



**Second part of CEBS technical advice to the European Commission on the review of commodities business under Article 48 of Directive 2006/49/EC**

**Assessment of the prudential risks that arise from the conduct of commodities business and the activities of firms carrying out commodities business**

**Annexes I -VII**

### Regulation of commodities business in the United States

1. The Call for Advice asks for information on the supervisory regimes in place in non-EEA jurisdictions. CEBS has already provided an overview of the supervisory regimes for commodity business in place in the United States, Australia and Switzerland in its first submission in December last year. Since then, the working group was able on the basis of additional information to further develop the description of the U.S. regime which is set out below.

### Scope of commodity regulation

2. Commodities and commodities derivatives business in the United States is regulated primarily under the Commodity Exchange Act (CEA) which regulates the futures and options industries, requiring all commodity futures and options on commodity futures to be traded on organized exchanges. The CEA does not contain explicit definitions of these terms. However, in administrative practice a futures contract is a legally binding agreement between two parties to buy or sell in the future, on a designated exchange, a specific quantity of a commodity at a specific price. The buyer and seller of a futures contract agree on a price for a product to be delivered, or paid for, at a set time in the future, known as the "settlement date." Although actual delivery of the commodity can take place in fulfilment of the contract, most futures contracts are actually closed out or "offset" prior to delivery. Further features may include margining, clearing, standardization etc.
3. The CEA is administered by the Commodity Futures Trading Commission (CFTC). The CFTC's jurisdiction extends to certain agricultural commodities named in the CEA and "all other goods and articles ... and all services, rights, and interests in which contracts for future delivery are presently or in the future dealt in." It has to be noted that the US definition of commodities, unlike the MiFID, also comprises interest rate, equity and FX derivatives. The CFTC's jurisdiction does not extend to cover spot or cash transactions (which are contracts for present, not future delivery), nor does it cover forward contracts, which the CEA describes as "any sale of any cash commodity for deferred shipment or delivery."
4. The CEA was significantly revised in 2000, by the Commodity Futures Modernization Act (CFMA), *inter alia*, to promote innovation for futures and derivatives and to reduce systemic risk by enhancing legal certainty in the markets for certain futures and derivatives transactions and to establish a tiered approach to regulatory oversight of derivatives markets. Different types of markets are subject to varying degrees of regulatory oversight based on: (1) the sophistication of the market participants; (2) the nature of the commodity (how susceptible to manipulation); (3) whether the market is intermediated; and (4) the trading mechanism (e.g. individually negotiated transactions vs. bids and offers open to multiple counterparties).
5. Market participants include: (1) "eligible contract participants" (ECPs) – sophisticated traders such as financial institutions, investment companies, insurance companies, government entities, or corporations meeting certain minimum financial standards; (2) "eligible commercial entities" (ECEs) – a subset made up of certain types of ECPs who, in connection with their business, have the ability to make or take delivery of the underlying commodity, incur risks, in

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addition to price risks, related to the commodity, or are dealers who provide risk management services involving the commodity; and (3) other traders (including retail customers and smaller businesses).

6. The CEA defines *inter alia* the following types of commodities: (1) "excluded" commodities (financial products, including financial instruments, currencies, security products and economic indices); (2) "exempt" commodities (all underlyings not covered by (1) and (3), primarily metals and energy products); and (3) "agricultural" commodities. It must be noted that the terms "excluded" and "exempt" as used to define the different categories and do not indicate the regulatory treatment of these commodities.

### Regulated entities and transactions

7. Subject to limited exceptions discussed below, all commodity futures and options on commodity futures are required by the CEA to be traded through a CFTC-regulated exchange.
8. For trading facilities the CEA distinguishes between three different tiers of regulations:
  - Designated contract markets
  - Derivatives transaction execution facilities
  - Exempt markets
9. Traditional futures exchanges, described in the CEA as "designated contract markets" (DCMs), are subject to the most comprehensive regulation, including authorization (registration). DCMs can allow access for all types of participants, including retail customers, they can permit intermediation, and may list trading futures or option contracts on all types of products.
10. "Derivatives transaction execution facilities" (DTEFs) are also required to register with the CFTC. However, they are only open to a limited range of participants and may trade only in a limited range of commodities. In comparison to DCMs, they are subject to more limited regulatory requirements and Commission oversight. There are currently no DTEFs registered with the CFTC.
11. DCMs and DTEFs operate as self-regulatory organizations with significant oversight responsibilities over their floor brokers and traders, members and firms, including futures commission merchants (brokers) and their sales people. In this capacity they are subject to a flexible oversight regime by the CFTC based on 18 core principles. This approach was introduced by the CFMA to replace the prescriptive rule-based regime that previously applied to Commission-registered exchanges.
12. The CFTC regularly assesses the self-regulatory organisations against the core principles. This assessment covers essential areas such as corporate governance, the products traded on the exchange, enforcement, surveillance and compliance programmes, dispute resolution etc. The results of the assessment and, if appropriate, recommendations for improvement are published on the CFTC's website.
13. Exempt markets, including both "exempt commercial markets" (ECMs) and "exempt boards of trade" (EBOTs), are trading facilities on which bids and offers are open to multiple counterparties. Exempt markets are subject to very limited

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CFTC oversight. They are not required to register with the CFTC, but must notify the agency of their operation. They are subject to minimal reporting and recordkeeping obligations, have no self-regulatory organization responsibilities, and are exempt from most provisions of the CEA, except for the antifraud and anti-manipulation provisions. EBOTs may list for trading only futures or options for which the underlying commodity has: (1) a "nearly inexhaustible deliverable supply;" (2) a deliverable supply so large and a cash market so liquid as to be "highly unlikely to be susceptible to ... manipulation;" or (3) "no cash market" (e.g., weather indices). EBOTs are only open to ECPs. ECMs may list for trading only exempt commodities and are only open to ECEs trading principal-to-principal.

14. Transactions in exempt commodities between ECPs, which are not entered into a trading facility (i.e., bilateral transactions), are not subject to CFTC oversight, nor are the participants required to notify the CFTC of their operation. The transactions are, however, subject to the CEA's antifraud and anti-manipulation provisions.
15. Transactions in excluded commodities between ECPs, usually trading bilaterally (e.g., financial swaps), are completely exempt from the CEA, including the CEA's antifraud and anti-manipulation provisions, and are not subject to any CFTC oversight.

### **Regulated Activities**

16. The firms that act as brokers for public customers, i.e., solicit or accept orders for trading in commodity interests, must register under the CEA as futures commission merchants ("FCM") if they handle customer funds or as introducing brokers ("IB") if they do not handle customer funds. Individuals acting as salespersons for FCMs and IBs, and the supervisors of these persons, must register as associated persons ("APs"). To protect customers, FCMs and IBs must comply with various disclosure, recordkeeping, reporting and financial requirements. The respective DCM or DTEF is responsible for the oversight of these requirements, i.e. they are self-regulatory organizations.
17. Individuals who execute trades on behalf of others or subject to the rules of a contract market (including an electronic system) must register as floor brokers ("FBs"). FBs may also trade for their own account. In contrast to FBs, floor traders ("FTs") may only trade on own account or subject to the rules of a contract market.
18. Persons whose business is to advise others about commodity interests by directing client accounts or by basing advice on, or tailoring advice to, the commodity interest or cash market positions or other circumstances or characteristics of particular clients, must register as commodity trading advisors ("CTAs") under the CEA. Persons who operate a collective investment vehicle for the purpose of trading in commodity interests, and in connection with these solicit, accept or receive from others funds, securities or property to purchase participation interests in the collective investment vehicle are required to register under the CEA as commodity pool operators ("CPOs"). Certain exemptions apply to both categories. Individuals who act as salespersons for CPOs and CTAs and their supervisors must register as associated persons ("APs"). CPOs and CTAs must meet disclosure, recordkeeping and reporting requirements. No capital requirements apply. However, CPOs or CTAs may become subject to enhanced

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supervisory requirements by the National Futures Association (“NFA”) if a certain number of their APs have worked at “Disciplined Firms”, i.e. firms which have been disciplined by NFA or CFTC. In this case, they must, for example, enter into a guarantee agreement with an FCM or maintain adjusted net capital of \$250,000.

19. As described above the primary responsibility for the oversight of these intermediaries lies with the respective DCM. To facilitate oversight in cases where intermediaries are active on more than one exchange, the task of overseeing this intermediary can be assigned to one of the respective DCMs (Designated Self-Regulatory Organisation). This is usually either the exchange where the intermediary first became a member or where it conducts most of his business.

### **Prudential regulation of commodities business**

20. Minimum financial requirements for FCMs and IBs are contained in general regulations promulgated under the CEA. The minimum applicable capital requirement is calculated according to the regulated activity undertaken.

21. Persons registered as FCMs must maintain adjusted net capital equal to or in excess of the greater of:

- \$250,000; or
- the FCM's risk-based capital requirement, calculated as follows:
  - eight percent of the total risk margin requirement for positions held by the futures commission merchant in customer accounts; and four percent of the total risk margin requirement for positions held by the futures commission merchant on its own account; or
- the amount of adjusted net capital required by a registered futures association of which it is a member. Because any person registered as an FCM must belong to a registered futures association, and NFA is currently the only registered futures association, and the NFA minimum adjusted net capital requirement is \$500,000 (\$1 million if engaged in off-exchange foreign currency transactions with retail customers (“forex”) involving futures and \$5 million if engaged in forex options), this is the *de facto* minimum requirement.

22. IBs must maintain adjusted net capital equal to or in excess of the greater of:

- \$30,000; or
- the amount of adjusted net capital required by a registered futures association of which it is a member. Here again, because the NFA standard is higher (\$45,000), that is the *de facto* minimum.

23. The level of minimum capital to be held by a broker-dealer is significantly affected by the instruments in which the firm trades. The same basic minimum requirements for FCMs apply to broker-dealers in relation to on-exchange transactions.

### **Group capital requirements/consolidation**

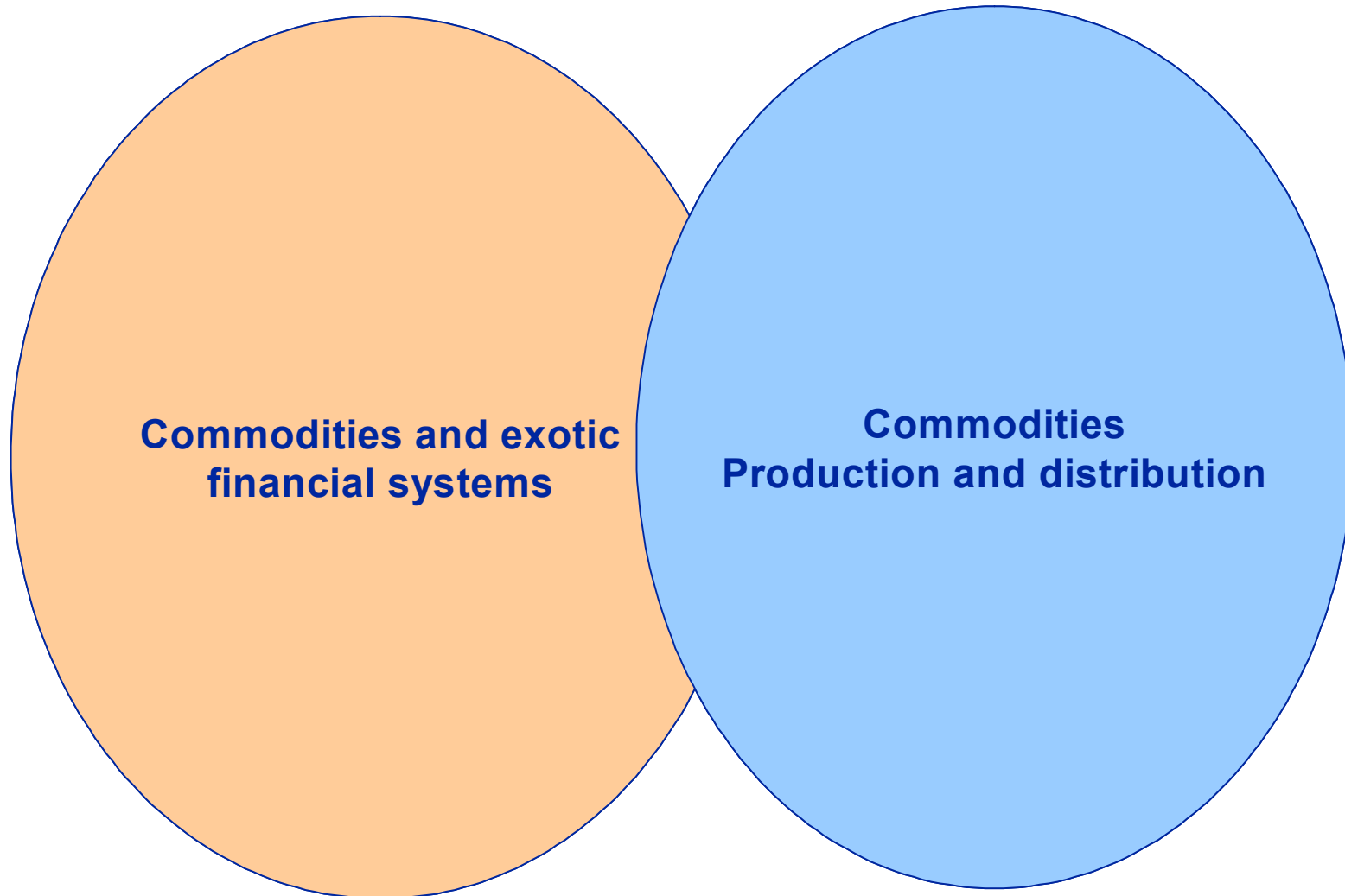
24. Intermediaries that are part of a group are supervised on a consolidated basis if the parent company is either a national bank (supervised by the OCC) or a bank

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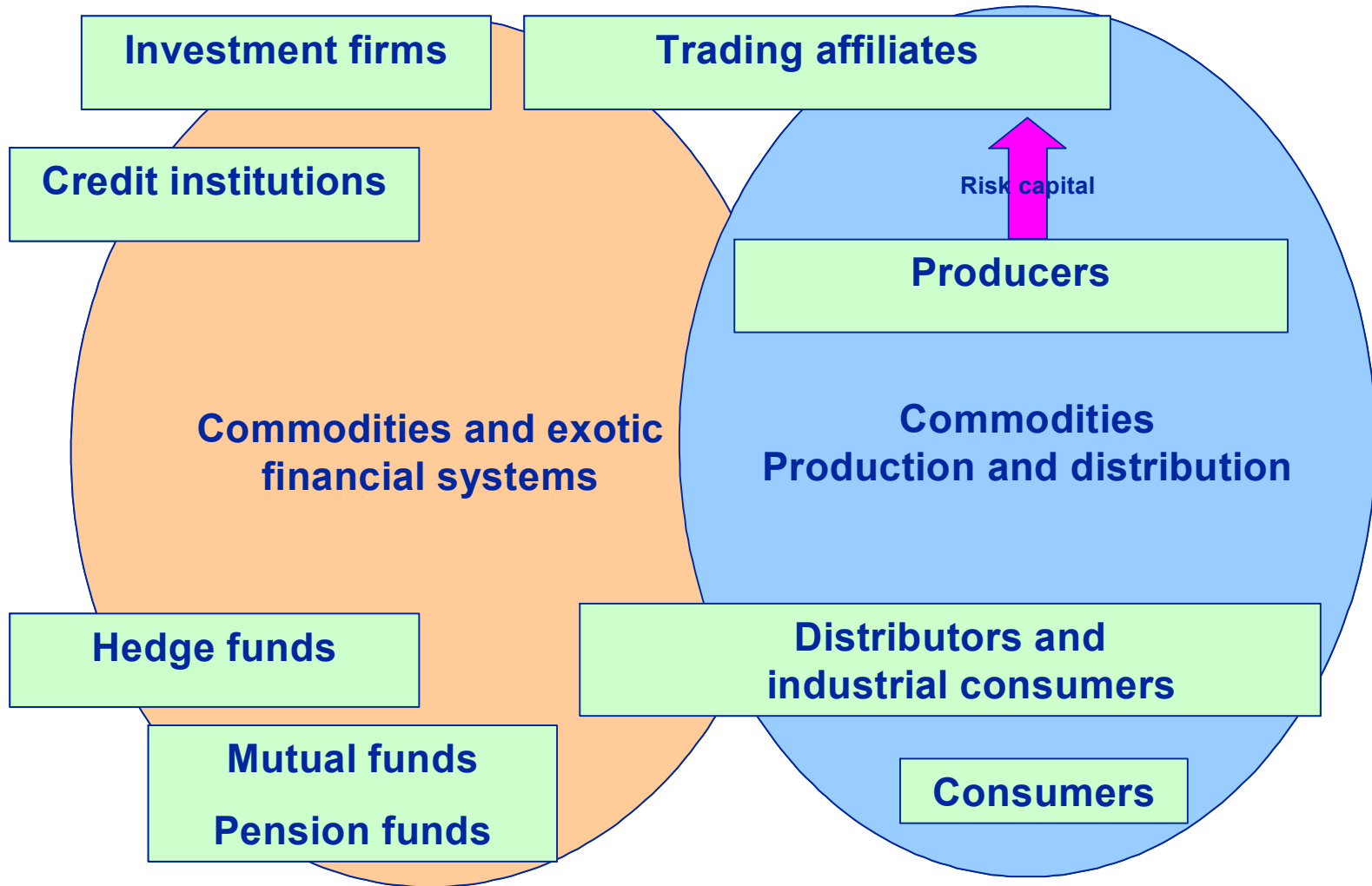
holding company (supervised by the Federal Reserve Board). However, in both cases no minimum capital requirements apply at group level.

25. Intermediaries that are part of a group where the parent company is an investment bank holding company can be subject to supervision on a consolidated basis provided the parent company files a respective notice of intention with the SEC and it is not affiliated with certain types of banks and has a subsidiary broker-dealer with a substantial presence in the securities markets. One of the reasons for the introduction of this option in 2004 was to provide a basis for non-U.S. financial regulators to treat the SEC as the principal U.S. consolidated, home-country supervisor for these investment bank holding companies and their affiliates (including broker-dealers) and thus to minimize any duplicative regulatory burdens.
26. Apart from the cases above, intermediaries are not subject to supervision on a consolidated basis. No capital requirements apply at group level.

