

**RISK MANAGEMENT AND THE EUROPEAN MARKET  
INFRASTRUCTURE REGULATION (EMIR)**

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**ABSTRACT**

*The European Market Infrastructure Regulation (EMIR) is a new act to control the trade with OTC derivatives as a result of the financial crisis in 2007. The article describes the main categories of these regulations and clarifies the question, whether these regulations are relevant for industrial companies or not.*

**KEY WORDS**

*Risk management, over the counter (OTC) market, derivative regulation, EMIR, Reporting, Clearing, central counterparty, collateral requirements*

**INTRODUCTION**

The Bank for International Settlements published for the OTC derivative market transactions with a gross nominal value of 639 trillion US Dollars<sup>1</sup>. After a peak in 2008 statistics showed a drop in nominal values by a third and again an increase in 2011.<sup>2</sup> Experts lead back this development of a high market volatility, which increases the demand for hedging instruments. Despite the financial crisis, this market area was not regulated and non-transparent. The new European Market Infrastructure Regulation (EMIR) shall regulate the OTC market and bring more transparency.

In a first step it will be investigated if this regulation can be relevant for industrial companies or whether it is only obligatory for financial traders. The result will be shown by the example of energy supply companies. In the following the main aspects of this regulation will be explained in more detail.

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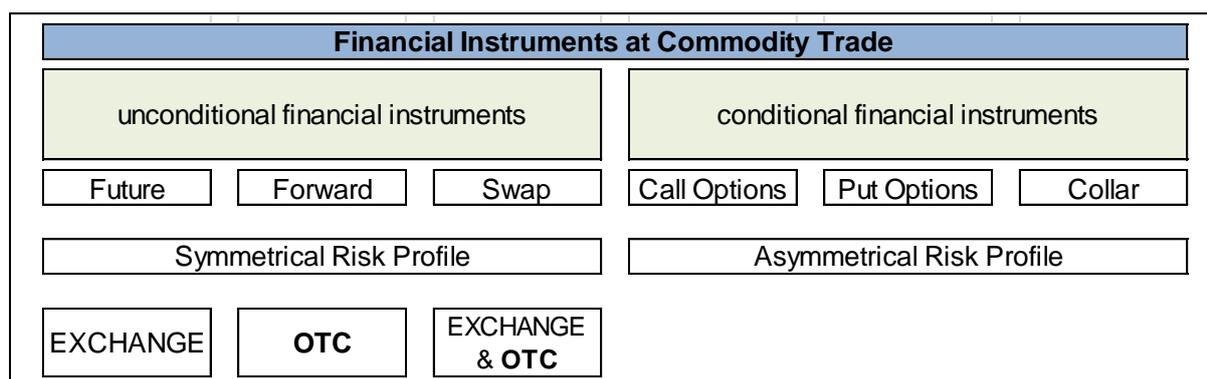
<sup>2</sup> See also: Kleist in IFC Bulletin No. 35 p. 45.

## DERIVATIVE FINANCIAL INSTRUMENTS IN INDUSTRIAL COMPANIES

Derivative financial instruments - short derivatives - are instruments of finance management, which can be used for speculation, hedging or arbitrage. The speculation with financial derivatives has the objective to realise profits through expected price changes. Arbitrage means the utilization of unjustified price differences on a market – this is mainly an instrument of financial companies and is listed for completeness. A great significance for industrial companies has financial instruments for hedging of risks.<sup>3</sup>

Derivatives are characterised by the conclusion of a contract and performance of a contract differ timely, but the price is fixed at time of conclusion. They are products, which are derived from the value of other assets (underlying). Derivatives can be distinguished after their level of obligation in conditional and unconditional financial instruments. Another distinguishing feature is the risk profile. A symmetric risk profile is given, when chances of profit are same like risks of losses. Is the risk of losses limited of an option premium for purchasers and unlimited for vendors the risk profile is asymmetric.<sup>4</sup>

Another distinguishing feature is the trading place. Financial instruments can be traded on exchanges or over the counter (OTC). Exchange dealing is based on standardised contracts with margins. OTC derivatives are individual contracts without standardisation. Integral parts of the contract (currency, amount, term, interests) can be negotiated freely.



