these operations, since they chose to access the credit operations regarded as highly profitable. They only had to raise resources on the commercial paper market and purchase credit-backed long-term bonds and/or assume short positions on the derivatives market in order to “synthetically” reproduce a credit operation. In this way, the OTC markets became the center stage of the negotiation of the financial institutions’ assets and liabilities. As such, they became a source of funding and investment for the financial institutions which participated in them” (Marcos and Cinta, 2009: 11-12).

<sup>6</sup>“The global shadow banking system includes all agents involved in leveraged loans which do not have access to deposit insurances and/or to rediscount operations of central banks. These agents are not subject to the prudential regulations of the Basel Agreements (Cintra & Prates, 2008a and Freitas, 2008). This definition encompasses large independent investment banks (brokers-dealers), hedge funds, investment funds, private equity funds, the different special investment vehicles, pension funds and insurance companies. In the US, one must further include the regional banks specialized in mortgage credit (which have no access to rediscount) and quasi-public agencies (Fannie Mae and Freddie Mac), created with the purpose of providing liquidity for the US real estate market” (Cintra and Farhi, 2009: 3).

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perspective once again does not accept or underestimates the role of derivatives, in this case CDSs, mostly the “naked” ones, in the debt crisis, Greece officials maintain that they suffered from the harmful usages of such derivatives. In this regard, it is noted that “Greece’s prime minister argued that speculators were using the swaps to bet against his country’s debt. He said this has escalated Greece’s borrowing costs, making it harder to dig out of its debt crisis” (The Financial Regulation Forum (FRF), 2010a). In this regard, Marcos and Cinta (2009: 11) put it as follows: “Not being credit ‘originators’, the global shadow banking system institutions mainly assumed the short position in these derivatives, since they could thus ‘synthetically’ reproduce exposure to credit and to their gains”. In this respect, the derivatives obtain a significant potential in making especially the developing countries vulnerable to financial crises more rapidly and destructively. Thus, improperly regulated derivative and financial markets of developing countries contribute more to the crisis effect of derivatives as well as increasing the negative effects of crisis as transforming them into economic crises.

Moreover, pension funds and insurance companies, which are restricted to have foreign currency assets, can use such hybrid derivatives also to avoid such restrictions in order to have more risky high yield portfolios. For example, among such derivatives, structured notes can be used to evade restrictions on foreign exchange exposure on the balance sheets of financial institutions and to manipulate accounting rules in order to show high yield-high risk notes as if they were top rated credit instruments in order to circumvent capital requirements. Puttable debts can convert short-term loans to long-term ones easily. Short-term dollar loans can be indicated as if they were portfolio investment by virtue of Total Return Swaps (TRS). All these information distortions create challenges for firms to make an accurate assessment of their counterparty’s creditworthiness and for regulatory authorities to find out how much risk their financial markets are exposed to, by leading to systemic risk, “which refers to the vulnerability of the financial system to shocks” (McClintock, 1996: 26).

### **B. The Indirect Crisis Effects**

The indirect crisis effects of derivative instruments in international financial crisis can be handled as “accelerating the crisis” effect by quickening and deepening the crisis. In this

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regard, especially some types of derivatives such as TRS and Putable Debts have also a role as crises accelerators, pointing out the quick capital outflows, which Dodd (2000: 21) ironically calls “microwave money” when compared to the description of “hot money”. The indirect crisis effect of derivatives can also be handled in terms of “increasing the lending boom” through fuelling capital inflows to developing world.

The accelerating crisis effect of derivative instruments can be handled as the quickening and deepening the crisis after the crisis began and as long as continue. These kinds of crisis accelerator effects can be experienced more frequently if there is the usage of some specific types of derivatives, such as TRS, Structured Notes and Putable Debts *etc.*, since all these derivatives require some margin or collateral requirements, pointing out the capital outflows in the wake of the crises in which capital or liquidity is most required. Moreover, since futures have margin requirements and daily marking to market character beside dynamic hedging techniques<sup>7</sup>, they also have potential crisis accelerator effects like options in which unlimited loss situations of option writers have also potential crisis-accelerating effects.