**Commodities markets: Product market**

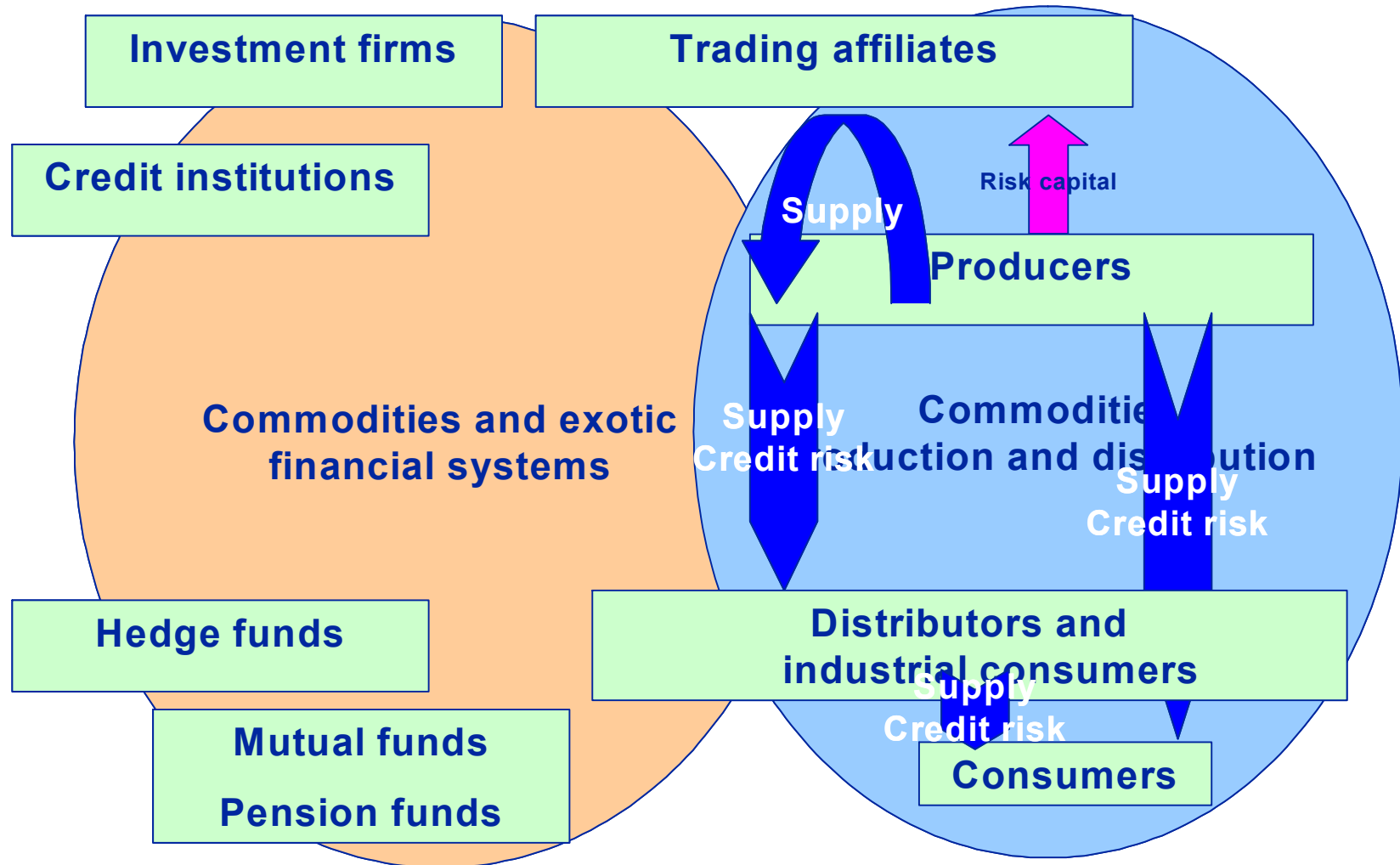


### Commodities markets: Market participants

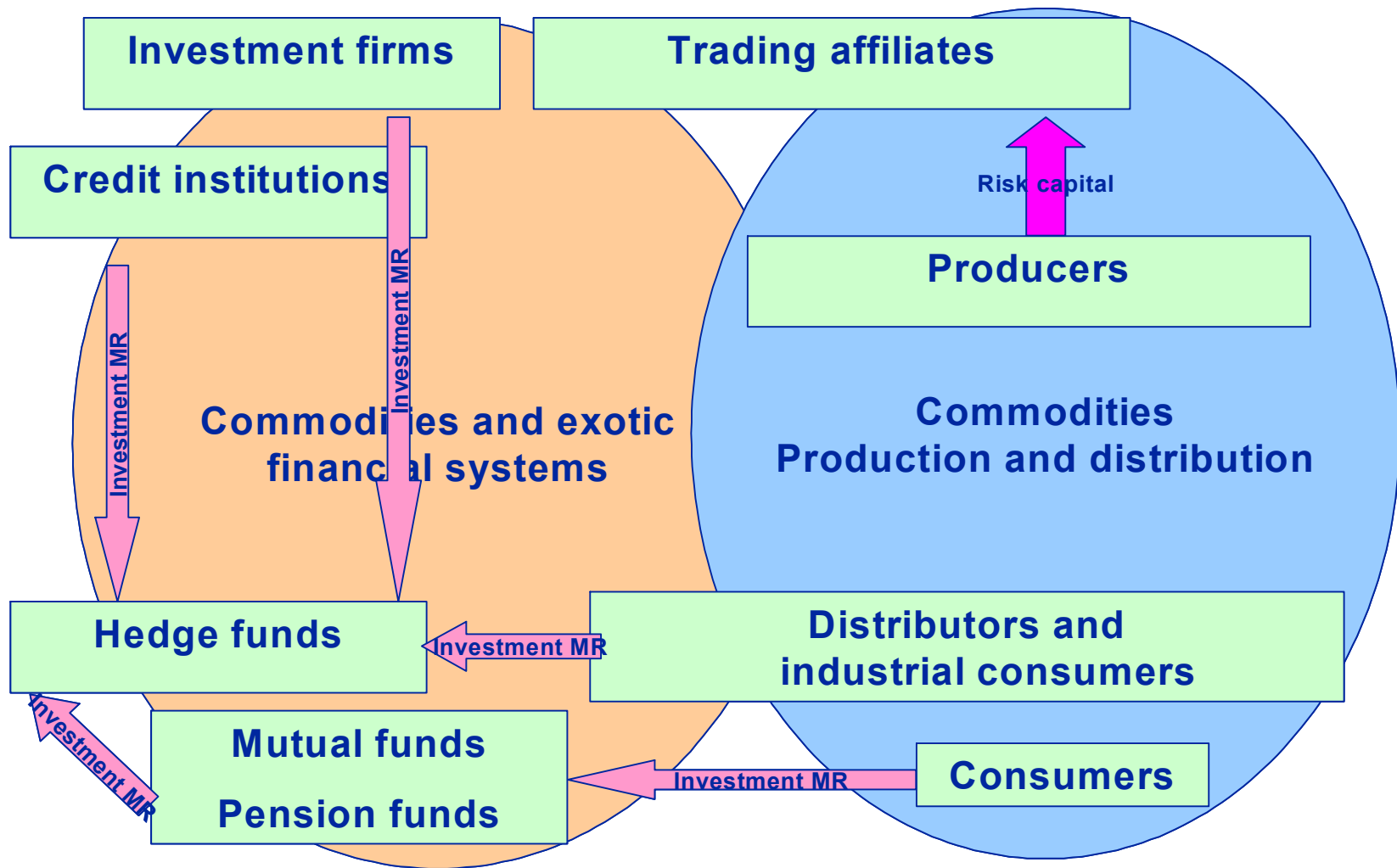




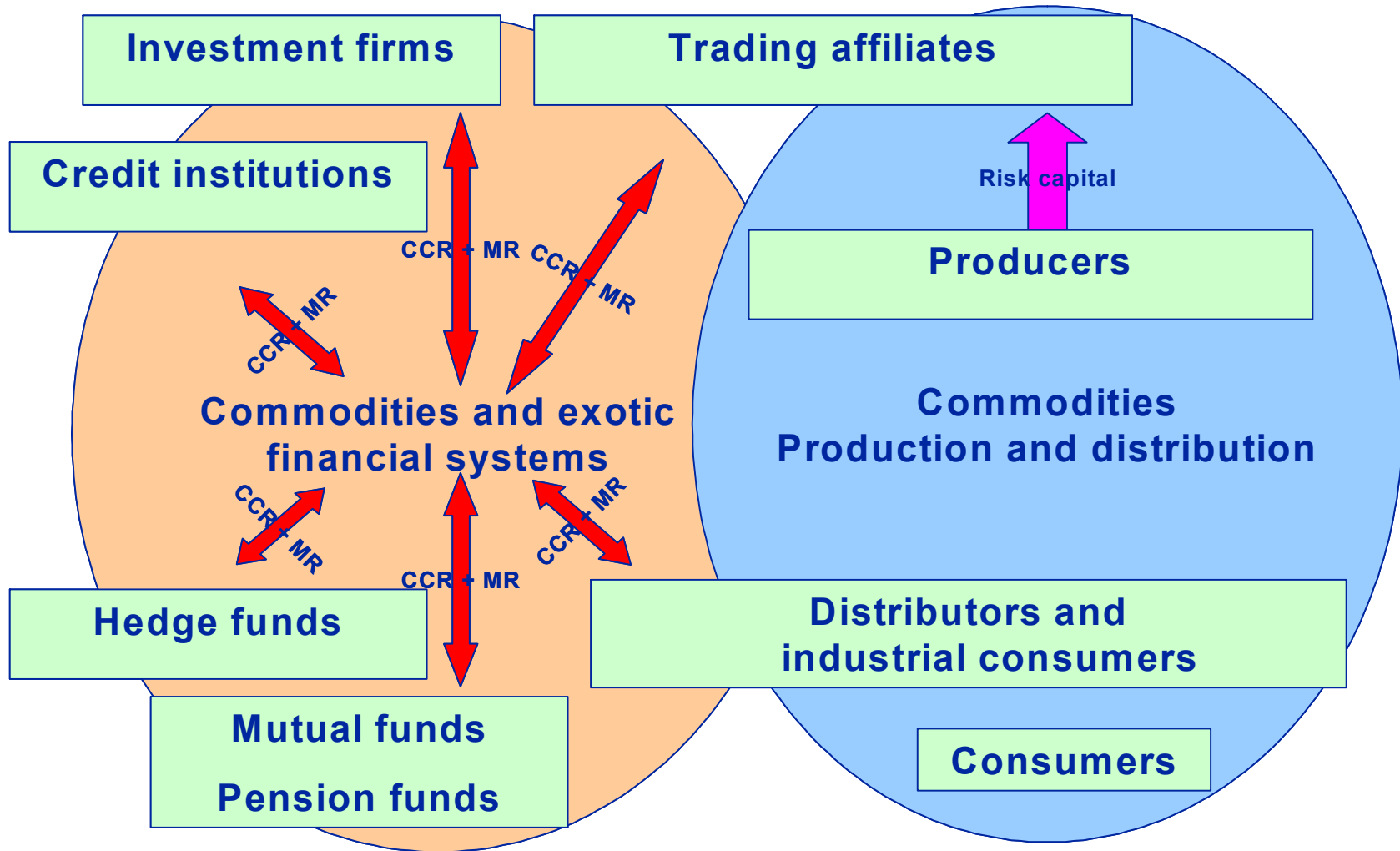
**Commodities markets: Production and distribution relationships**



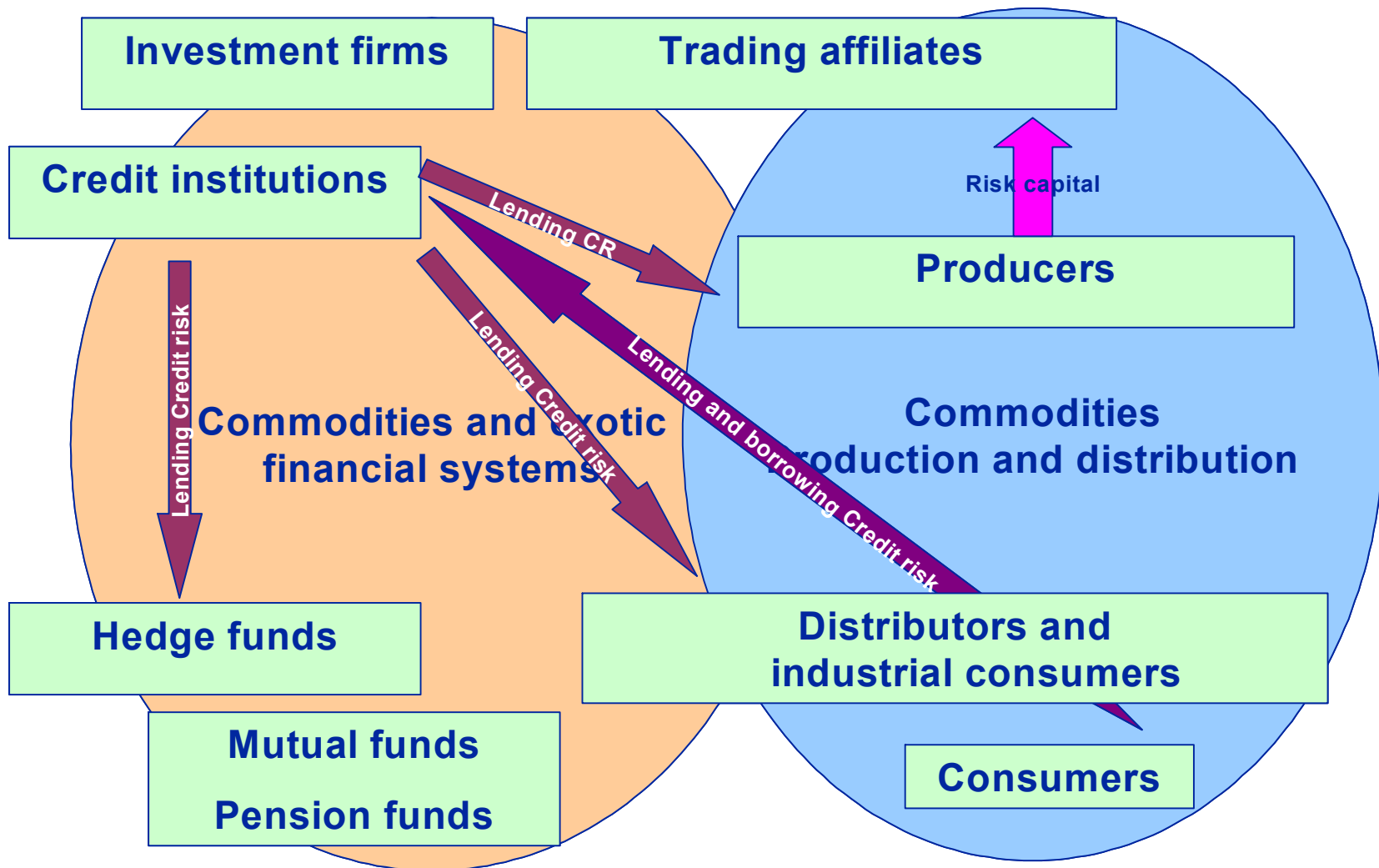
### Commodities markets: Capital relationships



**Commodities markets: CCR relationships**



**Commodities markets: Lending relationships**



## Product markets

### 1. Introduction

1. For all product markets, unless otherwise indicated the market participants consist of:
  - Producers
  - Distributors
  - Industrial consumers
  - Intermediary counterparties, e.g. institutions, traders, funds

Note that these are functional classifications and the same company can and often does operate across the market, e.g. by acting as a producer, distributor and intermediary counterparty.

For all markets no direct participation of retail consumers was reported, yet isolated incidents of trading with high net worth individuals were reported.

2. No specific mitigants are reported for all product markets in addition to the risk mitigants described in Part B I 2.

### 2. Power

#### a. Nature of the market

##### *i. Particularities/Conduct of business*

3. The difficulty in storing electricity makes the market for power unique. Generation and transmission capacity is often highly constrained due to the long permit and investment cycles. There are also interdependencies with other markets such as gas and coal and emission allowances. Volatility impacts the fuel costs for generators. Industry participants across the EU indicate that there can be extreme price changes on the spot markets which may be caused by demand and supply imbalances, e.g. failures of power plants or heat waves; however, it should be noted that extreme changes in spot prices have little immediate impact on future prices with long delivery periods.
4. By its nature, trading power includes derivatives trading. Market participants tend to have long-term contracts, especially for base loads. In power markets only whole year delivery periods are traded in the long term, single quarters and later on single months are traded in the medium term, single days are traded in the short term and single hours typically are traded in the cash market, and single quarter-hours are not traded at all on trading venues. Not all market participants are willing to enter into positions deviating from standardised contracts with published prices, since this would transfer to them the market risk

that cannot be completely hedged, thereby requiring a greater degree of sophistication in assessing market price developments. It should be noted that, where participants with physical open positions (e.g. electricity generator and suppliers) do not hedge, they are effectively engaging in speculation.

5. Power markets are regional markets. Physical cross-border trading is limited as a result of low grid capacities at the border. Nevertheless, those markets are financially interconnected, e.g. via contracts for differences.
6. Energy production and supply companies (at least at group level) are often active in wholesale electricity markets trading in derivative financial products both OTC and on exchange. They are also increasingly providing ancillary services to their traditional clients, e.g. portfolio management.
7. Countries responding did or could not provide market share statistics by participant but generally noted that trading occurred for a variety of reasons (e.g. proprietary trading, market making, hedging, supply management, etc.).
8. The twelve power companies that responded all stated that they deal with unregulated counterparties; however, only three deal with retail clients. This may be explained by a misunderstanding of the concept of retail customer.
9. Nearly all responding companies conduct their business in Europe, some mainly in their home country. Most of the companies that specified the financial instruments they trade mentioned forwards and futures, while some mentioned options and swaps.

*ii. Quantitative aspects*

10. The following electricity market turnovers (and indication of the percentage which is cleared) were reported by countries that responded to the Supervisory Questionnaire:

	<b>Exchange (% cleared)</b>	<b>MTF</b>	<b>OTC (% cleared)</b>	<b>Other</b>
<b>Germany</b>	1,023TWh (100%)	Turnover unknown	6,900TWh	-
<b>Netherlands</b>	€2.6bn (100%)	Unknown	€26bn (25%)	-
<b>Norway</b>	786TWh (100%)	-	1,370TWh (voluntarily cleared)	-

<b>Portugal</b>	-	-	€22m <sup>1</sup>	€184m <sup>2</sup> (100%)
<b>UK</b>	£0.5m p.a. (100%)	£140bn p.a.	-	-
<b>France</b>	-	€240m day-ahead (monthly average); €829m futures	(0%)	-

Responses from industry indicate that in the power market most business is conducted OTC (estimates ranged between 60-80%).

### **b. Risk arising from the power market**

11. The power market has a particular exposure to systemic risk due to:

- the largely OTC nature of the market, where a large percentage of contracts are not sufficiently protected against CCR
- market concentrations in both power generation and supply. In some EU markets, one or very few market participants have a dominant position. Collapse of these dominant market participants could cause liquidity problems or cause a shock to the market.

### **c. Consumer-related particularities**

12. Because of the inability to store power on a large scale any failure that impacts on the physical market can have dramatic effects. It is for this reason that physical regulators exist in some States to ensure security of supply. Price movements on the power markets can impact retail consumers because a growing number of distributors no longer enter into long-term off-take contracts with generators; instead, they utilise standardised forwards commonly available but through which they are unable to fully hedge their positions.

## **3. Oil**

### **a. Nature of the market**

#### *i. Particularities/Conduct of business*

13. Crude oil is refined into many products – their yield is dependent on the crude oil quality. The oil supply chain involves several steps, e.g. crude oil purchases and sales, product purchases and third party product sales. These steps can be organized in integrated oil companies. The result is an oil supply chain which involves trading at

<sup>1</sup> From 3 Jul 06 to 19 Oct 06

<sup>2</sup> From 3 Jul 06 to 19 Oct 06 in the Iberian Derivatives Market (OMIP)

every step. Oil companies can choose to get involved in parts or all of the supply chain.

14. Both political and physical market conditions influence the prices in the oil derivatives market. The prices in the oil market can be highly volatile and the market risk in the oil derivatives market is significant. The oil derivative market is sufficiently liquid to base the assessment of market risk on mark-to-market prices (instead of mark-to-model)

*ii. Quantitative aspects*

15. Information was only provided with regard to the UK Market where the oil market turnover cleared through a clearinghouse is approximately US\$5,000 billion p.a.

## **4. Gas**

### **a. Nature of the market**

*i. Particularities/Conduct of business*

16. The annual EU natural gas consumption is 500 Bcm or 4,800 TWh. Gas is used for the generation of electricity, for heating, as domestic fuel and for industrial production. Gas has different qualities; e.g. there is H-gas with a higher calorific value and L-gas. Only 43% (with decreasing tendency) of the consumption comes from indigenous production. Gas supplies from abroad come mainly from Russia, Algeria and Norway. Delivery is predominantly through pipelines. The importance of LNG (Liquefied Natural Gas, solidified 600 times) is increasing. As LNG is transported on ships, gas is a globally traded commodity. At a lower grid level regional markets still exist. Problems in creating an open European market stem from different local grids in operation and the reluctance of some of the grid operators to provide non-discriminating access to the grid. Technical obstacles of limited connections between operators and limited storage capacities seem to be solvable. One has to be aware that physical flows do not have to be changed due to trading activities. Only the balancing of net flows between different grids must be secured. Because of the close linkage between gas and electricity, traders are often active in both.
17. Traditionally the price of gas was tied to that of oil (with a time lag of several months) which was seen as a substitute with a longer market history. Nowadays gas is increasingly seen as a commodity in its own right and priced independently.

*ii. Quantitative aspects*

18. The size of the European gas markets has grown to 10,000 TWh or €400 billion. The majority of the market is OTC. Gas markets in UK and the Netherlands (TTF) are most liquid. The exchanges Intercontinental Exchange (ICE) in London and European Energy Derivatives Exchange (ENDEX) in Amsterdam offer gas futures. OTC marketplaces – hubs – are created by broker platforms, on which price indications are provided. Due to episodes of illiquidity in the gas derivative market,



prices are sometimes difficult to observe and consequently market risk calculations are more difficult.

## **5. Coal**

### **a. Nature of the market**

#### *i. Particularities/Conduct of business*

19. Approximately two-thirds of coal production is used for power generation. Thus, the coal market is connected to the power market. Coal is also used for heating and for steel production. Coal is produced in different quality grades which vary in terms of heating value, greenhouse gas content and moisture. The quality of coal determines its possible uses. The availability of coal for consumption depends on factors such as storage capacities and transportation. Therefore there is a link to the freight market.
20. Financial products are OTC swaps on price indices or exchange contracts (futures at NYMEX New York Mercantile Exchange or EEX European Energy Exchange, Germany). Physical trading prevails. The trade volumes of the physical coal market have amounted to over 700 million t in 2005 according to a German source.
21. Because of the linkage to the energy markets and the steel market it would from a risk perspective not be appropriate to examine the coal market separately. Most coal traders are active on other energy markets.

## **6. Metals and precious metals**

### **a. Nature of the market**

#### *i. Market participants*

22. Mining companies are an additional market participant.

#### *ii. Particularities/Conduct of business*

23. Only the UK stated that it has a metals exchange, the London Metal Exchange (LME) which is the global centre for trading of base metals (aluminium, copper, lead, nickel, zinc and tin). The UK has two MTFs: Spectron and LME Select.
24. All LME contracts are priced assuming physical delivery, although only a small amount of metal is actually delivered as most contracts are unwound before settlement. The deliveries that occur are placed into approved LME warehouses. LME warehouse stock movements are published daily.
25. A firm due to supply metal would need to have warrants in its possession to be surrendered to the LME – which would need to pass these onto the counterpart due to receive the metal. The party that is short can gain the warrant by:
  - placing metal on deposit in an approved warehouse which will then issue a warrant: or

- using warrants issued to it from an earlier maturity; or
- borrowing warrants from another market participants.

*iii. Quantitative aspects*

26. The LME, unlike other exchanges, is not cash cleared. This means that customers can build up an unpaid variation margin (as can firms with the LCH, although they have to cover it with guarantees). Clearly customers with a poor rating will be fully margined but one of the LME's selling points is the ability to offer credit to customers on its business.
27. The LME has an annual turnover in excess of US\$4,500 billion which is 100% cleared. The LME trades for each business day out to three months, every Wednesday out to six months and on the third Wednesday of each month thereafter out to a maximum of 63 months for copper and aluminium. The market trades 24 hours per day with maximum liquidity during London business hours when LME is open.
28. The UK has the London bullion market, a wholesale OTC market trading in gold and silver.

## **7. Freight**

29. The freight market described in this section comprises only the market for freight in ocean-going vessels. Most other freight, such as European or international road freight, is not a traded commodity. Isolated freight markets (such as the North-American Great Lakes) are also not described in this section.
30. The freight market is sub-divided into various categories; very broadly, the transport of dry/bulk goods and liquid goods is differentiated as dry and wet markets. Within these, routes, capacity, speed and other factors are used to further specify the trading object. The container freight market is a specific market.

### **a. Nature of the market**

*i. Market participants*

31. The freight market is a well-established physical market with intermediation between ship owners, operators and charterers of freight being undertaken by brokers. Ship owners, operators and charterers are natural market participants
32. The Baltic Exchange Ltd. in the United Kingdom is not a regulated market but rather a business venue for ship brokers. To maintain liquidity with accurate objective mark-to-market revaluations, the majority of trades are standardized, fungible contracts. The Baltic Exchange Ltd. makes available an array of market data and indices. It used to operate as the Baltic International Freight Futures Exchange (BIFFEX), yet due to lack of demand the exchange cancelled its supervisory authorisation in 2003. Forward Freight Agreements (FFAs) were introduced in London at the end of 1991. They were created to

further develop the hedging and trading opportunities of the BIFFEX contract. BIFFEX incorporated a basket of freight routes which were exchange-traded and settled versus the Baltic Exchange Freight Index (BFI). In 1999 the BFI had been superseded by the Baltic Exchange Dry Index (BDI) as the instrument for BIFFEX settlement and later that year was divided into the Baltic Exchange Capesize Index (BCI), Baltic Exchange Panamax Index (BPI) and Baltic Exchange Handymax Index (BHMI), superseded by the Baltic Exchange Supramax Index in January 2006 - these 3 sizes represent the vessel types available on FFAs. In addition, there is an OTC freight rate market in Norway. Container shipping charters are intermediated by brokers and agents, with Hamburg brokers controlling around 75% of the market. Market information is collated in the Hamburg Index of containership time-charter rates broken down by *inter alia* capacity, speed, size and equipment.