*Fig. 1 Financial Instruments at Commodity Trade*<sup>5</sup>

The energy market is characterized through his dependence on development of commodity prices for oil products, natural gases and black coal. The commodity prices are increased constantly in the past. These additional costs can be passed on customers or it has a direct impact of operating results. These can deteriorate the market position of a company or reduce customer satisfaction. It is necessary for the success of a company to dominate this risk situation for instance through an individual hedging strategy. The risk position can be secured, all or part of, through derivative financial instruments.<sup>6</sup>

In the sector of energy and commodity are Futures/Forward, Swaps and Options most traded products. Futures and Forwards are unconditional financial instruments, these means the obligation to take a specific amount of the asset on a certain date with a fixed price. The conditions of the contract are obligatory for both partners. Opportunities and Risks are

<sup>3</sup> See also: Zantow (2010) p. 364.

<sup>4</sup> See also: Prätisch, Schikorra, Ludewig (2010) p. 213.

<sup>5</sup> See also: Braun in Eller (2010) p. 186,

<sup>6</sup> See also: Braun in Eller (2010) p. 183 ff.

distributed symmetrically, because no payment of premium is due after conclusion of contract and the function of payment is linear. **Futures** can be traded at the exchange, because the conditions of the contract are standardised. A financial compensation is to pay at maturity. The current market value is compared to price at conclusion of contract. Differences are credited or debited to accounts of contractors. **Forwards** are individual contracts with a physical settlement.<sup>7</sup> **Swaps** are contracts with an exchange between a fix and a variable price. After a period the contracts will be evaluated. The difference between estimated value and predetermined Swap-Level is compensated financially. An **Option** is a right to buy or sell a special underlying asset for a fixed price. An underlying can be shares or products.

Approximately 95 % of all derivative financial instruments were contracted outside of approved exchanges.<sup>8</sup> The OTC market is non-transparent with a global nominal volume of 648 Trillion US-Dollar in 2011. The financial crisis has shown that the functionality of financial markets can be substantially disturbed by a non-transparent OTC derivate market. On this background, the G-20-Countries<sup>9</sup> have committed that all standardized OTC derivatives should be traded on exchanges or electronic trading platforms and cleared through a central counterparty until the end of 2012.<sup>10</sup>

This section has shown that OTC market is relevant also for energy companies. The next chapter will give an overview on the new EU regulation and the impact on energy companies.

## REGULATION OF THE OTC DERIVATIVE MARKET

The declaration of G20 countries about the regulation of derivative markets is implemented in the United States of America by “Dodd-Frank-Act” and in the European Union by “European Market Infrastructure Regulation” (EMIR).

EMIR is entered into force on 16<sup>th</sup> August 2012. The regulation is not only legal for finance companies, but in principle for all participants of the OTC derivative market. The Regulation is directly applicable in the Member States and shall take effect without implementation into national legislation, other than EU directives. In national law only executive regulations are necessary, for instance for the definition of competent supervisory authority. The regulation requires anyone who has entered into a derivatives contract to report and risk manages their derivative positions. The aim of the regulation is to stabilize the market, to minimize systemic risks and economic risks, which result from default of a counterparty, and to design more transparency of the market.

EMIR contains four core areas, which must be observed by market participants. The market participants can be distinguished into two categories:

- Financial counterparties, which includes banks, insurances, investment firms and
- Non-financial counterparties, which covers any counterparty that is not classified as a financial counterparty

The obligation to report contract details to a trade repository as well as increasing requirements for risk management and management of collaterals is relevant for all market participants.

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<sup>7</sup> See also: Braun in Eller (2010) p. 187f.

<sup>8</sup> See also: European Commission 2/2012,

<sup>9</sup> G20 major economies is a group finance ministers and central bank governors of 20 major economies – United States of America, Canada, Mexico, Brazil, South Africa, Argentina, China, Japan, South Korea, India, Indonesia, Russia, Turkey, European Union, Germany, France, United Kingdom, Italy, Saudi Arabia and Australia.

<sup>10</sup> See also: Sigmundt in BaFin Journal 01/2012 p. 12

**Reporting** (Art. 9 EMIR) All counterparties with outstanding derivative contracts have to report details of these contracts to an authorized trade repository. The report must include at least: involved counterparties, type of derivative, underlying, nominal value, maturity, terms of contract and settlement. Modifications or completions must be reported as well. The details are to be reported no later than one day after realisation. The scope of application includes derivative contracts completed before EMIR entered into force and are still outstanding as well as contracts, which concluded after. The notification can be executed by any of the parties or delegated of CCP. It is to ensure that the notification is not repeated. Problems and Risks should be identified early through this data collection.<sup>11</sup>

**Risk management** (Art. 11 EMIR) standards are increased, if derivatives are not traded on CCP. Market participants have to implement procedures and measures to reduce operational and default risks. Another requirement is the implementation of formal processes to exchange of central conditions and current market values. Furthermore escalation procedures are setting with regard to identification, documentation and monitoring of critical aspects, for instance Valuation of OTC derivatives. The Risk management has to be checked by auditors, if threshold (nominal value > 100 Mio. € or more than 100 OTC derivatives) are exceeded.