Within the framework of quickening the process it can be said that the derivative transactions of financial institutions of developing countries generally require strict collateral or margin requirements such as hard currencies or securities because of the default risk of these relatively weak economies. Dodd (2003: 18) argues that at the beginning of devaluation or much more broad financial crises causing a sharp fall in the price of the underlying collateral such firms are immediately required to add hard currency assets to their collateral in proportion to the loss in the present value of their derivatives position. This causes rapid outflows of foreign currency reserves as local currency and other assets were exchanged into hard currency in order to meet the collateral requirements (Dodd 2003: 18), causing a shortage of liquidity, which is defined as “the ability to match obligations with the ability to pay” (Kelly, 1995: 230). Within the framework of deepening the impact of the crisis, in the case of the high leverage that derivatives provide the process of effort to meet collateral requirements will accelerate the size

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<sup>7</sup> Granville (1999: 722) puts them as the ones that “replace human judgement with computerized decision-taking analogous to stop-loss orders on the stock exchange” pointing to their widespread use and rapid implementation through ordering immediate sales of the weak currency during a defence of Central Bank increasing interest rates in a currency attack situation, thus making such defence useless.



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of the losses to the whole financial system. It thereby deepens the impact of the crisis by creating international financial instability.

In the unregulated derivatives markets of developing world of the 1990s, the presence of derivatives is also tackled as an indirect crisis effect due to derivatives promoting capital inflows to developing world in huge amounts, more than needed. Because of those facts that firstly, derivatives can be a very useful risk shifting tool and secondly, they can easily be used to avoid prudential regulations, such as capital or tax requirements, capital flows which were increased, mostly the short-term volatile ones, went to developing world for high returns. In this regard, such capital inflows in huge amounts, which went to developing world in the 1990s, financed risky projects of the private sector or private consumption through banking sector, leading to “lending boom”, created balance sheet disruptions in the financial sectors, namely, open positions in terms of foreign exchange, and also revaluated the local currency having led to the Current Account Deficit (CAD). Moreover, derivatives contributed to the capital in and out flows, which are in short-run speculative character leading to volatility in the exchange rate. All these contributed to crises of emerging markets in an indirect way.

### **III. THE PROPOSED POLICY SOLUTIONS IN REGULATORY BASIS AND THEIR DISCUSSIONS**

The proposed policies about the financial regulation of financial derivatives should be tackled in terms of a “win-win” solution since there can be two extremely different points of view about them. So it can be said that there should be a “fine tune” between them in terms of policy options. This can be done by the policies that both “encourage the use of derivatives for risk management purposes while discouraging their use in unproductive pursuits that might create dangerous levels of exposure to market risk, as well as credit risk, or lead to reverse capital flows” (Dodd, 2002a: 16). In this regard, within the framework of hedging, “the destabilising hedging activities” should not be ignored also. In other words, hedging activities are not totally innocent. So, the starting point should be first admitting the potential dangers of all kinds of financial derivatives including both speculative and hedging purposes and including both OTC and exchange traded derivatives. Although, by the last global financial crisis OTC

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derivatives, especially CDSs, are considered to be regulated in order to prevent “manipulation, fraud, insider trading and other abuses in the market” (Roy, 2009b) the financial crises in the 1990s indicated that exchange traded derivatives were also able to be used for harmful purposes, such as speculation with manipulation, high leverage positions and illiquidity.