#### Exchanges/Clearing houses

33. There is one exchange in the sense of a regulated market for freight derivatives in Norway, IMAREX, International Maritime Exchange ASA. The Norwegian Futures And Options Clearinghouse (NOS) provides central counterparty clearing for trades executed on IMAREX. NOS acts as both General Clearing Member and clearing house for all its members, using Den Norske Bank as their main guarantor.
34. LCH.Clearnet started clearing dry freight at the end of 2005 and wet freight in May 2006.

#### *ii. Particularities/Conduct of business*

35. The dry market is dominated by institutions (Macquarie, Deutsche Bank, RBS, Merrill Lynch, Morgan Stanley), commodity firms (RWE, EDF, Sempra, Cargill, Bunge, Glencore, Dreyfus, Noble), ship operators/owners (Navios, Norden, Coeclerici, Oldendorff, Armada) and, as of late, hedge funds (Sector, GMI, Castalia).
36. The wet market is comprised of a mixture of Institutions, Oil traders, and ship-owners. Some of the main players are ABN, J Aron, Morgan Stanley, Totsa, Shell, BP, Glencore, Vitol, Traffigura, AP Moller, Euronav, Koch Supply & Trading & Arcadia Petroleum.
37. The main part of the business is physical. However, there seems to be growing interest in financial OTC derivatives, because this allows charterers to decouple pricing issues from the real transportation of their goods.

#### *iii. Quantitative aspects*

38. United Nations figures show that more than 5.89 billion tonnes of trade were transported by sea in 2002 (UNCTAD review of Maritime Transport 2006). Half of cargoes are energy-related – oil, coal and gas. Container traffic is just over 10% by weight, but much higher in terms of value.

39. The dry FFA market is estimated at gross exposure value of around US\$15-20 billion. The wet FFA market volume for 2006 is approximately 500 million t, up from approximately 50 million t in 2002.
40. In the dry market liquidity is estimated to be in the region of 7,000/7,500 trades per annum. Unlike the wet sector, small lot size trading is still in its infancy and the majority of trades are concluded on either full or half-ship basis.
41. Wet market liquidity has grown dramatically. Markets are now almost always available from the front month out to 24 months, along with volume covering more depth. By default, prices cover 10-20kmt/mo on most prices, and on request brokers have been able to deliver prices for 40-100kt/mo for monthly, quarterly or calendar strips.
42. Of the supervisory authorities, only Norway reported size estimates for its market. In 2005 it reported the following exchange-traded transaction volumes:
- Tanker: 135 million metric tons
  - Dry: 5 million metric tons
  - Bunkers: 0.3 million metric tons
43. For the OTC market in 2005, the Norwegian supervisor reported the following size estimates for its market:
- Tanker: 174 million metric tons
  - Dry: 38.2 million metric tons
  - Bunkers: 0.4 million metric tons

## **8. Climate**

### **a. Nature of the market**

#### *i. Market participants*

44. Businesses with interest in weather derivatives include energy companies (where power consumption for heating and cooling depends on outside temperature), farmers (where crops depend on favourable weather conditions), insurers (to hedge the exposure from insuring crops against hail damage) and theme parks (where visitor numbers are influenced by weather conditions).

#### *ii. Particularities*

45. Unlike most other derivatives, the underlying in weather derivatives does not have an economic value. While temperature-related derivatives dominate the market, businesses are increasingly hedging their exposure to other climatic risks such as rainfall, snow and wind.
46. Weather may be quantified and indexed in terms of monthly or seasonal average temperatures and value attached to each index. Two most prominent indexes relate to temperature and are Cooling Degree Days (CDDs) and Heating Degree Days (HDDs). CDDs are a measure of

how far the average daily high and low temperatures exceed the predicted average. In other words, how much cooling is required. HDDs are simply the inverse of this and used to establish how much heating is required.

47. The most rudimentary form of weather derivative is a weather clause embedded into a contract stipulating a rebate from a seller if the temperature in given month is cooler than expected.

*iii. Quantitative aspects*

48. No information about market size and liquidity, exchanges, MTF, OTC and other was provided by the respondents. Anecdotal evidence points to very little liquidity on the European climate market with climate derivatives not being traded for financial purposes. The following reasons are given: Because of micro climates in Europe there is no comprehensive market for climate. And while climate is an influencing factor for several risks, its financial impact cannot be calculated. Therefore climate derivatives are mainly used as an alternative form of insurance. Traders that offer climate derivatives – acting on the basis of historical databases – “internalise”.

## **9. Soft commodities**

### **a. Nature of the market**

*i. Particularities/Conduct of business*

49. Soft commodities are agricultural products such as wheat, cocoa, hogs, orange juice, soy beans etc. Corresponding to the great variety of products the physical features of soft commodities have differences (storability, possibility of shipment, delivery period).
50. The market is predominantly OTC, as large segments are regionally based. OTC Clearing is offered by clearing houses. However, soft commodities are also traded on some exchanges, including Euronext Liffe, RMX Risk Management Exchange Hanover, CME Chicago Mercantile Exchange.
51. Regarding the issue of physical delivery, the exchanges follow different approaches. Some offer a physical market for goods, ensuring delivery in a specified quality. Others provide financial settlement only.
52. As opposed to other commodities markets, the market force of producers is very small. Laws protect certain producers, in particular rural companies. Minimum prices for certain soft commodities are set at national or EU level.
53. Soft commodities have a long tradition in being the object of speculation (e.g. tulips in the Netherlands of the past). The interest of investors in the soft commodities sector has recently been reawakened, primarily for the purposes of portfolio diversification as it is the case for other commodities markets too. For some years, indirect forms of investments in this sector prevailed through the securities of producers or certificates issued on indices. Now it seems that investors are

directly approaching the markets again through buying exchange contracts – may it be single investors or funds of investors.

54. Financial settlement of OTC contracts does not occur often. Only French regulators reported that some market participants offer OTC financial settlement. MTFs specialised in soft commodities are not known. Producers, traders or consumers interested in financial settlement enter into exchange-traded contracts via institutions which are exchange members. Institutions normally do not engage in physical OTC trading. Some cooperative banks trade in agricultural goods physically as an ancillary service for their members and clients, providing an essential community service.
55. In addition, a couple of physical spot marketplaces do exist, but mostly only seasonal and regionally based. These markets are clearly outside the scope of this report.

## 10. CO<sub>2</sub> Allowances

### a. Nature of the market

#### i. Particularities/Conduct of business

56. In Germany and Norway CO<sub>2</sub> allowances are exchange-traded. France has an active OTC market. In UK CO<sub>2</sub> allowances are traded on exchanges, OTC and via MTF.
57. Two significant international agreements, the Kyoto Protocol and the United Nations Framework Convention on Climate Change (UNFCCC), established the framework for reduction of greenhouse gases. In the European Union, Directive 2003/87/EC implements these agreements, and establishes the European Union Greenhouse Gas Emission Trading Scheme (EU ETS). Allowances will be issued annually and traded in three trading periods (2005-2007, 2008-2012, and beginning 2013). Trading relies on national registries of allowances with a European hub operated by the European Commission.
58. Allowances are provided for free to companies depending on the CO<sub>2</sub> intensity of their production. Currently emission allowances significantly exceed CO<sub>2</sub> emissions. This may have hampered the development of a liquid trading market.

#### ii. Quantitative aspects

59. The following turnovers (and indication of the percentage of which is cleared) were reported by countries that responded to the Supervisory Questionnaire:

	Exchange (% cleared)	MTF	OTC (% cleared)	Other
Germany	7,356,486 EUA, 2,926 contracts (100%)	-----	859,000,000 EUA	-

UK	£4 billion p.a.	£1.5 billion p.a.	----	-
Norway	(2005) 13.2 mill metric tons forwards	-	--	-
France	-	monthly average volume €38m	-	-

Responses from industry indicate that in the CO<sub>2</sub> allowances market most business is conducted on an exchange.



### Overview about possible amendments to the framework

Category	Scenario			
	a) Article 2 (1) lit. b, d, i, k MiFID is repealed b) Article 48 Dir. 2006/49/EC expires	a) Article 2 (1) lit. b, d, i, k MiFID is perpetuated b) Article 48 Dir. 2006/49/EC expires	a) Article 2 (1) lit. b, d, i, k MiFID is repealed b) Article 48 Dir. 2006/49/EC is perpetuated	a) Article 2 (1) lit. b, d, i, k MiFID is perpetuated b) Article 48 Dir. 2006/49/EC is perpetuated
<b>1) Firms already subject to the provisions of the CRD or the ISD (no exemptions apply)</b>				
Credit institutions – Article 4 (1) Dir. 2006/48/EC	No change MiFID applies CRD applies => no impact	No change MiFID applies CRD applies => no impact	No change MiFID applies CRD applies => no impact	No change MiFID applies CRD applies => no impact
Investment firms – Article 3 (1) (b) Dir. 2006/49/EC, Article 4 (1) (1) MiFID	No change MiFID applies CRD applies => no impact	No change MiFID applies CRD applies => no impact	No change MiFID applies CRD applies => no impact	No change MiFID applies CRD applies => no impact
<b>2) Firms that become subject to EU legislation for the first time as a consequence of the extension of the MiFID to include commodity business and that cannot make use of any exemptions within MiFID</b>				



Category	Scenario			
	a) Article 2 (1) lit. b, d, i, k MiFID is repealed b) Article 48 Dir. 2006/49/EC expires	a) Article 2 (1) lit. b, d, i, k MiFID is perpetuated b) Article 48 Dir. 2006/49/EC expires	a) Article 2 (1) lit. b, d, i, k MiFID is repealed b) Article 48 Dir. 2006/49/EC is perpetuated	a) Article 2 (1) lit. b, d, i, k MiFID is perpetuated b) Article 48 Dir. 2006/49/EC is perpetuated
Firms providing investment services or activities in financial instruments that are listed in Section C of Annex I of the MiFID and which have not been listed in the annex to the ISD, esp. commodities derivatives	No change with regard to MiFID  MiFID applies  CRD applies  => impact	No change with regard to MiFID  MiFID applies  CRD applies  => impact	No change with regard to MiFID  MiFID applies  CRD applies, but no capital requirements if provisions in Article 48 CAD are met  => no impact	No change  MiFID applies  CRD applies, but no capital requirements if provisions in Article 48 CAD are met  => no impact
<b>3) Firms exempted under Article 2, paragraph 1, lit. b), d), i) or k) of the MiFID</b>				
Firms which: <ul style="list-style-type: none"> <li>provide investment services exclusively for undertakings belonging to the same group</li> <li>deal on own account in commodities and/or financial instruments (including commodities derivatives)</li> <li>provide investment services in commodities derivatives to the clients</li> </ul>	Change with regard to MiFID and CRD  MiFID applies  CRD applies  => high impact	No change  MiFID does not apply  CRD does not apply  => no impact	No change with regard to CRD  MiFID applies  CRD applies, but no capital requirements if provisions in Article 48 CAD are met  => high impact	No change  MiFID does not apply  CRD does not apply  => no impact

Category	Scenario			
	a) Article 2 (1) lit. b, d, i, k MiFID is repealed b) Article 48 Dir. 2006/49/EC expires	a) Article 2 (1) lit. b, d, i, k MiFID is perpetuated b) Article 48 Dir. 2006/49/EC expires	a) Article 2 (1) lit. b, d, i, k MiFID is repealed b) Article 48 Dir. 2006/49/EC is perpetuated	a) Article 2 (1) lit. b, d, i, k MiFID is perpetuated b) Article 48 Dir. 2006/49/EC is perpetuated
of their main business on an ancillary basis to their main business;				
<b>4) Firms generally subject to the CRD but exempted from the capital regime under Article 48 paragraph 1 of Directive 2006/49/EC</b>				
Investment firms whose main business consists exclusively of the provision of investment services or activities in relation to the financial instruments set out in points 5, 6, 7, 9 and 10 of Section C of Annex I to Directive 2004/39/EC and to whom Directive 93/22/EEC did not apply on 31 December 2006	No change with regard to MiFID  MiFID applies  CRD applies  => impact	No change with regard to MiFID  MiFID applies  CRD applies  => impact	No change  MiFID applies  CRD applies, but no capital requirements if provisions in Article 48 CAD are met  => no impact	No change  MiFID applies  CRD applies, but no capital requirements if provisions in Article 48 CAD are met  => no impact

No change = no change in relation to the treatment under the current regulation(Directive 2006/49/EC and MiFID) for these firms

Exemptions in Article 2(2) (b),(i) and (j) of ISD and Article 2(1) (b), (d), (i) and (k) of MiFID cover to a broad extend the same firms. Therefore, the scope between ISD and MiFID has not changed in this regard.

The addition of commodities derivatives to Annex I, Section C of the MiFID (points 5, 6, 7, and 10)) has been the a main amendment which extended the definition of financial instruments in the MiFID and scoped in firms which were not subject to MiFID so far. It must be noted, that even further types

of financial instruments have been added to Annex I, Section C (the scope of points 4, 8 and 9 is broader than the scope of points 3 to 6 in the ISD Annex Section B). However, the latter broadening of scope seems not to be relevant, because it should not scope in new firms (there is no evidence that firms exist which are exclusively dealing in these type of instruments).

Article 2(1) (b), (d), (i) and (k) of MiFID exempts from the application of MiFID and consequently in parallel from the application of the CRD (because they are not considered to be investment firms). As a consequence, firms which are not covered by these exemptions and firms which are covered by Article 48(2) of Directive 2006/49/EC are mainly the same. Therefore categories 2 and 4 are basically identical.

**ISD, Annex, Section B: Definition of (financial) instruments:**

Instruments

1. (a) Transferable securities.  
(b) Units in collective investment undertakings.
2. Money-market instruments.
3. Financial-futures contracts, including equivalent cash-settled instruments.
4. Forward interest-rate agreements (FRAs).
5. Interest-rate, currency and equity swaps.
6. Options to acquire or dispose of any instruments falling within this section of the Annex, including equivalent cash-settled instruments. This category includes in particular options on currency and on interest rates."

**MiFID, Annex I, Section C: Definition of financial instruments:**

- "(1) Transferable securities;
- (2) Money-market instruments;
- (3) Units in collective investment undertakings;

- (4) Options, futures, swaps, forward rate agreements and any other derivative contracts relating to securities, currencies, interest rates or yields, or other derivatives instruments, financial indices or financial measures which may be settled physically or in cash;
- (5) Options, futures, swaps, forward rate agreements and any other derivative contracts relating to commodities that must be settled in cash or may be settled in cash at the option of one of the parties (otherwise than by reason of a default or other termination event);
- (6) Options, futures, swaps, and any other derivative contract relating to commodities that can be physically settled provided that they are traded on a regulated market and/or an MTF;
- (7) Options, futures, swaps, forwards and any other derivative contracts relating to commodities, that can be physically settled not otherwise mentioned in C.6 and not being for commercial purposes, which have the characteristics of other derivative financial instruments, having regard to whether, inter alia, they are cleared and settled through recognised clearing houses or are subject to regular margin calls;
- (8) Derivative instruments for the transfer of credit risk;
- (9) Financial contracts for differences.
- (10) Options, futures, swaps, forward rate agreements and any other derivative contracts relating to climatic variables, freight rates, emission allowances or inflation rates or other official economic statistics that must be settled in cash or may be settled in cash at the option of one of the parties (otherwise than by reason of a default or other termination event), as well as any other derivative contracts relating to assets, rights, obligations, indices and measures not otherwise mentioned in this Section, which have the characteristics of other derivative financial instruments, having regard to whether, inter alia, they are traded on a regulated market or an MTF, are cleared and settled through recognised clearing houses or are subject to regular margin calls.”

**ISD, Article 2 (2) -Exemptions**

1. This Directive shall not apply to:

(a) ...

(b) firms which provide investment services exclusively for their parent undertakings, for their subsidiaries or for other subsidiaries of their parent undertakings;;

(c) ... - (h) ...;

(i) persons whose main business is trading in commodities amongst themselves or with producers or professional users of such products and who provide investment services only for such producers and professional users to the extent necessary for their main business;

(j) firms that provide investment services consisting exclusively in dealing for their own account on financial-futures or options markets or which deal for the accounts of other members of those markets or make prices for them and which are guaranteed by clearing members of the same markets. Responsibility for ensuring the performance of contracts entered into by such firms must be assumed by clearing members of the same markets;

(k) ... - (l) ...

### **MiFID, Article 2 (1) -Exemptions**

1. This Directive shall not apply to:

(a) ...

(b) persons which provide investment services exclusively for their parent undertakings, for their subsidiaries or for other subsidiaries of their parent undertakings;

(c) ...

(d) persons who do not provide any investment services or activities other than dealing on own account unless they are market makers or deal on own account outside a regulated market or an MTF on an organised, frequent and systematic basis by providing a system accessible to third parties in order to engage in dealings with them;

(e) ... - (h) ...;

(i) persons dealing on own account in financial instruments, or providing investment services in commodity derivatives or derivative contracts included in Annex I, Section C 10 to the clients of their main business, provided this is an ancillary activity to their main business, when considered on a group basis, and that main business is not the provision of investment services within the meaning of this Directive or banking services under Directive 2000/12/EC;

(j) ...;

(k) persons whose main business consists of dealing on own account in commodities and/or commodity derivatives. This exception shall not apply where the persons that deal on own account in commodities and/or commodity derivatives are part of a group the main business of which is the provision of other investment services within the meaning of this Directive or banking services under Directive 2000/12/EC;

**CAD, Article 48 (1) -Exemption**

The provisions on capital requirements as laid down in this Directive and Directive 2006/.../EC shall not apply to investment firms whose main business consists exclusively of the provision of investment services or activities in relation to the financial instruments set out in points 5, 6, 7, 9 and 10 of Section C of Annex I to Directive 2004/39/EC and to whom Directive 93/22/EEC did not apply on 31 December 2006. This exemption is available until 31 December 2010 or the date of entry into force of any modifications pursuant to paragraphs 2 and 3, whichever is the earlier.

## Hedge funds

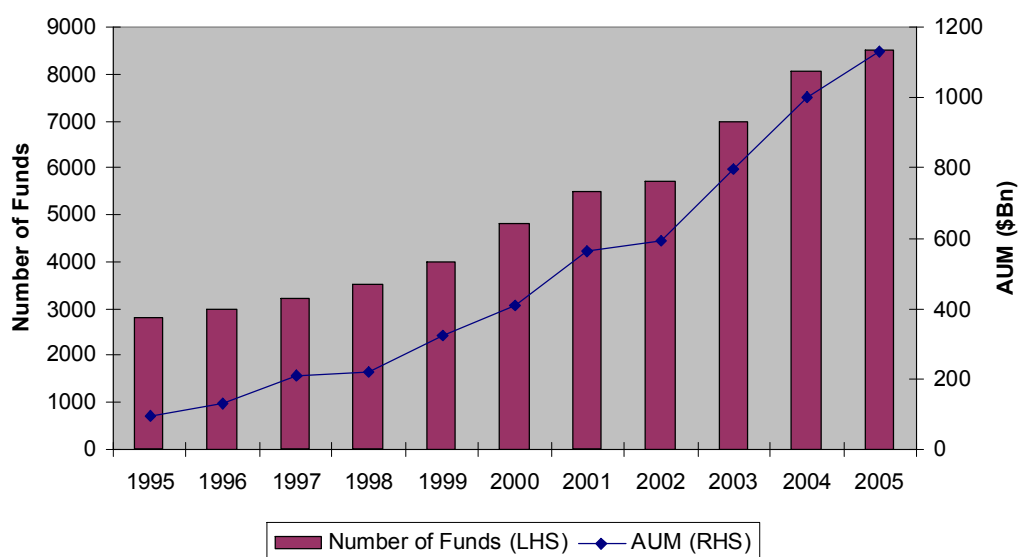
1. The recent collapse of the Amaranth hedge fund has led to concerns about the risks posed to financial stability by hedge funds, particularly those trading in the more volatile commodity area. The first point to note is that in practice it tends to be the hedge fund managers, not the hedge funds, that are directly supervised by financial regulators. For example, there are no hedge funds as such in the UK or Germany. The funds themselves are located in offshore tax-efficient jurisdictions. What exists in the US, the UK and – to a much lesser extent – in Germany are the hedge fund managers. So, for example, within the jurisdiction of the UK financial regulator (FSA) more than 300 asset managers based in the UK who manage hedge funds can be found; they manage about one-quarter of the world's hedge fund assets.
2. So the collapse of a hedge fund, unpalatable this is for those who have invested in it, is not of itself a prudential issue; it does, however, register on the prudential risk radar where the failure of a hedge fund could trigger a systemic risk to financial markets and hence to financial stability. It was, of course, this fear which led the US authorities at the time of the LTCM collapse to organise a market solution designed to prevent the collapse of a particular fund from causing wider damage.
3. To gain insight into this risk, as in all instances of threats to financial stability, it is important to identify the probable transmission mechanism, i.e. what would be the process by which the collapse of one or more hedge funds might lead to wider threat to the financial system? The direct transmission mechanism would be the effect of a hedge fund collapse on the hedge fund's counterparties, and in particular on those parties that link into the wider financial system, i.e. the prime broker dealers who now do so much of their business with hedge funds.
4. A survey in April 2006 by the UK regulator of prime brokers that it supervises revealed the following:
  - hedge funds to which these broker-dealers are exposed are continuing to grow strongly, with assets under management (on an equity basis) totalling US\$494bn, a 29% increase in six months;
  - exposure to hedge funds is concentrated in two prime brokers, which had approximately half the business (though the UK regulator believes this concentration figure probably misrepresents the true position, which is less concentrated);
  - aggregate leverage (calculated as long market positions divided by net equity) increased slightly between October 2005

and April 2006 from 2¼ times to 2.4 times. LTCM routinely operated on a long leverage of 25 times, and, as it approached crisis, more than 50 times;

- contrary to the view that funds divide and rule between many broker dealers, only 21 of 152 hedge funds had more than one prime broker;
- 13 of 192 individual exposures were on margin call, representing 0.3 per cent of total individual exposures.

5. There are no concrete estimates for the number of hedge funds in existence, but various commercial databases provide estimates. Hennessee and IFSL estimate (see chart below) that there were approximately 8,500 hedge funds worldwide in March 2006.