**Collateral Management** (Art. 11 EMIR) is relevant for companies, which complete derivative contracts without CCP. They have to implement a risk management, which is able to identify need for collateral timely and appropriate. This requirement is currently substantiated through Basel Committee<sup>12</sup>.

**Clearing** (Art. 4 EMIR) is the obligation to transact qualified OTC derivative contracts through a central counterparty (CCP). So far, derivative contracts were concluded on the basis of individual agreements between parties. The inclusion of a CCP is designed to offset effects of one of counterparties. The market should be secured against insolvency of individual market participants. CCP's require margins, which shall cover for instance the risk of change of prices until the settlement of the contract. All CCP's deposit in a clearing fund. The objective is to secure the failure of another CCP.

Affected by the clearing obligation are financial counterparties. Non-financial counterparties are subject to the clearing obligation only if certain threshold in the closed OTC derivatives contracts is exceeded. After the ESMA<sup>13</sup> draft 1 trillion Euro notional amounts of credit derivatives and equity derivatives, as well as each of 3 trillion euros nominal value of interest rate derivatives, currency derivatives and commodity derivatives.

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<sup>11</sup> See also: Sigmundt in BaFin 01/2012 p. 14.

<sup>12</sup> Basel Committee on Banking Supervision is a forum for regular cooperation on banking supervisory matters. Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide. It seeks to do so by exchanging information on national supervisory issues, approaches and techniques, with a view to promoting common understanding. At times, the Committee uses this common understanding to develop guidelines and supervisory standards in areas where they are considered desirable. In this regard, the Committee is best known for its international standards on capital adequacy; the Core Principles for Effective Banking Supervision; and the Concordat on cross-border banking supervision. (See also: [www.bis.org](http://www.bis.org))

<sup>13</sup> European Securities and Markets Authority (ESMA) mission is to enhance the protection of investors and reinforce stable and well-functioning financial markets in the European Union. As an independent institution ESMA achieves this mission by building the single rule book for EU financial markets and ensuring its consistent application and supervision across the EU. ESMA contributes to the supervision of financial services firms with a pan-European reach, either through direct supervision or through the active co-ordination of national supervisory activity. (see also: [www.esma.europa.eu](http://www.esma.europa.eu))

Derivatives that were entered to hedge operational risks should be deducted when calculating the thresholds. Thus the clearing obligation is primarily of importance for large companies that use OTC derivatives for speculation and trading.<sup>14</sup>

## CONCLUSION

The implementation of the EMIR requirements is necessary for all companies, which trade with OTC derivatives. Particularly for companies with larger derivatives it can lead to considerable expenses, which is intensified by the time. The topics clearing obligation, risk management, collateral management and reporting have to be analyzed. The intensity depends on business model and use of derivatives. A key point from the company's perspective is to develop an understanding of the interactions and influences on treasury and finance departments. A comprehensive analysis is necessary. The future will show, whether the rules are again just another bureaucratic bubble or whether desired effects occur actually.

## REVIEWER'S NAME

Joehnk, Peter, Prof. Dr. Dr. h. c.

## REFERENCES

1. ELLER, R., HEINRICH, M., PERROT, R., REIF, M. 2010. *Management von Rohstoffpreisrisiken – Strategien, Märkte, Produkte*. Gabler Verlag.
2. PRÄTSCH, J., SCHIKORRA, U. LUDEWIG, E. 2010. *Finanzmanagement, 3. Auflage*. Springer Verlag.
3. ZANTOW, R., DINAUER, J. 2011. *Finanzwirtschaft des Unternehmens - Die Grundlagen des modernen Finanzmanagements, 3. Auflage*. Pearson Studium.
4. BaFin Journal 01/2012: Sigmundt, Dr., Christian EMIR: Neue Regeln für den Handel mit OTC-Derivaten
5. IFC Bulletin No. 35: Kleist, v., Karsten: The BIS framework for monitoring financial derivatives

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<sup>14</sup> See also: Sigmundt in BaFin Journal 01/201 p. 12