A paradigm shift is urgently essential since even a need on regulations on OTC derivatives can be criticised by the neo-liberal approach (The FRF, 2010a). In this regard, although it can be concluded that “The global financial crisis was partly caused by diverse, sophisticated and obscure financial products and derivative instruments. [So, there is] need to balance the need for financial innovation against the need for ensuring systemic stability. [So] in order to keep a ‘closer eye’ on derivative trading, and to reduce some of the risks (e.g. settlement risk) the G-20 has proposed that derivative trading takes place through central counterparties (i.e. on exchange)” (Momoniat, 2010: 11), regulations on OTC derivatives keep to be a controversial subject between regulators and derivatives operators in the markets (The FRF, 2010a). It is put as follows:

“To European officials, financial derivatives are dangerous weapons that worsened Greece’s debt crisis and should be curbed. To Wall Street, they’re tools that reduce risk and generate profits and should be left alone. Now, regulators on both sides of the Atlantic are trying to figure out who’s right and what to do about it. At stake are billions in profits that banks say would be threatened by too much regulation. Yet supporters of tougher rules say the global financial system is at risk as long as derivatives remain largely unregulated” (The FRF, 2010a).

If it is considered that without derivatives, notably OTC derivatives, global financial crisis in such scale would remain just a typical “credit crisis” experienced in the US, the role of OTC derivatives in the crisis cannot be seen “little than thought” or “not a key factor”. At this stage, it can be said that if the harmful usages of the OTC derivatives were not case such global crisis would not be occurred. Cintra and Farhi (2009: 2) put this as follows: “This specific architecture turned a classic credit crisis into a financial and banking crisis of vast proportions, reaching a systemic dimension. In a classic credit crisis, the sum of the potential losses

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(corresponding to loans granted against poor collateral) would be already known. In the current framework of the financial system, the credit derivatives and the structured products attached to different credit operations have replicated and multiplied these losses by an unknown factor and have redistributed the ensuing risks to an entire network of financial institutions at a global scale”.

Moreover, it can be said that there is also another remarkable dilemma of the neo-liberal approach towards the regulations for developed and developing countries. Dodd (2002a: 21-22) puts this issue as “After all, US financial markets – with the exception of the OTC derivatives markets – are closely regulated and so the ‘Washington Consensus’ towards a liberalized, free-market approach to developing country finance markets amounts to advocating ‘do as we say, not as we do’”. However, at this stage after the global crisis, for the regulations of OTC derivatives or bans some of them, such as “the naked CDSs” for both developed and developing countries seem a challenging way. Although several financial summits at the global level<sup>8</sup> were held and some policy proposals as regulatory basis were agreed on, the action base is still problematic. Even for the case of US, it can be said that although the Congress passed the relevant act (Dodd-Frank Act) in the summer of 2010, it is noted that it will be hard to put it into practice since there are still powerful lobbying group of derivatives (The FRF, 2010b). It is put as follows: “Because the most potentially nuclear forms of derivatives are privately arranged and loosely monitored, two clear goals of the legislation are greater price transparency and the opening of transactions to more market participants. But not everyone wants these aims to be met. And early signs indicate that the big firms currently in control of the derivatives market view the rules-writing process as an opportunity to maintain the status quo in one of their most

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<sup>8</sup>After the global financial crisis, the G-20 including both developed and developing countries held a series of meetings such as Washington Summit in November 2008, London Summit in April 2009, Pittsburgh Summit in September 2009. In this regard, in April 2009 the Financial Stability Board (FSB), an extended form of and the successor to the Financial Stability Forum (FSF) which was established in 1999, has funded as “the key international regulatory board” of which last meeting was in October 2010 in Seoul, South Korea. It includes not just G-20 countries, but also significant financial centres such as Hong Kong and global financial institutions such as IMF, WB, BIS, OECD, ECB *etc.* (Momoniat, 2010: 4-5). Thereby, by virtue of “a stronger institutional ground with an expanded membership” it can be said that “the FSB performs the initiative role to develop and implement strong regulatory, supervisory and other policies in pursuit of financial stability” (Ki Yeon, 2010).

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lucrative lines of business — or win back what they feel they lost amid the legislative wrangling earlier this year” (The FRF, 2010b).

