

## G-20 DERIVATIVES REGULATION

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### *Abstract*

*OTC derivatives had a clear role in spreading out volatility and risks in the recent crisis. While the broad approach to reform taken by G-20 countries to achieve financial stability is sound, what has been neglected so far, however, is the role played by non-financial operators and the low degree in international coordination on new financial regulation. Non-financial operators trading of OTC derivatives does not often take place under the new regulatory umbrella, either because of the relative size (i.e. below the minimum threshold) or because of the lack of capital requirements. This lowers the incentives to clear centrally, increases counterparty risks and reduces financial stability. The low degree in international coordination on new financial regulation further decreases the ability to deal with unexpected events.*

### *Financial Derivatives*

The global regulatory framework has not yet intervened on the trading of OTC derivatives by non-financial operators that constitutes a source of systemic risks. Global leaders of the G20 met in Pittsburgh (2009) and decided to revise the global financial architecture to better cope with evolving risks and to effectively promote growth. As most economists agree on, the financial crisis has been not only the product of excessive credit and assets' bubble, but also of "poorly designed liberalization, inef-

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fective regulation and supervision, and poor interventions" (IMF, 2014, p.3). Financial derivatives had a clear role in spreading out volatility and risks, but their economic role separates from the shortcomings in their trading infrastructures.

Under the auspices of the Financial Stability Board (FSB), the G-20 nations have moved to regulate the use of OTC derivatives by financial operators (i.e. banks and financial intermediaries), since they trade around 90% of the global derivatives markets. At the heart of the international regulatory effort is an attempt to build resilient, continuous, and transparent OTC derivatives markets.

Regardless of the reduced global economic performance, the derivatives' market continued to grow and reached \$710 trillion at end 2013 (BIS, 2014A), as measured with the notional amount outstanding; the corresponding gross market value declined to \$19 trillion, below its 2012 level (\$24 trillion), mostly because of interest rates contractions due to the lowering global path (Tabs. 1, 2, 3). The notional dimension of derivatives largely exceeds that of most financial products; as of December 2013, the global capitalization of the equity markets reached \$64 trillion, and the bond market reached \$22.4 trillion (WFE, 2014).

The BIS (2013) established a group to study the macroeconomic impact of the new regulatory framework for OTC derivatives; economic benefits and costs of planned reforms have been compared, and the long-run benefit is the reduced probability of economic and financial crisis which positively affects growth. The (short and long term) costs of planned reforms are relevant for the global financial system, but the lack of data on detailed bilateral trading exposure, together with the uncertainty over the final regulatory scenario limited the extent of the analysis. The probability of gaining higher benefits under the new regulatory system strongly depends on the level of coordination among financial systems and the ability to recognise and close those gaps left open in the past.

Generally speaking, the EU and the U.S. are well advanced in adopting the new rules, with respect to other G-20 countries, but that comes at the detriment of con-

sistency and coherence between the European and the American systems; in particular, divergent rules on capital, liquidity, derivatives and banking structure create regulatory misalignments that incentives the beggar-thy-neighbour, and the race to the bottom in terms of competition and price at the detriment of markets' stability (Deutsch, 2014). This has non-trivial effects on growth and development for all G-20 countries because of deep financial linkages.

#### *Non-financial operators*

The trading of OTC derivatives products by Governments, local administrations, and non-financial firms' accounts for 10% of the total global OTC market in 2013 and together with the model risk, i.e. the uncertainty over the pricing of derivatives, limit the possibility to effectively achieve financial stability under the new regulatory system. The relatively small dimension should not limit considering the potential risk involved, since domino effects might spread thanks the deep interconnections in the financial system. Before 2007 nobody would have ever imagined that a tiny market like that of subprime mortgages<sup>2</sup> would have created such a global disaster, not even the US Federal Reserve (Gramlich, 2004).

#### *Governments and local administrations*

After 1990 many sovereign states employed OTC financial derivatives to hedge their debt, and to smooth its costs (e.g. foreign-currency denominated bonds). The successful experience of U.S. states (e.g. California, Texas), Denmark, and Brazil confirm that OTC derivatives contracts are powerful risk management tools although the small disclosure of data on such contracts fuelled criticism (Oldani, 2008).

Local administration's experience with OTC derivatives strongly depends on their financial independence from the central state. Since the State is finally responsible

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<sup>2</sup> In 2007 the subprime mortgage market accounted for around 12% of the entire mortgage market.

for all obligations underwritten by local administrations, the UK prohibited the use of derivatives by local administrations back in 1988; on the other side, Italian Regions have outstanding OTC derivatives worth €10,784 million in 2013 under no clear domestic regulatory framework<sup>3</sup>. In the recent past some public administrations bankrupted because of financial mismanagement involving derivatives contracts; the \$2 billion Orange County (California) default in 1994 and the \$4 billion default of the Jefferson County (Alabama) in 2011 in fact were caused by excessive financial risks (Howell-Moroney and Hall, 2011) and not by reduced resources available, like taxes or Government funding<sup>4</sup>.