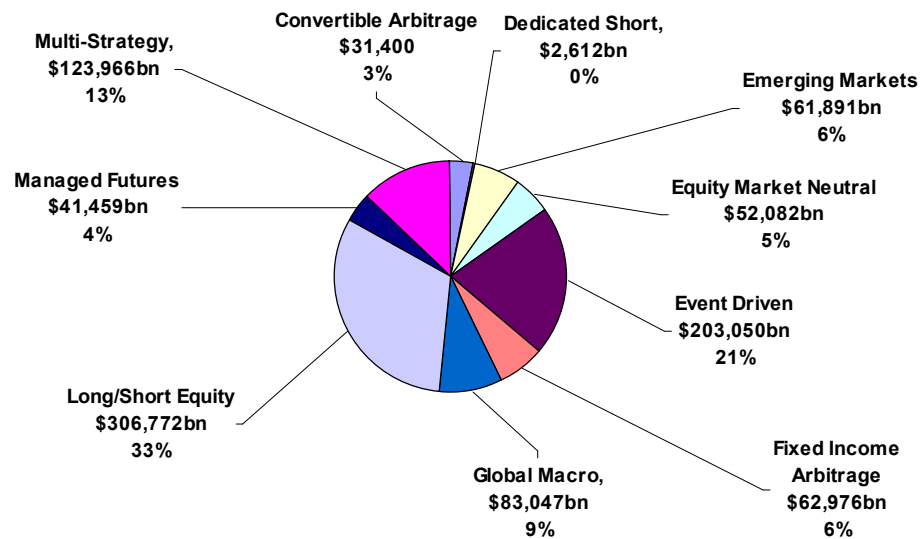
**Graph 1: Number of hedge funds worldwide, March 2006**



6. Total European industry assets reached some \$400bn at the end of June 2006, a 44% increase from the June 2005 total. The asset growth came partly from the impact of fund performance, but mostly as a result of fresh capital inflows from "institutional" investors. The top 25 European managers accounted for \$180bn, or 44% of overall industry assets, at the end of June, and several of the biggest groups have seen assets grow by more than 50%, and in some cases more than 100%, over the previous 12 months.
7. The following graph<sup>3</sup> gives an indication of the investment strategies being employed by hedge funds, though it is not known to what extent these assets are invested in the commodity sector.

<sup>3</sup> Source: Tremont Asset Flows Research – September 2006



**Graph 2: Investment strategies being employed by hedge funds:**

8. As a generalisation, there are no hedge funds as such in the UK or Germany. The funds themselves are located in offshore tax-efficient jurisdictions. What exists in the US, the UK and – to a much lesser extent – in Germany are the hedge fund managers. So, as indicated above, in practice it tends to be the hedge fund managers, not the hedge funds, that are directly supervised by financial regulators.
9. As hedge funds tend to follow complex investment strategies, are typically highly leveraged and tend not to be diversified, they are normally exposed to significant market risk. Furthermore, as these market risk positions tend to be generated through derivative contracts, there are consequential counterparty risk exposures; the hedge fund or its counterparty (depending on who is in the money) have large CCR positions. The central role as counterparties played by the prime brokerage units of investment banks and their resulting risk exposures are described in Part B of the main text.
10. As a consequence of the large volumes hedge funds trade and the large positions hedge funds hold, they can influence the price of the underlying commodity product.

## Physical commodity regulators

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The Austrian electricity market was fully liberalised on 1 October 2001. The legal basis of electricity market opening derives from the EIWOG (Electricity Industry and Organisation Act).

Since then all electricity consumers have been free to choose their suppliers. The separation of transmission and distribution system operation from electricity generation, trading and marketing is central to the functioning of a liberalised market. While system operation is still regulated because it constitutes a natural monopoly, energy prices are entirely determined by market forces.

The responsibility for regulation of the Austrian electricity market is divided among the following authorities:

1. Minister and provincial governments - The supreme regulatory authority for electricity is the Minister of Economics and Labour. The Minister is responsible, among other things, for supervising the activities of the regulator, Energie-Control GmbH (E-Control) and establishing the latter's terms of reference (directive powers). Apart from approving electrical power plants and issuing licences to distribution network operators, the provincial governments have significant powers with regard to grid operators.
2. Regulatory authority - The regulator, E-Control, is divided into the E-Control Commission (ECC) and E-Control GmbH (ECG) which is a limited company wholly owned by the federal government.
  - a) The E-Control Commission is a collegial body consisting of three members under the chairmanship of a judge. The Commission is not bound by ministerial directions. Key responsibilities of the ECC include: Approving network operators' general terms and conditions, determining the system charges, deciding on network access,
  - b) E-Control GmbH has the following duties, among others: Creation of a regulatory framework, supervisory and monitoring functions, arbitration, electricity price

comparisons, arrangements for cross-border exchanges of electricity.

## **BELGIUM**

Commission pour la Régulation de l'Electricité et du Gaz (CREG)

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The Commission for Electricity and Gas Regulation (CREG) is the federal body responsible for regulating the electricity and natural gas markets in Belgium. It was created by the Law of 29 April 1999 on the organization of the electricity market and the Law of 29 April 1999 on the organization of the gas market and the tax position of the electricity producers.

The two areas of competence conferred upon the CREG are:

- a consultancy task, advising the Government on the organization and functioning of the electricity and natural gas markets
- a supervisory task, monitoring the application of the relevant laws and regulation applicable to these markets.

Concerning the second mission, the tasks include among others:

- the cooperation with the competition service department,
- the control of the independence and impartiality in the transmission network operation of electricity and the non-discrimination in the access to the gas network,
- the control of certain authorizations,
- the control of application of the technical regulation concerning the transmission network operation of electricity and the access to it,
- the control and evaluation in the execution of public service obligations for the producers, intermediaries and transmission network operators of electricity and for transport or supply authorization holders of gas,
- the control of access to the gas transmission network.

Besides, there are three regional energy agencies, having also

- a consultancy task, and

- a supervisory task

at the regional level.

The competences at the federal level are related, a.o., to :

- the tariff for gas and electricity,
- the high voltage electricity network,
- the transport and storage of natural gas,
- the production of electricity,
- nuclear energy.

Those of at the regional level are related, a.o., to :

- the distribution of electricity (lower voltage),
- the distribution of natural gas,
- rationale energy usage.

## **BULGARIA**

Darjavna komisija za energijino i vodno regulirane (DKEVR)

State energy and water regulatory commission (SEWRC)

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The State Energy Regulatory Commission (SERC) was established in 1999, 87 staff members. As of February 2005 it became the State Energy and Water Regulatory Commission (SEWRC), 118 staff members. The Commission has thirteen members (6 responsible for energy sector and 6 for water supply and sewage sector) inclusive of the Chairman and two Vice Chairmen nominated by a Council of Ministers' resolution and appointed by the Prime Minister for a five-year period (may be re-appointed for one more term). SEWRC is responsible for tariff setting and quality of services of enterprises in the gas, electric, district heating and water supply and sewage sectors. SEWRC is also responsible for licensing of enterprises in the gas, electric and district heating sectors and issues permits for construction of transit gas or oil pipelines. SEWRC is financed from the fees collected under the Energy Act and the Water Supply and Sewage Services Regulation Act.

**Functions Generation/Production**

- issues generation licenses
- carries out the tenders for new generation capacity
- sets regulated prices for electricity generation
- sets the rules for trade with electricity and natural gas
- sets the availability and technical parameters for electricity generation under which producers may enter in bilateral transactions or participate in an organized market (transitional period)
- issues certificates of origin to producers for electricity from renewable and cogeneration

Wholesale/Trading

- issues a license for organising an electricity market and licenses for trade in electricity
- sets the rules for trade with electricity and natural gas markets

Balancing

- sets the rules for trade with electricity and natural gas
- adopts methodology for setting of prices for balancing electricity as part of the Market rules

Transmission

- issues licenses for transmission of electricity or natural gas, transit transmission of natural gas, storage of natural gas
- sets the technical rules for the networks [Grid Code], Metering Code
- sets the rules for access to the electricity and natural gas transmission networks
- issues tariff methodologies on the basis of governmental ordinances
- sets tariffs for use of energy networks and gas storage facilities
- sets connection costs
- approves electricity and gas transmission business plans including investment plans

Distribution

- issues licenses for distribution of electricity or natural gas
- sets the technical rules for the networks [Grid Code], Metering Code
- sets the rules for access to the electricity and natural gas distribution networks
- issues tariff methodologies on the basis of governmental ordinances
- sets tariffs for use of energy networks
- sets connection costs
- approves business plans including investment plans

Supply

- issues licenses for public delivery (wholesale level) or public supply (retail level) of electricity or natural gas
- approves the general terms of contracts for sale of electricity, heat energy and gas for household purposes
- sets regulated prices for electricity and gas at the retail level

Cross-sectoral

- sets the permissible allowances for technological losses of electricity, heat and natural gas, according to a methodology defined by the Commission
- proposes government ordinances on licenses, price regulation and license fees
- sets license and license fee regulations on the basis of governmental ordinances
- approves the division, separation, consolidation or merger of licensed companies
- approves the transactions with property utilized in performing licensed activities in the cases provided for in the Law and whenever security of supply may be affected
- sets rules for account separation and financial reporting
- decides on the classification of the electricity lines, natural gas pipelines and their ancillary facilities within the transmission or distribution networks

Monitoring powers

- compliance with the terms of issued licenses
- controls the implementation of a methodology for setting prices of balancing electricity compliance with the Market rules and Grid code
- compliance with the quality of service standards
- green certificates
- competition

Settlement powers

- reviews complaints by consumers against licensees related to: consumer's right to be connected, licensee's right to terminate the connection and supply, supply terms and quality indicators
- reviews complaints by licensees against other licensees related to performance of the licensed activity
- facilitate a voluntary settlement to the disputes

Enforcement powers

- imposes compulsory administrative measures and administrative penalties envisaged in Energy Law
- tariff revision, adoption of rate of return, adopts the revenue



- in revenue cap regulation method
- license amendment, suspension, termination or revocation
- mandatory instructions on specific energy issues

#### Financing

- fees for licensing or other regulatory actions, 20% of the fines and property sanctions and donations from persons not subject to licensing or their affiliates within the meaning of the Commercial Code
- annual budget is approved by Parliament with the Law on State Budget

### **CYPRUS**

Cyprus Energy Regulatory Authority (CERA)

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The objectives of the supervision of the Cyprus Energy Regulatory Authority (CERA) are briefly described as follows: (a) To safeguard the healthy and essential competition in Electricity and Natural Gas Market, (b) to protect the interest of Consumers of Electricity and Natural Gas (c) to promote the development of an economically viable and efficient Electricity and Natural Gas Market (d) to ensure the Security, Continuation Quality and Reliability of Electricity Supply (e) to take into consideration the Protection of Environment. (f) to encourage the efficient generation and use of Electricity and (g) to promote the use of Renewable Energy Sources. The regulatory and supervisory scope of CERA includes (a) the issue, control, enforcement, amendment and revocation of licences to energy and natural gas firms (b) determination, disclosure and enforcement of quality standards with which the licence holders have to comply (c) ensuring that the tariffs, charges and other conditions implemented by the licence holders for the services offered are in accordance with their licence (d) approval of the trading rules concerning the energy and natural gas market in Cyprus and (e) determination of the rules and procedures according to which complaints relating to services

offered by licence holders are examined and, where deemed appropriate, carrying out investigations and taking decisions for such complaints.

## **CZECH REPUBLIC**

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Regulation in the Energy Sector is exercised via the Energy Regulatory Office (ERO). The ERO is a central body of state administration and has its own national budget head. It is composed of the Regulation Section, the Licensing Department, the Strategy Department and the ERO Bureau Department. The regulation follows three key objectives:

- support of economic competition,
- support of the use of renewable and secondary energy sources,
- protection of consumers' interests in the areas of energy sector where competition is not feasible.

The Regulation Section, which consists of the Electricity Industry Department, the Gas Industry Department and the Heat Supply Industry Unit, prepares price decisions for the electricity, gas and heat sectors, resolves disputes on the executions of contracts among licence holders or between licence holders and their customers and approves the rules for the electricity and gas transmission and distribution system operations.

The Licensing Department makes decisions on awarding, amending or revoking licenses, which are the key prerequisites for doing business in the energy sector.

The Strategy Department develops medium-term and long-term regulation strategies in the individual energy sectors. It is also in charge of monitoring energy sectors at the EU level and the global level and co-operating with European institutions and other regulatory authorities.

The regulation policy differs between protected customers and eligible customers. In the case of a protected customer the final price is fixed by ERO, while eligible customers have the right to select their supplier and the price they pay includes components that are not controlled. ERO

control applies to those price components that are related to monopolized services.

In recent years a major part of the ERO agenda has been expanding the range of services for which there exists a competitive environment and phasing out price control subsequently.

At the international level ERO co-operates with the Council of European Energy Regulators and the European Regulators Group for Electricity and Gas.

## **DENMARK**

Energitilsynet - Danish Energy Regulatory Authority (DERA)

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The Danish Energy Regulatory Authority (Authority DERA is an independent authority engaged in proactive and forward-looking supervision of monopoly companies in the Danish energy sector: electricity, natural gas and district heating.

DERA works to secure efficient and transparent energy markets in Denmark, and, in doing so, contributes to securing Danish households, enterprises and others the energy required, at fair and transparent prices, and on fair conditions.

To do this, DERA regulates the prices and terms of supply fixed by the monopoly companies – including the terms applying to access to transmission and distribution networks. The Authority also supports structure development and improvements in efficiency within the energy sector. Further, DERA – through its secretariat – plays an active part in Nordic and European cooperation among regulatory authorities, thus contributing to optimal and secure supply of energy to Danish society.

The members of DERA are appointed by the Danish Minister of Transport and Energy for a period of four years. The Authority was established on 1 January 2000, replacing the former Electricity Price Committee and the Gas & Heating Price Committee.

## **ESTONIA**

Energiaturu Inspektsioon - Energy Market Inspectorate (EMI)

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The Estonian Energy Market Inspectorate (EMI) is a government agency within the area of the Ministry of Economic Affairs and Communication. EMI is responsible for implementing the state control, supervision and monitoring of the fuel and energy market, including the issuance of market licences and price control. The main competence of the EMI is to supervise the fuel and energy markets. Due to the current energy situation in Estonia the main tasks of the energy market regulator are likely to be connected to licensing and the supervision of power transmission, distribution and sales tariffs and the power generation prices of power plants with market dominating position.

## **FINLAND**

Energiamarkkinavirasto - The Energy Market Authority (EMV)

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The FSA oversees all suspected cases of insider trading in any derivatives trading also where the underlying is a commodity.

The Mission of the Energy Market Authority is to supervise and to promote functioning of the electricity and natural gas markets and to establish preconditions for the emission trade. The principle task of the Energy Market Authority at the electricity and natural gas market is to supervise the pricing of transmission, distribution and other network services. The Energy Market Authority monitors that the pricing of network services

produced by distribution and regional network operators and national grid is reasonable and non-discriminatory. The Energy Market Authority also promotes efficient competition in the electricity and in the natural gas trade, by intervening in the terms and prices of the network services that are considered to restrict competition. The Energy Market Authority is the National Emissions Trading Authority in Finland. The Energy Market Authority grants the emissions permits, pursuant to which the installations have right to emit carbon dioxide into atmosphere. The Energy Market Authority also supervises the monitoring and reporting of emissions data and maintains the Emissions Trading Registry of Finland.

**FRANCE**

Commission de Régulation de l'Energie (CRE)

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**Description of scope:**

The Commission de Régulation de l'Energie "CRE" is in charge of the regulation of the electricity and gas market. More generally, the law entrusts CRE with the mission of ensuring the smooth running of the electricity and gas markets. It monitors the organised markets of electricity and natural gas, as well as cross-border exchanges of these two energies (art.3 law 10/02/2000).

Established in 2000, CRE has a status that guarantees the independence of missions generally devolved to independent administrative authorities responsible for regulating an economic sector that is opening up to competition and marked by the presence of public operators.

The Commission consists of seven Commission members, appointed for six years.

**Objectives of supervision:****1. The public service:**

- The progressive opening of the market must function by uniting the introduction of competition with the fulfillment of public service missions, CRE plays a role in accommodating these objectives, since the organization or funding of the public service has an impact on the operation of the market. It is on this account that CRE, in particular, in terms of the electricity public

service: assesses the amount of attributable costs to public service missions which are subject to full compensation in the terms which are made provision for in article 5-I of the 10th of February 2000 law (art.5-I law 10/02/2000).

- Every year CRE suggests to the minister for energy a sum for public service expenses and a sum for the contribution applicable per kilowatt per hour. It also suggests to the ministers for the economy and energy the amount of reimbursements made in favour of operators with the public service responsibilities.
- It assesses the running of the mechanism for compensating public service responsibilities in its annual activity report.

## 2. The entry of new electricity producers on the market:

- CRE issues a recommendation on the decree laying down the purchase obligations for small facilities, developing domestic waste or using renewable energy sources (obligation made to EDF and non-nationalised distributors to buy the energy produced by these producers) and the terms for purchasing electricity which is produced this way (rate decrees) - art.10 law 10/02/2000.
- As part of the long term programme for electricity generation, if the generation capacities do not meet the objectives simply through the interactions of operators' initiatives, the minister for energy may resort to a call for tenders that CRE has the responsibility of implementing. CRE thus drafts specifications, sorts out the offers and issues a recommendation on the applicants, the final choice of these applicants being left up to the minister - art.8 law 10/02/2000.
- CRE issues a recommendation on the social measure of the rate mechanism intended to guarantee the right to electricity for financially insecure people, as the law makes provision for (art.2-III law 10/2/2000).

## 3. Consumers:

- CRE makes a recommendation on the sales rates applied to non-eligible customers. This recommendation aims to ensure that rates cover the costs and do not create subsidies in favour of eligible customers (art.4 law 10/2/2000 and art.7 law of 3/1/2003).

### **Competences:**

The Commission can be requested **to settle disputes** related to access to or the use of:

- Public electricity transmission and distribution systems,
- Natural gas transport and distribution systems,

- Liquefied natural gas plants (LNG).

The Commission **can be called on to arbitrate** by:

- The public electricity transmission or distribution system operator,
- A natural gas transport or distribution system operator
- A liquefied natural gas plant operator,
- Alternatively, by users of the above grids, systems and plants.

### **Markets:**

Since July 1st 2004, **all electricity and gas consumers can be eligible** according to their consumption site, as long as all or part of the electricity or gas consumed is designed for non-residential use.

#### 1. The retail electricity market:

- Large sites: high voltage sites whose subscribed power level is at least 250 kW. These sites include large industrial sites, hospitals, hypermarkets, large buildings, etc. The large sites, although they only represent 1% of the sites in terms of number, they account for 66% of the total electricity consumption among eligible sites.
- Medium-sized sites: high voltage sites whose subscribed power level is less than 250 kW and low voltage sites whose subscribed power level is at least 36 kVA.
- Small sites: low voltage sites whose subscribed power level is below 36 kVA. These sites correspond to the professional mass market (private professionals, trades, etc.). The small sites, although they represent 91% of the sites in terms of number, they only represent 15% of the total electricity consumption among eligible sites.

#### 2. The wholesale electricity market:

It is relevant to notice that, compared with national consumption, the trading volumes on the European power exchanges are still limited. Despite the development of power exchange markets, most of the wholesale electricity trade still takes place through direct OTC trading or through intermediaries (brokerage companies and trading platforms). Furthermore, the French wholesale electricity market includes both purely financial trading and trading involving physical deliveries of electricity on the French network.

- OTC French market;
- Power exchange markets: Powernext Spot, Powernext Futures and European Energy Exchange France.

#### 3. The retail gas market:

The eligible customers connected to the transmission systems are all big gas consumers. They represent less than 1% of sites in terms of number, but approximately half the consumption of eligible customers.

4. The wholesale gas market:

Wholesale gas market trading is organized at the Gas Exchange Points (PEGs), which are virtual points within each balancing zone, where the following trading operations take place:

- Gas trading between suppliers, including supplies under the gas release.
- Gas supplies to network operators, used for network management, for the balancing of daily shipper balances, for fuelling the compressors, or the creation of a line pack for new structures.

## **GERMANY**

Federal Network Agency for Electricity, Gas, Telecommunications, Posts and Railway (Bundesnetzagentur - BNetzA)

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### **Status of the Federal Network Agency**

The Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway is a separate higher federal authority within the scope of business of the Federal Ministry of Economics and Labour, and has its headquarters in Bonn. On 13 July 2005 the Regulatory Authority for Telecommunications and Posts which superseded the Federal Ministry of Posts and Telecommunications (BMPT) and the Federal Office for Posts and Telecommunications (BAPT), was renamed Federal Network Agency. Moreover, it acts as the root certification authority as provided for by the Electronic Signatures Act.

The Federal Network Agency's task is to provide, by liberalisation and deregulation, for the further development of the electricity, gas, telecommunications and postal markets and, as from 1 January 2006, also



of the railway infrastructure market. For the purpose of implementing the aims of regulation, the Agency has effective procedures and instruments at its disposal including also rights of information and investigation as well as the right to impose graded sanctions.

- The Federal Network Agency's decisions in the fields of electricity, gas, telecommunications and post are made by its Ruling Chambers.
- The undertakings directly concerned may participate in the Ruling Chamber proceedings.
- The business circles affected by the proceedings may be summoned.
- The Federal Network Agency's decisions are based on the Telecommunications Act, the Postal Act and the Energy Act and can be challenged before court.
- In case of a legal dispute neither the Regulatory Authority nor the Federal Ministry of Economics and Labour (BMWA) can quash the decision made by the Ruling Chambers. In contrast to the provisions of the Act Against Restraints of Competition (GWB) a so-called ministerial decision is not foreseen.
- The rulings by the Ruling Chambers on telecommunications and postal matters may be challenged directly before the Administrative Courts, and before the Civil Courts if energy matters are concerned. An appeal procedure is not foreseen. Proceedings on the main issue do not have a staying effect.

### **Tasks of the Federal Network Agency**

The central task of the Federal Network Agency is to provide for compliance with the Telecommunications Act (TKG), the Postal Act (PostG) and the Energy Act (EnWG) and their ordinances having the force of law. This way the Agency ensures liberalisation and deregulation of the telecommunications, postal and energy markets through non-discriminatory access and efficient use-of-system charges.

In the field of telecommunications and post it is responsible for:

- securing fair and working competition, in rural areas as well;
- ensuring provision throughout the Federal Republic of Germany of basic telecommunications and postal services (universal services) at affordable prices;
- promoting telecommunications services in public institutions;
- securing efficient and interference-free use of frequencies, account also being taken of broadcasting interests; and
- protecting public safety interests.

Apart from regulation, the Federal Network Agency performs a number of various other tasks related to the telecommunications and postal market; it

- issues postal licences;
- contributes to resolving problems within the framework of standardisation;
- administers frequencies and telephone numbers,
- detects radio interference,
- combats abuse of telephone numbers,
- observes the market and
- offers advice to citizens on new regulations and their implications.