The debate still continues on the prohibition of some kinds of derivatives, such as speculative CDSs, the so called “naked CDSs”. Although European regulators maintain that they are so dangerous the US regulators do not agree with them supporting the pro arguments which Roy (2009a) puts as follows: “The impact of prohibition could be dramatic: up to 80% of CDSs are thought to be naked. Marketmakers say a ban would make it harder for them to offset risks, since speculative buyers are a big source of liquidity. That could, in turn, raise borrowing costs for bond issuers” (Roy, 2009a). On the other hand, European regulators insist on that “some derivatives are too harmful to be left alone”. They conclude that “...they may ban some credit default swaps, a type of derivative that insures debt, [which is a]...speculative trading of credit default swaps by investors who don’t actually own a country’s underlying debt” (The FRF, 2010a).

In this regard, the debate goes on through Greece debt crisis. Although Greece officials insist on the harmful speculative usages of such derivatives through “the bet on their debt” by making their debt insolvent, neoliberal approach together with the main lobbying group for derivatives totally disagree with this. They maintain that “the amount invested in the swaps cannot destabilize Greece because it represents only a small fraction of the country’s outstanding debt. Investors hold \$406 billion worth of outstanding Greek bonds, according to Citigroup. But they hold only \$9 billion in insurance against that debt through credit default swaps” (The FRF, 2010a). It can be said that this attitude was also the case after the 1990s’ crises, but at that time for the hedge funds. In this regard, Harmes (2002: 158) maintained that the neoclassical view, having shaped the world political economy, has had a tendency to handle hedge funds as mostly “too-small-to-matter” in terms of public policy, although they should have been of the utmost importance for policymakers because of their ability to become “extensively overleveraged” and “to act as market leaders”. So, it can be said that similar to the hedge funds in the 1990s, these tools in Greece case could act as “market leaders” although their size was relatively small. On the other hand, it can be said that “A major cause of the rise in credit default swap rates has been growing demand for hedging against Greek risk, according to

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BaFin. It said [that] data released by the US Depository Trust & Clearing Corp. ‘do not point to massive speculative activities’”(The FRF, 2010a). However, this fact seems to point out “the destabilizing hedging cases” handled before. And also it reminds us the recognition of the Brazilian authorities (Ex-Monetary Policy Director of the Brazilian Central Bank) after their crisis in 1999 as follows: “There was no evidence of a genuine speculative attack; it looked more like a moderate increase in the demand for hedge. But the press, the general public and IMF staff soon learned about the swift loss of reserves and in their minds this was clear evidence of a speculative attack. Market specialists who understood the role played by the futures-spot spread knew better, but they also knew that the reserve loss could put Brazil ‘in play’ for international speculators...” (Lopes, 2003: 45).

It is noted that “In a recent report, Citigroup likened Greece’s stance to ‘blaming the mirror for your ugly face’” (The FRF, 2010a). Or it is quoted that “Credit default swaps didn’t cause Greece’s problems...Greece caused Greece’s problems” (The FRF, 2010a). It can be said that once again neo-liberal approach together with the market operators selling such securities do not want to see the realities about financial derivatives or underestimate these facts. This approach arguing the totally innocence of derivatives in crises should change immediately and comprehensively at the first beginning. And then the regulatory basis should come in action.

There are two types of regulatory proposals. The first type is the one including “reporting and registration requirements” which “are designed to improve the transparency – and thus the pricing efficiency – in the markets” (Dodd, 2002a: 16). Dodd (2003: 20) maintains that “Reporting requirements also enable the government, and other market surveillance authorities such as exchanges, to better detect and deter fraud and manipulation. Registration requirements are especially useful in preventing fraud”. The second type is the one including “capital and collateral (also known as margin) requirements” of which capital requirements are put as the ones “function to provide both a buffer against the vicissitudes of the market and a governor on the tendency of market competition to drive participants towards seeking high returns and thus higher risks” and collateral requirements are put as the ones which “have basically the same effect, although collateral requirements apply to transactions in particular and

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not institutions” by also covering the “non-financial institutions”, which normally would not be obeyed to capital requirements on their derivatives transactions (Dodd, 2002a: 17).

