

Box 7

Can commodity trading firms create systemic risk via derivatives markets?

Commodity traders¹⁰⁰ are relevant from a financial stability perspective as they are active players in derivatives markets. Commodity dealers buy or sell a commodity and transform it, for example, by transporting or storing it, and may hedge the resulting commodity position with a derivative transaction. The derivative contract will hedge, for example, against commodity price risk, which is considered the largest risk for most trading firms, or against changes in foreign exchange rates.¹⁰¹ Thus, hedging is inherent to the business of commodity dealers and derivatives are central to commodity traders' risk management frameworks. At the same time, there are concerns about the speculative use of derivative contracts. For example, in the US the Commodity Futures Trading Commission (CFTC) intends to establish **position limits** for physical commodity derivatives, with the aim to prevent excessive speculation from distorting commodity prices.

Commodity traders have largely escaped regulatory scrutiny in the EU despite their potentially significant role in derivatives markets. Because trading derivatives is a significant part of their business, the main regulatory framework relevant for commodity traders is the Market in Financial Instruments Directive (MiFID). Under both MiFID I and II, commodity traders can use several exemptions to avoid the regulatory requirements applicable to investment firms.¹⁰² In addition, under the Capital Requirements Directive (CRD IV) framework, commodity dealers are temporarily exempt from compliance with minimum capital rules until the end of 2017.¹⁰³ In case they fell under the scope of MiFID II, they would have to fulfil requirements regarding, inter alia, trading, transparency, capital and margin, and they would become subject to other EU rules, such as the European Market Infrastructure Regulation (EMIR) and CRD IV.

Against this background, the analysis in this box looks at the 11 largest European commodity trading firms and investigates their derivative trading activity in the euro area.

The 11 commodity traders in the sample have a combined amount of €783 billion in total assets globally. The analysis is based on a sub-set of the data collected under EMIR which covers 18,281 derivative trades¹⁰⁴ in the euro area by 84 distinct entities belonging to the 11 groups at the end of January 2017. The total notional amount¹⁰⁵ of derivatives traded is €211 billion. The analysis

¹⁰⁰ For the purpose of this box, the terms "commodity trader", "commodity dealer" and "commodity trading firm" will be used interchangeably to denote firms that engage in the process of purchasing, selling and transforming physical commodities. Transformation can be in space (from the extraction/production to the consumption location, using logistics), in time (using storage) or in form (with processing).

¹⁰¹ See Pirrong, C., "The economics of commodity trading firms", Trafigura, 2014.

¹⁰² See Directive 2004/39/EC ("MiFID I") and Directive 2014/65/EU ("MiFID II"). The broadest exemption under MiFID I is Article 2(1)(k) (the "commodity dealer exemption"). This exempts commodity trading companies that are not part of a banking or financial services group, and whose main business is dealing on their own account in commodities or commodity derivatives. Under MiFID II, commodity dealers can remain exempt if they fulfil the criteria laid out in Article 2(1)(j) (the "ancillary business exemption").

¹⁰³ Article 498 of Regulation (EU) 575/2013 ("CRR").

¹⁰⁴ The 18,281 derivative trades are obtained after cleaning, de-duplicating and excluding trades with missing mark-to-market values. See Abad et al., "Shedding light on dark markets: first insights from the new EU-wide OTC derivatives dataset", ESRB, 2016.

¹⁰⁵ This analysis is based on notional amounts. The main messages of the analysis are broadly similar when using market values.

provides a lower bound on commodity dealers' activity as the dataset does not capture trades outside the euro area.¹⁰⁶

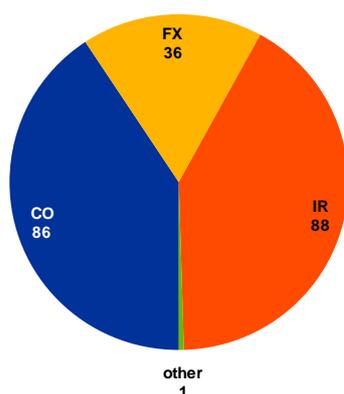
The analysis reveals that the 11 commodity dealers cover more than 25% of the euro area market in commodity derivatives and are also active in other derivative classes (albeit to a lesser extent). Overall, more than 95% of derivative contracts are non-centrally cleared, over-the-counter (OTC) derivatives. Compared with the size of the OTC market in commodity derivatives in the euro area,¹⁰⁷ the notional amounts of commodity derivatives traded by the 11 commodity trading firms in the euro area represent around 25% in this market. The majority of commodity derivatives cover underlying energy products. In addition to commodity derivatives, the commodity dealers in the sample also trade in interest rate and currency (foreign exchange) derivatives, predominantly FX forwards and interest rate swaps (see Chart A and Chart B).

Chart A

Commodity dealers trade mostly in commodity, interest rate and currency derivatives...

Commodity dealers' total trades by derivative class

(Jan. 2017, notional amounts, € billions)



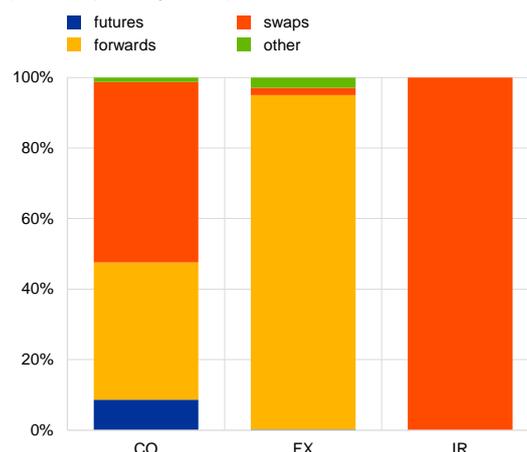
Sources: ECB calculations based on EMIR data.
Note: FX, CO and IR denote currency, commodity and interest rate derivatives, respectively.