In the field of energy it secures

- as far as possible, a secure, cost-efficient, consumer-friendly, efficient and environmentally compatible wired provision of electricity and gas to the general public;
- working and undistorted competition in the provision of electricity and gas and ensures the efficient operation of energy supply networks on a long-term basis;
- the implementation and enforcement of Community law in the field of wired energy supply.

Through its regional offices the Federal Network Agency keeps contact with the consumers and industry in rural areas. It is the local point of contact for citizens and undertakings especially with regard to specific aspects of telecommunications.

### **Regional supervisory agencies**

In addition to the Federal Network agency, regional network agencies in the different federal states exist. These regional agencies take responsibility for energy and gas companies below 100.000 customers and - as long as the federal state has not conferred the supervisory task to the Federal Network agency - the supervision of larger energy and gas companies. The objectives and means of supervision of the regional network agencies are the same as for the Federal Network agency.

### **GREECE**

Ρυθμιστική Αρχή Ενέργειας / Regulatory Authority for Energy (PAE / RAE)

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RAE is an independent authority and has mainly advisory and recommendatory character in the energy sector.

RAE operates for the objectives of Greek energy policy that according to the law are the following:

- Safety and reliability of energy supply of Greece
- Protection of the environment
- Contribution in the competitiveness of national economy, with the achievement of healthy competition aiming at the reduction of cost of energy for users and consumers and the facilitation of new enterprising activities and employment.

Superior aim of RAE is the protection of energy consumer (individuals and enterprises) and public interest (regions, reliability of catering, environment, and quality of services).

For the achievement of this aim, RAE attends the healthy competition of suppliers of energy and the organisation of market in a way compatible with the strategic objectives of economic growth (new enterprising activities, new technologies, extension of markets, and reduction of cost, healthy financing).

In this frame, RAE as independent beginning undertakes multiple roles:

- oversees the market, the competition and the prices
- protects the consumer, the environment and the public interest,
- supervises the operation of systems of energy supply,
- analyzes Greece's policy and strategy in the energy
- proposes to the Greek Parliament the regulatory framework and laws and supervises their enforcement

## **HUNGARY**

Magyar Energia Hivatal / Hungarian Energy Office (MEH / HEO)

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The Hungarian Parliament established the Hungarian Energy Office (hereinafter: HEO) in 1994. The HEO is a national public administration body with independent powers and competence, acting under the direction of Government and supervision of the Minister of Economy and Transport.

The HEO is a legal entity with separate and independent financial management. For its supervisory activity, the authorized operators shall be charged a supervisory fee based on the net sales revenues of the previous year.

The president and the vice president of the HEO are appointed and dismissed by the Prime Minister. Their appointment is for a term of six years. The President of the HEO prepares and submits yearly reports for the Parliament. The HEO has no regulatory powers over the energy sector.

The Electricity Act CX of 2001, the Act XLII of 2003 on Natural Gas Supply and the Act XVIII of 2005 on District Heat Supply, including the related governmental and ministerial decrees stipulated the main responsibilities, powers and authorities of HEO, and create the legal background for the operation of the energy market. These acts and the related legal regulation justified the reform of the energy sector controlled by the State in which process the HEO played leading role.

The HEO plays a decisive role in operating the regulated and competition markets, issuing and withdrawing operational licenses for market players, regulating companies which act as natural persons or legal monopolies, at the preparation of the final decision on prices and supervising the market.

Besides the above-mentioned tasks of the HEO are regulating and supervising the activities of the organizations holding a gas or power industrial license as well as the energetic activities of the district heat generating and supplying companies; preparation for decision-making of the prices and the price regulation of natural gas, electric energy as well as the steam and hot water produced by power plants serving the public and heat developing facilities and consumer protection, the licenses for establishing a power plant.

The HEO's procedure shall be governed by the provisions of the Act CXL of 2004 on the General Rules of Administrative proceedings and Services subject to the exemptions set out in the relevant Acts.

To appeal the resolutions of the HEO the only resort is legal remedy. The resolutions of the HEO may not be appealed, however, a court review may be requested. The court shall be entitled to amend its resolutions.

The electricity market was liberalized on 1 January 2003, and the liberalization of the natural gas market ensued on 1 January 2004, with

the simultaneous existence of regulated and competition markets ever since that. In either area, i.e. in the natural gas and electricity energy supply all non-household consumers shall have the right to satisfy power demand on the competition market from 1 July 2004. The complete opening of the market will take place after 1 July 2007.

As a result of market opening and the gradual market extension, the price preparation activity of the Office was limited to the monopolistic official pricing. With the expiration of ministerial decree on the Natural Gas Price Regulation System at the end of 2005, a new price regulation period for natural gas was due to be launched and the new "starting prices" had to be defined. The decrees on the new price regulation and the definition of new "starting prices" came into force in January 2006.

The Office has a good working relationship with the ministries and other authorities, e.g. the Economic Competition Office and the Supervisory Office of Consumer Protection. The Office extended its international cooperation and took active part in the working commissions of several organizations.

The Office continuously released its resolutions of public interest and the executives gave information on questions related to consumers through the electronic and written media. The scope of activity, statements and news of the Office, as well as the most important events related to the energy market can be continually followed on its web site.

An important part of its activity is the consumer protection. Due to increased number of complaints, besides the procedures applied already in the past years (controlling, investigating consumer claims, modifying business rules, fines) the HEO aims to introduce new forms of preventing measures, such as information leaflets issued jointly with other competent state authorities, surveys prepared by non-governmental civil consumers protection organizations and the consumers satisfaction surveys and service quality regulations based on several years experience considering the different services and legal regulations. After having drawn the conclusions from the supervisions of companies and having investigated the complaints, the HEO took the necessary measures.

## **ICELAND**

Orkustofnun / National Energy Authority

Orkugarði

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The Icelandic National Energy Authority (Orkustofnun) is an independent authority under the auspices of The Ministry of Industry and Commerce. It executes administrative functions on behalf of the government, and serves as a governmental advisor on energy issues. The National Energy Authority operates according to the Law of Orkustofnun and to the Electricity Act from 2003. The Electricity Act assigned extensive supervisory powers to the National Energy Authority for the energy markets in Iceland.

Supervisory powers include the regulation of pricing for energy, including pricing for transportation and distribution of energy. It supervises energy transmission and energy distribution networks and is responsible for supervising the separation of accounts for production, transportation and distribution of energy. The national Energy Authority also supervises compliance and execution of energy laws.

The Minister of Industry and Commerce appoints the Director of the National Energy Authority.

## **IRELAND**

Commission for Energy Regulation (CER)

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The CER is the independent body responsible for overseeing the liberalisation of Ireland's energy sector. The CER was established on 14 July 1999 and granted regulatory powers over the electricity market under the Electricity Regulation Act, 1999 to underpin an open, transparent and accountable regulatory process for the electricity industry in Ireland. The enactment of the Gas (Interim) (Regulation) Act, 2002, expanded the CERs jurisdiction to include the regulation of the natural gas market. The CER was renamed Commission for Energy Regulation to reflect its increased role.

The CER comes under the aegis of the Department of Communications, Marine and Natural Resources. Although the Electricity Regulation Act of 1999 allows for the appointment of up to 3 regulators, the CER is currently the only regulator.

The CER powers are set out in the Electricity Regulation Act, 1999 and the Gas (Interim) (Regulation) Act, 2002. The CER is obliged to exercise such powers in a manner which does not discriminate unfairly between players in the electricity and gas markets and protects the interests of final customers of electricity and gas. The CER is required to have regard to the need to:

- promote competition in the generation and supply of electricity and in the supply of natural gas;
- ensure all reasonable demands by final customers for electricity are satisfied;
- secure that there is sufficient capacity in the natural gas system to enable reasonable expectations of demand to be met;
- secure the continuity, security and quality of supplies of natural gas;
- ensure that licence holders are capable of financing the undertaking of their licensed activities;
- promote safety and efficiency on the part of electricity and natural gas undertakings;
- promote the continuity, security and quality of supplies of electricity;
- promote the use of renewable, sustainable or alternative forms of energy.

In the electricity market, the CER facilitates competition by authorising the construction of new generating plant and licensing companies to generate and supply electricity. The CER also regulates prices charged to customers by the Electricity Supply Board in its capacity as Public Electricity Supplier. In the gas sector, the CER issues consents for the construction of pipelines, licenses suppliers and has powers to regulate prices charged to certain gas customers. The CER takes an active regulatory stance in relation to the operation, maintenance and development of the electricity and gas transmission and distribution networks, as well as approving tariffs for third party access to these systems.

## **ITALY**

Autorità per l'Energia Elettrica e il Gas (AEEG)

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### **The Regulatory Authority for Electricity and Gas**

The Italian Regulatory Authority for Electricity and Gas is an independent body established under Law 481 of 14 November 1995 to regulate and control the electricity and gas sectors.

Its regulatory powers include the setting of tariffs and the definition of service quality standards and the technical and economic conditions governing access and interconnections to the networks for those services where technical, legal or other constraints would interfere with normal competitive market conditions and the ability of the market to protect the interests of users and consumers.

The Authority has a board made up of five<sup>4</sup> commissioners: the President and four Members. All commissioners are appointed by decree of the President of the Republic following nomination by the Council of Ministers on the basis of a proposal by the Minister of Productive Activities. Nominations are submitted to the competent Parliamentary Committees for scrutiny, and the appointment is based on a two-thirds majority vote.

The commissioners are selected from highly qualified, experienced professionals in the sector. Appointments are for seven years and are not renewable. To safeguard the Authority's independence and autonomy, commissioners are expressly forbidden to have any direct or indirect professional relations with any company operating in the regulated sectors during their term in office and the subsequent four years.

#### **The Authority's autonomy**

The Authority functions with full autonomy and independence of judgement within the general policy guidelines laid down by the Government and Parliament and taking into due account the relevant European Union legislation. In its Documento di Programmazione Economico-Finanziaria (Three-year Economic and Financial Planning Document), the Government draws the Authority's attention to any developments concerning the public utilities that it would be in the country's general interest to promote.

The Authority formulates observations and recommendations to the Government and Parliament and presents an annual report to Parliament and the Prime Minister on its activities and on the state of the regulated services.

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<sup>4</sup> By law n. 239/2004. Previously the board of commissioners was made up of the President and two members (law n. 481/1995).



The Authority formulates its own procedures for the adoption of provisions and enjoys organisational autonomy to lay down the regulations governing its internal organisation, functioning and accounting procedures.

The Authority is funded through annual contributions paid by the service providers, calculated as a set percentage of no more than 1/1000 of contributors' revenues for the previous financial year.

The Authority was set up on 4 December 1996. It has been fully operational since 23 April 1997, when the internal rules governing its organisation, functioning and accounting were published in the Gazzetta Ufficiale della Repubblica Italiana (Official Gazette) and it took over all functions within its remit that had previously been carried out by other public bodies.

### **The Authority's main objectives and functions**

The task of the Regulatory Authority for Electricity and Gas is to pursue two main objectives as laid down in Law 481/95: "guaranteeing the promotion of competition and efficiency" while "ensuring adequate service quality standards" in the electricity and gas sectors.

These objectives are to be pursued by ensuring "uniform availability and distribution of services throughout the country, by establishing a transparent and reliable tariff system based on pre-defined criteria and by promoting the interests of users and consumers". The tariff system is required "to reconcile the economic and financial goals of electricity and gas operators with general social goals, and with environmental protection and the efficient use of resources".

Under law no. 481 of November 14th, 1995, the main functions of the Regulatory Authority for Electricity and Gas are as follows.

#### Tariffs

To set basic tariffs for the regulated sectors. This includes maximum prices net of tax, and tariff adjustments based on a price-cap mechanism (defined as a "ceiling on price variations on a multi-annual basis"). The price-cap mechanism sets a limit on annual tariff increases corresponding to the difference between the target inflation rate and the increased productivity attainable by the service provider, along with any other factors allowed for in the tariff, such as quality improvements.

#### Quality Standards

To establish guidelines for the production and distribution of services, as well as specific and overall service standards and automatic refund mechanisms for users and consumers in cases where standards are not met. To monitor quality standards set by the Authority, and the adoption and application of the Citizens' Service Charter. Quality standards may refer to both the terms and conditions of contracts (such as response time to calls or complaints) and technical aspects of the service (such as service continuity and safety).

#### Market structure

To formulate observations and recommendations to the Government and Parliament regarding the market structure and the adoption and implementation of European Directives.

#### Competition

To report to the Autorità garante della concorrenza e del mercato (Italian Antitrust Authority) any suspected infringements of Law 287 of 10 October 1990 by companies operating in the electricity and gas sectors.

#### Licensing

To make observations and recommendations to the Government and Parliament with regard to licenses or authorisations, and to the Ministry of Industry with regard to licensing, convention and authorisation schemes, and any changes to or renewal of the existing schemes.

#### Accounting and Administrative Unbundling

To issue guidelines for the accounting and administrative unbundling of the various activities under which the electricity and gas sectors are organised. Unbundling helps to achieve the objectives of transparency and standardisation in the annual accounts of companies operating in the regulated sectors, of monitoring the costs of individual services, and of ensuring that electricity and gas costs can be properly disaggregated and broken down by function to enable the effective promotion of competition and efficiency.

#### Monitoring and control

To monitor the conditions under which the services are provided, with powers to demand documentation and data, carry out inspections, obtain access to plants and apply sanctions, and to determine those cases in which operators should be required to provide refunds to users and consumers.

#### Complaints and appeals

To assess complaints, appeals and reports by individual users and consumers and their associations and, where necessary, to oblige service providers to modify service conditions accordingly.

#### Disputes

To handle out-of-court settlements and arbitrate in disputes between users or consumers and service providers.

#### Information and transparency

To publish and circulate information on the supply of the services to provide the maximum transparency, competitive supply conditions, and the possibility for intermediate and final users to make more informed choices.

### **The Authority's decision-making process**

The Authority's decision-making procedures are based on its internal regulations and regulations issued by Presidential Decree pursuant to Art. 17.1 of Law 400 of 23 August 1988, especially where procedures regarding individual interests and reconciliation and arbitration are concerned.

In adopting legislative or general provisions, the Authority initiates a process whereby it designates one of its officials to be responsible for all

related procedures, and one of its commissioners to be responsible for reporting on any findings and on the proposed decision. Under this procedure a deadline is set for the submission of written observations and, where necessary, consultations may be arranged with the interested parties and their associations.

In the case of complaints, appeals, reports or other notifications from which it emerges that the Authority would have grounds to introduce individual provisions, the Authority operates according to criteria laid down by Presidential Decree 244/2001. These define the terms and arrangements for the opening of the procedure, the preliminary inquiries, any technical inspections, consultations or hearings, the conditions for the termination of the procedure and the adoption of the provision.

#### Transparency and consultation in the decision-making process

The Authority applies criteria of transparency when adopting general rules and decisions. The process involves full consultation with operators and the associations representing interested parties (consumer, environmental, trade union, and business associations) through the circulation of documents and the collection of written observations, discussed where appropriate during collective and individual hearings prior to the issuing of any provisions.

These hearings are governed by specific regulations which include the possibility for the associations to bring specific and urgent questions to the Authority's attention and to propose that these be included in the agenda for discussion.

#### Implementation of decisions

The Authority is required to publish its principal decisions and provisions in a Bulletin. General rules and provisions are also published in the Gazzetta Ufficiale della Repubblica Italiana (Official Gazette) and on the Authority's Internet site ([www.autorita.energia.it](http://www.autorita.energia.it)).

#### Appeals against the Authority's decisions

Appeals against the Authority's decisions can be lodged with the Tribunale amministrativo regionale or TAR (Regional Administrative Court) for the Lombardy Region. Appeals against the rulings of the TAR can be presented to the Consiglio di Stato (Council of State).

### **The Authority in the international context**

The process of European integration and the realisation of the single market means that the supra-national policies and the coordination role of the EU bodies are of decisive importance for markets such as electricity and gas.

The Authority maintains bilateral relations with all the European regulators and in particular with the regulators of those countries sharing a border with Italy, by reason of the regulatory aspects of cross-border energy trade. It has also developed numerous contacts with new regulators or those currently being set up, especially in countries that have applied for EU membership and other European transition countries wishing to analyse the Italian model in closer detail.

Finally, the Authority cooperates with all the international bodies interested in the opening of the energy markets and in issues related to its institutional activities.

### **Structure and organization**

Under the terms of its founding law the Authority may employ a maximum of 210 staff on permanent or temporary contracts (120 or 90 units respectively).

The Authority's employees, including those on temporary contracts or seconded from other administrations, may not take on other jobs or positions or carry out other professional activity, even on an occasional basis. Nor may they hold direct or indirect interests in companies in the regulated sectors. The Authority has adopted a code of conduct for its members, management and staff.

The Authority has its head office in Milan and an additional office in Rome.

## **LATVIA**

Sabiedrisko pakalpojumu regulēšanas komisija / Public Utilities Commission (PUC)

Brīvības str. 55

Rīga, LV-1010

Tel: +371 7097200

Fax: +371 7097277

E-mail: [sprk@sprk.gov.lv](mailto:sprk@sprk.gov.lv)

Web: <http://www.sprk.gov.lv>

The Public Utilities Commission (hereafter — Commission) is a derived public entity under the supervision of the Latvian Economics Ministry. The Public Utilities Commission was established in autumn 2001. The Commission regulates public services related to the energy, electronic communications, postal and railway transport sectors. The Commission is a unified multi-sector regulator, which is independent in its functions and its decisions.

The Commission operates in accordance with the law "On Regulators of Public Utilities", laws related to regulated sectors, and regulations from the Cabinet of Ministers. The Commission also observes its own statutes, strategies and code of ethics, as approved by the Commission's board.

Strategic goals of utilities regulation are:

- to provide users with high quality, continuous and safe public utilities for economically reasonable prices (tariffs),

- to stimulate efficiency and sustainable development of public utilities ensuring profitability levels consistent with the prevailing economic conditions,
- to promote economically justified competition in the regulated sectors.

The Commission's functions include regulation of regulated sectors and companies whilst balancing the interests of users and public service providers. The Commission determines methodologies for calculating tariffs, approves tariffs, issues licences, registers authorisations, promotes competition in regulated sectors, and performs out-of-court dispute settlements. The Commission also makes sure that service providers comply with their licence conditions and quality requirements.

## **LIECHTENSTEIN**

Commission for Energy Supervision

Regierung des Fürstentums Liechtenstein

Regierungskanzlei

Städtle 49

LI-9490 Vaduz

Tel: +423 236 6030

Fax: +423 236 6597

E-mail: [info@rk.llv.li](mailto:info@rk.llv.li)

The Commission for Energy Supervision is a regulatory body that has been established by the government. The Commission can take all necessary action with respect to market supervision according to national law (Energy Market Law and Gas Market Law) and EEA-legislation. Additionally, the Commission advises the government on principal issues regarding its electricity, natural gas and energy policies.

## **LITHUANIA**

Valstybinė kainų ir energetikos kontrolės komisija / National Control Commission for Prices and Energy (NCC)

Algirdo st. 31

LT-03219 Vilnius

Tel/Fax: +370 5 2135270

E-mail: [rastine.komisija@regula.is.lt](mailto:rastine.komisija@regula.is.lt)

Web: <http://www.regula.lt>

National Control Commission for Prices and Energy (NCC) conducts its activity in line with the provisions of the Law on Energy and the Law on Electricity, which are the main laws regulating the energy sector. While implementing the assigned regulatory tasks, the Commission shall:

1. approve the methodologies and procedures for setting state regulated prices
2. set state regulated price caps
3. control the application of state regulated prices and tariffs
4. approve charges for connection of energy facilities
5. approve the purchase price for electricity generated from renewable energy
6. grant a licence for electricity market operator and licenses for transmission, distribution, public supply and independent supply of energy
7. and control over the licensed activities of energy undertakings.

## **LUXEMBOURG**

Institut Luxembourgeois de Régulation (ILR)

45, allée Scheffer

L-2922 Luxembourg

Tel: +352 4588 45 1

Fax: +352 4588 45 88

E-mail: [ilr@ilr.lu](mailto:ilr@ilr.lu)

Web: <http://www.ilr.lu>

The Institut Luxembourgeois de Régulation (ILR) is the successor of the Institut Luxembourgeois de Télécommunication (ILT), which was created in 1997. The ILT's mission was to ensure that the Luxembourg telecommunication sector should be open to concurrence, that this concurrence should be genuine and fair, and that all consumers should have access to telecommunication services at reasonable conditions; the ILT has also been in charge of managing and attributing the network frequencies.

In 2000, these competences of the ILT have been extended to the regulation of electricity, postal services, and (in 2001) natural gas, in the context of the liberalisation of these markets, and its name has been changed to ILR, to monitor the access to and the distribution and prices of these services.

**MALTA**

Malta Resources Authority (MRA)

Millenia, 2<sup>nd</sup> floor

Aldo Moro Road

Marsa

Tel: +356 21220619

Tax: +356 22955200

E-mail: [enquiry@mra.org.mt](mailto:enquiry@mra.org.mt)

Web: <http://www.mra.org.mt>

The Malta Resources Authority (MRA) was set up as a public corporate body by the Maltese Parliament through the Malta Resources Act of 2000. Article 4 of the MRA Act establishes the functions of the Authority and gives wide ranging responsibilities essentially involving regulation of practices, operations and activities in the energy, water and mineral sectors. This incorporates the regulation of:

- The national utilities and service providers for energy and water, namely Enemalta corporation and the Water Services corporation and their subsidiary companies;
- Industrial enterprises exploiting resources such as oil exploration, quarry owners and abstractors of groundwater;
- Retailers and operators in the regulated sector including : operators of petrol stations, gas and kerosene delivery entities, offshore bunkering companies, private operators of desalination plants and operators of road tankers;
- Tradesmen such as electricians and plumbers.

To fulfil its responsibilities the following three directorates are established within the Authority:

1. Directorate for Energy Resources Regulation: responsible for the regulation of all practices relating to generation, transmission, distribution, supply and use of energy, whatever the source of such energy;

2. Directorate for Water Resources Regulation: responsible for the regulation of all practices relating to water resources, drainage and sewage;
3. Directorate for Mineral Resources Regulation: responsible for all practices relating to mineral resources.

The Directorates are supported by a public and stakeholder relationship office, finance office, information systems office and a pool of analysts and specialists. A Licensing, Monitoring and Enforcement Unit is responsible for issuing and processing all licences and enforcement to licence conditions.