#### **A. The Policies for All Countries Including both Developed and Developing Ones**

All policies should be harmonised between developed and developing countries and also between developed countries in order to prevent “regulatory arbitrage-geographical arbitrage”, which Tickell (1999: 92) puts as “Institutions exploit spatial variation, seeking out jurisdictions with a relatively light supervisory touch in order to reduce the costs of compliance or to carry out activities that are restricted elsewhere”. Cintra and Farhi (2009: 5) refer to Gowan (2008) which puts it as “the place where you could do what you couldn’t do back home: a place of regulatory arbitrage” (Cintra and Farhi, 2009: 5). The concerns about this issue are put as follows: “Coordination of any derivatives regulation is vital. Unless rules in the United States and Europe are synchronized, global traders inevitably would shift to wherever the most lenient rules exist” (The FRF, 2010a). Cintra and Farhi (2009: 14) put this fact as follows: “The systemic risk of a breakdown of the entire financial system makes the adoption of a broader system of regulation and supervision more and more inevitable. This ought to imply a consolidation of the different regulatory agencies, both in Europe and in the United States”.

In this regard, the rules should be harmonised and coordinated not just between countries and also among the institutions within the country requiring “the consolidation of the country’s different regulatory agencies”. Within the country, the regulatory or supervisory authorities should get “increased powers” in order to supervise “banks, insurance companies and investment funds (including the hedge funds)” beside “financial holdings” (Cintra and Farhi, 2009: 14). Cintra and Farhi (2009: 14) argue that by this way, Basel II at a global scale would be improved by virtue of “the new rules for the structure of financial systems”, about “the degree of leverage, stress tests for new instruments and corporate governance reflecting the fiduciary responsibilities of financial institutions”. Since they conclude that “The crisis laid bare the obsolescence of the decentralized supervisory structures, due to the degree of interconnection among the different financial institutions (banks, pension funds, insurance

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companies, investment funds) and markets (credit, capitals and derivatives)” (Cintra and Farhi, 2009: 14).

## **1. Regulations on Reporting, Registration, Liquidity, Anti-Fraud and Anti-Manipulation**

### **a. Reporting and Registration Requirements**

The first proposal is about “registering all derivatives dealers and brokers”. This will enable “a minimum competence level for the individuals”, who want to be derivatives dealers and brokers, and also “background checks to detect fraud and theft convictions for salespeople and proper business organization for the institutions” (Dodd, 2002a: 17). In this regard, some electronic derivatives trading platforms should be also paid attention since they “function like brokers, and unforeseeable changes in the markets may again elevate the role of brokers”. Moreover, such derivatives dealers and brokers should report all derivatives transactions, in which they involved to the, designated regulatory authority. Such information on derivatives transaction should cover all the details such as “price, volume, open interest, put-call volume and ratios, maturity, instrument, underlying item, amounts traded between other dealers and with end-users, and collateral arrangements” (Dodd, 2002a: 18). This would both improve transparency and also protect the proprietary data which would be kept “by the regulator in order to detect and deter fraud, manipulation and potential systemic breaks in the markets” (Dodd, 2002a: 18). Cintra and Farhi (2009: 10) put it as follows:

“...the products negotiated on the OTC market have no official price, as they are negotiated at prices not made public by the parties. This lack of transparency in OTC market prices, especially concerning those of little liquidity or in complex and sophisticated packages, may prevent or hinder their evaluation... Already in the late 1990s some cases of losses on OTC markets were only identified by companies at the delivery date and not in the course of the operation and were at the origin of many lawsuits against the financial intermediaries of these operations. In the current crisis, the problem resurfaced much more dramatically” (Cintra and Farhi, 2009: 10).