The Governmental Accounting Standard Board (GASB) issued the Statement No. 53 in 2008 that “addresses the recognition, measurement and disclose of information regarding derivatives entered into by state and local governments”. The aim of the statement is to “improve financial reporting by requiring public administrations to measure derivatives at fair value in their economics resources measurement”.

The standard establishes disclosure requirements such as a derivative summary, information about hedge effectiveness, fair value, management’s objectives, significant terms, and risks. The standard is effective since fiscal year 2010, but not all countries decided to update the domestic accounting systems in order to provide meaningful and homogenous information on financial transactions (again Italy lies far behind). At present, small information is provided by administrations on their derivatives contracts, limiting the empirical analysis of risks and costs.

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<sup>3</sup> The outstanding debt of Italian local administrations is €115 trillion (7% of GDP, 2013); the Italian Republic has underwritten swaps to hedge the foreign denominated debt that is less than 3% of total debt in June 2014. The Italian public debt reached 132% of GDP in 2013.

<sup>4</sup> The city of Detroit is an example of default due to over-financing with reduced resources, decreasing population and production. Unbalanced interest rate swaps produced further damage and the city paid large fees to banks to foreclose some of them

*Non-financial firms*

Non-financial firms trade OTC products to hedge and to speculate; the economic literature has highlighted that the lack of accounting data on OTC contracts separate from other hedging contracts (e.g. insurance) represents a barrier toward a comprehensive assessment of risks involved. While financial firms should comply also with capital and margin requirements, non-financial ones are free to engage in potentially risky contracts without any requirement and under small supervision. In July 2014 the International Financial Reporting Standards (IFRS) issued the standard n.9 that will replace the International Accounting Standard (IAS) statement n. 39 on the use of OTC derivatives by financial and non-financial firms after 2018; the fair value measures derivatives' exposure, and firms should provide information on the type of derivatives, scope and relations with the core business. The evolving financial system structure and increased complexity lead to this new comprehensive standard.

*Model risk: the known unknown*

Uncertainty over the pricing model of derivatives leads to the model risk. In 1997 the A. Nobel Prize in Economics has been assigned to Myron S. Scholes and Robert C. Merton for their contribution to the pricing of financial derivatives; in 1997-1998 the hedge fund they managed, the Long Term Capital Management (LTCM) was hit by the Asian and the Russian bonds crises, and finally crashed. The collapse of LTCM was due to the complex risk models employed and to the overreliance to such models. Many economists and markets players believe that derivatives' pricing models have been used wrongly prior to the subprime crisis and that they are still used wrongly today (Jarrow, 2010). Derman, back in 1996, introduced six simple rules of thumb to mitigate the model risk, but they can be further summarised in one: prefer simple models to complex ones since Devil is in the detail. This principle should be

taken into consideration by board's members of non-financial firms and managers of local public administrations.

Enron would be an easy example for the reader to figure out the potential risks involved in derivatives' trading, but instead we follow Warren Buffett's approach: he stated in his 2002 shareholder's letter that derivatives are financial weapons of mass destructions, but, by looking at Berkshire Hathaway balance sheet, it is clear that Mr. Buffett actively uses them, taken with a grain of salt. Nevertheless, which is exactly the size of the grain is not easy to say.

### *Conclusion*

The trading of OTC products by non-financial operators (Governments, local administration and non-financial firms) often occurs in the absence of capitalization, proper financial accounting criteria and adequate monitoring or supervision. G-20 Governments trading should be under scrutiny by other member countries, and by credit rating agencies; however, the recent financial crisis already showed the limits of credit rating agencies, and the small degree of coordination among countries in case of unexpected financial shocks. Local administrations might have a certain degree of freedom to engage in sophisticated financial products, like OTC derivatives, and should be monitored by the central state. Non-financial firms either listed or not on a stock exchange, are monitored by domestic market authorities. However, their financial trading is not under intense monitoring and scrutiny.

The BIS (2014C) analyses the incentives to centrally clear OTC derivatives contracts under the new regulatory system, and, with respect to non-financial operators, states that:

*if an end user of OTC derivatives is not subject to capital requirements for counterparty credit risk, its incentive for central clearing is reduced; if the end user is not subject to the margin requirement on non-centrally cleared derivatives, or that fall*

*below the margin required thresholds, the impact on incentives to clear centrally is not straightforward (p.19)*

The regulatory frameworks in the EU and in the U.S. are not fully consistent with each other, and the lack of transatlantic consistency can be reduced by means of greater regulatory coordination by the G-20 over principles, rather than rules.

The G-20 should strengthen the international financial system structure and explicitly consider the role of non-financial operators trading of OTC products, since some of them fall entirely out of the new regulatory umbrella. Non-financial operators should be compelled to adhere to the centralised counterparty system, and the collateralised systems of trading, and to enhance their accounting and risk management procedures in order to properly deal with financial risks. The focus has to be out on the derivative, and not on the type of counter-part that enter the trading.

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