## **THE NETHERLANDS**

Autoriteit Financiële Markten (AFM)

Netherlands Authority for the Financial Markets

P.O. box 11723

1001 GS, AMSTERDAM

The Netherlands

Visiting address:

Singel 542

1017 AZ, AMSTERDAM

or

Keizersgracht 555 (entry Nieuwe Spiegelstraat 17)

1017 DR, AMSTERDAM

Phone: +31(0)20- 553 52 00

Fax: +31(0)20- 620 66 49

E-mail: [info@afm.nl](mailto:info@afm.nl)

The AFM is responsible for the market conduct supervision of the the Exend, the market where energy and gas derivatives are traded.

Dienst uitvoering en toezicht Energie / Office of Energy Regulation (The Netherlands (DTe)

Box 16 326



2500 BH The Hague

Tel: +31 70 330 35 00

Fax: +31 70 330 35 70

E-mail: [info@nmanet.nl](mailto:info@nmanet.nl)

Web: <http://www.dte.nl>

DTe's mission is to make energy markets work efficiency. This entails safeguarding access to networks, maintaining sufficient transparency (access to essential information) and protecting consumers against potential malpractices resulting from the (inherent) dominant position of providers.

The Electricity Act 1998 and the Gas Act charge DTe with the following tasks:

- To issue supply permits for the supply of electricity or gas to captive consumers and small-scale users respectively;
- To determine the tariff structures and conditions for the transmission of electricity;
- To determine guidelines for tariffs and conditions with regard to access to gas transmission pipelines and gas storage installations and, if necessary, to issue binding instructions;
- To determine connection, transmission and supply tariffs for electricity, including the discount (price cap) aimed at promoting the efficient operation of the electricity grid operators;
- To determine transmission and supply tariffs for gas, including the discount (price cap) aimed at promoting the efficient operation of the gas network operators;
- To assess every other year whether operators sufficiently/ efficiently meet the total supply demand for transmission capacity, as calculated on the basis of estimates submitted by the network operators;
- To assess every other year whether licence holders sufficiently/ efficiently meet demands, as calculated on the basis of estimates of the total supply demand of captive consumers, submitted by the relevant license holders;
- To supervise compliance with the Electricity Act 1998 and the Gas Act;
- To monitor developments in the markets for gas and electricity closely, with a view to transparency, non-discrimination, competition and effective market operations;
- To advise the Minister of Economic Affairs on applications for approval with regard to instructions issued by an electricity/gas network operator;

- To advise the Minister of Economic Affairs on applications for exemption from the statutory appointment of an electricity network operator.

## **NORWAY**

Norges vassdrags- og energidirektorat / Norwegian Water Resources and Energy Directorate (NVE)

Middelthunsgate 29

P.O. Box 5091 Majorstua

0301 Oslo

Tel: +47 22 95 95 95

Fax: +47 22 95 90 00

E-mail: [nve@nve.no](mailto:nve@nve.no)

Web: <http://www.nve.no>

Norwegian Water Resources and Energy Directorate (NVE) is the competent authority for the physical electricity wholesale grid, and retail market. The grid market is a monopoly market, the other markets are liberalised. NVE is subordinated to the Ministry of Petroleum and Energy, and is responsible for the administration of Norway's water and energy resources.

The goals of NVE are to ensure consistent and environmentally sound management of water resources, promote an efficient energy market and cost-effective energy systems, and contribute to the economic utilization of energy.

NVE supervise the physical electricity market, such as the electricity suppliers, the grid owners, the system operator and the physical Nordic market place (Nord Pool Spot). The financial electricity market is supervised by The Financial Supervisory Authority of Norway and the Norwegian Competition Authority is taken care of competition questions in the entire electricity market. The three authorities together have a formalised committee for relevant questions to ensure a consistent and total supervision of the electricity market. This committee have regular meetings.

## **POLAND**

Urząd Regulacji Energetyki / The Energy Regulatory Office of Poland (URE / ERO)

64 Chłodna Str.

00-872 Warsaw

Tel: +48 22 6616302

Fax: +48 22 6616300

E-mail: [ure@ure.gov.pl](mailto:ure@ure.gov.pl)

Web: <http://www.ure.gov.pl>

The tasks of the Energy Regulatory Office of Poland cover administrative regulation of the energy market in Poland aimed on its operation and competition on the market.

## **PORTUGAL**

Entidade Reguladora dos Serviços Energéticos / Energy Services  
Regulatory Authority (ERSE)

Edifício Restelo

Rua Dom Cristóvão da Gama nº 1

1400-113 Lisboa

Tel: +351 21 303 32 00

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Web: <http://www.erse.pt>

The only commodity market that exists in Portugal is the MIBEL - Iberian Electricity Market being under coordinated supervision of the following entities:

- CMVM - Comissão do Mercado de Valores Mobiliários (Portugal) (Securities and Market Commission)
- ERSE - Entidade Reguladora dos Serviços Energéticos (Portugal) (Energy Services Regulatory Authority)
- CNMV - Comisión Nacional del Mercado de Valores (Spain) (Securities and Market Commission)
- CNE - Comisión Nacional de Energía (Spain) (Energy Regulatory Authority)

These four entities belong to the Regulators Council, entity responsible for the coordination of the supervision process that, in general, acts through:

- Overseeing the development of the MIBEL

- Previous advice in case of application of penalties due to particularly serious offences
- Coordination of the participation of each regulator in the all supervisory process
- Advising on the proposals for regulation of the managing entities
- Other competencies in result of agreement between the Portuguese and the Spanish governments

The entities under its supervision are the Portuguese division of the OMIP - Iberian Market Operator (derivatives market) and the OMIE - Spanish division of the Iberian Market Operator (spot market) as well as all the entities operating in these markets. If other entities managing other markets issue instruments with the electricity as underlying product, they will also become under supervision, as well as the members of that entities which carry out business on those instruments.

Regarding the above mentioned Portuguese entities, namely CMVM and ERSE, the scope and the objectives of their supervision are the following :

the intervention of ERSE is more related with the general regulation and functioning of the market, while CMVM acts, essentially, as the supervisor of the entities that manage the market. Therefore CMVM oversees the OMIP – Iberian Derivatives Market (and the OMIPClear – clearinghouse). In a prudential perspective the CMVM supervises the managing entities, verifying the accomplishment of regulations, making the registration of their managing bodies and assessing the adequacy, operational capabilities and the safety of technical and human resources. The CMVM also performs the behavioural supervision, monitoring transactions, verifying the operational conditions and transparency of the process, as well as preventing inside trading and market manipulation. Financial penalties may be applied due to offences.

The ERSE - Energy Services Regulatory Authority has the following general functions:

- Contributing to the progressive adaptation of the regulatory framework to the development of the electricity and natural gas sectors and to the timely fulfilment of the applicable EC legislation, with a view to the development of the internal energy market.
- Protecting the rights and interests of consumers in relation to prices, services and quality of service.
- Assuring the objectivity of the regulation and the transparency of the commercial relationships between operators and between these and the consumers.
- Overseeing the fulfilment on the part of the operators of the natural gas and electricity sectors of the obligations of public service and other obligations established in the laws and in the regulations, as well as in the concession contracts and in the licenses.
- Coordinating with the competent entity the application of the law of competition in the energy sector.

- Providing information and clarifications to the energy consumers, in coordination with the competent entities.
- Arbitrating and resolving litigation that arises within the remit of electricity and natural gas sectors, under the terms defined by law.
- Accompanying the related activities of the regulatory entities, as well as the foreign experiences of energy regulation, and the establishing relationships with the regulatory entities and with the relevant community and international organisms.
- Promoting investigation in the electricity and natural gas market and in its regulation and developing the initiatives and establishing the protocols of association or of cooperation that are shown to be adequate.
- Guaranteeing the existence of conditions which permit the demand for electric energy to be satisfied in an efficient manner.
- Collaborate with the Portuguese Parliament and the Government in the formulation of policies and regulation of energy sector.
- Disclose the regulatory framework in force and its competences and initiatives, as well as the rights and obligations of the operators and the consumers of natural gas and electricity.

**ROMANIA**

National Authority of Energy Regulation

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Fax: +40 21 3124365

E-mail: [anre@anre.ro](mailto:anre@anre.ro)

Web: <http://www.anre.ro>

ANRE has the following tasks and competencies:

- a) Set up mandatory regulations for sector companies
- b) Grant, amend, suspend or withdraw authorizations and licenses for electricity sector companies, including for producers of heat through co-generation as well as for companies likely to emerge following the opening of the electricity market.
- c) Issue and approve calculation methodologies to set up tariffs and prices.
- d) Set up tariffs for captive consumers.

- e) Set up prices and tariffs operating among electricity sector companies, tariffs for electricity system, transmission and distribution services, prices and tariffs for activities and services associated to the production of heat through co-generation.
- f) Set up supply framework contracts and contracts operating among sector companies on the sale, purchase, transmission, system service and distribution of electricity as well as contracts for the sale of heat through co-generation;
- g) Issue the regulation for electricity supply to consumers, subject to governmental approval.
- h) Set up requirements, criteria and procedures for the eligibility of electricity consumers and qualify the eligible customers.
- i) Approve technical and commercial regulations for sector companies.
- j) Perform control activities in order to assess the compliance of sector companies with the existing regulations, with the pricing and tariff system in force and to levy penalties for non-compliance.
- k) Set up the procedure for the resolution of pre-contractual disputes and settle possible disputes occurring among sector companies upon the conclusion of contracts and of the electricity supply contracts as well.
- l) Set up its own monitoring and control procedures in order to assess compliance of sector companies with the existing pricing and tariff system.
- m) Draw up, as per the provisions of the law, its own regulation for the identification, notification and penalization of violation of sector regulations.
- n) Draw up the regulation for the authorization of electric power engineers and the certification of sector companies to design, construct, verify and operate energy capacities, respectively facilities.
- o) Monitor the enforcement of the specific electricity sector regulations.
- p) Notify the relevant ministry and the Competition Council with respect to the abuse of the dominant position on the market and the breach of the legal provisions referring to competition whenever non-compliance with the regulations on competition and transparency is found;
- q) Create and administrate a national data base required for the unfolding of its own regulatory activity and for the dissemination of information to other authorities involved in the drawing up of sector development strategy as well as in connection with the international trade and practices in the field;
- r) Draw up the regulation regarding users' connection to the public electricity networks, subject to Government approval;
- s) Inform the Prime Minister and relevant ministry on the unfolding of its own activity through annual reports to be subsequently published. In performing its tasks, ANRE collaborates with the Competition Council, with the National Authority for Consumer Protection, with ministries and other central or local administration bodies, with electricity consumer

associations, sector services companies, professional associations in the electricity and heat sector, with employer associations and trade unions.

## **SLOVAK REPUBLIC**

Úrad pre reguláciu sieťových odvetví (URSO) / Regulatory Office for Network Industries (RONI)

Bajkalska 27

821 01 Bratislava

Tel: +421 2 58100436

Fax: +421 2 58100479

Web: <http://www.urso.gov.sk>

The main scope of the Regulatory office for network Industries lays down the act. Nr. 276/2001 Coll. on regulation in network industries as amended.

In compliance with the mentioned act, regulation shall mean ensuring non-discriminatory and transparent performance of activities in network industries, application of regulation measures aimed at reduction of risks of violation of economic competition rules by abuse of dominant position in the market in goods and services to protect rights and obligations of eligible customers and households, as well as imposition and checking of information obligations concerning conditions of generation and supply of goods and services including information obligations concerning their impact on the environment; regulation includes also application of measures to ensure reliable, economic and high-quality supply of goods and services, measures for protection of consumers and measures for protection of justified interests of permit and license holders for performance of activities in network industries as well as measures to achieve adequate return on their investment.

### **Scope of the regulation**

The scope of regulation under this the act and under special regulations is determination or approval of the method, procedures and conditions for:

- a) connection and access to transmission system, distribution system, transmission network and distribution network under special regulation,
- b) transmission of electricity and distribution of electricity in a specified territory,
- c) transmission of gas and distribution of gas in a specified territory,
- d) provision of support services in electric energy and gas sectors,
- e) provision of services of a transmission system operator and of services of a distribution system operator,

- f) access and connection of new electricity and gas generating companies to the system or to the network, generation and distribution of heat.

Subject of regulation is further the regulation of the price of goods and the price of services provided in network industries and determination of conditions for their application - Price Regulation.

The following is subject to Price Regulation:

- a) production of electricity generated from renewable sources of energy, electricity generated by combined generation of electricity and heat, and electricity generated from domestic coal,
- b) connection to a system or network, in case of storage within the scope laid down in the rules for gas market,
- c) connection of new electricity or gas generating companies to a system or to a network, in case of storage within the scope laid down in the rules for gas market,
- d) access to a system or network, in case of storage within the scope laid down in the rules for gas market,
- e) transmission and distribution of electricity,
- f) supply of electricity to households,
- g) provision of system services in electric energy sector,
- h) provision of support services in electric energy and gas sectors, in case of storage within the scope laid down in the rules for gas market,
- i) transmission and distribution of gas,
- j) supply of gas to households,
- k) generation, distribution and supply of heat,
- l) generation, distribution and supply of drinking water through public water supply network,
- m) drainage and treatment of waste water through public sewer system,
- n) provision of water management services related to use of hydro energy potential of water streams and with treatment, supply and consumption of surface water and consumption of energy water from water streams.

Subject of regulation is also determination of the method, procedure and conditions for:

- a) operation of the system and network,
- b) supply of electricity and supply of gas to households,
- c) generation, transmission and distribution of electricity generated from renewable sources of energy, electricity generated by combined generation of electricity and heat, and electricity generated from domestic coal.

**The objects of the Office for network industries:**



The Office for network industries:

- a) ensures transparent, non-discriminatory and efficient economic competition in network industries according to the act,
- b) ensures efficient operation of the market in goods and services in network industries,
- c) determines or approves the method, procedures and conditions for connection and access to a national system or network,
- d) determines or approves the method, procedures and conditions for pricing for transmission of electricity, distribution of electricity, transmission of gas and distribution of gas, for provision of support services and system services for balancing of a system or of a network<sup>1d</sup>) and for generation, distribution and supply of heat,
- e) makes decisions on granting, amendments to and withdrawal of permits to perform Activities Subject to Regulation under the Act and under special regulations,
- f) performs Price Regulation under the Act,
- g) makes decisions on disputes concerning the obligation to provide access to a system, network, storage, and to accumulation of gas, and on disputes concerning provision of support services and system services,
- h) makes decisions on granting of a temporary exemption from the obligation of providing third party access to a system, network or storage,<sup>1h</sup>) and determines rules and procedures of management and allocation of capacities of important gas installations under a special law,
- i) makes decisions on reservation of storage capacity and accumulation of gas for network operator,
- j) makes decisions in matters of violations of liabilities under the Act and under special regulations,
- k) makes decisions on applications of Entities Subject to Regulation for exemption from regulation,
- l) lays down rules of operation of the market in electricity and gas,
- m) lays down the scope, method and rules for maintenance of separated records for the purposes of accounting under special regulation for the needs of Price Regulation,
- n) lays down rules and procedures for publishing of information on prices of goods and services and on conditions of supply or provision thereof,
- o) lays down the subject matter, conditions and scope of Price Regulation under this Act,
- p) issues generally binding legal regulations for implementation of this Act and of special pieces of legislation,
- q) issues certifications of origin of electricity generated from renewable sources of energy,

- r) cooperates in drafting of generally binding legal regulations concerning regulation of Activities in Network Industries,
- s) cooperates with regulatory authorities of member states of the European Union within its jurisdiction,
- t) monitors the level of market transparency achieved and the economic competition in the market in goods and services, the supply or provision of which is subject to regulation under the Act,
- u) monitors the adherence to rules of operation of the market in electricity and gas,
- v) monitors and assesses measures adopted to address prevention of national system and network overload and to resolve national system and network overload and imposes new measures to resolve such conditions,
- w) monitors the time that a transmission system operator, distribution system operator, transmission network operator, or distribution network operator needs for connection and for repair of system or network installations,
- x) monitors compliance with system and network operators' obligations concerning
  - a. ensuring transmission of electricity, distribution of electricity, transmission of gas, distribution of gas and storage of gas,
  - b. ensuring safety of electricity supplies, reliability of transmission and distribution of electricity and adequate transmission capacity of the system,
  - c. ensuring safety of supplies of gas, transmission and distribution of gas,
  - d. ensuring adherence to non-discriminatory access to system and network with special consideration for integrated enterprises,
  - e. control of electricity flows in the system, including cross-border exchange of electricity under a special regulation,
  - f. compliance with rules for balancing of imbalance in the system and in the network,
- y) monitors compliance with system or network operator's obligation of providing the involved parties with information concerning
  - a. connection to the system or to the network,
  - b. allocation of system or network capacities,
  - c. use of capacities of connecting lines and interconnectors,1c)
- z) monitors compliance with the obligation of keeping separate books for the purposes of accounting under a special law,
- aa) monitors the adherence to specified conditions for connection of new electricity or gas generating companies,

- bb) monitors compliance with system or network operators' obligations laid down in a special law,
- cc) deals with motions of participants of market in electricity, gas and heat concerning determination or approval of the method, procedures and conditions used for calculation of prices and conditions of regulation under the Act,
- dd) grants exceptions from the obligations of access to system and network for new connection lines or existing connection lines under special regulation<sup>1)</sup>,
- ee) approves operating rules of system and network operators and gas storage operators,
- ff) determines standards of quality of delivered goods and services provided under the Act,
- gg) determines time and quality parameters for heat supply for end consumer,
- hh) determines parameters for domestic hot water supply at an off-take point, rules for allocation of the amount of hot water for end consumers and rules for allocation of the amount of heat delivered for end consumers,
- ii) determines binding contractual conditions for supply and consumption of heat for consumers and suppliers of heat, if the supplier and the consumer fail to agree upon contractual conditions for supply and consumption of heat,
- jj) determines the scope of economically justified costs incurred due to disconnection of a customer or end consumer from the system of heat installations of a supplier and the method of calculation of such costs,
- kk) determines the method of verification of economy of a system of heat installations, indicators of energy efficiency of heat generation installations, heat distribution, normative indicators of heat consumption and the scope of economically justified costs for verification of economy of operation of a system of heat installations, as well as the method of payment of such costs.

Moreover, the Office:

- a) publishes, in the Office's Journal and on the Office's website, valid rulings of the Office,
- b) publishes a report on adherence to rules of operation of the market in electricity and gas,
- c) publishes a report on activity of the Office, with special consideration for activities mentioned in paragraph 1, items t), u), v) and y), in the Office's Journal and on the Office's web site,
- d) provides information for the Ministry on allocated capacities of connection lines for crossborder exchange of electricity, on allocation thereof and on the amount of payments for cross-border exchange of electricity under a special regulation,

- e) upon request by European Union authorities, provides information on Activities Subject to Regulation,
- f) maintains and publishes lists of holders of licences for the performance of Activities Subject to Regulation, unless provided otherwise by special regulations,
- g) informs the European Commission on:
  - a. reasons for rejection of applications for granting of a permit for performance of activities in energy sector,
  - b. measures to ensure access to extraction gas pipeline networks,
  - c. decisions on granting of exceptions from the obligation of enabling access to gas transmission network, to gas distribution network or to gas storage,
  - d. proportion of individual participants in the market in electricity and on adherence to rules of economic competition in network industries according to provisions of this Act and on measures adopted to ensure competition in the market and improve economic competition; this report shall be sent annually not later than on 31 July by 2010, and biannually starting from 2011,
  - e. import of electricity from third states; this information shall be sent to the European Commission regularly quarterly,
- h) submits applications to the European Commission for:
  - a. granting of exceptions from the obligation of access to system and network for new connection lines or existing connection lines under special regulation,
  - b. granting of exceptions from the obligation of providing third party access to system, network, and storage under a special regulation,
  - c. requests publication of details of public bidding in the Official Journal of the European Union within deadlines laid down by the Office for official publications of the European Communities.

For the compliance with the Act and with special laws, the Office:

- a. exercises surveillance of the compliance with this Act and with special laws and generally binding legal regulations issued to implement the same,
- b. imposes measures to eliminate and correct deficiencies found in performance of the surveillance,
- c. imposes fines for violation of obligations stemming from this Act.

The Office performs also other activities in the field of regulation of access to transmission system for cross-border exchanges of electricity and decision-making on disputes over access to the transmission system for cross-border exchanges of electricity under a special regulation.

## SLOVENIA

Javna Agencija Republike Slovenije za energijo / Energy Agency of the Republic of Slovenia

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### **Regulatory authority for energy**

Energy agency of the Republic of Slovenia (Javna agencija RS za energijo, henceforth: Agency) is a legal entity, established under the and in accordance with the Energy Act (Official Gazette of the RS, 26/05, EZ-UPB1, and 118/06) and the Public Agencies Act (Official Gazette of the Republic of Slovenia, No. 52/2002). It is the only energy market authority, which covers electricity and natural gas.

The competence, tasks and responsibilities are defined by the Energy Act, which transposes the Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC, and the Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC. Some of the tasks are directly defined also by the Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity and Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks.

Since the introduction of the market for both, electricity and gas, the network use is defined as a regulated public service, and the production, generation, trade and supply are commercial activities. Therefore a strict unbundling is required from the undertakings which may perform only one of either network related public services, or commercial activities, in the same entity. The networks have to be available and accessible to all users at non-discriminatory and transparent conditions. These are the basic conditions for both, electricity and natural gas to be treated as commodities.

### **Main responsibilities of the Agency**

The main responsibilities of the regulatory authorities in EU countries, including Slovenia, are:

determining or approving methodologies for network price setting, which is related to the public services and enable the market with commodities electricity and gas;

- settling disputes, resulting from
  - possible network access rejections (by the network operators),
  - network connections or conditions for connections,
  - network operating codes,
  - general conditions for supply,
- market monitoring and reporting;
- supervisory role at the process of cross border capacity allocation for congested cross border transmission paths for electricity; this strongly influences the price level for electricity in the national markets;
- some other possible tasks, related to the energy sector, such as green energy promotion etc.

For energy market monitoring there is no common definition nor understanding, which exact tasks are encompassed. This is also the area, where the differences among regulators in the EU member states are large.

In Slovenia, the market monitoring function as understood and performed by the Agency, consists of observation of main activities in the market, detecting unfair practices, and reporting on this in published reports. Of course, it records and reports also on such practices if such a behaviour is admonished. There is no measure the regulator can take to penalize abusive behaviour, in case it is detected, except a theoretical one which is, under strictly limited and clearly defined conditions, revoking a license. This has not happened yet.