Chart B

...predominantly forwards and swaps

Total trades by derivative class and instrument

(Jan. 2017, percentage of total)



Sources: ECB calculations based on EMIR data.
Note: FX, CO and IR denote currency, commodity and interest rate derivatives, respectively.

The trading activity of the 11 commodity trading firms is significant both in absolute amounts and relative to their size. The data show that the derivative trading activity in the euro area of the largest commodity traders in the sample is comparable to the total global activity of some of the most active financial institutions in commodity derivatives in terms of notional amounts.¹⁰⁸ The total notional amounts traded in the euro area by 9 of the 11 groups represent on

¹⁰⁶ Under EMIR, counterparties resident in the EU are required to report details of derivative transactions to authorised trade repositories. This analysis is based on a sub-set of these data containing derivative contracts in which at least one counterparty resides in the euro area. For the purpose of this box, "derivative trades in the euro area" will refer to derivative contracts either held by a subsidiary of the 11 commodity dealers which is located in the euro area or in which the other counterparty is located in the euro area.

¹⁰⁷ Estimated from the BIS semi-annual survey statistics on OTC derivatives, based on national values for Germany, France, Italy, the Netherlands and Spain; values as at end-2016. However, this is only a rough estimate given that the EMIR data and the BIS semi-annual survey are not fully comparable.

¹⁰⁸ See Valiante, D. and Egenhofer, C., "Price Formation in Commodities Markets: Financialisation and Beyond", CEPS, Brussels, 2013.

average around 40% of their total assets.¹⁰⁹ For the remaining two groups, the notional amounts traded were more than 10 times their total assets globally, but these are the smallest groups, which make up for less than 1% of the total assets of the sample.

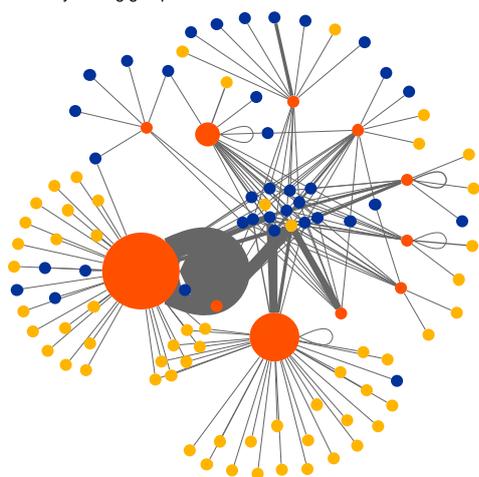
Banks turn out to be important counterparties to commodity trading firms. Derivative contracts with banks¹¹⁰ amount to about €77 billion and are predominantly currency swaps and interest rate forwards (37% of total notional amounts traded by the 11 commodity trading groups in the euro area).¹¹¹ In addition, the 11 commodity dealers trade about €92 billion in commodity and interest rate swaps inside their own corporate group (representing around 44% of their total euro area notional amounts).¹¹² Chart C below reveals the importance of some banks and other counterparties in the network, as well as the relevance of some intra-group trades. Not surprisingly, larger groups appear more interconnected. Generally, commodity traders seem to have relatively many small exposures to different counterparties.¹¹³

Chart C

Some banks, other counterparties and intra-group trades in the network are significant

Full network of commodity dealers and counterparties

● banks
● other or NA
● commodity trading groups



Sources: ECB calculations based on EMIR data.
Notes: The edges are weighted by notional amounts; vertex sizes for commodity dealers are weighted by total assets where they are above average; the others have the standard size of the counterparties.

Commodity dealers are currently exempt from MiFID I, CRD IV, EMIR and possibly MiFID II.

The interconnectedness of banks and commodity trading firms through derivatives may make banks vulnerable to strains in the commodity dealer sector.

Four banks are exposed to at least three commodity traders through derivative trades above €1 billion in notional amounts. Furthermore, the three commodity traders are the largest in the sample. Consequently, financial difficulties in the commodity trading sector, for example due to a collapse in commodity prices or because of failed speculative strategies, could result in material losses for banks most exposed to this sector.¹¹⁴ While these may not be large enough to destabilise the banking system as a whole, they could still put pressure on some banks.

Overall, the analysis suggests that commodity dealers may contribute to vulnerabilities in derivatives markets and raises the question whether their current exemptions from a range of regulatory requirements should be reconsidered.

¹⁰⁹ Comparing notional amounts of derivatives with the size of total assets is one way to measure the amount of potential leverage involved in the business activity of market participants.

¹¹⁰ According to Bureau van Dijk's sector classification.

¹¹¹ This represents 66% of total notional amounts of the derivative contracts which are not intra-group transactions and for which the sector classification of the counterparty is available in Bureau van Dijk's Orbis Europe database.

¹¹² The estimate for the total notional amount of derivative contracts with banks may be underestimated if intra-group transactions are with a banking entity within the same corporate group.

¹¹³ However, it cannot be excluded that some counterparties are part of the same corporate group (distinct from the commodity trading groups).

¹¹⁴ Potential losses would be even higher if the same banks are also exposed to commodity traders through funding and investment activities.

However, as the analysis shows, commodity trading firms are large players in derivatives markets and stress in the commodity dealer sector could potentially affect the banking system. While they may not pose systemic risk at the current juncture, commodity traders' activities in derivatives markets may need to be better understood. As such, their current exemption from certain regulatory requirements could be reconsidered, in particular regarding disclosure and transparency, which would help better understand their links and interconnections with the financial system and their potential riskiness.