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The second proposal is about “requiring participants (counterparties) in derivatives contracts to report their transactions to the designated regulatory authority”. Although all exchange traded derivatives are reported to the exchange and their clearing houses, most OTC derivatives are not reported to such an authority. They are undertaken between two parties through ISDA Master Trading Agreement (“Master Agreement”), which only “requires that the counterparties to the derivatives trades exchange confirmation messages to insure that all the key terms are understood”. However, by this reporting requirement by a CC the email message or fax to the regulatory authority, OTC derivatives would be more transparent (Dodd, 2003: 21-22).

The third proposal is about “requiring publicly traded corporations to include an explicit statement of their derivatives activities”. Such information would include “notional value (long and short), maturity, instrument and collateral arrangements”. Dodd (2003: 22) maintains that “this would enable investors to better determine whether the firm was under- or over-hedged, and whether they were primarily acting as a producer or wholesaler”. This would be done “in order to bring off-balance sheet activities into the same light as balance sheets”.

The fourth proposal is about “modernizing accounting rules and other financial market regulations in order to properly account for embedded derivatives”. Although hybrid derivatives which combine regular securities and loans with derivatives have an accelerating amount of use, existing accounting rules or financial regulations remain inadequate to detect their potential risks in order to charge extra capital for such risks or even to prohibit such derivatives to certain financial institutions, such as pension funds or insurance companies. It is noted that “Modernized rules should reflect the market risk associated with the attached or embedded derivative and not merely the credit risk of the principle of the security” (Dodd, 2002a: 18). However, if such market risk is measured by just “mark to market (adjusting to market values)” approach, then it will be inadequate for the OTC derivatives. Cintra and Farhi (2009: 10) put the issue as follows:

“The new accounting rules, which ought to ensure the system’s stability and transparency, have contributed to enhance its volatility and lack of transparency, thus triggering a liquidity crisis coupled with a trust crisis. Indeed, level 1 assets



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(encompasses assets whose prices are established on liquid markets) only represented about 9% of the total assets of US financial institutions, 91% belonging to levels 2 (includes assets whose prices depend on models with inputs based on the prices of assets negotiated on other markets) and 3 (refers to assets whose markets are less liquid and whose prices can only be determined by means of mathematical models)<sup>9</sup>. It is thus difficult to deny that these financial institutions held an excess of illiquid assets, which the financial crisis re-priced at levels close to zero” (Cintra and Farhi, 2009: 10).

### **b. Liquidity Requirements**

The proposal is requiring “OTC derivatives dealers to act as market makers and maintain bid-ask quotes throughout the trading day” in order to maintain “market liquidity”. Dodd maintain that dealers who have “privilege’ stemming from their role in the market and have “privy to the most current changes in the market” should have responsibility of market makers by “maintaining liquidity and an orderly market” (Dodd, 2002a: 18-19). In this regard, Roy (2009a) maintains that “The administration proposes that most derivatives be traded on exchanges, like stocks and bonds, and that dealers — particularly banks — buying and selling derivatives meet robust requirements” (Roy, 2009a). In this regard, he notes that if possible “standardized” CDSs should be traded on exchanges, but at least they should go through “a central clearing house in order to reduce systemic risk when counterparties fail” (Roy 2009a). On the other hand, he puts his concerns about such proposals as follows: “Even if this measure is sidestepped, there are plenty of other devils in the detail. How much of the market should be “standardised”? ...Should the number of clearing houses—which have sprouted on both sides of the Atlantic—be limited? A monopoly would be unhealthy, a multiplicity inefficient (since netting would be harder). And who will regulate what? The Securities and Exchange Commission and the Commodity Futures Trading Commission

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<sup>9</sup>It is noted that “By the end of 2006, the Financial Accounting Standards Board (FASB), which regulates the accounting information of financial institutions, introduced a new classification of financial assets to better determine their prices” as “level 1, level 2 and level 3”. In this regard, it is argued that “A large portion of the OTC derivatives is to be found in level 2, whereas the mortgage-backed assets or other types of credit and investments in private equity belong to level 3” (Cintra and Farhi, 2009: 10).