There are two functions, strongly related to the market, some regulators are involved in:

- competition protection, including measures to penalize inappropriate behaviour or prevent actions on the market;
- customer protection, which include different measures.

In Slovenia, both are under the jurisdiction of other authorities, i.e. competition protection office and customer protection office. However, the interests of customers are subject of special care which the Agency always takes into consideration as far as possible, in its decisions and in its regulations (regulator's own regulations). Nevertheless, the customers and their organizations always have access and influence to any draft regulation prior to its enforcement, when the draft is published and publicly debated.

### **Supervision of unbundling**

Unbundling of undertakings, which may perform either network public services or commercial activities in one legal entity, is monitored by the Agency as any other energy regulator. The level of unbundling is different: in some exceptional cases account unbundling, functional, legal or ownership unbundling. In order to ensure the non-discrimination and transparency, the regulator must monitor and report on the level of unbundling and possible abuses, resulting from insufficient unbundling.

### **Supervision of the exchange**

The energy market is structured differently in different member states. Most of the markets enable bilateral contracts between customers and their suppliers. Apart from that, in some markets power exchanges exist, most of them enable trading at spot (means day ahead) market and in some cases, also futures. In natural gas, similar trading platforms exist at some hubs in the EU. Some regulators may have tasks and responsibilities in their supervision.

In Slovenia a power exchange exists (Borzen d. o. o.) at which spot electricity products are traded. The volumes traded in the year 2005 were under 5% of total volume of electricity supplied in Slovenia. The Agency is not involved in any supervision of Borzen's market related activities, neither exchange itself nor clearing nor settlement. Borzen, however, undertakes also a public service, i.e. registration of bilateral contracts, which is a regulated activity, and the only Agency's task is to monitor the costs of that regulated public service. There is no trading hub for natural gas in Slovenia.

### **Documents and additional information**

The main document the Agency publishes since the beginning of its operation in 2001, is a Report on the state of the energy sector. Since 2004, it reports also on the market and competition in the market, both electricity and gas, and since 2005 this is included in the Report on the state of the energy sector. These reports are available in Slovenian and in English at the web site: [http://www.agencs.si/en/informacija.asp?id\\_meta\\_type=36&id\\_informacija=708](http://www.agencs.si/en/informacija.asp?id_meta_type=36&id_informacija=708)

## **SPAIN**

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The Spanish energy system is made up of electricity market and the liquid (oil) and gaseous (gas) hydrocarbons markets. The oil sector is completely liberalised (but some regulation still exists).

In relation with electricity and gas we have to distinguish between activities (with legal and accounting separation) that are not regulated (electricity generation; gas production and importation and electricity and gas supply to eligible customers ) and those that are regulated (Transmission and Distribution and Supply to tariff based customers ).

The Ministry of Industry regulates the Spanish energy system, with the National Energy Commission (CNE ) supervising the sector and ensuring effective competition and transparency in the market. The CNE is a public body, attached to the Ministry of Industry, Tourism and Commerce with its own legal personality. Its main functions are:

- To act as a consultative body on energy matters.
- It will participate, with proposals and reports, in the legal rules making process, related to the energy system.
- Energy planning
- It will participate in the determination of tariffs, rates and the remuneration of energy activities.
- It will inform about authorisation of new energy installations.
- To issue Circulars developing and implementing the legal rules and standards contained in Royal Decrees and Orders issued by the Ministry of Industry.
- It determines which agents may be responsible through their actions for deficiencies in supply to customers and proposes the steps to be taken.
- It inspects the technical conditions of installations, compliance with the requirements stipulated in authorisations.
- It acts as an arbitrator in any disputes between the agents carrying on activities in the energy sector.
- It settles any disputes that may be submitted to it concerning contracts for third party access to transmission networks and distribution networks.
- It decides on the opening of disciplinary proceedings and to conduct said proceedings whenever they fall within the scope of authority of the Central State Administration.
- It ensures that agents acting in energy markets abide by the principles of free competition when carrying on their activity.
- It authorises the stakes taken by companies engaged in activities that are considered to be regulated in any company carrying on business activities.
- It furnishes mandatory reports on operations involving the concentration of companies or the takeover of one or more energy



companies by another company that is also engaged in activities in the same industry whenever such operations have to be submitted to the Government for a decision to be taken and in line with the competition legislation in force at the time.

Moreover, it is important to mention that Spain and Portugal have created the MIBEL (Iberian Electricity Market). This market is under the coordinated supervision of the following entities:

- CNMV – Securities and Market Commission (Spain)
- CNE – National Energy Commission (Spain)
- CMVM - Comissão do Mercado de Valores Mobiliários (Portugal); (Securities and Market Commission)
- ERSE - Entidade Reguladora dos Serviços Energéticos (Portugal); (Energy Services Regulatory Authority)

These four entities belong to the Regulators Council, entity responsible for the coordination of the supervision process that, in general, acts through:

- Overseeing the development of the MIBEL
- Previous advice in case of application of penalties due to particularly serious offences
- Coordination of the participation of each regulator in the all supervisory process
- Advising on the proposals for regulation of the managing entities
- Other competencies in result of agreement between the Portuguese and the Spanish governments

MIBEL is made up of several markets for the exchange of electric energy (spot market) and for the negotiation of derivatives with the electric energy as underlying product. The spot market is under the responsibility of the Iberian Market Operator-Spanish Division (OMIE) and the derivatives market is under the responsibility of Iberian Market Operator-Portuguese Division (OMIP). Both entities as well as all other entities operating in these markets are under the supervision of the Regulators Council. If other entities managing other markets issue instruments with the electricity as underlying product, they will also become under supervision, as well as the members of that entities which carry out business on those instruments.

## **SWEDEN**

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### **Mission**

The mission of the Swedish Energy Agency is to promote the development of Sweden's energy system so that it will become ecologically and economically sustainable. This means that energy must be available at competitive prices and that energy generation must make the least possible impact on people and the environment.

The Swedish Energy Agency is the national authority for energy policy issues.

### **Strategic objectives**

The Swedish Energy Agency works

- to ensure that energy matters are automatically taken into account in relevant social sectors
- to ensure that there is a safe and reliable energy supply
- for efficient energy markets in which customers have strong position

The Swedish Energy Agency

- supports the achievement of the national climate targets
- promotes an energy system that is economical on resources and energy efficient and that uses an increasing proportion of renewable energy sources.

### **Climate targets**

The Swedish Energy Agency assists companies and others by providing support and expertise for project investments for acquisition of emission rights. The Agency supports the Swedish Government Offices in climate negotiations during meetings of member nations at Climate Convention and participates in EU expert groups.

### **Emissions trading**

According to the emissions trading directive each member state is responsible for preparing and keeping a national register that re-cords emission rights transactions in the trading system. The Swedish emission rights system (SUS) is managed by The Swedish Energy Agency.

### **Renewable energy sources**

Sweden has introduced an electricity certificate system which is a market-based support system aimed at stimulating electricity generation based on renewable energy sources such as hydro power, wind power, solar energy and bio fuels. The Swedish Energy Agency and Svenska kraftnät are the authorities that handle the electricity certificate system.

The Agency manages practically all State funds for energy research which amount to more than SEK 800 million/EUR 85 million annually.

### **Energy efficiency**

The Agency allocates funds to municipal energy advisors in all Swedish municipalities. Private persons can also turn to them for advice.

### **The supervisory work**

The role of the Agency is to work towards well functioning markets by following and analysing the development of the electric, natural gas and district heating markets, completing the tasks of the authority as net authority and monitoring authority in accordance with electric and natural gas regulations, working towards practical frameworks and infrastructure as well as informing consumers and companies about their possibilities of acting on deregulated markets.

## **UK**

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The Office of Gas and Electricity Markets (Ofgem) is the regulator for Britain's physical gas and electricity industries. Its first priority is to **protect consumers** which it does by:

- promoting effective competition, wherever appropriate, and
- regulating effectively the monopoly companies which run the gas pipes and the electricity wires

Its other priorities are to:

- help secure Britain's energy supplies by promoting competitive gas and electricity markets - and regulating so that there is adequate investment in the networks.
- help gas and electricity markets and industry achieve environmental improvements as efficiently as possible
- take account of the needs of vulnerable customers, particularly older people, those with disabilities and on low incomes.

The Gas Act 1986 and Electricity Act 1989 make it an offence to engage in certain activities relating to gas and electricity without a licence. The Secretary of State and Ofgem issue licences. Licences contain various conditions. Some conditions relate to the participation in the wholesale energy market. Ofgem ensures compliance with licence conditions and has enforcement powers given to it under the relevant acts.

Ofgem's regulatory powers encompass some but not all aspects of the trading environment. In particular, some conditions in generation, supply and shipper licences relate directly to behaviour in the wholesale markets. Ofgem additionally has concurrent powers with the Office of Fair Trading under the Competition Act 1998 which are intended to address anti-competitive behaviour.

Ofgem has powers to ensure the orderly handover of customers from a defaulting retailer to another retailer.



## Industry questionnaire on commodities business

**2 Which underlying products (e.g. oil, gas) are treated identically or similarly under a risk measurement and management perspective because of similar risk characteristics (e.g. volatility)? Please specify these risk characteristics**

(51) Electricity and gas and oil and coal products

(52) cereal, colza, maize

(53) Electricity and emission allowances are treated similarly

(54) No market risk, only credit risk. Therefore, all underlying products are treated equally.

(55) Only one underlying product

(56) We use separate data for each underlying product

(57) None of the products we trade are treated identically or similarly in respect of risk management.

(58) We break the products we trade in down into product-type buckets. These are, Crude Oil; Black Oils; Gasoline; Distillate; Gas; Power. All of these product get treated the same in the VaR model we use, although we will use different

pricing benchmarks depending on the product-bucket we are modelling for effective correlation. The products all have slightly different characteristics. Some are typically more volatile than other

- (59) Gas and oil; electricity and CO2 certificates, Continental electricity and UK electricity.
- (60) We use VaR calculation for risk management. The time series of each commodity future is used as its own risk factor. The convenience yield is not accounted for in the VaR calculation.
- (61) Oil and electricity are treated similarly in regards of credit risk. The risk characteristics are credit rating, volatility, how we measure risk.
- (62) Oil, gold, commodity risk
- (63) All products are treated identically.
- (64) No response provided
- (65) Electricity and gas (CVaR – monte carlo simulation based on historic annualised price volatilities and correlations). Coal, Oil, Carbon (Potential Future Exposure – worst case price movement based on historic annualised price volatilities). ROCs, LECs (Based on market replacement cost assumptions). Biomass (% deal value as estimate of potential replacement cost).
- (66) For market risk purposes, all underlying products are given similar treatment as we decompose risk into sensitivities to market parameters. Different market conditions are addressed by varying the levels of parameter volatility and correlation, and potentially also by varying the liquidity time horizon for stress testing purposes. Risk is decomposed into the sensitivities relevant to the instrument - generally delta, gamma and vega for risk reporting and VaR-calculation purposes. From a credit risk perspective, all products are treated with equivalent risk measures primarily Potential Future Exposure (PFE) estimated at a 95% confidence level. Specific aspects of modelling PFE differ by product area.
- (67) Each activity is shown separately in risk reports but the same types of reports are produced for each area using the relevant market data, shocks etc for the underlying products. Examples of reports are detailed position reports by maturity and product, VaR, greeks, shocked matrices and stress tests.

(68) Only gold

(69) For counterparty risk generated from trading products activities, exposures are calculated within a potential future exposure control framework based on a monte carlo simulation process, incorporating a wide range of commodity underlyings. For some, more risky counterparties, initial margins may be required and this used, together with a higher confidence level, in the exposure calculation. On the market risk side, all products are treated in a very similar and consistent way, unless some risks specific to a product warrant some specific monitoring (like seasonality, or unusually high volatility smile risk).

(70) Market risk is measured for most portfolios a variance/co-variance VaR method with a 95% confidence level and a 1-day holding period. When calculating exposures we combine and net physical commodity positions and matching or substantially similar derivative positions – this means positions with similar delivery periods and underlying prices.

(71) Base Metals, Precious Metals and Plastic are treated under the same valuation models and risk measurement/management techniques.

(72) All the underlying products (oil, gas, power) are treated identically from a risk measurement and management point of view: daily calculations of a Mark-to-Market, of a 1-day 99% historical VaR, of stress scenarios (historical, hypothetical, adverse) and of sensitivities (delta, vega, gamma, theta, etc). The parameter calculation models are of course adjusted according to characteristics of the underlying products. Exceptionally, underlying products on which little information is available, may be allowed, but only for limited positions. However, they are submitted to standard risk indicators (VaR, stress scenarios, sensitivities). The characteristics of the energy markets, which can be different from other financial markets, are mainly the high seasonal nature of prices and volatilities, the extreme volatility of prices on short maturities and the management of physical deliveries. Moreover, for some of these markets only few historical data is available. Despite these characteristics, the “standard” risk indicators (VaR, etc) fully apply to commodities.

**3 In general, from your point of view, which underlying products or instruments bear the highest risks in the market and why?**

(51) High market risks can arise in case an open position is held that does not conform to risk bearing capabilities or that is not effectively hedged. Spot prices for power are characterised by high volatilities and can exhibit extreme spikes in

periods of supply shortage (due to heat or cold wave, revision of power stations, etc). Such a situation is painful when short positions need to be hedged in the spot market or when the residual profile (arising from hedging hourly customer products with base, peak) contains short hours which are extremely expensive and long hours which are less extreme expensive. Operation of power plants is risky due to potential failures in which cases spot amounts need to be covered in spot markets. Cross border trading of power contains a high degree of OpRisk due to uncertainties in availability of network access.

- (52) Not a big different in terms of risk between the three markets. Probably cereals riskier for our firm because of the volume. Options are the most riskiest instruments, considering the volatility
- (53) Comparing electricity and emission allowances products, emission allowances bear higher risk than electricity due to higher volatility and regulatory uncertainties.
- (54) No response provided
- (55) Only one underlying product
- (56) No response provided
- (57) None bear significantly greater risks than any other, in view of our systems and controls.
- (58) The products with the greatest risks are Crude Oil and Refined Products, but this is mainly due to the quantity of business. The products that create the greatest degree of risk are Gas and Power due to the greater degree of volatility.
- (59) Serious risks could only arise from the physical and not from the derivative part of our business (our trading is asset backed and our purpose is marketing the generated energy we are not exposed to outright risks). Oil and Gas are owned by a few companies and the sources are located in politically critical regions.
- (60) No underlying (oil, gas, lumber, coffee, coca, oranges, wheat, corn, soya, sugar, metals) is perceived as being considerably more risky than the rest of the underlyings. Empirically observed maximum underlying movements tend to range between 20 and 40% for most commodities our traders are allowed to trade in. For all underlyings, there may be situations of a sharp change in commodity prices (e.g. weather conditions, war...).



(61) "Short" options contracts

(62) No response provided

(63) Biggest risk currently gas and power (extreme price spikes, ranging from 300% of normal levels to negative prices).

The emissions market is relatively immature, and the market has experienced large volatility. It is possible to envisage prices close to nil.

(64) No response provided

(65) Highest credit risks are generally associated with the highest price volatility, currently carbon (also gas and electricity). Fixed-price forward contracts create the highest credit risk, the longer the contract term, the greater the potential credit risk

(66) Liquidity, Hedge funds with large positions and weaker counterparties in volatile products such as natural gas, power and oil

(67) Exotic options, for some products liquidity

(68) No response provided

(69) US Natural Gas (volatility), CO<sub>2</sub>, long term positions (liquidity risk)

(70) Leveraged products; but these products are used to run balanced books, therefore they do not create risk

(71) Written options because these products potentially have unlimited downside risk if not properly managed. Exposure to these products is controlled via strict limits especially with respect to the gamma. The base metals which trade with the highest volatility are copper and nickel and therefore bear the highest risks.

(72) Each underlying product has its own characteristics, it is difficult to define which bears the highest risks.

The lack of liquidity and depth of a market is one of the main market risk source. This problematic exists currently on several European gas and electricity underlying products, especially on long maturities. The other significant risk, especially on gas and electricity underlying products, is the high volatility of short term prices. A tight control of short term positions (especially of short positions) is essential considering the range of some market fluctuations. At last, the optional markets are still illiquid on the majority of gas and electricity underlying products, which can imply difficulties to hedge and/or unwind a transaction.

**4 In the event of a failure of a counterparty, how easy would it be for your firm to unwind its position?**

(51) Our master agreements will allow a very fast unwinding of the positions

(52) No

(53) The trading is based on standardised documentation, which contains termination rights for Material Reasons. Consequence of each termination is close out of the whole trading portfolio and two-way-termination payment. Our risk management system allows prompt close-outs.

(54) No response provided

(55) There are several possibilities for unwinding a position; closing the contracts on the regulated market cleared (Powernext), hedging the position on another regulated market, which lists identical or highly comparable contracts (e.g. EEX) or trading the position on the OTC market

(56) No response provided

(57) For nearby positions – relatively easy, as our markets are highly liquid, especially in the nearbys. For far forward positions, may take longer, but of course we can take immediate protection by covering nearby and then work to unwind the spread

(58) In the past we were always able to unwind our positions with minimal losses. Credit limits are smaller for smaller companies and larger for large companies. High risk companies are required to provide collateral or guarantees or to pay in advance.

- (59) Relatively easy due to master agreements (ISDA, EFET) and collateral
- (60) Most likely not difficult. Regarding the notes business (mixed commodity indices, e.g. of Goldman Sachs), which is hedged via OTC-swaps, the respective underlyings could probably be hedged with another counterpart within a matter of a few days. It could also be delta macro hedged immediately, by buying futures of the most important constituents of the index.
- (61) No response provided
- (62) OTC transactions with clients "credit risk free". Hedging transactions (swaps) unwind would not be easy, but credit risk very small-
- (63) Highly liquid products can be easy to unwind (depends on size of position and liquidity of product). Long-term products can be difficult to unwind. We should be able to unwind the majority of our positions within 24 hours.
- (64) No response provided
- (65) Impact depends on: size of position, whether default leads to non-delivery of physical commodity, market share of defaulting counterparty, liquidity of market at point of default
- (66) Would not expect significant difficulties to unwind positions.
- (67) Would not expect significant difficulties to unwind positions. We limit positions to an appropriate size and take reserves to cover for such an event
- (68) ISDA rules with international counterparties
- (69) Would not expect significant difficulties to unwind positions. So far we were always able to liquidate even sizable positions

- (70) Would not expect significant difficulties to unwind positions. So far not many failures in our markets; failures were without significant impact because of our netting agreement; failures led to improvement of risk management in the market
- (71) Very easily but maybe costly if the position is material. The firm does set individual counterparty position limits to reduce this risk.
- (72) Nearly all our transactions contain master agreement clauses. With some counterparties specific agreements make possible to extend this mechanism to all the existing transactions under few different master agreements. However, the opposability of this type of mechanism changes according to states and/or underlying products. As an example, in France, the "close out netting" mechanism only applies to contracts where at least one party is a credit institution or an investment services provider. In this hypothesis, the statute of investment services provider is an essential safeguard. In France, when both parties are investment services providers, the close out netting clause can apply to all the operations concluded between the parties, whether they are financial or not. Parallel to the termination of contracts with the defaulting party, the market positions have to be quickly unwound, according to the liquidity and to the nature of vanilla and exotic operations. The period of time to unwind the positions changes according to the liquidity and to the depth of the relevant markets.

**5 What sort of capital regime do you comply with? Do you also voluntarily hold capital over and above what you are required to? Do you consider the regulatory capital requirements to be proportionate to the risks you are exposed to?**

- (51) CRD Regulatory requirements are not proportionate; do not provide necessary flexibility to take into account risk transfer and collateral.
- (52) CRD, ( we would even under stress conditions loss at maximum 8-21% of own funds)
- (53) No capital regime, Regulatory capital requirements are not proportionate, with particular view to the fact that due to legal uncertainties of the enforceability of the insolvency based close-out-netting in certain jurisdictions does not allow the netted based exposure calculation

- (54) No response provided
- (55) CRD
- (56) CRD
- (57) UK FSA Chapter 3, amounts of own funds we are required to hold (position risk- and counterparty risk requirement) are excessive because of shortcoming in the requirements.
- (58) We are not subject to capital requirements (waiver). However, we maintain a level of own funds which is appropriate and proportionate for the risks of our business. Regulatory capital requirements would be entirely disproportionate in relation to the small amount of trading business conducted.
- (59) Not subject to any capital regime so far. Regulatory capital requirements are not proportionate to our risks. Counterparties only professionals, derivative products mainly traded for risk management purposes (reduction of price volatility) and always in connection with the operational (physical) business. CRD requirements for processes do not take into account characteristics of physical business. To comply with them would mean to restructure and to use sub-optimal processes. The capital (and large exposure) requirements are designed primarily for financial products and do not take into account specifics of the commodity business (different maturities (e.g. long term gas contracts), seasonal price effects in the forward curves, strong backwardations because of non-storability of commodities like power (and to a smaller extent gas as well) etc. Operational risk as designed in the CRD only refers to the financial business.
- (60) CRD, we currently use the Standardised approach for regulatory capital calculation, but want to use the IRB in the future. Capital requirements as calculated with our model are considered as adequate.
- (61) No response provided
- (62) We calculate capital adequacy with our internal model
- (63) Light touch regime, with a regulatory capital requirement of that order. Regulatory capital requirement should be set at something like double the VAR limit.

- (64) CRD, Hold capital significantly above the regulatory requirements. Consider regulatory reporting requirements in relation to the size of risk and type of business as overly burdensome
- (65) None
- (66) CRD, Market risk VaR model (also used for regulatory capital calculation),. CCR current methodologies overestimate risk, will use internal models in future when available
- (67) CRD, MiFID
- (68) Basel I plus country-specific regulation, Standardised methodology plus delta-plus for option risk. Capital hold: regulatory capital.
- (69) Market risk VaR plus standard multiplier Capital hold: economical capital (calculated in similar way). CCR in the future with internal model (Expected Positive Exposure)
- (70) We are currently regulated as a "Broadscope chapter 3 firm" under UK FSA's rules. Our financial resources requirement (FRR) is mainly made up of an expenditure-based requirement with minimal CRR and PRR charges on our forex hedges. We normally aim to maintain a surplus of around 30% in excess of the FRR. The FRR does reflect exposures as the regulated firm trades as agent for other group entities so does not have any significant market risk our credit risk exposures.
- (71) Capital regime: Chapter 3 of the FSA rules; voluntary capital: Not really but we do maintain a buffer to reduce the risk of going into a regulatory capital deficit. Proportionate: No – the MR capital charge (also known as Position Risk Requirement (PRR)) is significantly in excess of the maximum amount we would ever lose, even in a stress scenario. This is confirmed by the stress testing of our VaR model.
- (72) We are an investment services provider regulated by our central bank. Our own funds include the regulatory measure of market and credit risks. The regulatory capital is proportionate to the risks to which the company is exposed.

**6 How much importance would you attach to the credit rating of prospective counterparties?**

- (51) Credit rating plays very important role. Deals with power traders only if BBB rating or if sufficient collateral is provided. If rating deteriorates below BBB-, master agreements allow termination of contracts within a few days.
- (52) Counterparty Euronext (not applicable)
- (53) Very important.
- (54) No response provided
- (55) Credit rating important indicator, main criterion for acceptance is minimum capital requirement.
- (56) No response provided
- (57) Trading counterparties: All counterparties are members of Exchanges or Market Associations (and mostly member of LCH.Clearnet). They all have excellent ratings. Customer counterparties: we operate own internal rating system (only 10% of customers with external rating). Our rating system would not meet CRD IRB requirements (lack of data because low amount of bad debts).
- (58) We perform a credit assessment of all counterparties (and monitor it). Rating is not in itself key criterion for approving a credit line. This mainly due to the fact that a significant proportion of the businesses we deal with are not credit rated and mainly transact forward physical deals. We do not currently use a model which models credit exposure using credit rating as a factor in calculating a risked exposure.
- (59) Ratings are quite important for our credit management. Credit risk mitigation: 100% of collateral received is cash. Predominantly we calculate internal ratings. However, our models and methods would not qualify for the Internal Rating Based Approach even if they have proven to be risk adequate for our business
- (60) Credit rating is very important for granting counterparty limits.
- (61) Credit rating of utmost importance. If rating is low, collateral or PCG should be used.
- (62) Rating required for OTC counterparties

- (63) Very important, credit ratings are the basis of our Credit Policy.
- (64) No response provided
- (65) Credit risk management is important risk metric. Before trading can start, credit limits, documentation and risk mitigants required for the respective counterparties
- (66) Credit lines and pricing on the basis of internal ratings
- (67) Credit rating useful indicator; if rating is not sufficient, we ask for collateral
- (68) No response provided
- (69) External but in particular internal ratings have great importance for pricing, credit and trading limits
- (70) Very important, trade normally only with bb- or better counterparties
- (71) Very important – the rating of a counterparty is a very important factor in determining whether or not to extend credit and, if so, how much. Any prospective counterparty which does not have an external rating is given an internal rating.
- (72) The credit rating used in the measurement of the insolvency risk is essential for us. The company intensifies its efforts in accordance to the Basle 2 framework. We evaluate the credit risk on all its counterparties with which it trades, and relies especially on the rating analysis.

**7 Would you face significant costs if the Market in Financial Instruments Directive (MiFid – 2004/39/EC) and the Capital Requirements Directive (CRD – 2006/48/EC and 2006/49/EC) were applied to your firm? Would this affect your firm’s competitiveness?**

- (51) We already comply with organisational and risk management requirements of the CRD. However CRD capital requirements would lead to higher capital costs, because CRD rules do not take into account our sophisticated risk mitigation techniques (if rules apply to everybody no competitive disadvantages, but presumably higher energy costs in the end. MiFIF organisational requirements would not lead to significant additional costs.



- (52) Application of MiFID does not lead to significant costs. No problems with CRD capital requirements
- (53) Currently not under regulation, if we were subject to the CRD capital costs would arise which would reduce our margins or increase customer prices
- (54) No response provided
- (55) CRD already applies
- (56) No response provided
- (57) MiFID: best execution rules are not suited for our markets, transaction reporting and timing of trade rules are not appropriate.  
CRD: capital requirement would be excessive. Requirements are not designed for our type of business (no recognition of physical collateral (except AIRB), large exposure reporting requirements, splitting between trading and non-trading book, excessive regulatory capital charges for concentration risk, auditor report for inclusion of mid-year profits).
- (58) Yes, if MiFID and the CRD were to be applied as currently drafted, very significant costs would be created (restructuring, implementing maintenance costs). The costs of keeping the required capital sum in a bank would destroy a significant percentage of our trading profits which in turn would have an impact on our competitiveness in the market particularly given that we deal in a global market and our key competitors would not be exposed to such costs. At the very least it would be a strong driver to move our trading business outside of the EU jurisdiction.
- (59) Yes, we would face tremendous costs if the MiFID and the CRD were applied to our firm especially if the exemptions will be repealed. MiFID and the CRD do not consider the characteristics of the energy business as explained above. The impact of the increase in costs would affect our firm indirectly: Particularly smaller firms would struggle to comply with the requirements regarding capital and processes. Some of them would reduce their business or even withdraw completely or conduct their business at a place without regulation. Markets who are just establishing and gaining liquidity would dry out jeopardizing the liberalisation in the energy market.
- (60) No, not as far as the question relates to commodities

- (61) We are not currently under any regulations it would be a cost to follow new directives but it could make us more competitive.
- (62) Probably not
- (63) Currently not subject to CAD, if MiFiD & therefore CRD were applicable, we would be face a much more substantial capital requirement. We would also have to consider restructuring to ensure that non-regulated activities were split out from regulated activities in order to minimise the capital requirements. This would incur costs, and would also be likely to have a negative impact on the pattern of trading, which would create another cost to the business. Furthermore, if CRD continued the existing inclusion of group companies in the assessment of the Large Exposure Requirement this would either attract a large capital requirement or would involve additional borrowing requirement which has negative implications for the credit rating. These costs would be likely to have an adverse effect on the competitiveness of the firm.
- (64) No response provided
- (65) "with or through exemption" (UK FSA), subject to regulatory requirements of the office of Gas and Electricity Markets, the Competition Act and FSA Market Abuse and accounting standards. To comply with MiFID would be costly, time-consuming and burdensome. Additional burden would be to comply with CRD capital requirement
- (66) CRD and MiFID already apply
- (67) We are in the process of implementing MiFID (significant costs); but these costs are acceptable at firm level.
- (68) We are currently studying effects
- (69) MiFID and CRD already apply; additional costs for implementing requirements in relation to commodity business, but costs and changes will not affect competitiveness
- (70) Expensive and time consuming system changes to implement regulatory capital calculation; restructuring would be necessary to accommodate MiFID and CRD (involves research and set-up costs), possibly negative influence on ability to optimise positions

- (71) Yes – the CRD rules for subordinated loans are very inflexible and would not work for a firm like ourselves. Also, the rules on large exposures and counterparty risk, whilst welcome in broad terms, would involve a significant amount of development work. As for MiFID, there are a number of areas which will involve a lot of extra work before implementation including: a) repapering of our terms of business; b) ensuring we meet the requirements for best execution; c) transaction reporting; d) the requirement to classify customers and the additional protections which we must put into place for retail customers (including segregation); e) general systems and controls requirements. Notwithstanding, we welcome MiFID and the ability to trade with customers in EU via the passport. Affect competitiveness? Yes, the costs of all of the above will have to be passed on the consumers. Furthermore these directives would affect us if competitor firms/markets are established outside the EC.
- (72) As the ISD and the CAD applies to us, the MiFID and the CRD will not result in an increase of costs. However the situation of regulated and unregulated groups is significantly different as regards to competition. Regulated entities have to comply with precise standards regarding risks control and capital requirement, which apply to market risks as well as to credit risks. These constraints do not exist for unregulated participants. In this respect, the exemptions laid down in the MiFID for companies, which may propose investment services to clients and transact derivatives, could maintain an imbalance to the detriment of regulated actors.

**8 Do you believe that market liquidity would suffer if the CRD was applied to all specialist commodity derivatives dealers? If so, why? Would the smaller players likely exit the market? Would firms consider booking their activities in unregulated jurisdictions?**

- (51) Liquidity would suffer if CRD does not take into account sophisticated risk management and risk mitigation.
- (52) No response provided
- (53) Reduced competitiveness will in particular harm small trading companies. We expect, that some will leave the market, and as a result liquidity will lack.
- (54) No response provided
- (55) No response provided

- (56) No response provided
- (57) Regulatory capital costs and conduct of business rules will drive firms to consider restructuring of their business, move it to other jurisdictions or close it down. Smaller players would exit the market or not be able to enter it. Liquidity could suffer if only a few large players remained.
- (58) Liquidity in the energy commodities markets will certainly initially suffer as these requirements will apply to all firms and could lead to the smaller players withdrawing or reducing the scope of their business to non-regulated commercial transactions only and the larger companies who are not tied to an EU location to move to a non-EU regulated jurisdiction. Energy derivatives and trading is a global business and imposing capital costs and significant additional regulation on such businesses in the EU only would create a wholly unbalanced and uncompetitive market in the EU.
- (59) Yes, we strongly believe that market liquidity would suffer if the CRD was applied to all specialist commodity derivatives dealers and a lot of smaller players will exit the market. The reason for this is that the existing capital regime is made for banks and does not consider the specialities of the commodity market. There should be an alternative approach for commodity firms. If firms haven't considered about booking their activities in unregulated jurisdiction yet, they will think about it if they could not do their normal business in future.
- (60) No response provided
- (61) The smaller players may be forced to exit the market and liquidity could suffer. But Directives would also be kind of quality stamp.
- (62) No response provided
- (63) The smaller players may be forced to exit the market. If the EU does not ensure the rules for commodity firms and commodity derivatives are harmonised then you may see firms setting up in unregulated jurisdictions.
- (64) No response provided
- (65) Liquidity would suffer if the CRD was applied to all specialist commodity dealers because the cost of trading will increase. Industry players would be driven out of the wholesale markets and would have to come to such markets as

customers of the banks paying retail prices. This would ultimately increase the banks' profits whilst also increasing costs to the end customer. Firms would consider booking their activities in unregulated jurisdictions.

- (66) Liquidity in certain market segments might suffer if larger players that are currently unregulated would exit the market. Smaller or larger players could exit the market or consider booking their activities in unregulated jurisdictions rather than to implement the CRD requirements.
- (67) No
- (68) No response provided
- (69) Liquidity should not suffer globally, smaller players could disappear
- (70) Liquidity is likely to be reduced because a) small firms might be driven out of the market, b) capital requirements might lead firms to restrict or close trading activities, c) firms might relocate trading operations outside EU, The current FSA classifications do not map across to MiFID and we are currently exploring what the impact of the MiFID classification requirements will be. We suspect that many small corporate firms who we can currently deal with will fail to meet the MiFID requirements to be classified as a Professional Client. We would not want to trade with Retail Clients under MiFID so this will almost certainly mean that we will be more restricted in terms of who we can trade certain derivatives with in future. We expect that this will have an unfortunate and unintended impact on liquidity especially in emerging commodity markets such as emissions and renewables trading these smaller firms are active and where the EU is trying to encourage growth.
- (71) Liquidity would suffer: Possibly; Why? Either costs will be passed on to consumers, or firms may reduce business levels or even close down. Smaller players exit the market? Possibly meaning that the larger players (i.e. the investment banks) would dominate the market. These firms, whilst having bigger balance sheets to leverage, may not provide as good a service, particularly to smaller clients. Also investment banks are notorious for piling in and out of commodity markets which is clearly disruptive. Booking in unregulated jurisdictions? Certainly if a cost benefit analysis indicates this is the best thing to do.

(72) The development of market liquidity is linked to a low systemic risk. Investors and clients are likely to pull out from high systemic risk markets. A significant presence of unregulated entities on the energy markets, which are not subject to regulation in terms of risk control, tends to increase the systemic risk. The strengthening of regulation, especially concerning entities which are currently unregulated, should contribute to secured transactions and consequently to the liquidity of energy markets. This harmonization of risk control through regulation should apply to: 1) supply of services to clients, even as an ancillary activity, 2) trading for its own account on commodity or on commodity derivatives, especially for actors who are significantly present on markets. Moreover, as there is a low number of small actors, the strengthening of regulation is likely to have no impact on the market liquidity. Finally, if regulation apply to all energy markets participants, there is a low risk that companies try to get round regulation since they would take the risk to become marginalised.

**9 Do you believe that there are some market participants the default of which could cause the financial or the commodity(ies) markets to collapse? If so, why?**

(51) Default of participants with significant market share could cause problems (liquidity), but not necessarily a collapse. Impact will depend on market conditions. Enron default let to minor costs because of low volatility and no price trends at this point in time. Nowadays such a default could be more severe because of higher volatility, sharp increasing prices and longer term deals. Collateral agreements can mitigate the impact.

(52) No (cereal, colza, maize)

(53) No, derived from our experience the available standard documentation (EFET, ISDA, etc.) as well as appropriate credit risk management tools are used by the majority of the market participants.

(54) No response provided

(55) The risk management framework implemented to contain the risks in the market cleared, provides the necessary safeguards to prevent that the default of any market participant would cause the market to collapse.

(56) No response provided

- (57) No, firms monitor their exposure to counterparties through credit and settlement limits, so the likelihood of a significant exposure arising from the failure of a counterparty is remote
- (58) It is unlikely that any one participant will cause the collapse of the energy industry. There are several notable bankruptcies in recent years involving key players in the industry and the impact to CPL and the industry overall has been limited. These include Enron, Transworld Oil, Gatt Oil, and MGS.
- (59) No, even the defaults of Enron, TXU and Mirant did not cause any collapse in the energy market.
- (60) Major banks and investment banks, but the main part of the exposure with these counterparties will stem from business in the credit spread, interest rate, and FX OTC business and only to a tiny extent from commodity business. With most counterparts the outstanding exposure is collateralized.
- (61) No response provided
- (62) No response provided
- (63) If the named companies became insolvent then the market would collapse because of their dominant position. The markets for Crude oil, emissions & Weather have far wider participation and depth/liquidity and as such we do not believe default of one participant would lead to a market collapse.

Country/market	Natural Gas	Power
UK	No	No
Germany	E.On-Ruhrigas	E.On Energie, RWE

Country/market	Natural Gas	Power
France	GdF	EdF
Belgium	Distrigas	Electrabel
Netherlands	Essent	Essent
Spain	Gas Natural	No

(64) No response provided

(65) Collapse of key electricity market participant could lead to extreme price pressure which could effect other participants. But in general it is unlikely that this would lead to a market collapse

(66) The default of certain market participants could have a significant effect on certain market segments and potentially could cause a market shock but the market would not collapse.

(67) Default of some large firms would cause significant impact but market would not collapse. Enron led to improvement of risk awareness and risk management in firms.

(68) Doesn't effect gold market

(69) No, past events were handled without major damage

(70) No

(71) In the metals market, only the LCH.



(72) The default of major counterparts on the energy markets (UK, Zeebrugge, TTF and BEB, PEG) could disturb these markets, especially for non mature markets.

**10 Are you aware of any recent crisis (past 5 years) in the markets you operate in? If yes, what was the cause of this crisis? Have you been affected by this crisis? How?**

(51) Enron, liquidity crisis in German power market; As a consequence, trading costs increased.

(52) No (cereal, colza, maize)

(53) Enron, no harm due to risk management, close out netting.

(54) No response provided

(55) No crisis has effected our business so far

(56) No response provided

(57) Enron, it is our strongly held view that systemic risk does not arise from the financial activities of commodity firms.

(58) For oil and gas, the entire market is affected by geo-political changes. Recent crisis: Middle East conflicts, Nigerian production outages, Iranian nuclear talks, Prudhoe Bay incidents, natural disasters such as the tsunamis or hurricanes have had an effect on the industry. All energy companies are affected by these incidents whether it is due to supply shortages to certain regions of the world or damage specifically done to a company asset. To compensate for the fluctuating situations around the world, we maintain storage capacity and Government required strategic reserves. Additionally the purpose of the Commercial trading organization is to optimize available supplies by moving by crude and refined products to the areas most affected by world events. The goal is to maintain refined product output at a certain level to avoid shortages in the marketplace.

(59) Enron, TXU and Mirant. We were affected by these crisis as these companies were our counterparties. However, due to sound risk management and risk mitigation techniques (e.g. master agreements, netting agreements, cash collaterals) the losses were comparatively small.

- (60) Not yet affected by a crisis.
- (61) Sharp rise in electricity prices some years ago because of drought (hydro plants)
- (62) No response provided
- (63) Enron, TXU's default and subsequent exit of market participants. Cause of the crisis was credit default of major participants which used to provide high liquidity to the market. We were affected because our company had a trading relationship with Enron and TXU.
- (64) No crises in the soft commodity markets which is our main business
- (65) Enron (effect on UK market minimal), TXU (high forward prices but no serious effects on market), British Energy (very little effect on market), medium electricity suppliers (Atlantic EG, Electricity Direct; did not provoke crisis)
- (66) No severe global crisis in the commodities markets we operate in. Some regional crises (e.g. California energy crisis) but without substantial impact on our institution
- (67) Enron led to sharp movements in prices but was not a crisis. Also difficult situations in copper and nickel with sharp price movements, but situations were overcome and markets did not collapse.
- (68) No crises in gold market
- (69) Enron, US Power Merchant Sector, Hurricane Katrina (producers in the Gulf of Mexico), no significant impact of these events
- (70) Enron, we were not affected
- (71) The Refco collapse and the alleged China rogue copper trader. Both of these happened in 2005. We were not affected by Refco. We were affected by the alleged China rogue trader (as were a number of other LME brokers) but we were able to manage the situation by virtue of having adequate risk systems and controls. In addition, five years ago we were part of Enron when it collapsed. This did not impact on the metals market as we were able to continue metals trading.

This is because our entity was subject to FSA rules and had adequate capital to continue in business. In our view, based on this experience, financial regulation is acceptable as long as it is proportionate and that, as long as the entity is adequately ring-fenced, it does not extend to other group companies.

(72) The high volatility of markets in 2005 and 2006 requires a strong risk control in order to avoid defaulting situations. Enron's bankruptcy led to a significant decrease of energy markets liquidity in Europe following the withdrawal of American actors from the European markets. Later, European actors increased the volume of transactions and contributes to energy markets liquidity in Europe. More recently, the American investment funds Amaranth significantly dropped on the US gas markets closing out its positions. Examples of main crises affecting markets: Iraq war and more recently Lebanon war highly increased volatility on oil prices. Terrorist bombings in London in July 2005 had an impact on the energy markets in the United Kingdom. The interruption of services on the Rough storage facilities in the first semester 2006 seriously contributed to an increase in the gas price on the NBP market, and very recently, the opening of the new Norwegian pipeline caused a drop in the gas price in the UK. National emission allowances publications caused significant drop of emission allowances prices which led to fluctuations of electricity prices.

**11 Please indicate which type of firm you are (columns 1 to 3, e.g. credit institution), whether or not your are currently or in the future subject to prudential supervision (please tick the respective box(es)), in which underlying products you are conducting business and which type of activity you are conducting by filling in the table below:**

		<b>Credit institution</b>	<b>Investment firm</b>	<b>Other firm (please specify)</b>	<b>Underlying products (e.g. Oil, electricity, weather) listed in Annex I, Section C points 5 to 7, 9 and 10 of the MiFiD</b>	<b>Type of activity according to Annex I Section A of the MiFiD (2004/39/EC)</b>
	<b>Under current regulation</b>					

		<b>Credit institution</b>	<b>Investment firm</b>	<b>Other firm (please specify)</b>	<b>Underlying products (e.g. Oil, electricity, weather) listed in Annex I, Section C points 5 to 7, 9 and 10 of the MiFiD</b>	<b>Type of activity according to Annex I Section A of the MiFiD (2004/39/EC)</b>
<b>a)</b>	<b>subject to the ISD (Directive 93/22/EEC)</b>	(55), (60), (64), (66), (67), (68), (69)	(52), (55), (72)			
<b>b)</b>	<b>subject to the CAD (93/6/EEC) or to the Banking Directive (2000/12/EC)</b>	(51), (55), (60), (62), (64), (66), (67), (68), (69)	(52), (55), (69a), (72)	(63)		
<b>c)</b>	<b>subject to national legislation in addition to or instead of the ISD or to the CAD/Banking Directive</b>	(55), (62), (66), (67), (68), (69)	(55), (57(?)), (69a), (72)	(59), (63), (65 (co. firm)), (70), (71)		
<b>d)</b>	<b>Currently not regulated under any of a) to c)</b>		(53)	(61)		
	<b>Under future regulation</b>					
<b>e)</b>	<b>subject to the MiFiD</b>	(60), (62), (64), (66),	(52), (53), (57), (69a),	(70)		

		<b>Credit institution</b>	<b>Investment firm</b>	<b>Other firm (please specify)</b>	<b>Underlying products (e.g. Oil, electricity, weather) listed in Annex I, Section C points 5 to 7, 9 and 10 of the MiFiD</b>	<b>Type of activity according to Annex I Section A of the MiFiD (2004/39/EC)</b>
	<b>(Directive 2004/39/EC)</b>	(67), (68), (69)	(71), (72)			
<b>f)</b>	<b>subject to the CRD (Directive 2006/48/EC/Directive 2006/49/EC)</b>	(51), (55), (60), (62), (66), (67), (68), (69)	(52), (69a), (71), (72)			
<b>g)</b>	<b>firms covered by the MiFiD but not by the ISD</b>	(64)	(53), (69a), (71)			
<b>h)</b>	<b>firms included under g) who cannot make use of any exemption within MiFiD</b>		(69a), (71)			
<b>i)</b>	<b>firms exempted from MiFiD under</b>					
	<b>Article 2(1)(b)</b>			(59), (65 (co. firm))		
	<b>Article 2(1)(d)</b>			(53(?)), (59), (65		

		<b>Credit institution</b>	<b>Investment firm</b>	<b>Other firm (please specify)</b>	<b>Underlying products (e.g. Oil, electricity, weather) listed in Annex I, Section C points 5 to 7, 9 and 10 of the MiFiD</b>	<b>Type of activity according to Annex I Section A of the MiFiD (2004/39/EC)</b>
				(co. firm))		
	<b>Article 2(1)(i)</b>			(53), (59), (65 (co. firm))		
	<b>Article 2(1)(k)</b>		(58)	(53), (59), (63), (65 (co. firm)), (70a)		
<b>j)</b>	<b>firms exempted under Article 48 of Directive 2006/49/EC</b>			(53), (57), (59), (70), (71)		
<b>k)</b>	<b>other firms e.g. physical traders (please specify)</b>			(61)		

**Excel spreadsheets**

**Annex II Overview responses**

**Annex III Industry questionnaire, summary of question 1**

**Annex IV Supervisory questionnaire, summary of question 7**

**Annex V Supervisory questionnaire, summaries of questions 5, 6, 7.1, 7.2, 7.3 and 8 to 12**