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(CFTC) will oversee contracts based on securities and commodities, respectively, but some swaps straddle both categories” (Roy, 2009a).

### **c. Anti-fraud and Anti-Manipulation Authority**

The first proposal is “strictly prohibiting fraud on the market and the manipulation of market prices and making it punishable by civil and criminal penalties”. Dodd (2002a) puts it as “In order to protect the integrity of market prices so that they encourage the widest possible market participation and do not signal distorting signals throughout the economy, fraud and manipulation should be strictly prohibited and punishable by civil and criminal penalties” (Dodd, 2002a: 18).

The second proposal is about the “requirement reports of large trader positions”. In order to find out and prevent market manipulation, the information regarding the each entity that is over a certain size of position in the market reported by the derivatives dealers and exchanges, would put together across markets. This proposal require extending the “know thy customer rules” to “all financial institutions conducting lending, underwriting, repurchase agreement transactions, securities lending transactions, and all derivatives transactions with entities in developing countries”. In this regard, Dodd (2002a: 18) maintains that some harmful derivative vehicle such as Principal Exchange Rate Linked Notes (PERLs) would be banned since they “served no positive purpose for East Asian investors and were primarily a stealth vehicle for financial institutions in developed countries to acquire long-dated short positions in developing country currencies”<sup>10</sup>. In this regard, related with the last global financial crisis some CDSs, the so-called “naked CDSs” would be banned also in order to prevent such speculative purposes.

## **2. Regulations on Capital and Collateral Requirements**

### **a. Capital Requirements**

Capital requirements are about renewing existing capital requirements for “all financial institutions, especially derivatives dealers that might not otherwise be registered as a financial

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<sup>10</sup> See Partnoy (1998) in order to find out how these instruments were used.

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institution”<sup>11</sup>, in order not only to prevent “the exposure to credit loss, but also potential future exposure and value at risk (VAR)” (Dodd, 2003: 23). This is also critical issue for preventing systemic risk in which the problems of one firm can become the problems of others, especially, for the dealers, of which “failure can lead to market problems such as illiquidity (market freeze-up) or meltdown”. In this regard putting capital has two functions. First it acts as an insurance as “a buffer when the firm suffers from an adverse event”; and second, it discourages the risky positions due to “the capital requirement is appropriately structured to be proportional to risk exposure” (Dodd, 2003: 23). This issue is also very crucial if the last global financial crisis is considered with its background of “global shadow banking system”. This system is put by Cintra and Farhi (2009: 2) as follows: “A set of institutions which operated as banks without being banks, raising resources in the short term, operating with very high leverage and investing in long-term and illiquid assets. Unlike banks, however, these institutions were loosely regulated and supervised, they did not have reserves of capital, they had no access to deposit insurance, to the rediscount operations or to the last resort credit lines of central banks. As a result, they were highly vulnerable both to an investors’ run (withdrawal of resources or mistrust of short-term markets) and to asset imbalance (devaluation of assets as compared to liabilities)”.

Cintra and Farhi (2009: 4) also put the way going to the participants of such institutions in the credit markets as follows: “Since they could not create money by granting credit directly, they made use of these short-term resources to assume the counterparty of the banks” operations, whether on the derivatives market, selling protection against credit risks, or acquiring the credit backed securities or structured products issued by the banks, whose profitability was attached to the amortization of the loans. They thus came to participate in the

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<sup>11</sup>Dodd (2003: 23) gives the examples to non-financial firms acting as derivatives dealers as follows: Enron, Williams, El Paso and Duke energy corporations.

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credit market, raising short-term resources to fund long-term credit (such as 30-year mortgages) and acting as quasi-banks” (Cintra and Farhi, 2009: 4).

On the other hand, it is noted that capital in high amounts should not be the case since it has potential to create monopoly/oligopoly in the markets in terms of financial institutions acting as clearinghouses. It is put as follows: “To keep new participants out of the business of clearing trades, the established firms have rules requiring incoming members to hold a certain amount of net capital — in some cases \$5 billion — and they want to keep these thresholds intact. While such a requirement sounds like a way to reduce risk in the market by ensuring that only players with deep pockets are allowed in, some analysts say it heightens risk by eliminating competition and allowing the system to be dominated by institutions that are too big and politically interconnected to fail” (The FRF, 2010b). So, “multiple clearing brokers involved with the clearinghouse to distribute the risk and multiple dealers to provide liquidity and continuity in markets in times of crisis” are proposed. However, it is very hard to put it in action since it is put that “the big firms that have so dominated the swaps market will do all they can to hang on to their hegemony. After all, swaps trading is one of the last bastions of lush profitability, and Wall Street is desperate to protect it” (The FRF, 2010b).

#### **b. Collateral Requirements**

Collateral requirements are on “adequate and appropriate collateral or margin to be posted and maintained on all derivatives transactions”. They act as capital, but for transactions not just for financial institutions. Thereby, it tries to prevent systemic risk in terms of transactions. In other words, “in doing so it reduces the likelihood of default or other credit related losses, and it reducing the market’s vulnerability to a freeze-up or meltdown” (Dodd, 2002a: 20). The current market practice for the use of collateral is tackled both inadequate and dangerous. Dodd (2003: 21) puts it as follows:

“Many firms trade derivatives without collateral, a practice known as trading on capital, or trade with a high threshold of exposure before collateral is required. Another dangerous practice is to use illiquid assets as collateral. Yet another problem practice is the requirement that a counterpart become ‘super-margined’ if its credit rating drops

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substantially. This change requires a derivatives counterparty to post substantial amounts of additional collateral, and amounts to a large demand for fresh capital just at the time the firm is experiencing problems with inadequate capital. This market practice creates a crisis accelerator” (Dodd, 2003: 21).

### CONCLUSION

Since the beginning, there have been two main facts that differentiate social sciences from natural sciences: First is the fact that the results that were reached at the end of a social science study have not certain end like the ones of a natural science study, due to there can be two opponent results on the same subject, which are extremely different from each other. The second is that the researcher and the research cannot have “enough distance” in social sciences because of the nature of the topics of the social sciences. These two facts have been observed much more in especially vital subjects on the future of societies or markets, such as financial openness or globalization. In this regard, derivatives are one of these subjects since there have been two opponent views about them, which are extremely different from each other of which two examples are as follows:

“The derivatives genie is now well out of the bottle, and these instruments will almost certainly multiply in variety and number until some event makes their toxicity clear. Central banks and governments have so far found no effective way to control, or even monitor, the risks posed by these contracts. In my view, derivatives are financial weapons of mass destruction, carrying dangers that, while now latent, are potentially lethal” (Buffet, 2002: 2).

The same topic, derivatives, is put by Savona *et al.* (2000: 149) as follows: “Derivatives are the greatest financial innovation of the late twentieth century”. Similar dilemma, which is about the “delicate distance” that should be between the researcher and his/her research, is also observed for derivatives, when the researcher is especially working for financial institutions selling such contracts as dealers or working for international institutions of which their big paradigms, *e.g.* neo-liberal perspective, shape all their sub views or works.

So, the policy options should be as Garber and Lall (1996: 229) put it “The policy implication that emerges from this is that the growth of derivatives should be seen as a two-edged sword that can be very beneficial if used properly but can be harmful if not” for a win-

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win solution. Because, financial derivatives seem like cell phones, which were also announced as “the invention of the century”, good when used properly, but when they are used improperly, so long, for instance, they can be dangerous even for adult people, but in any case, they can be much more dangerous for children. However, this does not mean that they should be all banned.

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